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SPEECHES

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*Strong Sustainable Growth for the Indian Economy**

Raghuram G. Rajan

We live in an increasingly uncertain world. Seven years after the financial crisis, advanced economies are still growing slowly, while a number of emerging economies are experiencing difficulty as the old export-led growth model flounders. In this environment, there is both challenge and opportunity. Challenge because the world will not provide the strong and supportive growth environment we had in the last decade, opportunity because global capital is looking for investment opportunities.

As I said late last year in my Bharat Ram lecture entitled "Make in India, Largely for India", to implement the Prime Minister's vision of producing in India at a time when trade across the world is falling, we will have to strengthen the domestic market so as to absorb much of the increased production until the global market recovers. This means we have to increase domestic demand, while avoiding the booms and busts that typically plague such efforts by emerging markets. My focus in today's talk will be on what the RBI is doing to help the Government create the conditions for sustainable growth. Structural reforms will help strengthen this growth – two weeks ago, the Government announced Indradhanush, last week we licensed new payment banks, next month we will license new small finance banks, two new universal banks are starting in October, the providers of the TREDs system will be licensed in November, and so on, but these developments are best left to a future speech.

* Speech by Dr. Raghuram G. Rajan, Governor, Reserve Bank of India at FIBAC, Mumbai, on August 24, 2015. I thank Vivek Aggarwal, Alpana Killawala, and Dr. Prachi Mishra for comments.

Challenges in the Current Macroeconomic Environment

We have come a long way since the difficulties in 2012-13 as a result of actions taken by the Government and regulators. Growth is stronger, the current account deficit has narrowed significantly, the fiscal deficit is on a consolidation path, and inflation has halved. However, three areas are still "work in progress" from RBI's perspective. First, economic growth is still below levels that the country is capable of. Second, while consumer price inflation has moderated, inflation expectations amongst the public are still high, creating a gap between the real rates that savers expect and the rates corporations think they pay. Third, stressed assets in the financial system continue to be high, which holds back growth and new lending, even while dampening bank incentives to cut base rates.

The short term macroeconomic priorities of the Reserve Bank are therefore clear:

- Help growth by bringing down inflation in line with the proposed glide path, thus creating room for monetary easing; and
- Work with the Government and banks on speeding up the resolution of distressed projects and cleaning up bank balance sheets.

Let me start first with inflation: I am sure many of you are interested in what we will do next on policy. For that, I think the best summary is still our last policy statement, from which I quote, "Significant uncertainty will be resolved in the coming months, including the likely persistence of recent inflationary pressures, the full monsoon outturn, as well as possible Federal Reserve actions. As the Reserve Bank awaits greater transmission of its front-loaded past actions, it will monitor developments for emerging room for more accommodation." Having said all I want to say on future policy, let me explain what we have been doing so far, and why we have been doing it.

Inflation and Growth

Despite India's known antipathy towards inflation, we have experienced an average of more than 9 per cent inflation between 2006 and 2013. The longer we had high inflation, the more the public's expectations of inflation became entrenched at high numbers. Because the public's inflation expectations are adaptive – meaning they change only after they see a sustained change in realised inflation – we required a long period of low inflation before expectations came down. Unfortunately, our past focus on WPI inflation, which puts weight on internationally traded goods like commodities rather than domestic non-traded goods like education and healthcare, meant that whenever international inflation came down, the clamour for rate cuts increased. So we often did not take the fight to domestic sources of inflation. Put in technical terms, the real policy rate was below the neutral real rate for years, and coincided with a pick-up in CPI inflation.

The strong disinflation, even deflation, in the world in the last few years gives us a golden opportunity to change. What better time than the current for an inflation prone country like India to bring its inflation finally in line with the world's? With commodity prices declining and astute food management by the Government, part of our work is done for us, without India having to undergo the kind of extreme demand compression that was seen in the Volcker disinflation. Indeed, with real expected policy interest rates in the 1.25-1.5 per cent range and real after tax deposit interest rates barely positive, it would be hard to argue that the disinflationary glide path the RBI has embarked on is extremely onerous.

While low inflation for a while will lower the public's inflationary expectations and increase their real disposable income, in order to achieve a sustainable victory against inflation the public has to believe that inflation will stay low even after commodity prices start picking up in the future. For the public to look through future price spikes without raising wage demands, the RBI has to have credibility that it will act firmly against any future inflationary threats. Credibility comes from frameworks and institutions. In this regard, the RBI has signed a historic agreement with the Government, wherein RBI's mandate is clearly spelled out in terms of an inflation objective over the medium term. In the coming year, the Finance Minister proposes to lay out, after consultation with RBI, the structure of a monetary policy committee that can be formally and legally entrusted with policy decisions. These are welcome steps in building the institutions we need for transparent and independent monetary policy.

Responding to the Inflation Commentariat

Let me address some popular misconceptions now. Modern economic theory suggests there is indeed a short run trade-off between inflation and growth. In layman's terms, if the central bank cuts the interest rate by 100 basis points today, and banks pass it on, then demand will pick up and we could get stronger growth for a while, especially if economic players are surprised. The stock market may shoot up for a few days. But if the economy is supply constrained, we could quickly see shortages and a sharp rise in inflation. The central bank may then be forced to raise interest rates substantially to offset that temporary growth. The boom and bust will not be good for the economy, and average growth may be lower than if the cut had not taken place. This is why modern economics also says there is no long run trade-off between growth and inflation – the best way for a central bank to ensure sustainable growth is to keep demand close to supply so that inflation is moderate.[1]

[1] I am being a bit loose here. The short run tradeoff works because economic actors can be surprised by unexpected loosening, and the surprise can have positive growth effects. In the long run, the central bank loses its power to surprise, and the public embeds its correct forecast of how much inflation the central bank will create into all nominal variables such as interest rates. To the extent that high inflation is harmful for growth and welfare, a central bank that continuously tries to give short run positive surprises will entrench long run high inflation, which will be bad for growth.

Put differently, when people say "Inflation is low, you can now turn to stimulating growth", they really do not understand that these are two sides of the same coin. The RBI always sets the policy rate as low as it can, consistent with meeting its inflation objective. Conversely, the best way the monetary authority can support growth over the medium term is to anchor inflation at low levels so that policy rates can also be low. We can never abandon inflation to focus on growth, nor do we focus on inflation to the exclusion of growth. The extended glide path over which we are bringing inflation in check appropriately balances inflation and growth.

The statement "Inflation is low, you can now turn to stimulating growth" also perhaps reflects a misunderstanding of how central banking works. Monetary policy works with a lag of 3 to 4 quarters. So in deciding policy today, we need to predict how inflation will look approximately a year ahead. Today's inflation therefore matters only in informing us about future inflation. However, today's inflation measured on a year on year basis may be low because there was an unexpected price spurt last year – the so-called base effect. So we need to take out base effects before we even assess the information from current inflation, something many observers fail to do. Also, there may be many sources of uncertainty that cloud the future inflationary picture and disconnect it from current inflation – the strength and distribution of the monsoon, the extent and persistence of low commodity prices, the effect of external disturbances on the exchange rate, *etc.* In practice, we use models to project how all this might play out on inflation, and we overlay the models with the subjective assessments that our internal committee and its advisors offer, to ultimately arrive at a policy decision.

Our model based assessments of the inflation path are almost surely going to differ a little from the realisation, given that the world is uncertain, but they are our best professional assessments, and we set policy based on those assessments. As information comes in, monetary policy is adjusted – for instance, the substantial disinflation from November 2013 gave us confidence about the persistence of low inflation into the future, allowing us to cut the policy rate three times.

What such an approach rules out is what might best be described as "inflation following policy" that some populist commentators on monetary policy advocate. Starting with the premise that all economic forecasting, especially about the future, is impossibly imprecise, inflation followers advocate cutting policy rates whenever inflation is low until inflation starts picking up. I have never heard them say what we should do then, but I presume that they would advocate raising rates at that point. But because monetary policy works with long lags, inflation could surge significantly before policy starts working. A policy that tracks current inflation, rather than anticipates inflation, is inherently biased towards more volatile inflation, which is not in the public's interest.

Another set of commentators write articles arguing that monetary policy is impotent for a variety of reasons, ranging from its irrelevance in taming food inflation to the small size of interest sensitive sectors in the economy and the lack of transmission by banks. Yet, they somehow always end the article by advocating rate cuts. Now why would rate cuts matter if monetary policy was impotent in affecting demand? Perhaps more informative is a recent study which suggests that the disinflation that has happened over the last year and a half follows from a combination of good food management by the Government, good luck because of external factors such as lower crude prices, and monetary policy, including the new framework.[2] We believe this is a fair view of the disinflation so far,

[2] "What is Responsible for India's Sharp Disinflation?", Sajjid Chinoy, Pankaj Kumar, and Prachi Mishra, working paper, August 2015.

entirely uninfluenced by the fact that two of the three authors are from the RBI.

Some issues in tackling inflation

Let me turn to some other issues in inflation management. First, in picking the policy rate path and the pace of deflation, we have to be mindful that there are multiple players in the economy; consumers and producers who need to borrow, households that need to save, and banks that need to do both. Producers love lower interest rate, and they do not hesitate to tell us. But saving households balk as deposit rates are cut, especially if rates do not compensate adequately for inflation. The fall in household financial savings, the increase in gold purchases, and the widening of the current account deficit in recent years was partly caused by negative real after tax deposit rates. If we are not to see distortions in the economy, therefore, any policy rate path has to balance these interests – in other words, be a Goldilocks rate path which is neither too high nor too low.

Of course, banks stand partially in between borrowers and lenders, and to transmit rate reductions they should be able to cut both borrowing as well as lending rates. Concerns have been expressed about Government small savings schemes that pay a high rate to households, making banks reluctant to cut their own deposit rates for fear of being dis-intermediated. While Government small savings rates should be readjusted more frequently to market rates, the growth of these schemes is small for the most part, and at least for now these schemes should not be an insuperable barrier to transmission.

Second, because of a large divergence between WPI and CPI, some economists have argued there is a difference between the real rates manufacturers face and the real rates savers get. I am sympathetic to the argument, but believe the only way to tackle it is to get inflation of all kinds down – so long as the divergence between inflation in traded goods and in non-traded services is large, the problem will not go away. But I also think the concern is overblown. Even if manufacturers do not have much pricing power because of global competition, their commodity suppliers have even less. So a metal producer benefits from the fall in coal and ore prices, even though they may not get as high a realisation on sales as in the past. The true measure of inflation for them is the inflation in their profits, which is likely greater than suggested by WPI. So the real interest rate they face is lower than that obtained by subtracting WPI from the nominal interest rate.

Third, I have said in the past that the central bank is not a 'cheerleader' for the economy. By this I did not mean that the RBI does not want to do its utmost to see the economy do well. Far from it! What I meant is that it is not the role of the central bank to elevate sentiments unduly, to deliver booster shots to the stock market so that it can soar for a while, only to collapse when reality hits. We do not have to look too far beyond our borders to see the consequences of such boosterism. Rate cuts should not be seen as goodies that the RBI gives out stingily after much public pleading. Instead, what is important is sustained low inflation, something the Prime Minister emphasised in his Independence Day speech, and rate cuts are a natural consequence that the RBI has no hesitancy in delivering.

Stressed Assets and Speedy Resolution

Let me turn to stressed assets. In dealing with stressed bank assets, RBI has been focused on getting the underlying real project back on track. There are a number of impediments here. The stigma as well as the provisioning (and the associated fall in profitability) attached to a loan being labelled 'non-performing' makes banks eager to avoid the label. In some cases, they ignore the reality that existing loans will have to be written down significantly because of the changed

circumstances since they were sanctioned (which includes extensive delays, cost overruns, and over optimistic demand projections). The Debt Recovery Tribunal system has not been speedy, which also emboldens uncooperative promoters and keeps them from accepting their share of the losses.

Regulatory forbearance, where the RBI makes it easy for banks to 'extend and pretend', is not a solution. Since no other stake-holder – such as the promoter, tariff authorities, tax authorities, *etc.* – contributes to resolution, the real project limps along becoming increasingly unviable. Meanwhile, analysts grow increasingly suspicious of bank balance sheets and the growing volume of 'restructured' assets. Also, some large promoters take advantage of banker fears about assets turning non-performing to extract unwarranted concessions, without any sacrifice in the value of their stake. Regulatory forbearance therefore ensures that problems grow until the size of the provisioning required to deal with the problem properly becomes alarmingly large – which then prompts calls for yet more forbearance. Forbearance is also a disservice to the bank's owners (which may include the Government) who, instead of being faced with a small problem early and being given the opportunity to apply corrective action, are faced with large problems suddenly when they cannot be pushed into the future any more.

One example of the difficulties stemming from forbearance is the plight of state power distribution companies (DISCOMS). In 2012, a number of states signed up to a financial restructuring plan (FRP) with banks and the central government, based on which the RBI permitted restructured loans to DISCOMS to be treated as standard. Unfortunately, three years later, states have not undertaken many of the actions promised under the FRP, perhaps because the urgency to act was not there so long as banks continued financing losses. Meanwhile, debt has built up further, and the cost of power, including line losses and interest costs, is mounting inordinately. The central government and the RBI are taking the lessons of recent experience into account as they discuss remedial action with the states.

To deal both with project paralysis as well as the unfair distribution of losses, the RBI ended the forbearance accorded to restructured loans. Henceforth, restructured loans will be classified as non-performing loans. However, the RBI has made it easier to recognise and deal with distressed projects. In other words, while ending forbearance, we have introduced flexibility for those who recognise and deal with stressed assets. Consider some measures.

First, RBI has created a database of loans over ₹50 million (the CRILC database), and has required banks and NBFCs to report regularly on the status of the loans. Early identification of distressed projects offers the best opportunity to put them back on track. So if a loan is identified as more than 60 days overdue, all lenders to the borrower have to come together in a Joint Lenders' Forum (JLF) to see how the underlying problems can be fixed. The JLF has to follow strict timelines, failing which the project loans' classification will be downgraded. On the other hand, if the timelines are met, the deterioration in loan classification is halted. Furthermore, by bringing the banks and NBFCs into one forum, the RBI has made it easier for the promoter and the creditors to reach a consensus on actions, even while making it harder for the promoter to play one creditor off against another.

Second, to deal with genuine problems of poor structuring, it has allowed bankers to stretch repayment profiles for performing loans to infrastructure and the core sector (the so-called '5/25' rule), provided the project has reached commercial take-off, has a genuinely long commercial life, and the value of the NPV of loans is maintained. the RBI is undertaking periodic examination of randomly selected '5/25' deals to ensure

they are facilitating genuine adjustment rather than becoming a back-door means of postponing principal payments indefinitely. Also, in cases of restructuring, RBI and SEBI have together allowed banks to write in clauses that allow banks to convert loans to equity in case the project gets stressed again. Not only will such Strategic Debt Restructuring give creditors some upside in return for reducing the project's debt, it can also give them the control needed to redeploy the asset (say with a more effective promoter).

We have discussed the experience with the JLF with banks, and we will shortly announce some measures that should improve their functioning. The move by the Government to recapitalise banks is welcome, as is the proposal to reward bankers based on progress in cleaning up balance sheets and generating healthy growth. The innovative proposal to create a fund with majority private ownership and minority Government participation to lubricate the process of resolution could be very helpful. The RBI and Government are also discussing ways to revitalise Asset Reconstruction Companies so that they can play a greater role in resolving distress. The Finance Minister spoke last week about accelerating the working of Debt Recovery Tribunals through the use of information technology, an idea whose time has certainly come.

Given the state of the world economy, firms in some industries are in deep real distress. Some firms can survive with a little help from the Government, but others are unviable. Too much help to unviable firms can also cause distress to spread to healthy firms. In this regard, the country needs rapid progress in the coming year on the creation of the institutions necessary for resolution such as the new Bankruptcy Code and the Company Law Tribunals that will administer it as well as the Financial Resolution Authority (for resolving financial institution distress). On-going government efforts in this regard will pay rich dividends.

Conclusion

Let me conclude. My focus on the challenges in ensuring sustainable growth should not detract from the tremendous progress we have made. There is much to be optimistic about, including the massive investments that are starting in infrastructure, the tremendous sweep of information technology across every facet of Indian life, and the radical changes that are taking place in the financial sector. The Indian economy is full of possibilities, even as much of the world is mired in pessimism. Indeed, I have been arguing that the fragility of the world economy is precisely because it has focused on quick fixes rather than deep reform.

At the same time, we should not delude ourselves into thinking our work is done, or postpone hard choices to a seemingly easier tomorrow. The question for us as a society is whether we have the discipline to do what is necessary at a time when global conditions are propitious –commodity prices look like they will stay low for a time, helping the fight against inflation, and there is plenty of money around the world and at home, looking for investments, including in distressed assets, that can help us clean bank and corporate balance sheets. As India strives to regain its place in the ranks of prosperous nations, we must remember that what sets poor nations apart from the rich is not people or resources or even luck but good governance, which comes from strong frameworks and strong institutions. A summary explanation of the economic problems of the recent past is that they arose because India outgrew its institutions. A summary of the Government and the Reserve Bank's measures to restore sustainable growth is that we are building the necessary institutions. Thank you.

*Financing for Infrastructure: Current Issues & Emerging Challenges**

Harun R. Khan

Smt. Arundhati Bhattacharya, Chairman, State Bank of India Group, Shri V. G. Kannan, Managing Director, State Bank of India, Shri Praveen Gupta, MD & CEO SBICAP, Shri Abhay Chaudhari, President & COO, SBICAP, Shri Supratim Sarkar, Executive Vice President, SBICAP, esteemed guest speakers, colleagues and friends from SBI & SBICAP and participants. It gives me immense pleasure to deliver the keynote address in this wonderful setting where the annual conclave of SBI Capital Markets Ltd., (SBICAP) is being held. SBICAP, as one of the prominent investment banks in India over the last 29 years, has been doing some exemplary work in the areas of corporate and financial advisory services and investment banking, aiding economic growth and development of the country and in the process, and has earned many laurels. My congratulations to the entire SBICAP family.

2. I understand that the present conclave seeks to elicit views and ideas from policy makers, regulators/ sector experts, bankers and industry leaders on various issues connected to financing and related aspects of infrastructure, including stressed assets management. These issues are quite topical as our country, after a brief slowdown in the wake of global financial crisis, is once again poised to grow at a fast pace and, according to the IMF, is likely to be the world's fastest growing major economy overtaking China as early as this year. In order to sustain and achieve higher growth, we, however, have to create an enabling atmosphere that fosters competition and improves ease of doing business. In pursuit of the same, the policy makers in India have been striving to fix the fault lines that emerged during the crisis and thereafter, so as to improve confidence among international and domestic investors. In this context, it has been the endeavour of the Reserve Bank of India to provide a low and steady inflationary environment that is consistent with macroeconomic stability and long-term sustainable economic growth.

Economic Scenario

3. Let me, briefly discuss the current economic scenario, both global and local. The IMF, in its latest (July 2015) update on World Economic Outlook, has projected global growth at 3.3 per cent in 2015, slightly lower than in 2014. The growth in 2016 is, however, expected to be higher at 3.6 per cent. There has been a downward revision in projection, of 0.2 per cent, relative to its World Economic Outlook in April 2015. The revisions reflected, to a large extent, unexpected fall in output in the United States and neighbouring Canada and Mexico. In the US, however, the economy is now rebounding on stronger consumption growth and improving employment conditions. More importantly, the recent update points to slower growth in emerging and developing market economies (EMDEs) from 4.6 per cent in 2014 to 4.2 per cent in 2015 on account of factors, such as, the impact of lower commodity prices on Latin America and oil exporters, deceleration in China's growth in particular and weak external demand of EMDEs in general, structural bottlenecks and uncertain financial market conditions. The silver lining, especially from our perspective, is that there has been no revision in outlook for the Indian economy, which is expected to grow at 7.5 per cent. According to Christine Lagarde[1], MD, IMF, just as many

* Detailed text of the keynote address delivered by Shri Harun R Khan, Deputy Governor, RBI at the Infrastructure Group Conclave of the SBICAP at Aamby Valley on August 8, 2015. The speaker acknowledges the contributions of Shri. Y. Jayakumar, Shri Ayyappan Nair & Shri Ajay Chowdhury of the Reserve Bank of India.

[1] Christine Lagarde, Seizing India's moment- lecture at Lady Shri Ram College, New Delhi on March 16, 2015.

countries around the world are grappling with low growth, India has been marching in the opposite direction and it is the fastest growing large economy in the world. Quoting Ms. Lagarde, 'By 2019, the economy will have more than doubled in size compared to 2009. And when adjusting for differences in purchase prices between economies, India's GDP will exceed that of Japan and Germany combined.' There is also a view that India could become a US$ 20 trillion economy in less than 20 years and India's share in the world economy growing to around nine per cent from less than three per cent now.

4. There are, however, roadblocks in our pursuit for higher growth that we should be mindful of. These are in the nature of slow progress on structural reforms in respect of supply bottlenecks, weak investment demand, vulnerabilities arising out of erratic monsoon, stalled projects which need to be put back on track, *etc.* On the external front, we are, ofcourse, much better placed as compared to 2013 when we witnessed significant volatility on account of spillovers from global markets, especially, the taper tantrums. For example, foreign exchange reserves cover for imports has gone up from 7.8 months as at end March 2014 to 8.9 months as at end March 2015; similarly, ratio of short term debt to the reserves has gone down from 30.1 per cent to 24.8 per cent and the share of reserves to CAD has gone up from 3.3 times to 12 times during the same period. This was also evident from the relative calm in the Indian markets even during the recent Greece crisis as well as when there was wide speculation on impending rate hike by the Fed Reserve. The measures taken by the Reserve Bank to address structural issues, such as, persistent high inflation and mounting current account deficit, have helped to boost business confidence among both international and domestic investors and had a salutary effect on growth in general and market volatility in particular.

5. As the world, as Larry Summers has said, entered a phase of 'secular stagnation', South Asia led by India, Bangladesh, Sri Lanka and Pakistan as commented by the well-known analyst and the celebrated author of 'Breakout Nations' Ruchir Sharma, is exhibiting strong growth momentum[2]. In the backdrop of positioning India as the growth engine of the world, today in my talk, I would like to touch upon some of the issues which are critical to realising this potential. As most of you belong to the infrastructure group, which needless to say, is one of the most critical sectors of the economy, I propose to flag some of the important issues relating to infrastructure that is vital in our quest for higher growth. These range from role of infrastructure in kick-starting growth, issues in bridging the financing gap and the significance of infrastructure development for gaining urbanisation needs.

Infrastructure: The Growth Driver

6. Importance of infrastructure in economic growth cannot be overemphasised. Infrastructure is the lifeline of an economy and the fate of the economy is intricately linked to the development or otherwise of its infrastructure. As highlighted in the 12th Five Year Plan document, infrastructure provides the basic support system for the other sectors of the economy in expanding capabilities everywhere. A well-developed physical connectivity in the form of rail network or road network, for example, can help the producers and consumers (by facilitating quicker movement of agriculture produce), facilitate education (by enabling student to access educational opportunities that are not otherwise easily accessible), ensure well-being of the citizens (by expeditiously reaching the needy to the health care centres), ensure nation's safety (by enabling movement of armed forces), and create greater

[2] Bucking stagnation elsewhere, the quiet rise of South Asia (The Times of India, July 28, 2015).

employment opportunities. Empirical work on role of infrastructure done in late 80s & early 90s had found the output elasticity to be in the range of 0.38 to 0.56. Subsequent studies have corroborated the findings though with lower elasticity. For India, a 2009 study[3] has found it to be upto 0.5. The studies have also emphasised the role of public investment in terms of crowding in private investments in different sectors and enhancing the overall output.

7. Financial inclusion and infrastructure development are mutually reinforcing and can provide impetus to economic growth. Progress in basic infrastructure like transportation, communication, sewage water and electric systems coupled with access to finance through a well-developed financial infrastructure will go a long way in facilitating financial inclusion which needs to be seen as a subset of overall economic inclusion. Infrastructure not only acts as a catalyst for faster growth through both flow and stock impacts but also as an important tool in enabling inclusive growth. It has a multiplier effect on growth and development and hence rightly demands greater attention of the policy makers.

8. The global infrastructure needs are huge. Private sector estimates[4] peg the requirements at US$ 57 trillion during 2013-2030, simply to keep up with the projected global growth. It is also estimated that by following best practices in enhancing efficiency in investments, the countries could save as much as US$ 1 trillion per year in infrastructure development costs. While the advanced economies invest in maintaining aging transport, power, water and telecom networks, the developing economies have a greater challenge in putting the basic infrastructure in place.

9. The infrastructure gap that exists in India is undeniable. India is ranked 87th out of 148 countries for its infrastructure in the World Economic Forum's Global Competitiveness Report 2014-15. Roughly two-thirds of the freight and about 85 per cent of passengers in India are still transported by the road network. To meet the growing requirements of the economy, the investments that need to go into infrastructure are humungous. The total investment in infrastructure, which was 5.02 per cent and 7.21 per cent of the GDP during the 10th and the 11th Five Year Plans respectively, is projected to go up to 8.18 per cent in the 12th Plan (2012-17) at US$ 1 trillion. The McKinsey report estimates that an increase in infrastructure investment equivalent to one per cent of GDP would translate into an additional 3.4 million direct and indirect jobs in India. Therefore, the development of infrastructure not only poses a significant, but not insurmountable, challenge but also provides a great opportunity in accelerating growth.

Financing Infrastructure: Bridging the Gap

10. Infrastructure development involves long gestation periods, and encounters many legal and procedural issues besides planning and execution issues. The problems related to infrastructure development range from those relating to land acquisition for the infrastructure project to environmental clearances. The added uncertainty due to these factors affects the risk appetite of investors as well as lenders to extend funds for the development of infrastructure. The issues impinging on infrastructure development comprise both financial and non-financial factors and these need to be seen in totality. While financing remains a major factor, the non-financial issues also should receive appropriate attention.

11. Traditionally, the infrastructure financing in India was almost completely met by the public sector. Given the huge and growing investment requirements

[3] Transport Infrastructure in India: Development, Challenges and Lessons from Japan (2011) – Pravakar Sahoo.

[4] Infrastructure Productivity: How to save $ 1 trillion a year by McKinsey Global Institute (2013).

coupled with the fiscal imperatives, public sector's capacity in financing infrastructure is understandably constrained necessitating the private sector to play a greater role. The private sector has lived its part and over the years, emerged as a significant player and now constitutes about 40 per cent of the infrastructure investment. The 12th Plan projects an even greater role for the private sector {including the Public Private Partnerships (PPP)} with projected investments at 48 per cent of GDP. There are, however, multiple challenges in channelising private sector investment into infrastructure.

12. Here, let me briefly mention the international support in this regard. During 2011-15, the World Bank Group (including IFC) has, on an annual average basis, financed projects to the tune of US$ 25 billion and the pattern is expected to continue. The World Bank has been supporting the India Infrastructure Finance Company Limited (IIFCL) through financing PPP in infrastructure so as to increase the availability of long-term financing for infrastructure PPP projects in India. There are proposals to manage the World Bank's exposures on India beyond the country limit. IFC contribution, however, has been small. Since 1956, IFC has invested in about 346 companies in India, providing over US$ 10.3 billion in financing for its own account and US$ 2.9 billion in mobilisation from external resources. From the Asian Development Bank (ADB), India has received cumulative lending grant and technical assistance in infrastructure space of about US$ 27 billion. The New Development Bank (NDB) or the so-called BRICS Bank is expected to serve as a powerful instrument for financing infrastructure investment and sustainable development projects in the BRICS and other developing countries. The NDB will eventually have capital of US$ 100 billion including US$ 50 billion as callable. However, lending policies will have to be decided by the NDB and bankable projects will be supported, as per the initial discussions. The Asian Infrastructure Investment Bank (AIIB) is in the process of getting ready. It is also conceived to be a US$ 50-100 billion bank with 57 countries as its members. India has agreed to provide about 8.5 per cent of its total capital. Given the enormity of our requirements, these efforts, though welcome, are not enough. Hence, we have to look for other sources.

Bank Financing of Infrastructure

13. While banks, so far, have played a pivotal role in providing finance to infrastructure and supporting economic growth, bank financing of infrastructure is likely to be constrained going forward due to the growing trend in stressed assets from this sector in their balance sheets. Let me substantiate my argument with some data. The outstanding bank credit to the infrastructure sector, which stood at ₹95 billion in March 2001, has increased gradually to ₹10,074 billion in March 2015, a compound annual growth rate (CAGR) of 39.5 per cent over the last 14 years. On the flip side, the gross NPAs and restructured standard advances, together as a percentage of total advances to the sector, has increased considerably from ₹193 billion (5.1 per cent of gross advances to the sector) as at the end of March 2010 to ₹2,222 billion (22.8 per cent of gross advances to the sector) as at the end of March 2015. Therefore, concomitant with rising NPAs from other sectors, this is going to put pressure on the banks to be the major source of financing for infrastructure even as the requirement for financing increases manifold.

Impact of the new regulatory framework

14. The new regulatory framework has been put in place in the aftermath of global financial crisis with a view to building a more stable and resilient banking system. The Basel III requirements have increased the capital requirements of banks in a phased manner over five years period starting from April, 2013. There is a view that this would adversely affect the banks' contribution to economic growth. A study conducted

by Macro-Economic Assessment Group (MAG) of the Financial Stability Board (FSB) had, however, concluded that if increased capital requirements were phased in over an extended period of five years, the impact on the overall economy would be quite less. In terms of growth rates, annual growth would be 0.03 percentage points (or 3 basis points) below its baseline level during the implementation phase. A well-capitalised banking system reduces the risk and cost of financial crises and macroeconomic volatility, which in turn increases the confidence of borrowers and lenders in the stability of the banking system. Due to these reasons, the implementation of Basel III in India may be net positive for banking system and overall economy, in the long run. Moreover, a bank having higher amount of common equity capital will be perceived by the market as safer and thus can access market for funds at a cheaper rate, thus reducing the impact of higher capital requirements. Implementation of Basel III, therefore, will help Indian banks in maintaining credit supply to the economy at a sustainable manner and continue meeting the credit needs of the economy including the infrastructure sector. While the long run impact of the new capital regulations is envisaged to be net positive for the economy, their short term impact, in terms of constraining the lending ability of the banks, needs to be carefully considered.

15. The new liquidity requirement, namely Net Stable Funding Ratio (NSFR), seeks to match long term funding requirements with long term sources. However, under NSFR requirements, expected to be implemented from 2018, all assets having maturity one year or more will receive the similar treatment. As infrastructure lending is typically of maturity much higher than one year, there may not be any impact on such lending due to future implementation of NSFR requirements. Therefore, the NSFR requirements will thus be neutral to all loans having residual maturity of one year or more. Incidentally, RBI has also issued guidelines to banks on 5:25 scheme which will help banks' lending to long gestation infrastructure loans to manage their asset liability maturity mismatch issues.

16. Further, notwithstanding the magnitude of numbers put out by various studies highlighting the impact of regulations on the cost of infrastructure finance, what is clear is that Basel III regulations do not impact lending to any specific sector including that of infrastructure financing by banks in a negative manner. There would, however, be issue of exposure norms under the Basel framework. As you may be aware, the discussion paper put out by the Reserve Bank in this regard suggests that all exposures, individual as well as group, may be capped at 25 per cent of the Tier I capital of the bank as against the current liberal norm of five per cent additional exposure (over the 15 per cent) for individual exposure and 10 per cent additional exposure for groups (over the 40 per cent). Besides, the 'group' definition may also become stringent to cover economic relationships. Ofcourse, these will be implemented from 2019 onwards only and banks will thus have enough time to adjust their exposures as per the proposed new exposure norms. Moreover, the proposed norms are not likely to be more stringent than the existing exposure norms on infrastructure for single party exposure, by looking at the existing composition of the capital in the Indian banking system. Overall, right now it is the ALM challenges and the asset quality concerns, especially on infrastructure assets, that may have some adverse impact on credit supply to this sector.

ALM challenges for banks

17. The age old argument against bank financing of infrastructure has been the issue of asset-liability mismatches (ALM). Typical funding sources for banks being deposits which are short term, financing long term assets such as infrastructure leads to ALM mismatches. Notwithstanding such ALM issues, this

has not been a major constraining factor for banks as they have been financing long-term projects for a considerable period. Due to ALM restrictions, banks, usually lend at floating rates, which is linked to the base rate. As you are aware, the present base rate methodology using the average-cost of funds is not ideal and there is a need to shift to a methodology based on marginal cost of funds. There is also a felt need to benchmark the base rate to prevailing market rates. The challenge is to arrive at a rate that is consistent with verifiable market parameters adjusted for bank specific asset-liability mix. The Reserve Bank is currently working on revising the base rate methodology in consultation with the market participants. The emerging view is that till we move to a full scale market benchmark linked based rate, it could be based on marginal costs of funds where each source of fund (other than equity) is weighted by its respective contribution to the source of liability and then adjusted for regulatory cost (*e.g.,* cost of CRR) and reasonable spread.

Securitisation

18. Securitisation, which involves pooling various types of contractual debt (or other non-debt assets which generate receivables) and selling their related cash flows to third party investors as securities, is an important tool to improve infrastructure financing. Securitisation diversifies credit markets as it breaks the process of lending and funding into several discrete steps, leading to specialisation and economies of scale. Banks can particularly take advantage of securitisation route for freeing up capital, rebalancing risks and more efficiently manage their ALM. The recent experience relating to stress and non-performance in infrastructure and project finance have raised questions about the capacity of banks, other than the larger ones, to perform independent credit appraisal of such large credits as also to withstand the stress from these loans. Securitisation route provides these banks an alternative to participate in large infrastructure and project credits through this route after the project has taken off rather than participating through consortium or multiple banking arrangement before the cash flows have emanated.

19. Despite the apparent benefits of the plain vanilla securitisation products, the Indian securitisation market continues to be at a nascent stage, as it is merely driven by the need for meeting Priority Sector Lending (PSL) targets by banks. Public Sector Banks are mostly absent in this space. Asset Backed Securitisation (ABS) is the largest securitisation class in India, driven by retail loan portfolio of banks. Though the market had begun to mature since the year 2000, the global financial crisis (GFC) obviously has its repercussions in Indian market as well.

20. The catastrophic repercussions from the GFC and the perceived role of securitisation in the crisis, deeply dented the investor confidence. While the regulatory framework and the securitisation market itself in India have been working in a prudent manner, the appetite has been on the lower side, which is used largely to meet the PSL targets by a few banks as investors with smaller band of NBFCs being the originators. There are many factors involved, including legal, taxation and stamp duty related issues, which are inhibiting the development of securitisation market in India. Some of these factors are as follows:

- Lack of transparency due to inadequate disclosures;
- Low demand for long tenor receivables;
- Non-participation of long-term investors like Pension Funds in securitisation;
- Lack of investor base as banks invest only for meeting PSL targets;
- Foreign investors disallowed in the Indian securitised instruments (recently such

investments in Securitisation Receipts of the Asset Reconstruction Companies have, however, been allowed);

- Absence of a secondary market;
- Taxation (SPVs still not being treated as pass through vehicles), stamp duty and legal issues; and
- Lack of effective foreclosure laws.

Refinancing of Project Loans: Takeout financing

21. Takeout financing offers an avenue to the banks to free their balance sheet from exposure to infrastructure loans, lend to new projects and also enable better asset liability management. In other words, takeout financing enables financing longer-term projects with medium-term funds. Despite the obvious advantages the mechanism has not really emerged as a game-changer. One plausible reason is that the model does not envisage equitable distribution of risks and benefits. One of the repeated arguments is that banks assume credit and liquidity risk since the inception of the project but once the project is economically viable, taking out of the loan results in loss of opportunity of earning returns on seasoned loans. Further, if the original lenders/bankers are required to part with their security interest fully, their residual exposure would be sub-ordinated to the interest of the take-out financier besides other legal including stamp duty related issues.

22. Given the significant role the takeout finance plays in infrastructure, and in order to provide flexibility to banks in refinancing their loans to projects which have commenced commercial operations, banks were allowed to refinance project loans by way of full or partial take-out financing, even without a pre-determined agreement with other banks/FIs, and fix a longer repayment period. Such refinancing is not considered as restructuring in the books of the existing as well as taking over lenders if new lenders take a significant share in the project debt and the transaction also fulfils certain other conditions.

Infrastructure Debt Funds/Infrastructure Investment Trusts

23. Two major innovations which can alleviate the ALM related concerns of lender banks and provide an additional source of funds, domestic & foreign, are being tried out in the infrastructure financing space. They are the Infrastructure Debt Funds (IDFs) the guidelines for which were originally issued in September 2011. IDFs are investment vehicles, which can be set up as trusts or as NBFCs, and are used for investments in infrastructure projects. Foreign and domestic institutional investors, typically long term investors, are permitted to invest in IDFs through units or bonds issued by them. The IDFs in turn invest in infrastructure projects. Although a few institutions have floated IDFs in the NBFC format, not much activity is seen in this space. The recent regulatory changes to allow IDF-NBFCs to invest in non-PPP projects and in sectors where there is no Authority, may lead to more volumes. The other proposal which is under consideration of the Government and the regulators is the Infrastructure Investment Trusts (InvITs) which are collective investment schemes, like mutual funds, that enables pooling of money from multitude of individual investors for directly investing in infrastructure. Foreign investments in InvITs are also being enabled.

Long Term Structured Project Loans (5/25 scheme)

24. Responding to the requests made by banks in ensuring long term viability of infrastructure/core industries sector projects by smoothening the cash flow stress in the initial years and in addressing the maturity mismatches in financing such projects, certain measures were announced in July 2004 which are referred to as 5/25 scheme. In terms of this scheme, banks were allowed to fix longer amortisation period for loans to projects in infrastructure or core industries

sector for, say, 25 years, based on the economic life or concession period of the project with periodic refinancing, say every 5 years. This would mean that banks, while assessing the viability of the project, would be allowed to accept the project as a viable venture where the average Debt Service Coverage Ratio (DSCR) and other financial and non-financial parameters are acceptable over a longer amortisation period of, say, 25 years (amortisation schedule) but provide funding (Initial Debt Facility) for only, say, 5 years with refinancing of balance debt being allowed by existing or new banks (Refinancing Debt Facility) or even through bonds. The above framework was subsequently extended in December 2014 to the existing loans subject to certain conditions.

25. Subsequent to issuance of the guidelines, banks have taken up flexible structuring of a few projects. There have, however, been some reports that banks have incorporated long moratorium periods in their revised loan amortisation schedules and also they are not clear on the methodology to compute the net present value of these loans. Further, the Fresh Loan Amortisation Schedule is also heavily back-ended with repayment obligations pushed to later part of project life. While debt repayment should be aligned to project cash flows, pushing a large part of debt obligations in to later part of project life may lead to undue risk to lenders. Moreover, a long principal moratorium or an interest moratorium for a project which has commenced commercial operations could be a sign of credit weakness and, hence, needs to be recognised appropriately.

26. What I would like to emphasise here is that while the regulator provides certain flexibility given the critical role infrastructure plays in the overall economic growth, such flexibility should be judiciously used by the participants and certainly not as a tool for hiding the stress in the assets or for mere postponement of the inevitable.

Stressed Assets Management

27. Growing level of stressed assets in infrastructure sector is a serious concern impinging upon the lenders' ability to purvey more credit to the sector. As per the June 2015 Financial Stability Report (FSR) of the Reserve Bank of India, infrastructure, which constituted 15 per cent of total advances of the scheduled commercial banks, had a much larger share of around 30 per cent in the total stressed advances. Within banking sector the distribution of stressed infrastructure loans are fairly distributed among the public and private sector banks in proportion to their share in total advances. For example, while the public sector banks' share to infrastructure advances as a percentage of total advances is about 18 per cent, their share in stressed advances is about 31 per cent. In comparison, while the private sector banks accounted for about 8 per cent share in infrastructure advances, the stressed advances is about 18 per cent. The FSR has also stated that the stress tests on sectoral credit suggest that the shocks to infrastructure sector, mainly the power and transport sub-sectors, could significantly impact the system. If one were to juxtapose the FSR data with the Corporate Debt Restructuring (CDR) numbers, the extent of the problem becomes clearer. Industry-wise classification of live cases revealed that infrastructure forms nearly 20 per cent of the ₹2.86 trillion aggregate restructured loans. Needless to say, the stress in the infrastructure sector is a cause for major concern[5]. While the primary drivers of stress in the banks' books are global and domestic economic slow-down, contribution of other factors like delay in obtaining statutory and other approvals in respect of projects under implementation as well as weak credit appraisal/monitoring by banks during the high growth years is also significant. Hence, it should be of utmost priority for all the stakeholders to resolve this issue at the earliest both in terms of

[5] RBI Financial Stability Report: An infra-bomb is ticking in state-run banks' books, Dinesh Unnikrishnan, firstpost.com, June 26, 2015.

kick-starting viable stalled projects and finding alternate funding sources as expecting banks to shoulder the mammoth task of financing this sector has the potential to pose significant financial stability risks.

28. As you are aware, the Reserve Bank released a 'Framework for Revitalising Distressed Assets in the Economy' effective from April 1, 2014, outlining an action plan that will incentivise early identification of distressed accounts, timely restructuring of viable accounts, and prompt recovery or sale of unviable accounts[6] rather than delay the problem by 'extending and pretending'. Some of the key proposals include, setting up of Central Repository of Information on Large Credits (CRILC), formation of Joint Lenders' Forum (JLF), determining the best possible Corrective Action Plan *viz.*, Rectification, Restructuring and Recovery, incentivising lenders to agree collectively and quickly to a corrective action plan, and permitting banks to sell even assets reported as SMA-2 to Asset Reconstruction Companies. The Reserve Bank has also put in a place a framework for Strategic Debt Restructuring in consultation with the SEBI so that banks can convert loans to equity when project gets stressed again, giving the banks the benefit of upside and the control to redeploy the assets. The key message from these guidelines is that the Reserve Bank is very serious in its efforts to find a resolution to the issue of rising trend in NPAs. I hope the deliberations in the specific session on this issue in the conclave will closely look at these issues and suggest workable solutions that would prove beneficial to the economy in general and the infrastructure sector in particular.

Financing Infrastructure: Role of financial markets

29. A well-diversified financial system, where bank and bond financing complement each other, reduces financial fragility and enhances the efficiency of capital allocation. The benefits of a well-developed bond market[7] in the context of infrastructure financing are - lengthening of the tenor of debt, limiting the maturity mismatches on the balance sheets of both banks as well as corporates, widening the funding base, providing risk management tools, strengthening corporate governance and enhancing discipline by limiting the influence of borrowers on lenders. Further, with bank financing to infrastructure already at high levels (about 15 per cent as on March 2015 as mentioned earlier), and the impending exposure norms that would restrict banks' capacity to lend, there is an urgent need to reallocate the financing activities to the bond markets in the overall interest of the financial system.

30. In India, despite a lot of regulatory initiatives already put in place to activate the bond market to provide the corporates a funding avenue complementing bank financing, the development of corporate bond market remained a work in progress. There are many theories that are put forward rationalising the underdevelopment of bond markets in different jurisdictions. It is argued that jurisdictions with a well-developed and strong banking systems do not create necessary environment for development of bond markets, since they provide an easier alternative in terms of bank financing. Underdevelopment of bond markets is also explained away linking to the evolution of financial systems. In jurisdictions where imperfections in the information and contracting environment gave a strong competitive advantage to bank intermediation in the early stages, the participants adapt themselves to the dominance of bank intermediation and remain so even when the circumstances change. Banks retain their first mover advantage and the bond markets find it difficult to acquire market share from banks.

[6] Early Recognition of Financial Distress, Prompt Steps for Resolution and Fair Recovery for Lenders: Framework for Revitalising Distressed Assets in the Economy, RBI, January 30, 2014.

[7] Why doesn't Asia have bigger bond markets? (2004), NBER Working Paper 10576.

31. Let me briefly highlight the regulatory efforts and the progress made in the area of developing corporate bond markets in India, flagging some of the issues for you to deliberate further.

32. Given the importance of corporate bond markets in overall development of the economy and more importantly in infrastructure financing, various committees have made recommendations for a comprehensive reform of corporate bond markets in India. Many measures have already been taken to address both the supply as well as demand side constraints in the development of the corporate bond market. Banks have been allowed to issue long term bonds with a minimum maturity of seven years to raise resources for long term lending and such bonds have been exempted from the regulatory requirements of CRR/SLR. The Reserve Bank has since allowed cross holdings by banks upto 20 per cent of the primary issue size so as to promote the issuance of such bonds in this critical phase. The issuance process for corporate bonds has been simplified in terms of listing requirements and market conventions have been standardised. Reissuances of corporate bonds have been permitted to enhance secondary market liquidity. With a view to enhancing investor base, measures were taken such as enhancing investment limits for Foreign Portfolio Investors (FPIs), rationalising criteria for allocation of such limits and reducing the withholding tax considerably from 20 per cent to 5 per cent. International financial institutions have also been permitted to float rupee-linked bonds overseas to deepen the off-shore rupee bond market and to augment the financing sources. As regards secondary market, reporting platforms have been set up to enhance the market transparency, delivery-versus-payment (DvP) settlement of OTC transactions has been put in place to eliminate settlement risk. Repo has been permitted in corporate bonds to provide for funding and also to enhance the investor interest. With a view to provide risk management tools, Credit Default Swaps (CDS) have been permitted on corporate bonds.

33. The concerted efforts by the regulators and the Government coupled with participation from the market players have indeed resulted in considerable increase in the issuance as well as secondary market trading of corporate bonds. While the bond issuance has increased by around 236 per cent from ₹1,747.81 billion in 2008-09 to ₹4,138.79 billion in 2014-15, the number of issuances has increased by almost 153 per cent (which was nearly 45 per cent higher than the previous year) during the same period. Similarly, for example, in the last four months (April 2015 to July 2015), corporate debt issuances have grown to ₹1.69 trillion which is two times more than the issuance of the corresponding period of the last year. The secondary market activity has also shown significant growth with the daily trading volumes increasing to ₹40 billion in 2014 from ₹6.30 billion in 2009.

34. Notwithstanding the progress made so far, the journey is far from over. A closer analysis depicts that there are many issues yet to be resolved. The bond issuance is still dominated by private placements accounting for about 95 per cent of the total issuances in 2014-15 and a majority of the issuances are concentrated in 2-5 year tenor. The trading activity, despite showing gradual improvement, is much lower compared to the sovereign bonds. The market for CDS, put in place to activate the interest in corporate bond market by facilitating risk transfer, is yet to show any significant activity.

35. Assessing the developments made so far and the challenges that lie ahead, the regulators are in constant dialogue with the market participants to chart the road ahead for developing a vibrant corporate bond market. Some of the issues that are under consideration include: nudging corporates to rely more on market financing for meeting their short term and long term

needs by fine-tuning the large exposure framework of banks, augmenting long-term investor demand by reviewing the investment guidelines of regulated entities, such as, insurance and pension funds, fine-tuning the CDS guidelines to encourage greater participation, strengthening bankruptcy laws, developing municipal bond market, *etc.* Recently, in order to facilitate greater level of participation in AAA rated corporate bonds by Stand Alone PDs, their exposure ceiling in respect of single borrower/counterparty was increased from 25 per cent to 50 per cent and in respect of group borrower from 40 per cent to 65 per cent of their latest audited NOF.

36. Let me touch upon another much debated aspect of corporate debt market, *i.e.*, credit enhancement of the bonds by banks. Credit enhancement of corporate bonds which is under consideration could be one very important step in the direction of development of bond markets. Credit enhancement, by way of subscription to the subordinated debt of the issuer, enhances the credit rating of the issuance and bring in investors who are otherwise constrained by their investment regulations. Europe's Project Bond Initiative wherein the European Investment Bank finances the subordinate debt, enhancing the rating of the other component of the debt to 'senior debt' rating, thereby fulfilling the rating requirements of the institutional bond buyers, is an interesting case in point. There are, however, other examples which highlight the risks involved in promoting corporate bond market through credit enhancement by banks as the risk remains concentrated in the banking system.

37. Taking a balanced view, the Reserve Bank, in its Second Quarter Review of Monetary Policy 2013-14, had announced on October 29, 2013 to allow banks to offer partial credit enhancements to corporate bonds issued for funding infrastructure projects by companies/Special Purpose Vehicles (SPVs). Draft guidelines in this regard were issued on May 20, 2014. As per the draft guidelines, banks should have a Board approved policy on partial credit enhancements covering issues such as permissible types of credit enhancements, assessment of risk, setting limits, *etc.* Banks should also have an overall exposure limit to the infrastructure sector. Prudential limits on the amount of credit enhancement that can be provided and operational guidelines have been stipulated in the draft guidelines. The feedback/comments received are being analysed and considered before issue of the final guidelines. Issues relating to category of bonds that could be enhanced, capital relief to the banks taking the underlying loan exposure and the partially credit enhanced portion for bond issuance, default recognition norms in case of non-payment of contingent credit facility are likely to be addressed when the final guidelines are issued.

Offshore Rupee bonds

38. Issuance of Rupee-denominated bonds in offshore capital markets for mobilising resources for financing infrastructure projects in India is another alternative which may gain traction in the near future. This not only provides an avenue for the Indian borrowers to tap global markets, but also provides much needed fillip to the infrastructure development in the country. In 2013, the IFC launched the first ever Rupee Linked Offshore Bond (RLOB) programme. The programme created a Rupee yield curve in the offshore market through issuances of various maturities *viz.*, 3, 5 and 7 year. In terms of the investor profile, the largest amount has been subscribed by the US investors followed by the European & Asian investors. An important lesson learnt was that the Indian Rupee bond could substitute demand for other local currency bonds, such as, Indonesian Rupiah bonds. Subsequently, IFC was permitted to expand the issuance program and it issued a 10-year, 10 billion Indian Rupee bond (equivalent to US$ 163 million) in 2014. These bonds described as 'Masala bonds' marked the first rupee bonds listed on the London Stock Exchange. These are

the longest-dated bonds in the offshore rupee markets, building on earlier offshore rupee issuances by IFC at three, five, and seven year maturities. These proceeds are to be invested in an infrastructure bond issuance by a commercial bank in India. The IFC has also issued onshore Rupee bonds and the funds thus raised would be used for lending to the infrastructure sector. The Reserve Bank is now finalising guidelines on offshore Rupee bonds to be floated by the Indian corporates based on the comments received on the draft earlier put out in the public domain.

Infrastructure financing: external sources

39. Considering the huge financing requirements in infrastructure about half of which are proposed to be met by the private sector, there will be a role of the external sources in funding the gap. Stable sources of external financing would not only relieve the pressure on domestic financial system but would also bring in much needed technical expertise, which is critical in enhancing the viability and competitiveness of infrastructure projects. This has, however, to be balanced with the risks estimated with foreign currency denominated external commercial borrowings (ECBs), particularly in respect of sectors like infrastructure where there is a currency mismatch between their foreign currency borrowings and the Rupee cash flows, besides the systemic stability issues of high level of external debt and unhedged foreign exchange exposure. Nevertheless, to encourage external commercial borrowings for infrastructure projects, the Government of India and the Reserve Bank of India have been modulating the regulatory regime keeping in view the debt profile of the country and also the requirement of foreign funds, particularly in the infrastructure sector. A Committee to review the framework of access to domestic and overseas capital markets (Chairman: Shri M. S. Sahoo) has come out with certain major recommendations for overhaul of the ECB framework. The Reserve Bank of India is now working with the Government of India to streamline the ECB regime that would facilitate more Rupee linked offshore borrowings and long-term borrowings in excess of, say, 10 years so that the risks associated with unhedged foreign exchange exposure of the Indian borrowers and stability issues arising out of shorter duration ECBs could be addressed.

Urbanisation and Infrastructure

40. Let me focus now an important aspect emerging needs India is rapidly urbanising, which is putting a tremendous pressure on urban infrastructure. Census data 2011 reveals that about 31 per cent (377 million) of Indian population lives in urban areas and contributes 63 per cent of the GDP. Going forward, the intensity of India's urbanisation will only be increasing. With the strides in the urbanisation that is being witnessed, it is projected that by 2030 urban areas will house 40 per cent of the Indian population and contribute 75 per cent of India's GDP. The number of large cities which were only 5 in 1951 grew to 53 in 2011 and is expected to go to 68 in 2030. At least 2 of the Indian cities (Mumbai and Delhi) are expected to be among the five largest cities in the world by 2030.

41. The document 'Smart Cities: Mission Statement & Guidelines' put out in June 2015 by the Ministry of Urban Development emphasises the need for a comprehensive development of physical, institutional, social and economic infrastructure for improving the quality of life and attracting people and investments to the City, setting in motion a virtuous cycle of growth and development. Smart Cities are envisaged to be a step in that direction. The mission announced by the Government envisaged a coverage of 100 cities during 2015-2019. Given the enormity of the vision, stakeholders, especially the Urban Local Bodies (ULBs), have a significant task on hand. Financing through municipal bonds is an alternative that the ULBs can focus on. The Municipal Bond market in India, *albeit*

more than three decades old, is still not developed. Municipal bonds have so far played a limited role as a source of finance for funding urban infrastructure projects. In India, just 1 per cent of the total ULB contribution is funded by municipal bonds as against about 10 per cent in the United States. The size of the municipal bond market today is rather limited and is distributed over a few strong municipalities of Ahmedabad, Nasik, Nagpur, *etc.* It is worth noting that in spite of weak finances, none of the municipal bond issues have defaulted in repayment to date. This indicates that although bond financing is feasible for ULBs there are constraints affecting both the supply as well as demand for capital.

42. Several steps can be taken to strengthen the municipal bond markets in India. First, the regulatory and legal conditions that currently hinder the municipal borrowing in India, needs to be altered to encourage appropriate expansion of the scope of bond financing. Second, it is important to introduce flexibility in setting interest rate cap for issuance of municipal bonds by linking it to a benchmark market rate. Issuers also need to have the option to offer long tenor bonds for implementing urban infrastructure projects with a repayment period ranging about 15 – 20 years and could include variants, such as, guaranteed, non-guaranteed bonds, taxable and tax free bonds, pooled financing, *etc.* Treating tax free municipal bonds in the same way as other tax free instruments is necessary. Third, very often the ULBs are still considered to be riskier than the corporates with similar rating largely because the risk perception is significantly linked to financial position of their States as they depend significantly upon the devolution of resources and grant from the State Government. Therefore, the outlook for ULBs would depend upon the outlook on the financial position of the State concerned. Fourth, ring-fencing the municipal bond funds is very essential by clearly earmarking the same for a defined project and is thus, insulated from interventions. Fifth, to gain investor confidence, municipalities need to obtain credit rating for raising funds from the market. Sixth, introduction of a bankruptcy law applicable to municipal bodies could improve investor confidence and boost demand for municipal bonds. As a backstop arrangement in the eventuality of default, there needs to be partial or full guarantee by Central/State government. Seventh, there is need for improving transparency in accounting and budgeting and disclosure of all the material facts regarding the management, administration, financials, operations, projects, revenue generation, risk factors, *etc.* Timely audit, putting in place a framework for legal remedy against defaulting ULBs and assurance against diversion of fund will have to be addressed. Eight, Pooled Finance Mechanism was initiated for small and medium sized ULBs to hedge risk for the investors and thereby avoid huge transaction costs. Finally, in order to widen the investor base, insurance companies, National Pension System, and provident funds may be allowed to invest in the rated securities of ULBs or Municipal Bodies as also Foreign Portfolio Investors and Mutual Funds. SEBI has since put out a framework for issue and listing of debt securities by municipalities. There are demands for further fine-tuning of these regulations. Besides, concerted efforts are needed by the Central, State and the municipal bodies to address the above concerns for developing a more reliable and additional source of financing for certain infrastructure through municipal bonds. Investment bankers like SBICAP can play a very proactive role in bringing together the stakeholders.

Conclusion

43. The fact that infrastructure is the life line of the economy needs no reiteration as it brings in benefits to all stakeholders in the economy, be it producers, consumers, rural households, industries and disadvantaged sections of the population through both the flow and stock impacts. Like finance, infrastructure

is also a critical catalyst in accelerating growth. In order to reach the envisaged growth rates, we need to invest in robust infrastructure. There are many hurdles in financing infrastructure given its special characteristics, such as, long gestation, huge capital outlays and exposure to policy and procedural uncertainties. Policy makers are alive to these challenges and have taken many measures, such as, facilitating bank financing to infrastructure, activating bond markets with a view to providing alternative source of funding and, opening up newer and innovative channels of financing. Financing of urban infrastructure, through municipal bonds, given our current thrust on urbanisation, needs special focus. To further strengthen this process, support from the industry is extremely critical. Industry needs to make judicious use of the new products or processes and also provide unbiased feedback to the policy makers for fine-tuning the policies. The role of investment bankers like SBICAP, which acts as bridge between the Government and the private sector in their infrastructure development efforts and provide innovative financing options through equity, debt and other hybrid instruments, is very crucial.

44. In its quest for much higher and sustainable level of economic growth, India today has to focus on **INDIA**: **I**nfrastructure (development of both physical and social infrastructure), **N**atural resources (in terms of transparent and predictable policies for leveraging the resources including the human resources), **D**ecision making process (which is both effective and efficient), **I**nnovation (both frugal and big-bang) & **A**ccess (of the widest segment of the populace to markets, finance and governance process). I am sanguine that the conclave would critically deliberate on various issues relating to the Infrastructure part of INDIA, particularly the financing aspects and come out with some important yet implementable suggestions.

45. I wish the conclave all success both in terms of pleasant business and serious fun. Thank you all.

*Financial Market Regulation in India – Looking Back, Looking Ahead**

Harun R. Khan

Mr. Jiri Rusnok, Former Prime Minister & Member of the Board of the Czech National Bank; Dr. M. Venkatachalam, Charge d'Affairs Indian Embassy, Prague; Mr. N. S. Venkatesh, Chairman FIMMDA; Mr. Pradeep Madhav, PDAI; distinguished panelists and all the delegates. It gives me great pleasure to be delivering the keynote address for the FIMMDA – PDAI Annual Conference in this culturally rich, historically vibrant, naturally blessed city of Prague which still maintains its old-world charm.

2. The theme for this year's conference Evolving Markets –Institutions & Regulations rightly underscores the role of both the regulations as well as institutional practices in influencing the market development. The post-crisis overhaul of the global financial regulatory regime may, however, have altered the balance between the two as newer regulations have been changing the institutional practices themselves in very fundamental ways in many jurisdictions. It may still be a bit early to definitively conclude about the impact of these changes on evolution of markets going forward. The shift to CCPs and increased costs of OTC transactions; increased capital requirements for trading activities; new leverage and liquidity regimes, *etc.* all are contributing to reshaping the financial markets landscape globally. While the state of financial markets may be qualitatively heterogeneous across countries, the harmonised implementation of the reform program is an essential necessity countries are confronted with.

* Keynote address by Harun R. Khan, Deputy Governor, Reserve Bank of India at the FIMMDA – PDAI 16th Annual Conference 2015 at Prague on August 17, 2015. The speaker acknowledges the contributions of Shri Vaibhav Chaturvedi and Shri Vivek Singh of the Reserve Bank of India.

3. Given the above backdrop, I thought it appropriate on this occasion to undertake a broad assessment of the evolution of our own financial markets and the issues we have been grappling with. It is critical for us to learn the right lessons from the experience of other countries in reshaping their regulatory frameworks while we debate the right model. There could be different viewpoints and perspectives but it is imperative that certain basic principles are agreed upon.

Introduction

4. Regulation of financial sector internationally is broadly guided by two objectives: prudential regulation and conduct of business regulation, including consumer protection. The four key institutional frameworks for regulation of the financial sector internationally – Institutional Approach (entity-based regulation), Functional Approach (activity-based regulation), Integrated Approach (universal regulator model) and Twin Peaks Approach (separation of prudential regulation and conduct of business regulation) – all attempt to address the above objectives through different formal structures. Post-crisis, a new dimension of 'systemic stability' is being sought to be added as another objective of financial sector regulation but the exact contours in this regard are still in the works.

5. Financial markets in India have evolved, as has the regulatory framework for them, historically in the context of a primarily bank-dominated financial system. It was only after the financial reform process was initiated in the early nineties and the regulation of banks started getting aligned to the international best practices that gradually different market elements were introduced as part of the market development agenda. This agenda focused, first and foremost, on putting in place the requisite market microstructure in terms of institutions, technology, market participants and appropriate regulations.

6. Study of the development of the financial markets in India provides an opportunity to analyse an alternate

and, more importantly, functioning model of regulation of financial markets. It may have evolved out of legacy factors and contextual considerations but in terms of regulatory orientation, this approach contained many elements of a 'systemic focus' as is being sought to be incorporated globally in the post-crisis scenario. The instruments and objectives entailed balancing the given systemic imperatives with the need for bringing about changes in a non-disruptive manner. The major elements implicit in the regulation of different market segments included the following:

- Nature of participants in the markets;
- Broad specification of products to be permitted;
- Effective reporting systems for capturing systemic information; and
- Market infrastructure

7. The absence of an efficient 'bond-currency-derivative' construct, so called BCD nexus, is sometimes held against the entire market development process. However, the conception of a synergistic, harmonised BCD nexus implies a perfect seamless market with enormous possibilities of risk-payoff combinations using some basic instruments. Implicit behind it is the efficient market hypothesis which itself is being reinterpreted. Though it might seem that the Efficient Market Hypothesis was one of fundamental, sacrosanct tenets of finance, there is a long history of divided opinion among leading academics on this issue, eloquently captured in the book 'The Myth of Rational Markets' by Justin Fox. Way back in 1984, in one of his seminal papers, Robert Shiller had commented that the Efficient Market Hypothesis was 'one of the most remarkable errors in the history of economic thought'[1]. The BCD construct is fundamentally premised on complete absence of any kind of market frictions and policy interventions. Obviously such a pre-requisite cannot be interpreted in an absolute sense and must be contingent on several factors including the state of development of markets and the broader macro-economy that is influenced by both local and global factors. There are certain macroeconomic policy objectives, in particular the capital account management framework, which need to be pursued for their own sake instead of solely addressing the need for market development. Even in the most developed of markets this 'nexus' is being made subservient to broader stability objectives, for example the restrictions placed on short selling by many regulators in the wake of the crisis. In fact, one of the major criticisms of the ongoing work by the international standard setting bodies is that their prescriptions amount to 'regulatory overreach' which severely impact market functioning.

Evolution of Markets and Market Regulation in India

8. From a regulatory perspective, one of the biggest challenges is to recognise the inherent market imperfections and build a framework around that to leverage the benefits of well-functioning, deep, liquid markets. Over more than a decade, the Reserve Bank has been firmly committed to financial sector reforms. A lot of has already been achieved with active participation of regulators, the Government, market bodies like FIMMDA, PDAI and market participants. Specifically in the area of debt markets, these achievements include the introduction of NDS-OM platform, setting up of CCPs like CCIL, introduction of short sale/When-Issued market (WI), repo in G-Sec/Corp bonds, Trade Repository (TR) for OTC derivatives, introduction of credit default swaps (CDS), *etc.* and most recently the introduction of 6 year & 13 year IRFs and electronic trading platform for IRS. But there is still much to do. There are many issues with the existing products which we need to address. I will take this opportunity to highlight those issues and measures under consideration within the Reserve Bank towards the next phase of reform and the role market bodies like FIMMDA, PDAI and market participants can play in making the market robust, efficient and liquid.

[1] Shiller, R. J. (1984), 'Stock Prices and Social Dynamics', The Brookings Papers on Economic Activity 2

Interest Rate Derivatives

9. IRS market in India is in place since 1999 and it has evolved over a period of time as may be observed from the data given in the table below. Daily trading volumes have improved significantly over a period of time. Though RBI did not mandate any benchmark for IRS, market on its own has primarily used three benchmarks *viz.*, MIBOR, MIFOR, INBMK. Of the three benchmarks currently being used in the market, MIBOR is the most liquid benchmark in IRS with a current share of around 92 per cent of total trades. Trading in other two benchmarks is almost negligible (Table 1). This is an area where efforts are required to encourage trading in other benchmarks.

10. Another issue with the IRS market is the activity being concentrated at few tenor points, mostly upto 5 year (Chart 1). In view of long term funding requirements for infrastructure sector, there is a need to develop long term IRS. FIMMDA or the Financial Benchmarks India Pvt. Ltd. (FBIL) may consider developing appropriate benchmark for long tenors which can be used by the market participants to take long tenor position in IRS. This will help in the development of term money market in India.

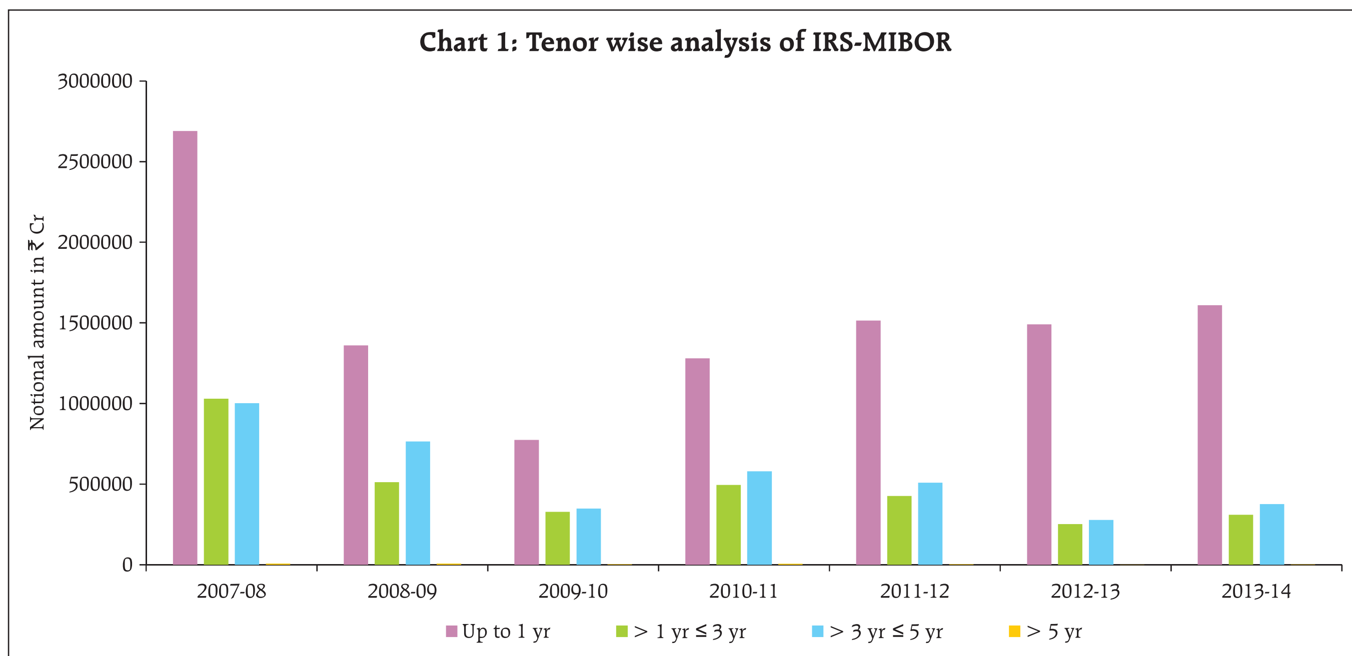
11. Further, IRS market is mostly inter-bank and customer related transactions comprise less than 1 per cent of the volume. It is also observed that the participation in IRS market is dominated by foreign banks (around 70-80 per cent of total trades) followed by private banks constituting around 12-15 per cent (Chart 2). There is a need to diversify the participation base in IRS. To encourage wider participation, Reserve Bank has allowed CCIL to introduce anonymous electronic trading platform. To address counterparty credit risk, Reserve Bank has also permitted CCIL to provide guaranteed central clearing of IRS contracts. With these measures, we expect active participation from various segments of the market. Recent introduction of anonymous trading platform with CCP

Table 1: IRS Trade Summary

(₹ in billion)

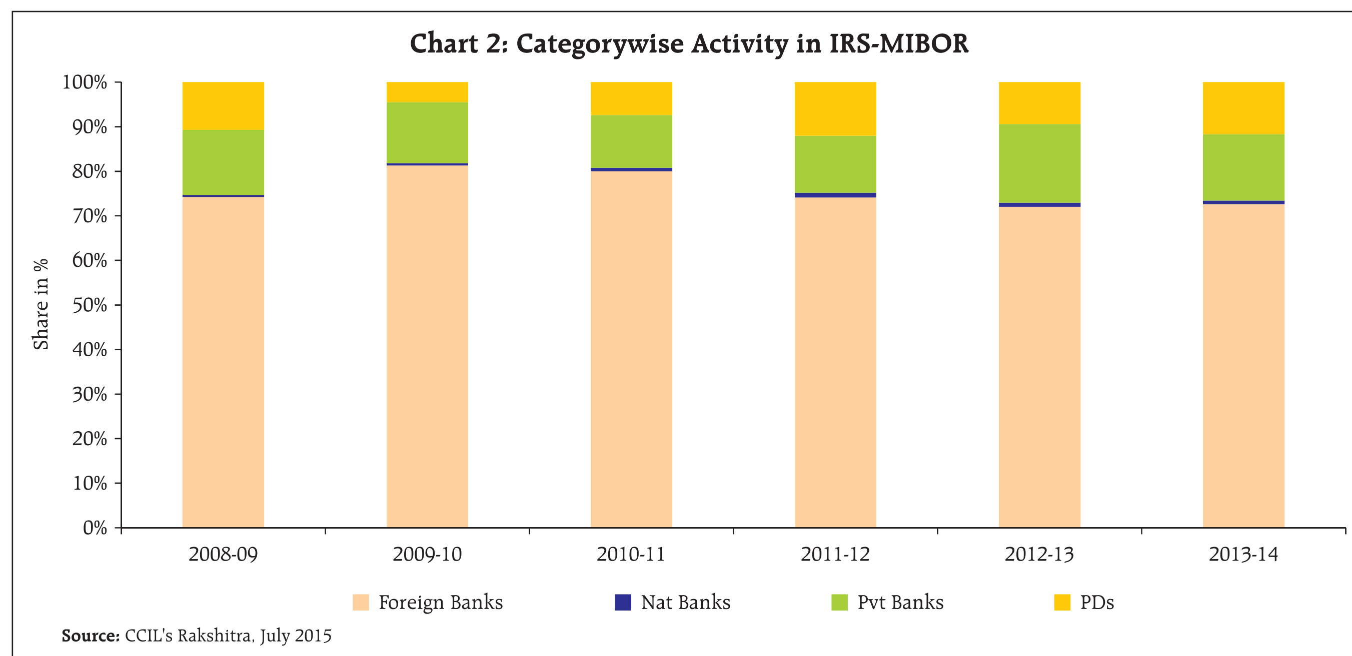
Period	MIBOR		MIFOR		INBMK		Total	
	Trades	Notional Amount	Trades	Notional Amount	Trades	Notional Amount	Trades	Notional Amount
2007-08	79495	47,281	18139	6,476	385	144	98019	53,901
	81.10%	87.72%	18.51%	12.01%	0.39%	0.27%		
2008-09	40912	26,448	4,799	2,237	132	66	45843	28,751
	89.24%	91.99%	10.47%	7.78%	0.29%	0.23%		
2009-10	20,352	14,521	1,050	539	77	51	21479	15,111
	94.75%	96.10%	4.89%	3.56%	0.36%	0.34%		
2010-11	33,057	23,597	1,291	749	150	88	34498	24,434
	95.82%	96.58%	3.74%	3.07%	0.43%	0.36%		
2011-12	33,642	24,510	2,101	1,100	14	9	35757	25,619
	94.09%	95.67%	5.88%	4.29%	0.04%	0.03%		
2012-13	22,713	20,216	1,252	754	11	6	23976	20,977
	94.73%	96.37%	5.22%	3.60%	0.05%	0.03%		
2013-14	25514	22967	1437	798	1	4	26952	23769
	94.67%	96.63%	5.33%	3.36%	0.00	0.01%		
2014-15	21153	20292	1932	1198	5	3	23090	21493
	91.61%	94.42%	8.37%	5.57%	0.02%	0.01%		

Source: CCIL's Rakshitra, July 2015

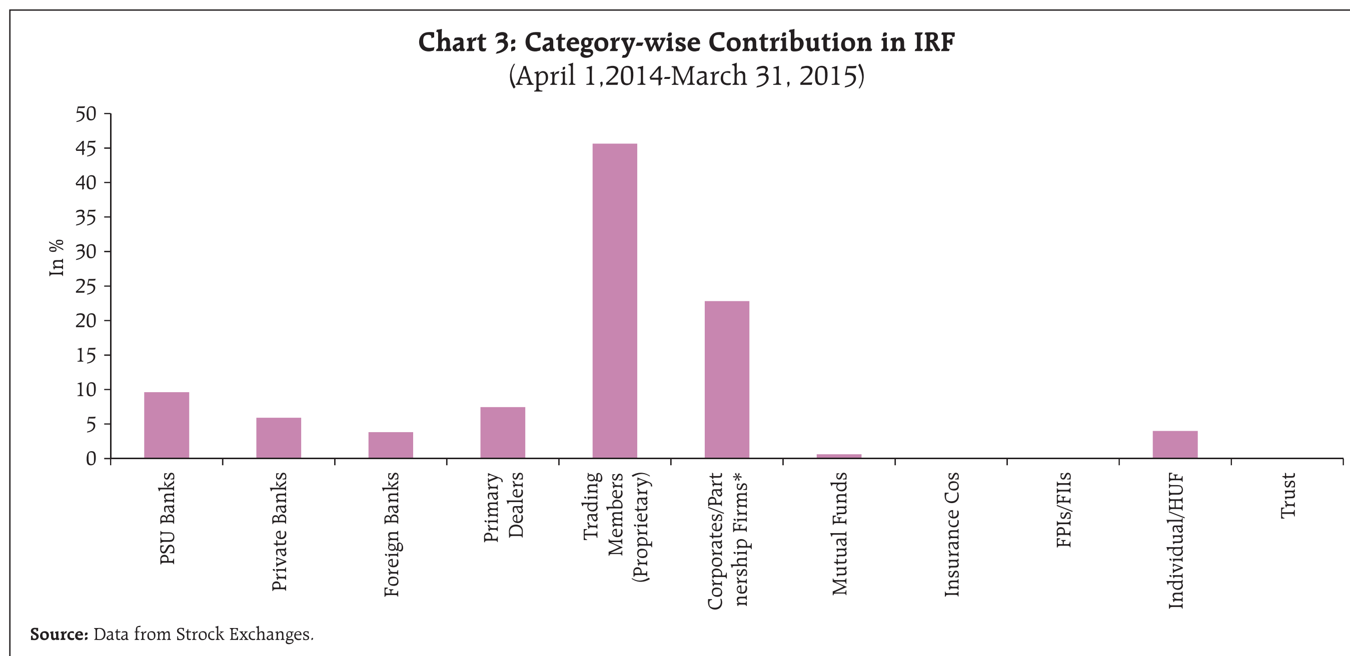


facility has many benefits like availability of transparent quotes, less documentation requirement, reduced credit risk, saving of capital, higher credit exposure *etc.* I will urge banks to actively use the interest rate derivative products like IRS and IRF to manage interest rate risk in their portfolio so that the need for seeking regulatory relief during periods of stress could be avoided.

12. When we come to Interest Rate Futures, unlike IRS, the experience was not encouraging till the launch of single bond cash settled IRF in January 2014. The earlier avatars of IRFs contracts did not attract enough market interest mainly due to illiquid securities in the underlying basket leading to fear of receiving illiquid securities in delivery based settlement and complex theoretical calculations for cash settled contracts.



Source: CCIL's Rakshitra, July 2015



Source: Data from Strock Exchanges.

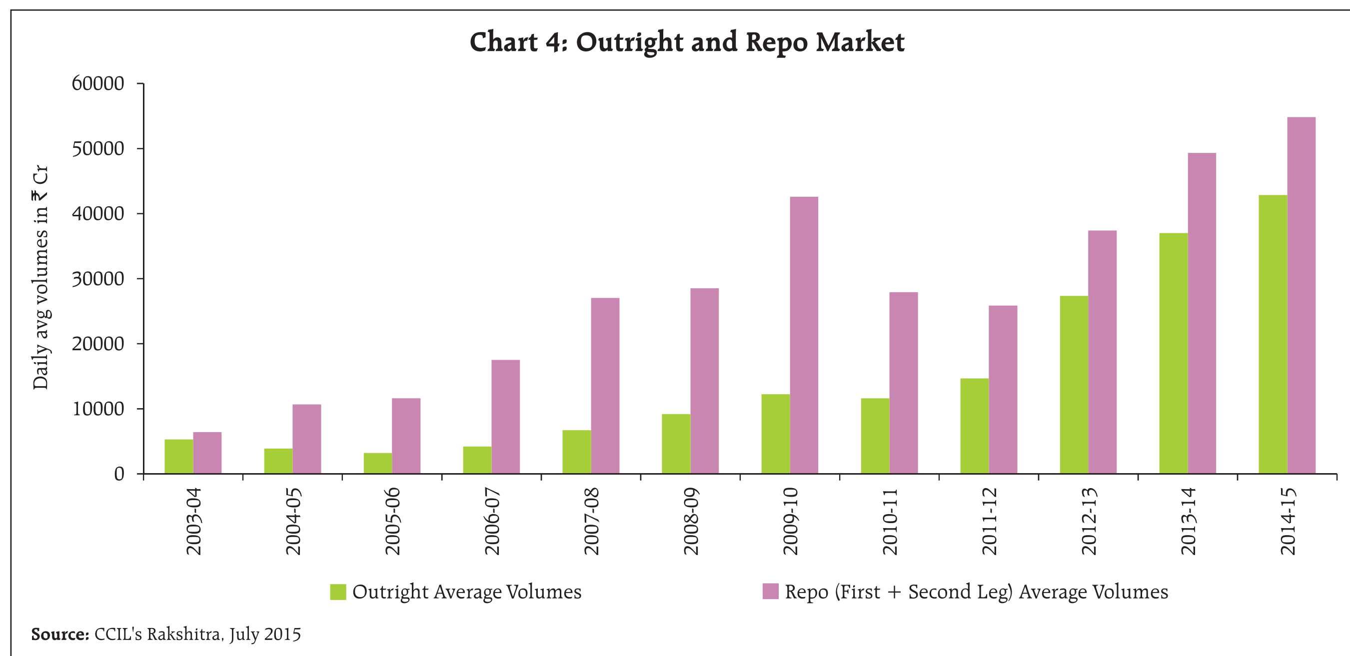
Taking into account the feedback of the market participants, it was decided to introduce cash settled single bond IRF on underlying security with residual maturity between 9-10 years. The 10 year single bond IRF has received good response from the market as the product is simple to understand and is cash settled. In view of success of cash settled 10 year single bond IRF and taking into account the request of market participants, exchanges have been permitted to introduce single bond futures for the 4-8 year bucket and 12-15 year bucket as well. Though the daily average trading volume in IRFs has shown consistent growth since its introduction in January 2014, the participation in IRF is yet to become broad based (Chart 3).

13. We also hope that now the single bond cash settled futures have seen some encouraging response from the market, the exchanges could also consider re-launching futures based on a basket, which could be a much more efficient instrument from a hedging perspective. It could also improve liquidity in some of the illiquid bonds.

Ready forward facility

14. You all know that Reserve Bank has been undertaking repo/reverse repo transactions with market participants as part of its monetary and liquidity management since 1992. Interbank repo facility in Government securities was introduced in 2003. The repo market in G-Sec, has witnessed considerable growth during the last 10 years (Chart 4). Leveraging technology and the availability of a robust clearing and settlement mechanism have been instrumental in the migration of the repo market from a pure OTC market to an electronic environment. India is among few countries to have anonymous electronic order matching platform with CCP facility for the repo market. The growth of the repo market is evident from the fact that the daily average trading volume has increased from ₹106.72 billion in 2004-05 to ₹548.28 billion in 2014-15.

15. Though the repo market has witnessed reasonable growth over a period of time, the repo market predominantly remains 'overnight'. The per cent of repo trades in the overnight to 3 day tenor bucket constitute around 95 per cent of total trades (Table 2). Measures are being taken to encourage market participants to enter into long term repo contracts. As a first step, Reserve Bank has introduced term repos of 7 and 14-days in October 2013. However, from the perspective of development of financial market, it is



Source: CCIL's Rakshitra, July 2015

important to develop term repo outside the central bank's window. Accordingly, re-repo of securities acquired under market repo was allowed in February 2015. With the availability of liquid overnight rates, the RBI term repos of various tenures and T-Bill auctions of 91 and 182 days, many of the essential tenors of term repos are present in the market which can be used to develop the term yield curve.

STRIPS (Separate Trading of Registered Interest and Principal of Securities)

16. STRIPS were introduced in India in 2010 for developing a market determined zero coupon yield curve (ZCYC) and help institutional investors in asset-liability management. Further, as STRIPS have zero reinvestment risk, it was felt that they can be attractive to retail/non-institutional investors. However, except for a few trades in 2010 (securities amounting to ₹.13 billion have been stripped till date), there has not been any activity in the STRIPS market. The Reserve Bank would review the existing guidelines with regard to including more number of eligible securities for stripping, allowing banks in addition to PDs to initiate the process of stripping and reconstitution. In parallel, FIMMDA and PDAI may conduct awareness program for retail investors, insurance companies and mutual funds to encourage their participation in STRIPS.

Table 2: Repo Term Analysis

Settlement period	O/N		2-3 days		4-7 days		Greater than 7 days	
	% to total trades	% to total value	% to total trades	% to total value	% to total trades	% to total value	% to total trades	% to total value
2010-11	68.51	65.99	27.94	31.12	2.96	2.68	0.59	0.21
2011-12	67.46	65.94	26.27	28.53	5.17	5.24	1.1	0.29
2012-13	69.06	67.82	27.13	27.75	3.49	4.16	0.32	0.26
2013-14	66.29	65.24	27.73	28.34	5.6	6.17	0.39	0.25
2014-15	67.08	65.76	27.56	28.22	5.08	5.63	0.28	0.39

Source: CCIL's Rakshitra, July 2015

Repo in Corporate Bonds

17. To improve liquidity in the corporate bond market and provide an alternate source of funding, repo in corporate debt was introduced in January 2010. Since then, the guidelines have been relaxed in terms of minimum haircut/margin requirements expanding the list of eligible bonds by allowing short term instruments like CPs and CDs as eligible underlying and allowing more entities like multilateral institutions, Government owned NBFCs, *etc.* to participate in repo market. Internationally, GMRA is used as standard document for repo transactions and the same document with suitable amendments have been prescribed in India too. Accounting norms have been revised to make it in sync with globally accepted norms. Regulatory reporting and DVP-I settlement have been prescribed to enhance transparency and reduce settlement risk. Still, participation in the repo market is almost nil. Though the Reserve Bank is aware of the structural issues of the corporate debt repo market and is examining various options to encourage activity in the repo market, FIMMDA and PDAI may discuss with their members and suggest measures for activating the corporate debt repo market.

Credit Default Swaps

18. In order to provide an avenue for participants to mitigate credit risk and enable effective redistribution of credit risk within the system, the Reserve Bank introduced CDS in the Indian market in December 2011. The guidelines on CDS were framed after extensive market consultations. However, there was hardly any market interest in the product. Subsequently changes were made in the guidelines, such as, increasing the scope of reference/deliverable obligations by permitting CDS on unlisted but rated bonds even for issues other than infrastructure companies and permitting CDS on securities with original maturity up to one year like CP, CD and NCDs as reference/deliverable obligations. But investor interest is still elusive. Major reason cited for the lack of trading interest in CDS is restriction on netting of Mark to market (MTM) position for capital adequacy and exposure norms. The Reserve Bank's extant instructions on computation of exposure arising out of OTC derivative contracts do not permit bilateral netting of exposures due to uncertainty on legal enforceability of close-out netting in the event of liquidation of statutory corporations.

19. To my mind, the issue needs to be addressed through legislative changes in one of the two possible ways: by amending Acts/Statutes that govern statutory corporations and state owned/nationalised banks, wherever applicable. Amendments to a large number of enactments, particularly in a synchronised manner, may be, however, practically difficult. Accordingly, as an alternative, a single, harmonised and uniform legislation for close-out netting with overriding powers on all other Acts/Statutes applicable to all types of banks and other entities may be enacted. This will provide transparency, comprehensiveness and clarity and provide ease of regulation and supervision to the Reserve Bank. The legislation can be a standalone law or can form part of existing laws – The Reserve Bank of India Act, 1934 or the Payment & Settlement Systems Act, 2007. Pending legislative changes, feasible options could be explored based on understanding with the Government.

20. There are examples in emerging markets which have attempted solving the netting issue, such as, the recent Malaysian example. Malaysia hasenacted unified legislation for all kinds of financial services [Financial Services Act 2013] which provides a 'safe harbour' for 'Qualified Financial Agreements' (QFAs).

Approach to market regulation

21. In order to have a more focused approach towards market development and regulation along with a surveillance system for ensuring market integrity and stability, a new department called Financial Markets Regulation Department (FMRD) has been set up at the RBI. The Technical Advisory Committee (TAC) on

Financial Markets has recently been reconstituted to guide our future agenda. Going forward, the explicit entity-neutral legal framework prevailing in India for regulation of money, interest rate and currency markets will be leveraged, to put in place a structured process focusing on (i) making market access norms easier for all participants (ii) expanding the menu of products and participants across all segments (iii) strengthening market infrastructure in line with global standards; and (iv) leveraging the market and surveillance mechanism for policy inputs.

Interest Rate Options

22. In line with the above approach, introduction of interest rate options in the Indian market is a key part of agenda. A Working Group has already been constituted under the TAC to comprehensively look into all relevant issues and give its recommendations on the product design.

23. The Committee is deliberating on the hedging requirement for these options. For retail participants, a small threshold without explicit underlying requirement is being considered. This would help retail participants and small enterprises to hedge their risk without much documentation burden. For larger corporates, while the underlying exposure requirement may be necessary, but similar to forex hedging, concept of 'anticipated interest rate exposures' is being explored.

Review of FPI Limits

24. The limit for FPI investments in Government securities in India has been part of the larger framework for capital account management. The risks of sovereign borrowing in foreign currency, the 'original sin', have been extensively analysed over the years, particularly after the Asian crisis in the nineties. The concerns relating to sudden stops, however, are as relevant for domestic currency denominated debt as foreign currency debt. It is therefore imperative to balance the benefits of lower yields in normal times and the costs associated with increased volatility and yield impact in crisis times.

25. The Governor has recently announced a Medium Term Framework in this regard, which includes:

- A target of what fraction of the sovereign bond market will be constituted by FPIs in the medium term.
- Announcement of staggered increase in limits every six months and these being released on monthly/quarterly basis
- Limits to be specified in Rupees so that they do not vary with exchange rate movement.

The Framework will create space for participation of different kinds of investors (long term investors, such as, Pension Funds and Sovereign Wealth Funds as well as medium term investors and those coming through International Central Security Depositories, such as, Euroclear and Clearstream.

26. We are in dialogue with the Government. Once the Framework is decided, we may wait for suitable market conditions, including possibly greater certainty about the Federal Reserve actions and appropriate liquidity conditions in domestic markets, before making a public announcement.

Permitting other regulated entities in OTC derivatives and repos

27. As I have mentioned above, explicit regulation of OTC markets is one of the cornerstones of the financial sector regulatory framework in India. With the gradual strengthening of the market infrastructure, greater participation of different entities in the OTC derivatives market can be considered other than the Reserve Bank regulated entities. It is proposed to explore various options in consultation with the Government and other regulators to permit a wider set of regulated entities greater access to OTC derivative markets subject to the laid down reporting requirements.

Electronic dealing platform for repo in corporate bonds

28. Guidelines on repo in corporate debt were issued in January 2010. Since then, the guidelines have been relaxed in terms of minimum haircut/margin requirements and allowing more entities like multilateral institutions, Government owned NBFCs, *etc.* to participate in repo market. However, there is very limited trading volume in corporate debt repo market. In order to develop the repo market, it is proposed to introduce an electronic dealing platform for repo in corporate. To begin with, a Request for Quote System could be considered and depending on market response, it could slowly graduate to a full-fledged order matching system.

Review of guidelines on repo in G-Sec and corporate bonds – expanding participation base and relaxing certain conditions

29. Existing repo guidelines also put various restrictions on entities accessing the repo market through CSGL route, *viz.*, prohibition on repo transactions between primary member and its client and two clients of the same custodian, *etc.* We are in process of reviewing these guidelines to facilitate wider participation. Since one of the subtheme of the conference is 'Term Rate Structure and Transmission of Rates'. I will urge the panel members to discuss these issues relevant for further development of the repo market and forward their comments to the RBI.

Triparty Repo

30. Internationally, various jurisdictions have moved to tripartite repo to improve operational efficiency in the repo market. In India, CBLO is somewhat akin to tripartite repo. However we do not have true tripartite repo. Substitution of securities in repo transactions is not permitted in India. This has discouraged borrowers to enter into repo transactions for long tenors. Though introduction of re-repo has created enabling environment for lender of funds to go for long term funding, borrower of funds continue to have the problem of securities being blocked for longer period. It is argued that the introduction of tripartite repo in G-Sec which allows substitution of securities will encourage market participants to enter into repo contracts for longer tenors. The Working Group on Enhancing Liquidity in the Government Securities and Interest Rate Derivatives Markets (Chairman: Shri R Gandhi) has also made the recommendation and the Reserve Bank is in process examining the recommendation.

Market making in Government securities

31. Secondary market liquidity in the Government securities market has grown substantially in absolute terms during the past one decade. However, it is observed that the secondary market trading in is limited to about eight-ten securities out of a total number of 86 securities. In fact, of late, liquidity in bond markets is becoming a problem in many countries for various reasons. For better monetary transmission, it is necessary to improve liquidity across yields curve. The issues have been examined in detail by the Gandhi Committee and recommendations made by the Committee are being implemented in phased manner.

32. One of the recommendations which is crucial for enhancing liquidity across the maturity spectrum is introduction of market making scheme for the PDs. Various options have been discussed with PDs in last few months, and a model based on market feedback is being discussed with the Government. I would also suggest that PDs may consider providing two way quotes for liquid securities in various tenors in the odd lot segment. The list of securities can be identified and published by PDAI on quarterly basis. This will not only encourage participation of retail and small investors in the G-Sec market but would also act as stepping stone towards implementation of market making scheme in the interbank market. The RBI on its part would evaluate the proposal of allowing higher shorting limits for such securities to facilitate PDs to provide two way

quotes.

Review of guidelines on LAF accounting

33. The revised accounting guidelines for market repo transactions in government securities and corporate debt securities were issued in March 23, 2010. These guidelines recognised the economic essence of a repo transaction as a collateralised lending and borrowing transaction, with an agreement to repurchase, on the agreed terms. These were, however, not to apply to repo/reverse repo transactions conducted under the Liquidity Adjustment Facility (LAF) with the RBI. We are in the process of converging the LAF accounting norms as well to the market repo norms. In line with market repo guidelines, securities acquired by entities under LAF reverse repo would be eligible for SLR. Further, we are also examining the feasibility of making these eligible for re-repo. This may significantly contribute to the development of a term money market.

Electronic trading platforms for OTC derivatives

34. Electronic trading and central clearing for all OTC derivatives has become one of the fundamental principles of the reform of the financial markets. Several models are being implemented globally (US, UK, EU) to bring trading of OTC derivatives onto electronic platforms with a central clearing. In India, CCIL has emerged as the major CCP for a large segment of OTC markets and is one of the recognised QCCP, apart from the three CCPs under SEBI. CCIL is also subjected, on an on-going basis, to rules and regulations that are consistent with the Principles for Financial Market Infrastructures (PFMIs) issued by the Committee on Payment and Markets Infrastructure (CPMI) and International Organisation of Securities Commissions (IOSCO).

35. Ideally all trading pools on whatever platform must have access to such a CCP arrangement. We are in the process of preparing a broad policy framework, based on consultation with all stakeholders, on authorisation of Electronic Trading Platforms for various asset classes and their access to CCP facilities.

Issue of Rupee Bonds Overseas

36. The Reserve Bank had issued draft guidelines for public feedback on issuance of Rupee bonds overseas. Several comments have been received and the final guidelines are expected to be issued shortly covering a comprehensive review of the ECB guidelines. It is recognised that while the issuance of Rupee bonds will broadly be under the ECB norms, a differential set of criteria would be required for such issuances. The objective would be to prescribe a simpler regime addressing many of the issues raised by the respondents. Given the fact that the currency risk would be borne by the investors, from an external debt perspective, raising of funds through the Rupee bond issuance should sit a tad higher in the hierarchy of preferences under the overall external debt framework.

OTC market reforms – Cross border issues

37. The ongoing international efforts towards strengthening OTC markets are taking place at two levels:

- Global standard setters' overarching frameworks and principles ensure that changes are implemented in an internationally consistent and non-discriminatory way;
- National authorities putting in place the appropriate legislation and regulations

38. However, considerable work needs to be done in the area of equivalence and substituted compliance across jurisdictions. Blanket application of such requirements, without recognition of the country-specific requirements, may have unintended consequences for the development of markets. I would like to highlight the challenges being faced in us in three specific areas:

Central Counter-parties

39. The approach being adopted in major international

jurisdictions with regard to CCP requirements have raised concerns over possibilities of extra territorial regulatory jurisdiction leading to regulatory conflict and disruptions for market activity. For instance, European Market Infrastructure Regulation (EMIR) and the Commodity Exchange Act (CEA) as modified by the Dodd-Frank Act contain prescriptive rules that may prevent European/US banks from participating in third-country clearing houses that have not applied for recognition by the European Securities and Markets Authority (ESMA) or that are not registered as a Derivatives Clearing Organisation (DCO) as per CFTC regulations. While the discussions are still on, the uncertainty over the inconsistencies between EU and US rules, the process and timeline for equivalence assessments may affect the trust in the functioning of international financial markets and may have impact on progress of implementation of G-20 reform agenda.

Trade Repositories

40. As per FSB commitments, jurisdictions should remove barriers to trade reporting by market participants, with particular attention to removing barriers to reporting of counterparty information and to information access by authorities. However, a distinction may need to be made between barriers to reporting to a domestic TR and reporting to foreign TR. As long as the one leg of the transaction is being reported to any one recognised TR in any jurisdiction, no other sharing requirement may be needed at the individual entity level. Efforts should be made to make the global TRs talk to each other, which could be greatly facilitated after full implementation of the LEI regime. Such measures would also reduce cost of compliance for the market participants without compromising on regulatory effectiveness.

41. The Payment & Settlement Systems Act in India (under which the TR is now governed) has enabled the RBI to disclose such document/information to any person, if it considers necessary in protecting the larger public interest. At the entity level, sharing of client/counterparty data with third party, which includes a non-domestic TR, is governed by the contractual relationship and being done after obtaining customer consent. Entities are expected to keep into consideration the provisions under the various statutes, rules and case laws dealing with bankers' duty of confidentiality of customer information and the secrecy obligations.

Benchmarks

42. The European Commission has released a proposed regulation 'on indices used as benchmarks in financial instruments and financial contracts'. 'Users' of benchmarks which are EU supervised entities may not use benchmarks provided by non-EU benchmark administrators from jurisdictions which do not satisfy an equivalence requirement. There is an urgent need for all jurisdictions to agree to a set of harmonised equivalence criteria to avoid any unintended consequences.

Conclusion

43. My limited objective behind sketching a broad canvas of our past and ongoing efforts was to bring home the point that development of financial markets is a complex web of various underlying factors and processes which need to synergistically come together. While it definitely cannot happen by a regulatory fiat, regulatory nudges are indeed necessary. It is an incremental process based on adaptive learning. While central banks, as extended financial regulators, have been enjoined upon greater responsibilities in the post-crisis context, they have also been at the center of criticism for not getting the balance right. This is a judgement issue and policy makers are expected to carry out this responsibility within a broad set of principles and an understanding shaped by various adaptive learning processes. It is difficult to codify this into a set of simple rules/laws. The draft Indian Financial Code (IFC), though an ambitious attempt in this direction, leaves large gaps unaddressed.

44. Any exercise to reshape the legislative architecture of the financial sector should evolve organically, starting with an objective reassessment of where the current system has failed. In this regard it is pertinent to note the observation of Joseph J. Norton, that 'each country situation is sui-generis, with the best, informed decision dependent on and taking regard of local historical, social, economic, financial market, regulatory and political factors and conditions.'[2] This is particularly important when there are many open ended policy issues which are being debated internationally. Post-crisis, there has been a comprehensive reassessment internationally of the approaches to financial regulation marked by clear shift in preferred models. The realignment in UK with the prudential regulation coming back to the Bank of England was the strongest statement against the pre-crisis regulatory philosophy which lies at the core of some of the current proposals.

45. We are fortunately not faced with severe system failures, the key trigger for other countries to overhaul their frameworks. There is therefore no reason for a hasty, radical revamping. It must be kept in mind that from a public policy perspective the risk of getting the systemic costs and benefits wrong can be very serious as has been borne out by experience of many Asian and Latin American economies in the past few decades. The lessons of the last crisis are getting crystallised and addressed through the work of various international bodies such as the FSB, BSBC, CPMI, IOSCO *etc.* where India is a prominent member. Significant changes can be and are being brought about through this process itself towards achievement of the same objectives.

46. The way forward should necessarily emerge out of a broad policy agreement and shared commitment among various stakeholders including the Government, the regulators and the market participants about the direction and outcomes of the process. There should be a healthy, informed and robust debate on the specific issues. While there may be multiple expert committees giving their recommendations, the terms of the debate need to be set and discussed threadbare by the key policy stakeholders. Industry bodies such as FIMMDA and PDAI must contribute actively to this debate and provide meaningful feedback to the policymakers.

Thank you very much for a patient listening.

[2] Joseph J. Norton, Global Financial Sector Reform: The Single Financial Regulator Model Based on the United Kingdom FSA Experience – A Critical Re-evaluation, 39 INT'L LAW. 15, 19 (2005).

*Disruptive Innovation and Inclusive Growth – Some Random Thoughts**

R. Gandhi

Friends,

Disruptive Innovation

2. By this time, I am sure, you all have heard any number of times through these two days what a disruptive innovation is. Let me make you hear that one more time that it is an innovation that helps create a new market and value network and eventually disrupts an existing market and value network over a few years, displacing an earlier technology.

3. The theory of disruptive innovation was invented by Clayton Christensen of Harvard Business School in his book 'The Innovator's Dilemma'. Mr Christensen used the term to describe innovations that create new markets by discovering new categories of customers.

Inclusive Growth & Disruptive Innovation

4. The main theme of this FIBAC 2015 is 'Inclusive Growth with Disruptive Innovations'. I am sure that you all had very good discussion on such innovations in the banking arena, both of international and domestic. Let me share with you my own thoughts on the subject.

5. To start with, I find a natural coherence and congruence between disruptive innovation and inclusive growth. Both the concepts, by definition, aim at impacting people at the bottom of the pyramid. Disruptive innovations usually find their first customers at the bottom of the market: as unproved, often unpolished, products, they cannot command a high price. Likewise, inclusive growth targets the hitherto excluded segments of the population. It allows a whole new population at the bottom, access to a product or service that was historically only accessible to a few with a lot of money or a lot of skill.

Financial Inclusion and Disruptive Innovation

6. A key element of the inclusive growth is financial inclusion. Here is where we have been observing the power of disruptive innovations. This is partly by harnessing new technologies, primarily the information and communication technology, more specifically the mobile technology; and also by developing new business models like the Business Correspondent (BC) model and exploiting old technologies and procedures like lending in new ways like the micro finance.

7. The new business model also included new type of accounts, called the Basic Savings Bank Deposit Accounts (BSBD), besides the issuance of RuPay Cards. The results are encouraging. As at the end of March 2015, the Banking Outlets in Villages in Branchless mode, which is primarily through BCs were 5,04,139 and the urban BCs were 96,847. The BSBD accounts were 398 million and the balance in them was ₹438.3 billion. The Prime minister's Jan Dhan Yojana has given a special fillip to these.

8. A parallel development relates to the issuance of Aadhaar cards and ceding the cards to bank accounts. It is reported that more than 817.8 Aadhaar numbers have been issued by April 2015 and the number is still increasing. Of course, it is another matter that the recent Supreme Court interim judgment has put the scheme in a tight corner and we hope that it will soon be resolved.

9. Next element is the use of mobile technology. The great expanse of mobile coverage, the number of people having the handsets, the mobile banking products and services are all at a critical point for high leveraging to usher in financial inclusion and inclusive growth.

* Valedictory Speech delivered by Shri R. Gandhi, Deputy Governor, Reserve Bank of India at FIBAC 2015, Mumbai on August 25, 2015.

Financial Inclusion and Disruptive Innovations in Regulation

10. Now, let me present before you some of the disruptive innovations through regulation with the ultimate goal of furthering inclusive growth. These innovative initiatives, under the caption of differentiated banks, are primarily to further financial inclusion, which is an integral part of inclusive growth strategies.

Differentiated Banks

11. The concept of differentiated banks was first discussed in 2007; but it was felt that the time was not yet opportune for such banks. Thereafter, the concept was once again discussed in a paper 'Banking Structure in India - The Way Forward', brought out by the Reserve Bank in August 2013. The paper looked into various aspects of the banking structure, licensing of banks, banking models and suggested a transition path for some banks.

12. In that paper, we had noted that despite significant progress, one aspect of banking in India that required deeper analysis was the still inadequate coverage of the banking and financial sectors. We observed that even with the then 157 domestic banks operating in the country [comprising 26 Public Sector Banks, 7 New Private Sector Banks, 13 Old Private Sector Banks, 43 Foreign Banks, 4 Local Area Banks (LABs), and 64 RRBs], just about 40 per cent of the adults had formal bank accounts. Deepening the engagement of formal banking for low income households and providing access to the unbanked would require increasingly innovative approaches (including channels, products, interface, *etc.*).

13. Part of the improved engagement was to ensure enhanced access to credit for small and medium enterprises (SMEs), which were expected to be the major contributors to future growth and employment creation. Credit to SMEs would require an innovative combination of banks, private equity.

14. We said that with the broadening and deepening of financial sector, some banks may choose to operate in niche areas so as to reap certain obvious advantages in terms of managing business and risk management. Some countries, as we noted, have differentiated bank licensing regimes where differentiated licenses are issued, specifically outlining the activities that the licensed entity can undertake. With the broadening and deepening of financial sector in India, we saw a need that banks move from the situation where all banks provide all the services, to a situation where banks find their specific realm and mainly provide services in their chosen areas.

15. In September 2013, we set up a Committee headed by Shri Nachiket Mor, on Comprehensive Financial Services for Small Businesses and Low-Income Households to look into the issues relating to financial inclusion. The committee came up with two broad designs for the banking system in the country - the Horizontally Differentiated Banking System (HDBS) and the Vertically Differentiated Banking System (VDBS) based on the functional building blocks of payments, deposits and credit.

16. In a HDBS design, the basic design element remains a full-service bank that combines all three building blocks of payments, deposits, and credit but is differentiated primarily on the dimension of size or geography or sectoral focus. In a VDBS design, the full-service bank is replaced by banks that specialise in one or more of the building blocks of payments, deposits, and credit. Among others, the Committee suggested licensing of Payments Bank and wholesale banks as differentiated banks.

17. The Nachiket Mor committee opined that in the Indian context it would be important to have the regulatory flexibility to approach payments, savings, and credit independently (the Vertically Differentiated Banking Design) and to bring them together when the efficiency gains are high and the other costs are low.

18. Taking into account all these recommendations and the feedback to the Discussion paper, we concluded that differentiated licensing would be a desirable step and accordingly in November 2014 we announced our intention to grant licenses to two types of differentiated banks *viz.*, the Payment Banks and the Small Finance Banks.

Payment Banks

19. Payment system has been proving to be the arena where new ideas, products and services have been successfully introduced. Starting from the Real Time Gross Settlement System (RTGS), the National Electronic Funds Transfer (NEFT) system, the Pre and Post Paid Instruments, the card present and absent transactions, the different types of e-wallets and to the mobile banking products, we have been experiencing a payment revolution in our country.

20. The next biggest contributor to this is going to be the payment banks. Just the other day, we, the Reserve Bank, have granted in principle approval to eleven entities to form payment banks. Payment Banks are a part of the disruptively innovative regulatory initiatives of the Reserve Bank for financial inclusion, which will lead to inclusive growth. These banks have been structured with the specific mandate to further financial inclusion. As we said clearly in the Guidelines for Licensing of Payment Banks, the objective of setting up of payments banks will be to further financial inclusion; the strategies will be by providing (i) small savings accounts and (ii) payments/remittance services to migrant labour workforce, low income households, small businesses, other unorganised sector entities and other users. The scope of the activities permitted for the Payment Banks included:

a. Acceptance of demand deposits. Payments bank will initially be restricted to holding a maximum balance of ₹100,000 per individual customer

b. Issuance of ATM/debit cards

c. Payments and remittance services through various channels

d. BC of another bank and

e. Distribution of non-risk sharing simple financial products like mutual fund units and insurance products, *etc.*

21. As you can see, the scope has been carefully crafted to sub-serve the primary objective of furthering financial inclusion. We have also insisted that the Payment Bank should be a fully networked and technology driven institution. You will appreciate the relevance of this, if you will recall that when we had announced the policy guidelines for licensing new banks way back in 1993, one of the requirements was that they should be *ab-initio* technologically driven banks and the resultant new era of information technology based banking that the country could enjoy in these twenty odd years. In the same way, we are confident that the Payment Banks will further revolutionise the payment arena.

22. The other day, someone compared emergence of payment banks to the emergence of telecom towers. He said in the telecom industry, every telco initially created its own tower system and it made it a high cost venture and the growth was limited to the affluent segment. Then came the trend of separating the tower infrastructure from the telco, and the tower became a market infrastructure where all telcos could ride on. What followed is the amazing and exponential expansion of mobile services, covering almost the entire population and at low and affordable cost, all the while continuously improving the quality and latest offerings as well. Similarly, we may be seeing with the advent of payment banks, the universal banks may shed of costly payment infrastructure which includes high cost physical locations and assets and ride on the common, technology based, low-cost payment

infrastructure that will be ushered by the payment banks, and this can bring forth exponential growth in banking services to the hitherto excluded population. The result will be financial inclusion and inclusive growth.

Small Finance Banks

23. A parallel major disruptive innovative change for inclusive growth will be the advent of Small Finance Banks. As we observed in our 2013 Discussion paper on Banking Structure mentioned earlier, country-level studies show that small banks may perform very differently from large banks. Greater access to local information, greater commitment to local prosperity, differences in costs and risk management, and competition policy could explain the specific influence of such type of banks on local economic development. In developing countries where economic development is hampered by insufficient and inadequate access to financial services in rural areas, small banks could improve financing opportunities to small and medium size enterprises and encourage entrepreneurship.

24. Consequently, we announced in November 2014 that we would grant licenses to small finance banks, a new set of differentiated bank. The objective of setting up of small finance banks, like the payment banks, is also to further financial inclusion; however, it is sought to be achieved through a different set of strategies *viz.*, (i) provision of savings vehicles primarily to unserved and underserved sections of the population, and (ii) supply of credit to small business units; small and marginal farmers; micro and small industries; and other unorganised sector entities, through high technology-low cost operations.

25. One may say that the small finance banks, or the Payment Banks are not the first set of differentiated banks; the country had tried and tested, with differing degrees of success, the concept of differentiated banks and in particular the small banks, though they were not called so then, in the form of Regional Rural Banks, way back in 1974 and the Local Area Banks in 1996. However, while these small banks had the potential for financial inclusion, performance of the RRBS and LABs had been unsatisfactory. There were fundamental weaknesses inherent in the business model of such small banks, like the narrow capital base, restrictive geographical jurisdiction, lack of diversification in source of funds and the concentration risk.

26. Therefore, as you will see that we have carefully crafted the scope of Small Finance Banks to sub-serve the primary objective of furthering financial inclusion, thereby inclusive growth. The small finance bank, in furtherance of the objectives for which it will be set up, shall primarily undertake basic banking activities of acceptance of deposits and lending to unserved and underserved sections including small business units, small and marginal farmers, micro and small industries and unorganised sector entities. It can also undertake other non-risk sharing simple financial services activities, not requiring any commitment of own fund, such as distribution of mutual fund units, insurance products, pension products, *etc.* with the prior approval of the Reserve Bank and after complying with the requirements of the sectoral regulator for such products. The small finance bank can also become a Category II Authorised Dealer in foreign exchange business for its clients' requirements. There will not be any restriction in the area of operations of small finance banks. It is expected that the small finance bank should primarily be responsive to local needs.

27. It will be required to extend 75 per cent of its Adjusted Net Bank Credit (ANBC) to the sectors eligible for classification as priority sector lending (PSL). While 40 per cent of its ANBC should be allocated to different sub-sectors under PSL as per the extant PSL prescriptions, the bank can allocate the balance 35 per cent to any one or more sub-sectors under the PSL where it has competitive advantage.

28. The maximum loan size and investment limit exposure to a single and group obligor would be restricted to 10 per cent and 15 per cent of its capital funds, respectively. Further, in order to ensure that the bank extends loans primarily to small borrowers, at least 50 per cent of its loan portfolio should constitute loans and advances of upto ₹2.5 million.

29. How are these Small Finance Banks going to be game changers? Let me explain our thought process. First, whom are we targeting to form the Small Finance Banks? The Guidelines for Licensing Small Finance Banks indicated that resident individuals/professionals with 10 years of experience in banking and finance and Companies and Societies owned and controlled by residents will be eligible as promoters to set up Small Finance Banks. The Guidelines also said that existing Non-Banking Finance Companies (NBFCs), Micro Finance Institutions (MFIs), and LABs that are owned and controlled by residents can also opt for conversion into small finance banks. We received 72 applications and as you would have noted, 41 among them are existing NBFCs, MFIs and LABs and 12 are individuals/professionals. The MFI-NBFCs registered with us are 65 and their resources are limited to their own equity, borrowing from banks and market borrowings. They are not permitted to access low cost or why, even any deposit. Despite such constraints, they have serviced 25.5 million accounts/customers and had a credit portfolio of ₹277.34 billion as at end March 2015. Likewise, the NBFCs also typically depend on their own equity, bank funding and market borrowings for their resources. Out of the 11,842 registered NBFCs as at end March 2015, as many as 11,622 cannot accept deposits. The credit portfolio of these NBFCs stood at ₹11,169.24 billion as at the end of March 2015. The LABS, as of now, cannot expand their services beyond the few districts permitted for them. Their credit portfolio amounted to ₹13.18 billion as at the end of March 2015. These entities are in the financial inclusion arena – MFIs by definition and the NBFCs and LABs by serving the unserved or underserved segments of population and economy. If these MFIs, NBFCs and LABs could achieve this level of penetration with such constraints as they operate today, if such established entities would become Small Finance Banks, with access to low cost deposits, all-India operations and the discipline of banks can cater to much wider unserved, underserved and excluded segments. With their USP of service at door step, flexible times, cash-flow based credit assessment, minimum documentation, continuous monitoring, hand-held manual ATMs, these Small Finance Banks can totally alter the face and definition of banking. Post their success, I am sure, text books will redefine the concept of banking, reflecting these entities functioning, than the brick and mortar universal banks.

Undesirable and Questionable Disruptive Innovations

30. While so far we have discussed certain disruptive innovations which we support, we also need to discuss certain other innovative developments which have the potential to be disruptive of course, but not of so desirable, or of questionable, relevance, or at least we need to be carefully monitoring and be vigilant. In particular, I want to discuss two developments – digital money or crypto currency and crowd funding.

31. What is crypto currency? Crypto currency is a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.

32. What is crowdfunding? Crowdfunding is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically *via* the internet. Crowdfunding is a form of alternative finance, which has emerged outside of the traditional financial system.

33. Are these disruptive innovations for inclusive growth? Both these developments are based on leveraging technology in unusual way, so they are innovative; both have the great potential to be disturbing the standard ways in which currency and credit systems are operated, and so are disruptive. Do these developments have potential implications for financial inclusion? Yes, of course; they both can assist financial inclusion and therefore inclusive growth. Crypto currency can support activities which do find difficulties in settling such transactions in the normal ways. The crowdfunding can help some funds needy person or entity, in searching and locating those who have the particular aptitude and willingness to help that person or entity, as only such people/entities respond to the crowdfunding call. This way both can support financial inclusion.

34. Then, why do I say that they may not be desirable? Why do I say that they may be questionable? For one thing, they both hope to operate in a regulator free environment. In matters financial, it is a quintessential received wisdom of several centuries that unregulated financial system has immense scope for depriving ordinary public of their hard earned money and therefore highly risky to be permitted to grow. It doesn't stop there; there will be no enforcer as well. This is extremely risky, especially when such a system operates internationally. It is true that in crowdfunding there will be a platform which does have the role of an enforcer. However, its effectiveness is questionable and mostly one-sided. Secondly, both have the potential to support criminal, anti-social activities like money laundering, terrorist funding and tax evasion. While we do not have any reported instances of crowdfunding in this respect, crypto currencies have been widely suspected to finance criminal activities. We have to be carefully and critically watching these developments. That is why I said these innovative developments which have the potential to be disruptive, may not be of so desirable, or may be of questionable, relevance and merit.

Conclusion

35. To conclude, we find that several disruptive innovations in the financial sector have immense demonstrated potential to further inclusive growth through financial inclusion. Country is getting fruits of such labour. Financial regulations also are supportive of disruptive innovation and they also employ the same. However, we need to be cautious about certain other disruptive innovations which have potential to be highly risky and can be destabilising.

36. Thank you all for patient listening!

*Strong Financial Services Sector: Imperative for Sustainable Growth**

S. S. Mundra

Good Morning to you all!

I am pleased to be here this morning to speak to the delegates of this International Conference and I thank ICAI for providing me this opportunity. As you all know, the theme of this morning's session is 'Financial Services Sector - Agenda for Sustainable Growth' and as somebody who has spent his entire professional life in the banking sector - first as a commercial banker and now as a Central banker, I would speak with a particular emphasis on banking sector.

Introduction

2. Let me begin by taking you back to South Korea of the year 1997. The 'grey-haired' amongst you would recall that in the period leading up to 1997, the Korean economy as also the other 'tiger' economies in the South East Asian Region had expanded by 6 per cent to 10 per cent on an annual basis. Buoyed by expectations of rapid growth and expansion, the chaebols (family-owned business conglomerates) in Korea had raised significant amounts of foreign funds for investment in building industrial capacity. However, as the economic growth slowed down, the debt problem started to accentuate and one of the chaebols, Hanbo collapsed under a US$ 6 billion debt load. The company had decided in 1993 to build the world's fifth largest steel plant and there was cost escalation of the project from Won 2,700 bn to Won 5,700 bn while the steel demand had turned sluggish. The situation deteriorated further in July 1997 when Kia, Korea's third largest car company asked for an emergency bank loan to avoid bankruptcy. These events prompted international credit agencies to downgrade the ratings of Korean banks with heavy exposure to the chaebols and thus, began the financial meltdown in Korea.

3. Of course what is widely known as the 'Asian Financial Crisis' had begun earlier on February 5, 1997 in Thailand when a Thai property developer failed to make a scheduled interest payment on its eurobond loan. The business model of financial institutions in Thailand was built around issuing eurobonds denominated in US dollars to benefit from the interest rate differential between dollar denominated debt and Thai debt and using the proceeds to fund property development. By January 1998, the stock markets in many of these economies had lost over 70 per cent of their value, currencies also depreciated by a similar extent and many had to seek IMF assistance.

4. My purpose in beginning the address by narrating these events is to highlight typically how problems unfold in a crisis. The problem often begins with banks taking excessive exposure (concentration) to a particular sector or sectors, the corporate increasing their leverage manifold and investing in creating excess capacities. Unraveling of the risks could perhaps still be managed if the banks' capital positions were strong, but if that is not the case, risk manifests itself in all its dimensions. Leveraged positions created out of borrowed money from abroad for funding growth in domestic markets add another twist to the tale. Once home currency depreciates, debt servicing becomes a challenge for corporates holding large unhedged positions. If there are large scale borrowings by various corporates, this debt crisis could easily degenerate into a full-blown currency crisis.

5. The financial crises typically take the form of currency, debt or banking crisis and have severe consequences for the economy. A question that begs an answer at this stage is why financial crises happen? There are, of course, many reasons - some economic, some social and some political. While we would leave

* Keynote address by Shri S. S. Mundra, Deputy Governor, Reserve Bank of India at the ICAI International Conference 'Accountancy Profession: Spearheading Excellence' on August 9, 2015 at Indore. Assistance provided by Shri Sanjeev Prakash is gratefully acknowledged.

a detailed discussion on this issue for another day, suffice to say at this stage that the origin of all crises can be traced to a weakness in the underlying structure and an all-round failure to exercise self-restraint and lack of adherence to the established framework. In fact, the ground for the 2008 financial crisis was created by a prolonged period of easy monetary policy, consequent mispricing of risks, a search for yield by the market intermediaries and an inadequate supervision over market behavior.

India Today

6. Looking at the Indian scenario today, one can't avoid some comparison with the events in the South East Asian economies of 1997-98, though the degree of severity differs widely. Let me take the example of the steel sector. Bank loan to the steel sector in India has witnessed a 21 per cent CAGR over the past five years and broadly ranges between 4 to 9 per cent of individual bank's loan book. Banks' total exposure to the steel sector stands at ₹3 lakh crore while the net sales for the companies within the sector also stands at around ₹3 lakh crore with an EBIDTA of ₹37,000 crore. The level of stressed assets in the sector exceeds 27 per cent. Large capacities are lying idle as global/domestic demand conditions have weakened. Further the capacity expansion has been done using excessive leverage. These pointers definitely raise concerns.

7. Excessive leverage by the borrowing corporates is not limited to the steel sector alone. The Global Financial Stability Report released by IMF recently has noted that 36.9 per cent of India's total debt is at risk, which is among the highest in the emerging economies, while India's banks have only 7.9 per cent loss absorbing buffer, which is among the lowest. An analysis of a sample of 3,700 companies by Credit Suisse has highlighted that 37 per cent of the debt held by these companies is with companies having interest coverage less than 1. There may be valid questions around the assumptions made in deriving these conclusions, but the underlying direction cannot be ignored.

What are the consequences of a weak financial sector?

8. Let me answer it differently. Financial sector facilitates risk-sharing by reducing information and transactions costs. A strong financial sectoris characterised by strong financial intermediaries and wider and deeper financial markets. In a strong financial sector, the liquidity and maturity transformation amongst the borrowers and savers happens in the most efficient manner. In such a market, savers are confident in handing over their surplus funds to the financial intermediaries which can then be borrowed and invested for creation of productive assets at the least cost. This can create multiplier effect and generate wealth and prosperity for both savers and borrowers and for the economy as a whole. Particularly in case of EMEs, where credit market is typically bank-led, an efficient resource allocation framework is central to Governments' efforts towards employment generation and poverty eradication. On the contrary, a weak financial sector consisting of weaker intermediaries and shallow financial markets would invariably be prone to crisis resulting from inefficient resource allocation and disproportionate risk-taking behavior. So, typically, a weak financial sector would have highly leveraged corporates and/or over indebted individuals. Absence of a strong financial sector also drives individuals towards dissaving or moving into physical assets which retards investment and consequently growth besides building up asset price bubbles.

9. A weak financial system can have deleterious consequences for the economy and the country. Dallas Federal Reserve researchers Tyler Atkinson, David Luttrell and Harvey Rosenblum in their paper 'How Bad Was It? The Costs and Consequences of the 2007–09 Financial Crisis' observe that the crisis was associated with a huge loss of economic output and financial wealth, psychological consequences and skill atrophy from extended unemployment, an increase in government intervention, and other significant costs. Their estimate of total loss for the US economy alone is nearly US$ 14 trillion, which is nearly 7 times India's GDP.

10. The quarterly report of March 2012 of the Special Inspector General for Troubled Assets Relief Program (TARP) in the US puts the cost of Gross US Government bailout outlays from the 2008 Financial Crisis at US$ 4.6 trillion, while the guarantees from US Treasury, Federal Reserve and other US government agencies totalled US$ 16.9 trillion. Likewise figures released by the National Audit Office in the UK, put the cost of bailouts for the UK taxpayer due to the 2008 Financial Crisis alone at a peak of £955 billion.

11. The above numbers, thus, give a sense of the economic loss arising out of financial crisis. These numbers are staggering and hence, scary. As the old adage goes, 'prevention is better than cure' and hence, it is the endeavor of the regulatory reform process to strengthen the financial system and prepare it to withstand the force of any impending crisis.

12. So, what all is being done to make the financial sector and the banking sector healthy? Before I get into the steps taken to strengthen the banking sector post crisis, I must highlight the monetary stimulus infused by various Governments/Central banks across the developed world. The monetary policy makers in the US, Europe, UK and Japan have all followed an expansionary monetary policy to wriggle their way out of recession. But the efforts have not quite borne fruit as many of these countries have not yet reached anywhere close to pre-crisis growth rate. Japan has, in fact, entered its third 'lost decade' and is still stuttering to find growth. Moreover, as is being proven now, loose monetary policy is like 'Chakravyuha', the famous battle formation in the epic 'Mahabharata' where it was easy to enter, but difficult to exit.

13. Let me now turn to the reforms aimed at the banking sector.

Global reforms

14. The banks in Europe and the USA entered the financial crisis with highly - leveraged balance sheets. They were too thin on equity and the balance sheet was too precariously placed to withstand write-down on their investments in complex derivate instruments. The situation was somewhat better in the developing world, but even the banks in these markets got impacted as the pains of the real economy slowly started to inflict the financial economy. It was in this background that the regulatory reform process was set in motion by the multilateral Standard Setting Bodies to undo the excesses of the pre-crisis era. The major elements of the reform process that have been implemented/currently under negotiation are as under:

- Basel-III capital prescriptions including capital conservation and countercyclical buffers
- Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)
- Leverage Ratio
- Total Loss Absorbing Capacity (TLAC), a work-in-progress, which aims at a higherloss absorbency requirements and resolution framework for G-SIBs/G-SIIIs/G-NBNIs
- Regulation of the shadow banking sector
- Reforms of the OTC derivatives market and resolution of CCPs
- A standardised, non-modeled approach for calculating regulatory capital to resolve the problem of excessive variability in banks' regulatory capital ratios (A thought)
- Compensation– Alignment with prudent risk taking, Claw back provisions
- Transparency in benchmark setting

15. The underlying objective of these reform measures is to avoid the dependence on taxpayers' money to bailout financial institutions in the event of stress.

Indian Position

16. Being a bank dominated economy, a healthy banking sector is imperative for India's economic growth. The RBI has been proactively working towards development of a strong and efficient banking system

through its regulations. As member of the international Standard Setting Bodies, we are not only implementing the globally agreed regulatory reforms now, but have also been proactive in introducing macro-prudential measures like higher risk weights for real estate exposures of banks, measures for dealing with risks emanating from derivatives and securitisation transactions and spiraling unhedged forex exposure of corporates, much before the global attention was drawn to such risks. At RBI, we have always been conscious of the need for the regulation to evolve quickly for addressing incipient risks and it is in this spirit that many of the recent reform measures have been set in motion.

Recent measures taken by the RBI

17. An important pre-condition for banks to be able to meet their lending obligations to current and prospective borrowers is that they remain profitable and solvent. It is in this context that following regulatory actions have been launched in recent past which are a fair mix of both, prudent regulation and right incentives to support growth with proper risk management:

- Guidelines on 'Early Recognition of Financial Distress, Prompt Steps for Resolution and Fair Recovery for Lenders: Framework for Revitalising Distressed Assets in the Economy covering formation of Joint Lenders' Forum (JLF), Corrective Action Plan (CAP), 'Refinancing of Project Loans', 'Sale of NPAs by Banks' to facilitate early recognition/resolution of financial distress
- Banks permitted to grant an extended debt repayment period to their borrowers in long-gestation projects ('5/25' scheme)
- Enabled banks to take steps for Strategic Debt Conversion (SDR) giving them right to convert their outstanding loans into a majority equity stake if the borrower fails to meet conditions stipulated under the restructuring package
- Enhanced fraud monitoring framework
- Issuance of long term infrastructure bonds to facilitate financing of long term infra projects
- Revoking forbearance on restructuring

Certain other regulatory measures like revision of the single/group borrower exposure limits and identification of D-SIBs, *etc.* have also been initiated.

Role of the Auditor community in promoting sustainable growth

18. Let me now turn to some messages that I would like to give the auditor community present here. First of all let me compliment you for the very critical role that you play in keeping the banking sector healthy by auditing the balance sheets of banks and that of the borrowers to whom the banks lend. I would, however, begin on a light-hearted note. I quote former AIG Vice Chairman **Jacob Frenkel,** who, in the aftermath of the Financial Crisis,once quipped, **'The left side of the balance sheet has nothing right and the right side of the balance sheet has nothing left. But they are equal to each other. So accounting-wise, we are fine.'** I am sure we don't want our accounting system to be fine like this.

19. External auditors play a vital role in maintaining market confidence in audited financial statements. In the case of the banking industry, this role is particularly relevant to financial stability given banks' financial intermediation function within the economy as a whole. Core Principle 27 of the Basel Committee's Core Principles for Effective Banking Supervision (September 2012) states that 'the supervisor determines that banks and banking groups maintain adequate and reliable records, prepare financial statements in accordance with accounting policies and practices that are widely accepted internationally and annually publish information that fairly reflects their financial condition and performance and bears an independent external auditor's opinion'.

20. Over the years, we have observed several accounting scandals unfold, latest in line being the one

at Toshiba. It is understood that Toshiba would have to revise its pre-tax profit figures by ¥152 billion (US$ 1.2 billion) over a seven-year period dating back to 2008. The amount involved accounts for nearly 30 per cent of the total pre-tax profit during the period. The initial findings have showed top executives' involvement in accounting malpractices where the inflated figures were made possible by delaying the reporting of losses and underestimating project costs. A sustained failure of this kind most definitely points to gaps in the audit process.

21. Another piece of accounting manipulation was observed in case of Rosneft, the Russian state controlled energy group, which, in a bid to mitigate the effects of the rouble's fall on its results, changed the way it accounted for foreign currency swings. The company shifted to recording the impact of such fluctuations when they materialised, rather than calculating the temporary effect every quarter. I am not sure how the audit community views this but analysts would definitely find it intriguing and not presenting a true and fair picture of the company's financials.

22. Auditors are expected to maintain highest standards of professional ethics and ensure that the financial statements of the enterprises they audit, present a true and fair picture of the prevailing state of affairs on an ongoing basis. As professionals, you must remain rather vigilant when auditing areas that: (a) involve significant management estimates and judgments, especially those measurements involving a wide range of measurement uncertainty; (b) involve significant non-recurring or unusual transactions; or (c) are more susceptible to fraud and errors being perpetuated due to weak internal controls[1].

23. As I said earlier, the lending business and the loan appraisals depend almost entirely on the balance sheets submitted by the borrowers and hence, fabricated account statements can lead to erroneous conclusions and unwarranted financing of enterprises. Banks increasingly lean on the auditors for undertaking stock and asset audit, concurrent audit and forensic audit. While looking at corporate balance sheet and to understand the level of leverage, it is important to look through the corporate structure and gearing of capital in downstream subsidiaries. If these tasks are accomplished proficiently, that would not only strengthen the banks' financials but also help create a stronger financial sector.

24. Many contend that accounting rules fueled the recent global financial crisis. While there is broad consensus that accounting rules are an important determinant of bank behavior, it would be imprudent to blame a single factor for the crisis as the specific mechanisms and their interaction with regulatory requirements are less well understood. The implications of the use of fair value accounting and the incurred loss approach of loss provisioning under International Financial Reporting Standards (IFRS) are cases in point. Both have been criticised as contributing to a pro-cyclical behavior in banks' decision making, *i.e.*, adding exuberance and fueling investments in the up-turn and triggering downward spirals and throttling investments in the down-turn of the credit cycle[2]. Regulation, on the contrary, are framed to last 'through the cycle.' I am, however, not going to delve deeper into this debate and would only focus on some of the imponderables which implementation of IFRS would throw up, especially in the Indian context.

IFRS Implementation and the imponderables

25. What IFRS implementation would entail for the banking system? The question is how prudential regulation would exist alongside IFRS? Proposed impairment calculations under IFRS, accounting for interest income on Effective Interest Rate basis and presence of multiple systems for operation and accounting of different portfolios would mean that IT systems would have to be upgraded/realigned for IFRS

[1] BCBS Paper : External audits of banks (March 2014).

[2] BCBS Working paper : The interplay of accounting and regulation and its impact on bank behaviour: Literature review (January 2015).

migration. Banks would also need to overcome challenges around converging policies for financial accounting and tax accounting for preparation of financial statements.

26. As the IFRS implementation date draws near, there are several pressing questions for which answers would need to be found.

i. How would the consolidation of accounts happen in situations where the parent entity is covered under Ind AS but the downstream subsidiaries are not?

ii. What would be the position when an account of one of the subsidiaries has to be drawn up under Ind AS but that is not the case for the parent entity (say an NBFC holding company)?

iii. How do you deal with equity with a 'put' option?

iv. How the firms' account can be made comparable across periods?

27. It is quite possible that initially adoption of fair value accounting may lead to negative implications for the revenue of firms and consequently, could impact the balance sheet of both - firms as well as that of the banks.

Conclusion

28. I am reminded of a quote by Jim Peterson, a former lawyer for Arthur Andersen, the now-defunct accounting firm that audited Enron. He said '**An auditor's opinion really says, 'This financial information is more or less OK, in general, so far as we can tell, most of the time**',' I trust the accounting community present here does a much more meaningful and methodical job than what Mr. Peterson suggests.

29. Let me conclude by reiterating that a strong financial sector is a *sine qua non* for sustainable growth. Financial Sector and in specific, the banking sector, derives its strength from a healthy credit portfolio, both corporate and retail as well as a healthy investment portfolio. Accounting standards and the auditors have a pivotal role in enabling the banks to develop such portfolios. There are, of course, complex but essential interplay between regulations, accounting standards and credit ratings.

30. I am sure that the Conference would be able to guide the various stakeholders in finding appropriate answers to many of the issues which I have just referred to. I once again thank ICAI for inviting me to share my thoughts on this occasion and wish the Conference all success.

ARTICLES

Consumer Confidence Survey-
Q2: 2014-15 to Q1: 2015-16

Position of Order Books, Inventories and
Capacity Utilisation for Quarters
October 2013 to March 2015

Private Corporate Investment:
Growth in 2014-15 and Prospects for 2015-16

Monthly Seasonal Factors of Select Economic Time Series

*Consumer Confidence Survey - Q2:2014-15 to Q1:2015-16**

1. Introduction

The Reserve Bank has been conducting Consumer Confidence Survey (CCS) of households on a quarterly basis since June 2010. At present, the survey captures qualitative responses on questions pertaining to economic conditions, income, spending, prices, employment prospects, *etc.* **The survey results are based on the views of the respondents and are not necessarily shared by the Reserve Bank of India.** The responses are obtained in two parts, *viz.*, current situation as compared with a year ago and expectations for a year ahead. The quarterly survey results of CCS are released regularly on the RBI website. This article presents analysis of survey results covering a longer time period, with particular focus on the last four rounds (Q2:2014-15 to Q1:2015-16) of the survey.

2. Sample Coverage and Survey Questionnaire

The survey is conducted in six metropolitan cities, *viz.*, Bengaluru, Chennai, Hyderabad, Kolkata, Mumbai and Delhi. In each round of survey, 5,400 respondents are selected (900 respondents from each city). A two stage sampling design is adopted for the survey. At first stage in a city, the polling booths are selected by systematic sampling scheme after arranging all polling booths according to their constituencies. In order to ensure wide geographical coverage, 45 polling booths spread over the entire city are selected. In second stage, from each selected polling booth area, 20 respondents are selected following the right hand rule.

Till Q3:2014-15, the survey schedule was organized into four blocks covering the respondent's details (Block 1), economic conditions (Block 2), household circumstances and general views on income, spending, *etc.* (Block 3) and perception on price level (Block 4). Subsequently, the survey questionnaire was rationalized to capture more focused responses, and the modified survey questionnaire was canvased from the March, 2015 (Q4:2014-15) survey round. From Q4:2014-15 onwards, information relating to expenditure on essential and non-essential items, and households' current financial situation is also being collected, whereas questions on current interest rate, households' circumstances, outlay for major expenditures *viz.*, motor vehicles, house, consumer durables, *etc.*, were dropped. Qualitative information is obtained on a three point scale *i.e.,* positive/no change/ negative. The revised questionnaire used for survey is available at RBI website[1].

3. Survey Results

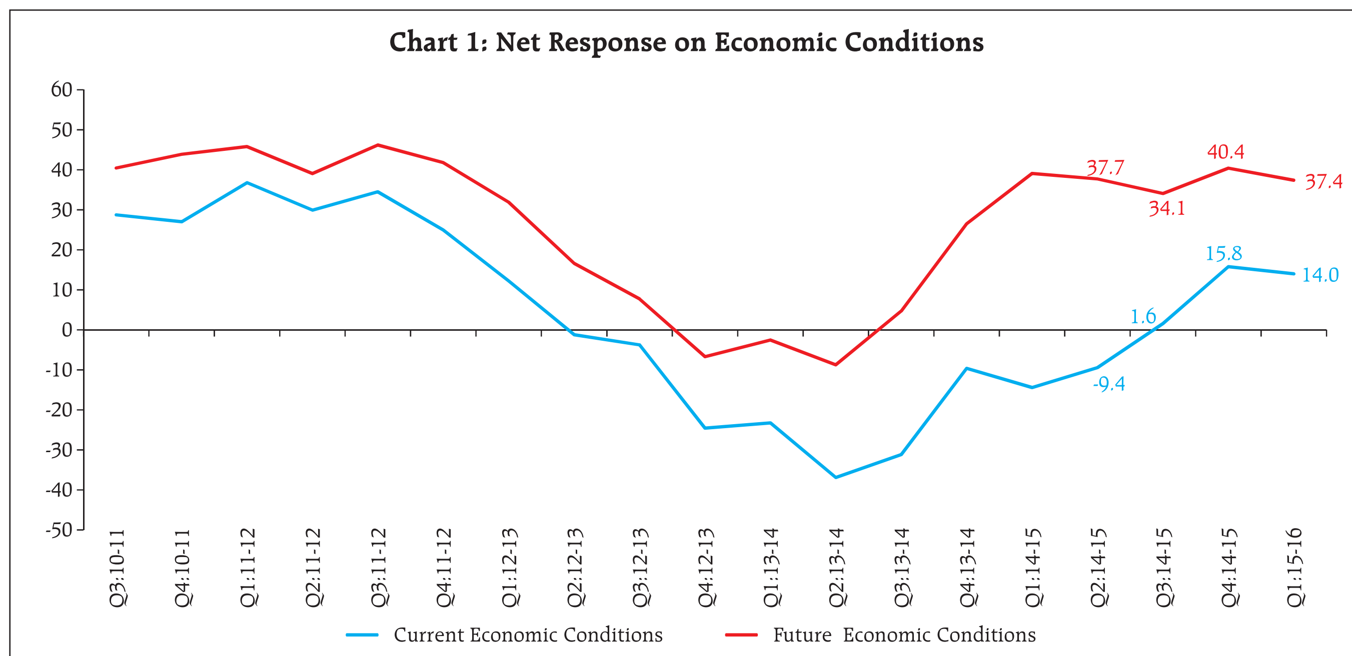
The survey results are analyzed for each factor based on net response (difference between positive and negative perceptions). In the article, *current* is used for current situation as compared with one year ago and *future* is used for expectations for one year ahead period.

3.1 Economic Conditions

During the last one year, *i.e.,* Q2:2014-15 to Q1:2015-16, the perceptions of respondents on current economic conditions of the country showed signs of improvement. Net response on current economic condition which was negative (-9.4 per cent) in Q2:2014-15, turned positive thereafter and stood at 15.8 per cent in Q4:2014-15. It however, moderated to 14.0 per cent in Q1:2015-16. The proportion of respondents who reported improvement in current economic conditions increased steadily over the last four quarters (Table 1).

* Prepared in the Department of Statistics and Information Management, Reserve Bank of India, New Delhi. The latest round (June 2015) of the survey data was released on August 4, 2015 along with Monetary policy statement on the RBI Website. The previous annual article on the subject was published in September 2014 issue of the RBI Bulletin.

[1] http://rbidocs.rbi.org.in/rdocs/Forms/PDFs/IE2593F080615.PDF

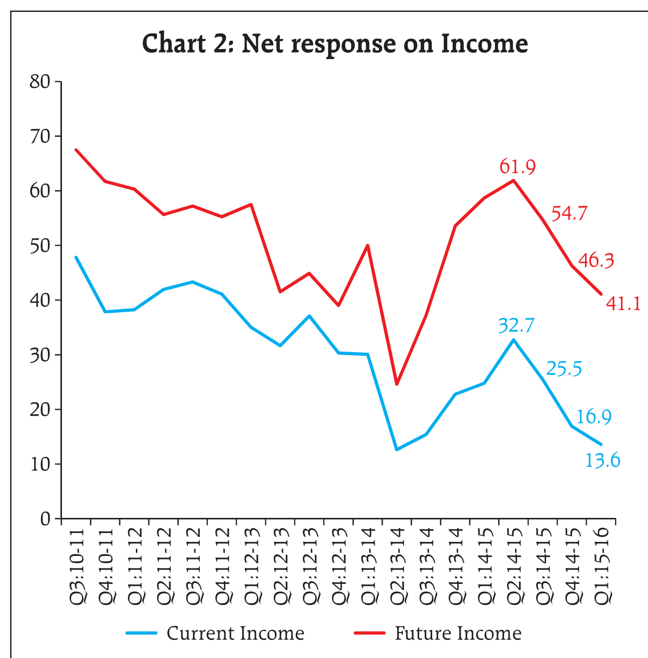


During Q3:2014-15 to Q1:2015-16, improvement was also observed in perceptions of respondents on future economic situation of the country. The net response moved up from 34.1 to 37.4 per cent in the above period. The optimism regarding future economic conditions has consistently been higher than that pertaining to the current economic conditions (Chart 1). However, the difference between the net responses on current and future economic conditions has narrowed down over the quarters.

3.2 Income

Perceptions on current as well as future income, showed declining trend over the last four quarters. Current income perceptions have remained consistently lower as compared to those on future income; but the gap between the two marginally declined in the Q1:2015-16 (Chart 2).

The proportion of respondents, who reported relatively higher income as compared to the last year, decreased consistently from 47.2 per cent in Q2:2014-15 to 34.9 per cent in Q1:2015-16 though the pace of such reduction has slowed down. The corresponding proportion in respect of future income expectations also showed similar trend but remained above 50 per cent during all the four quarters. About 38-48 per cent respondents reported that their income has remained at the same level as that of last year. The corresponding proportion for future income varied between 28 and 36 per cent (Table 2).



3.3 Spending

Majority of the respondents reported higher spending in the current year as compared to the position a year ago, the net response remaining above 70 per cent in first three quarters and rising further to 84 per cent in Q1:2015-16. The net response on future spending remained quite low and declined from 12.4 per cent in Q2:2014-15 to 6.4 per cent in Q3:2014-15 (Table 3). However, the net response on future spending rose sharply in Q4:2014-15 and it further strengthened in Q1:2015-16 and reached its highest ever level (82.0 per cent) (Chart 3).

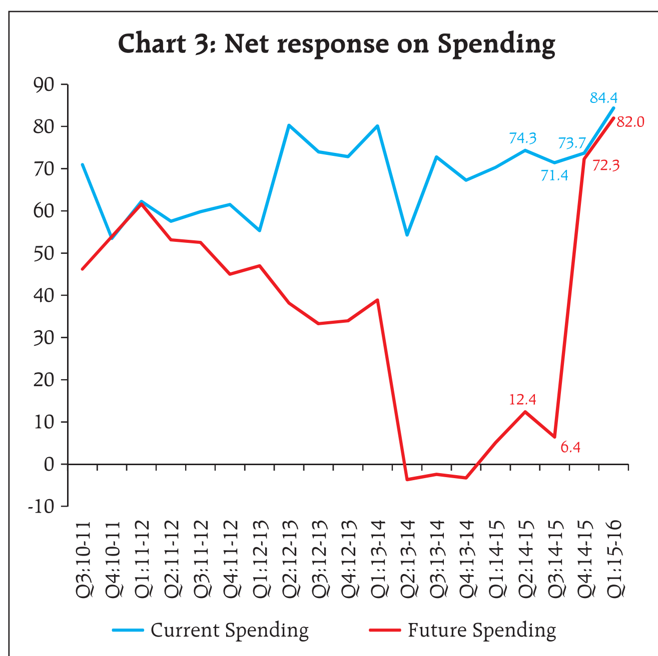
On perceptions relating to spending on essential items, more than 87 per cent respondents reported increase for the current as well as future period in Q1: 2015-16. Further, during Q1:2015-16, proportions of respondents reporting increase in current and future perceptions on non-essential spending, also showed increase as compared to Q4: 2014-15 and stood at around 47 per cent and 52 per cent, respectively.

Increase in income, higher expenditure towards consumer durable goods and increase in cost of consumer goods and services were reported to be the major factors which led to higher spending in the current period.

3.4 Perceptions on Price Levels and Inflation

Sentiments on price level and inflation improved between Q2:2014-15 and Q4: 2014-15, but reversed in Q1:2015-16. The proportion of respondents reporting rise in prices as compared to one-year ago decreased from 92.1 per cent to 84.3 per cent during the last four rounds, having reached a low of 78.8 per cent in Q4:2014-15. Similarly, proportion of respondents expecting prices to rise in the next one-year decreased from 77.6 per cent in Q2:2014-15 to 73.9 per cent in Q4:2014-15 but rose to 82.3 per cent in Q1:2015-16 (Table 4). Thus, while net responses on current price level remained highly negative, some improvement was observed over the last four quarters (Chart 4). The net response on expectations on prices, however, worsened between Q3:2014-15 and Q1:2015-16.

The respondents who reported/expected increase in price levels were further asked as to whether the rate of price rise (*i.e.,* inflation) would be higher (or



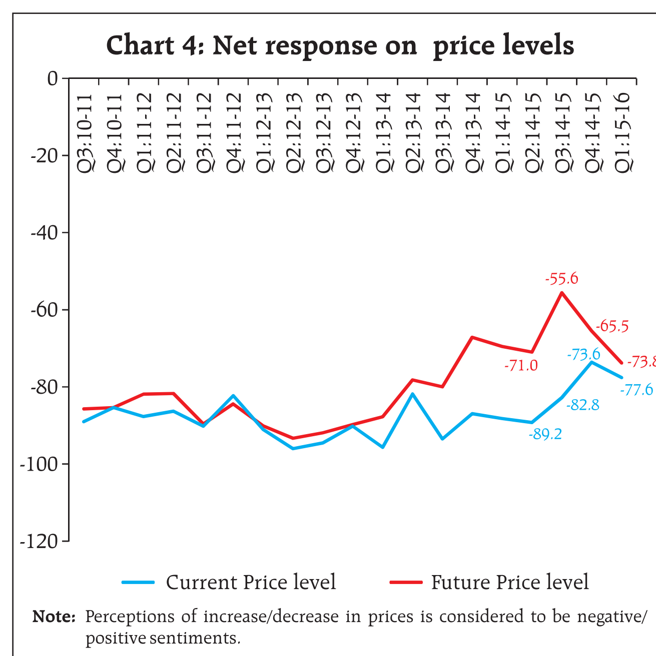
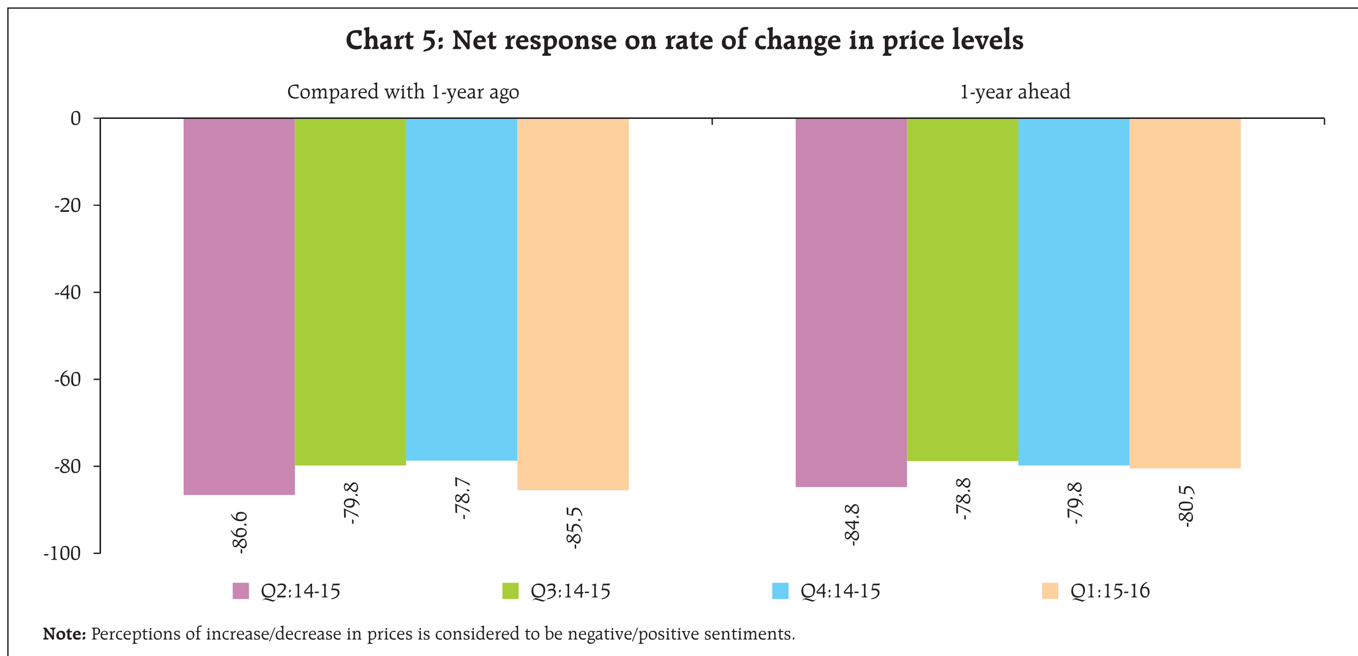


Chart 5: Net response on rate of change in price levels



Note: Perceptions of increase/decrease in prices is considered to be negative/positive sentiments.

same or lower) as compared to one-year ago and for one-year ahead period. Net responses on change in price level are presented in Chart 5. More than three fourths of respondents expected inflation to increase over the next one-year (Table 5).

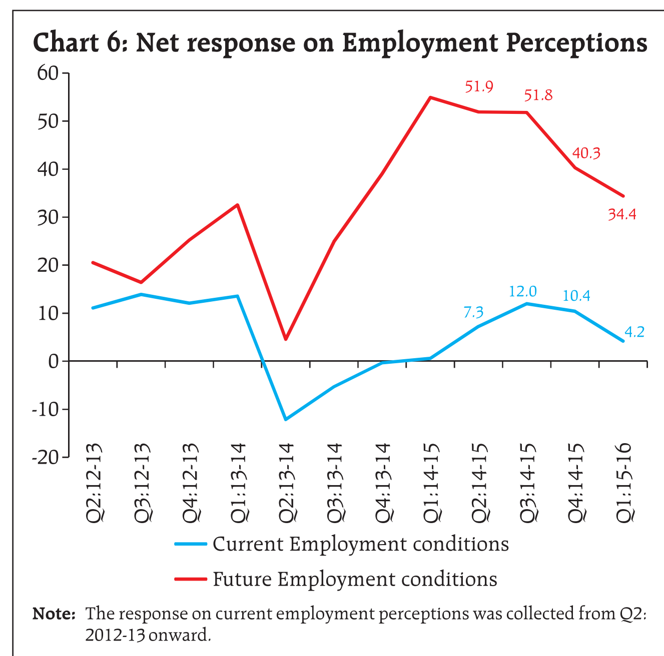
3.5 Employment

The respondents had more optimistic outlook regarding employment a year ahead, as compared to current scenario as reflected in the net responses on employment perceptions (Chart 6). However, the sentiment on future employment as well as current employment deteriorated between Q3:2014-15 and Q1:2015-16 (Table 8).

3.6 Income *versus* Spending and Inflation *versus* Spending

The cross tabulation of responses on income and spending for the last four rounds is presented in Table 6. About 30-40 per cent of respondents who reported increase in current spending were also associated with increase in current income. Interestingly, the proportion of respondents, who reported increase in current spending with their current income remaining either same or lower, showed an increasing trend over the last four quarters, from 38 per cent in Q2:2014-15 to 55.5 per cent in Q1:2015-16. Similarly, while sharp rise in the proportion of respondents who expected higher future spending in the last two quarters was partly associated with increase in future income, the share of these with same or lower future income also were higher.

Chart 6: Net response on Employment Perceptions



Note: The response on current employment perceptions was collected from Q2: 2012-13 onward.

To obtain further insights on spending perceptions, cross tabulation of responses on inflation and spending for the last four rounds are computed (Table 7). The analyses of these responses revealed that about 70-80 per cent of the respondents who reported higher current spending also reported higher current inflation. Association of increase in future spending with increase in expected inflation also rose sharply in the last two quarters and reached 75 per cent in Q1:2015-16 from about 36 per cent in Q2:2014-15.

3.7 Consumer Confidence Index

3.7.1 Current Situation Index (CSI) and Future Expectations Index (FEI)

Consumer confidence indices (CSI and FEI) are calculated using net responses on economic conditions, income, spending, employment conditions and price levels (Methodology in Annex 1).

The increasing trend in Current Situation Index (CSI) and Future Expectations Index (FEI) continued in the year under reference also. However, after reaching their highest level in last two years (108.6 for CSI and 126.7 for FEI) in Q4:2014-15, the indices declined marginally in Q1:2015-16 (Chart 7 and Table 9). Significant improvement in overall consumer confidence indices exhibited during this period was due to increase in the positive perceptions on some of the selected factors (*viz.*, economic conditions, spending and price level).

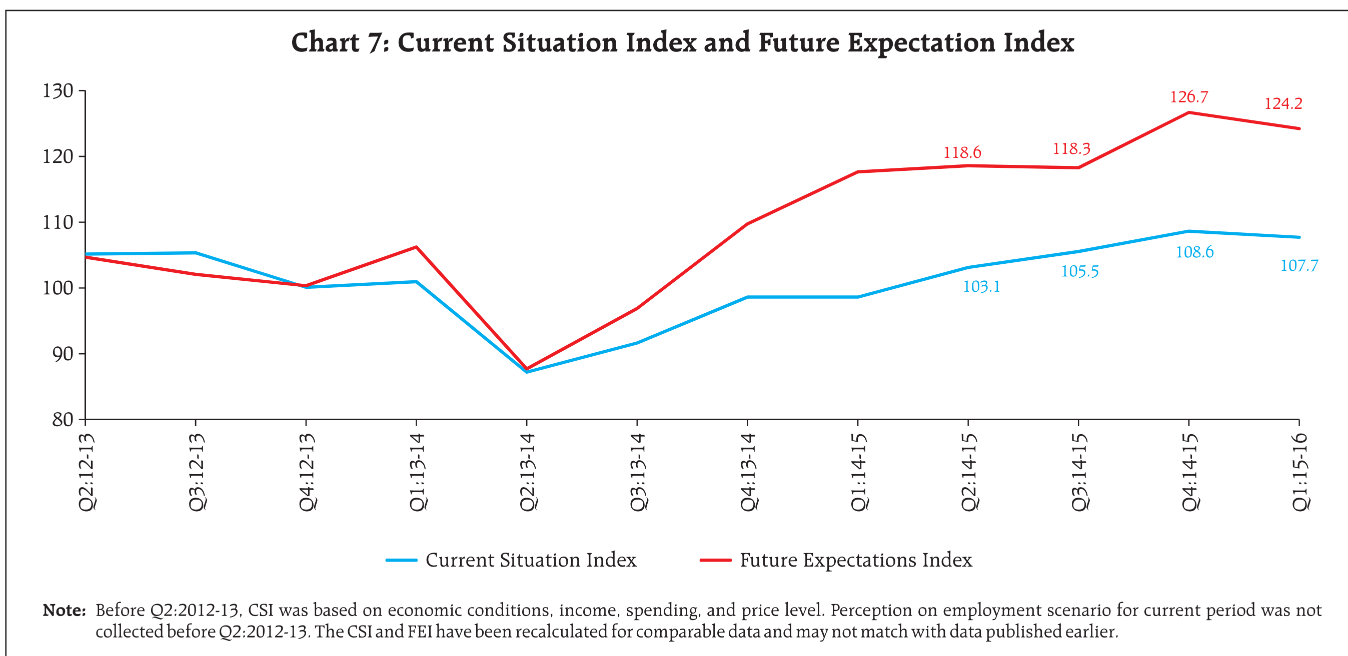
3.7.2 Robustness of Estimates

In order to examine the quality of estimates, the confidence intervals for CSI and FEI have been estimated using bootstrap methodology. Based on 10,000 re-samples selected through simple random sampling with replacement (SRSWR), the 99 per cent bootstrap confidence intervals for CSI and FEI are given in Table 10. The narrow confidence intervals (varied from 1.9 to 2.6) indicate robustness of the estimates of CSI and FEI.

3.8 Summary

The consumer confidence indices, *viz.*, current situation index and future expectation index exhibited improvement during the last one year, although slight moderation was observed in the June 2015 round. However, viewing across different factors used for

Chart 7: Current Situation Index and Future Expectation Index



Note: Before Q2:2012-13, CSI was based on economic conditions, income, spending, and price level. Perception on employment scenario for current period was not collected before Q2:2012-13. The CSI and FEI have been recalculated for comparable data and may not match with data published earlier.

construction of the indices, there was a mixed trend. Improvements in the positive perceptions on economic conditions, spending and price levels, observed during Q2:2014-15 and Q4:2014-15. However, perceptions on income and employment scenario showed decreasing trend over the same period. The level of optimism in future economic conditions, income and employment scenario, as in the past, have consistently been higher than those relating to current situation. It is also observed that improvement in sentiment on current and future spending is associated with higher inflation perception.

Annex 1 – Data Tables

Table 1: Opinion on Economic Conditions

(Percentage responses)

	Compared with 1-year ago				1-year ahead			
	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16
Improve	29.3	30.2	41.7	43.1	54.8	50.9	56.8	57.6
Remain same	32.1	41.2	32.4	27.8	28.1	32.3	26.8	22.3
Worsen	38.7	28.6	25.9	29.1	17.1	16.8	16.4	20.2
Net Response	**-9.4**	**1.6**	**15.8**	**14.0**	**37.7**	**34.1**	**40.4**	**37.4**

Table 2: Perceptions on Income

(Percentage responses)

	Compared with 1-year ago				1-year ahead			
	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16
Increase	47.2	38.7	35.4	34.9	67.0	59.8	55.4	52.7
Remain same	38.4	48.0	46.1	43.7	27.8	35.1	35.5	35.6
Decrease	14.4	13.2	18.5	21.4	5.1	5.1	9.1	11.6
Net Response	**32.7**	**25.5**	**16.9**	**13.6**	**61.9**	**54.7**	**46.3**	**41.1**

Table 3: Perceptions on Spending

(Percentage responses)

	Compared with 1-year ago				1-year ahead			
	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16
Increase	78.1	75.7	80.0	87.4	41.9	35.6	78.3	86.2
Remain same	18.2	20.0	13.7	9.5	28.6	35.3	15.8	9.6
Decrease	3.8	4.3	6.3	3.1	29.5	29.2	6.0	4.2
Net Response	**74.3**	**71.4**	**73.7**	**84.4**	**12.4**	**6.4**	**72.3**	**82.0**

Table 4: Perceptions on price level

(Percentage responses)

	Compared with 1-year ago				1-year ahead			
	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16
Increase	92.1	85.1	78.8	84.3	77.6	66.7	73.9	82.3
Remain same	5.1	12.6	16.0	9.1	15.8	22.2	17.7	9.1
Decrease	2.8	2.3	5.2	6.6	6.6	11.1	8.4	8.5
Net Response	**-89.2**	**-82.8**	**-73.6**	**-77.6**	**-71.0**	**-55.6**	**-65.5**	**-73.8**

Note: Perceptions of increase/decrease in prices is considered to be negative/positive sentiments.

Table 5: Perceptions on rate of change in price levels (Inflation)

(Percentage responses)

	Compared with 1-year ago				1-year ahead			
	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16
Increase	88.2	81.9	82.5	87.9	85.9	81.0	83.5	83.8
Remain Same	10.2	15.9	13.7	9.7	13.1	16.9	12.7	12.9
Decrease	1.6	2.2	3.8	2.4	1.1	2.1	3.7	3.3
Net Response	**-86.6**	**-79.8**	**-78.7**	**-85.5**	**-84.8**	**-78.8**	**-79.8**	**-80.5**

Note: Perceptions of increase/decrease in inflations is considered to be negative/positive sentiments.

Table 6: Cross-tabulation of Income and Spending

(Percentage responses)

Income \ Spending		Current Income Vs. Current Spending			Future Income Vs. Future Spending		
		Increase	Remain same	Decrease	Increase	Remain same	Decrease
Q2: 2014-15	Increase	40.1	6.4	0.7	31.1	16.7	19.2
	Remain same	27.7	9.2	1.5	9.2	10.6	8.0
	Decrease	10.3	2.5	1.6	1.6	1.2	2.3
Q3: 2014-15	Increase	31.1	6.6	1.0	23.4	17.9	18.5
	Remain same	35.2	11.1	1.7	10.8	15.6	8.7
	Decrease	9.4	2.3	1.6	1.3	1.8	2.0
Q4: 2014-15	Increase	31.3	2.9	1.2	47.2	5.8	2.5
	Remain same	34.5	9.0	2.6	24.3	9.0	2.2
	Decrease	14.1	1.9	2.5	6.8	1.0	1.3
Q1: 2015-16	Increase	31.9	2.2	0.8	46.9	3.2	2.6
	Remain same	37.0	5.7	1.0	29.1	5.7	0.9
	Decrease	18.5	1.7	1.2	10.1	0.7	0.8

Table 7: Cross-tabulation of Inflation and Spending

(Percentage responses)

Inflation \ Spending		Current Inflation Vs. Current Spending			Future Inflation Vs. Future Spending		
		Increase	Remain same	Decrease	Increase	Remain same	Decrease
Q2: 2014-15	Increase	72.2	7.4	1.4	36.0	7.0	0.5
	Remain same	13.0	2.4	0.2	22.1	3.6	0.4
	Decrease	3.0	0.4	0.0	27.8	2.5	0.2
Q3: 2014-15	Increase	68.3	11.3	1.3	33.0	7.3	0.4
	Remain same	10.8	4.0	0.6	24.6	5.8	0.6
	Decrease	2.8	0.6	0.3	23.4	3.8	1.1
Q4: 2014-15	Increase	71.2	11.1	3.0	71.3	9.6	3.1
	Remain same	8.2	2.0	0.6	9.8	2.7	0.4
	Decrease	3.0	0.6	0.2	2.5	0.5	0.2
Q1: 2015-16	Increase	80.7	8.5	2.0	74.9	11.3	2.9
	Remain same	5.5	1.0	0.2	7.0	1.2	0.2
	Decrease	1.6	0.2	0.2	1.8	0.4	0.2

Note: Row totals do not match with those in the table on spending (Table 3) as the response on inflation was sought only from those respondents whose assessment/ expectation indicated prices have risen/will rise in current/future period.

Table 8: Current and Future perceptions on Employment

(Percentage responses)

	Compared with 1-year ago				1-year ahead			
	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16	Q2:14-15	Q3:14-15	Q4:14-15	Q1:15-16
Improve	36.0	36.1	37.6	36.0	61.4	61.1	55.8	53.7
Remain Same	35.3	39.7	35.3	32.2	29.0	29.7	28.7	26.9
Worsen	28.7	24.1	27.2	31.8	9.5	9.3	15.5	19.4
Net Response	7.3	12.0	10.4	4.2	51.9	51.8	40.3	34.4

Note: The response on current employment perceptions was collected from Q2: 2012-13 onward.

Table 9: Current and Future Expectations Index

	Q2: 12-13	Q3: 12-13	Q4: 12-13	Q1: 13-14	Q2: 13-14	Q3: 13-14	Q4: 13-14	Q1: 14-15	Q2: 14-15	Q3: 14-15	Q4: 14-15	Q1: 15-16
CSI	105.2	105.3	100.1	101.0	87.2	91.6	98.6	98.6	103.1	105.5	108.6	107.7
FEI	104.7	102.1	100.4	106.2	87.7	96.9	109.7	117.7	118.6	118.3	126.7	124.2

Note: Before Q2:2012-13 CSI was based on economic conditions, income, spending, and price level. Perception on employment scenario for current period was not collected before Q2:2012-13. The CSI and FEI have been recalculated for comparable data and may not match with data published earlier.

Table 10: 99% Bootstrap Confidence Intervals (BCI) Based on 10,000 Resamples

Survey Quarter	CSI		FEI	
	99% BCI for estimate	Interval width	99% BCI for estimate	Interval width
Q2:14-15	(102.2, 104.1)	2.0	(117.6, 119.6)	2.0
Q3:14-15	(104.6, 106.5)	1.9	(117.3, 119.3)	2.0
Q4:14-15	(107.4, 110.0)	2.6	(125.5, 128.0)	2.6
Q1:15-16	(106.5, 109.0)	2.5	(122.9, 125.6)	2.6

Annex 2: Methodology
Current Situation Index & Future Expectations Index

In standard opinion surveys, respondents generally have three reply options such as up/same/down; or above-normal/normal/ below-normal; or increase/ remain-same/decrease. Because of the difficulty of interpreting all three percentages, the survey results are normally converted into a single quantitative number. One of the most common way of doing this is to use 'Net-Responses' (also called 'Balances' or 'Net Balances'). It is defined as the percentage of the respondents reporting a decrease (negative), subtracted from the percentage reporting an increase (positive). Net Responses can take values from –100 to +100. In this survey, Net Response is used to analyse the Consumer Confidence Survey results. To combine the consumer confidence perceptions on various factors, two indices are worked out. These are Current Situation Index for reflecting current situation as compared to one year ago and Future Expectations Index to reflect the expectations one year ahead. For calculating the index, the following formula has been used.

Overall Index = 100 + Average (Net Response of selected factors)

Where Net Response = Positive perceptions (%) – Negative perception (%)

The average net responses on the current perception on various factors, viz. economic conditions income, spending, price level and employment are used for the calculation of the Current Situation Index.

The average net responses on the future perceptions on various factors, viz. economic conditions, income, spending, price level and employment are used for the calculation of the Future Expectations Index.

[1] From Q2:2012-13 to Q3:2014-15 rounds, Consumer confidence indices (CSI and FEI) were based on the net responses in respect of economic conditions, household circumstances, income, spending, employment conditions and price levels.

[2] Pre Q2:2012-13 rounds, the CSI was based on the net responses on economic conditions, household circumstances, income, spending and price levels; and FEI was based on the net responses on economic conditions, income, spending, employment conditions and price levels.

*Position of Order Books, Inventories and Capacity Utilisation for the Quarters October 2013 to March 2015**

This annual article, third in the series[1], presents the findings of quarterly Order Books, Inventories and Capacity Utilisation Survey (OBICUS) of manufacturing sector companies, conducted during October 2013 to March 2015 (covering 24th to 29th rounds). Average new orders of sample companies grew substantially during the reference period till Q2:2014-15 but went into contraction mode thereafter. The average raw material (RM) inventory to sales ratio and the average finished goods (FG) inventory to sales ratio fluctuated in the range of 22-25 per cent and 17-19 per cent respectively during the period. Both the ratios rose in Q4:2014-15 from the previous quarter and stood at higher levels, as compared to the position a year ago. Poor demand conditions were also reflected in the lower capacity utilisation (CU) in Q3:2014-15. The CU rose by more than 3 percentage points to 75.2 per cent in Q4:2014-15, partly due to seasonality coupled with pick up in the production of consumer non-durable items.

I. Introduction:

The Reserve Bank of India tracks several macroeconomic variables to assess the aggregate demand-supply position in the economy and formulates its monetary policy stance accordingly. Data on sales and profit margin of the manufacturing sector, an important segment of the economy, are available as part of the disclosures of such companies. However, information relating to order books, level of capacity utilisation and finished goods' inventory level, which are also reflective of incipient demand conditions, are generally not readily available.

To bridge this data gap, the Reserve Bank has been conducting Order Books, Inventories and Capacity Utilisation Survey (OBICUS) of Indian manufacturing companies on a quarterly basis since 2008. Results of the survey rounds are regularly disseminated on the RBI website.

The sampling method used for OBICUS is purposive (non-random) and the companies have been empanelled to have a good size-mix of industries. The survey schedule is canvassed among a fixed panel of 2,500 manufacturing companies sector, which is common in many business tendency surveys. However, responding to the survey is voluntary and it has not been possible to obtain responses from all the companies and in all the quarters.

The information collected in the survey includes quantitative data on new orders received during the reference quarter, backlog orders at the beginning of the quarter, pending orders at the end of the quarter, total inventories with breakup of work-in-progress (WiP) and finished goods (FG) inventories at the end of the quarter and item-wise production in terms of quantity and value during the quarter *vis-à-vis* the installed capacity from the targeted group. The level of capacity utilisation (CU) is estimated from the above data.

In this article, position of order books, inventories and capacity utilisation of Indian manufacturing industry during October 2013 to March 2015 is based on the survey round 24 (pertaining to Q3:2013-14) to

* Prepared in the Division of Enterprise Surveys of Department of Statistics and Information Management, Reserve Bank of India, Mumbai, which is based on the findings of 24th to 29th round of OBICUS survey. The summary tables are provided in the Annex. The survey findings (data release) of individual survey rounds are available on the website of the Bank.

[1] The previous article *"Position of Order Books, Inventories and Capacity Utilisation for the Quarters during October 2012 to September 2013"* was published in April 2015 issue of the RBI Monthly Bulletin. The survey results are based on the replies of the respondents and are not necessarily shared by the Reserve Bank of India.

round 29 (pertaining to Q4:2014-15), with emphasis on latest estimates available for the respective quarters through different rounds. The related data tables are presented in **Annex.**

II. Findings of Survey:

II.1 Order Books Growth

Average new orders of sample companies grew by more than 12 per cent in Q3:2013-14 on a year-on-year (y-o-y) basis and this high growth phase continued till Q2:2014-15. However, the position could not be sustained as new orders growth contracted in H2:2014-15 tracking falling sale volumes of the companies. On a quarter-on-quarter (q-o-q) basis, new orders growth fluctuated between marginal contraction and expansion in FY:2014-15. The q-o-q growth moved into the positive territory in Q4:2014-15 (Chart 1).

II.2 Inventory to Sales Ratio

During the period under reference, the average raw material (RM) inventory to sales ratio and the average finished goods (FG) inventory to sales ratio fluctuated in the range of 22-25 per cent and 17-19 per cent respectively. Moreover, the RM inventory to sales ratio remained lower on a y-o-y basis till Q3:2014-15. The FG and RM inventory to sales ratios rose in Q4:2014-15 from the previous quarter. Further, both these ratios stood at a higher level in Q4:2014-15, as compared to the position a year ago (Chart 2).

Chart 1: Growth in New Orders

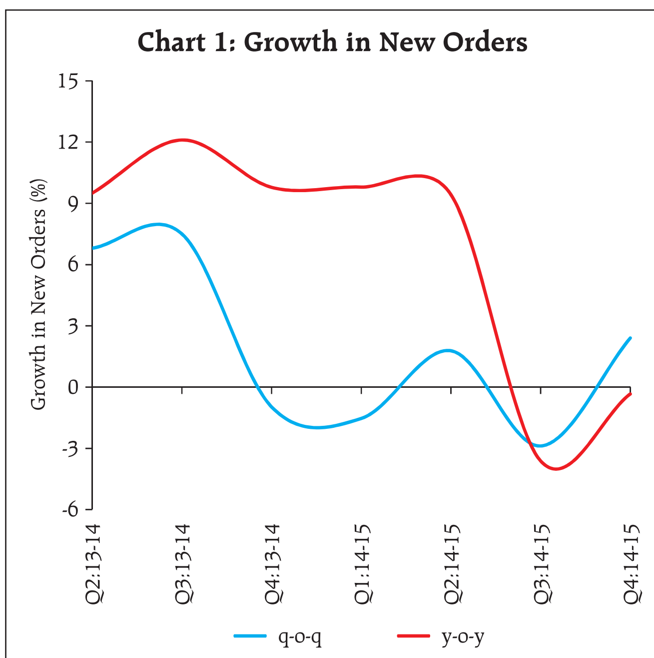
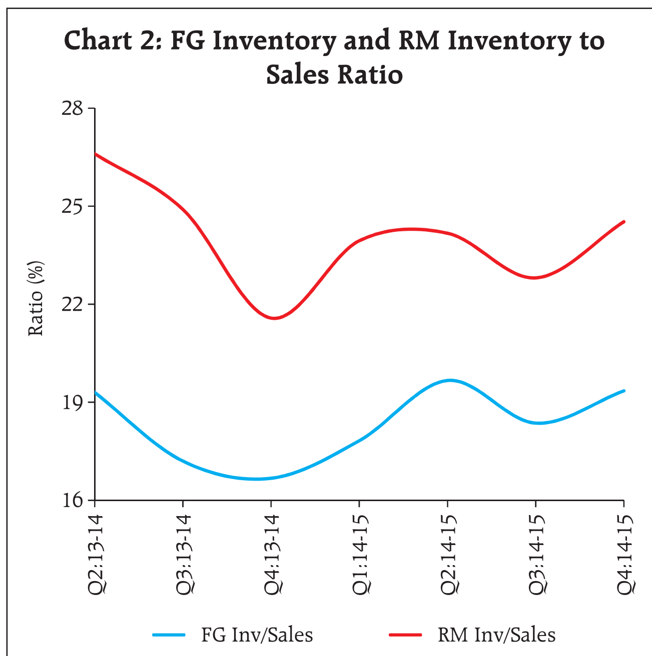
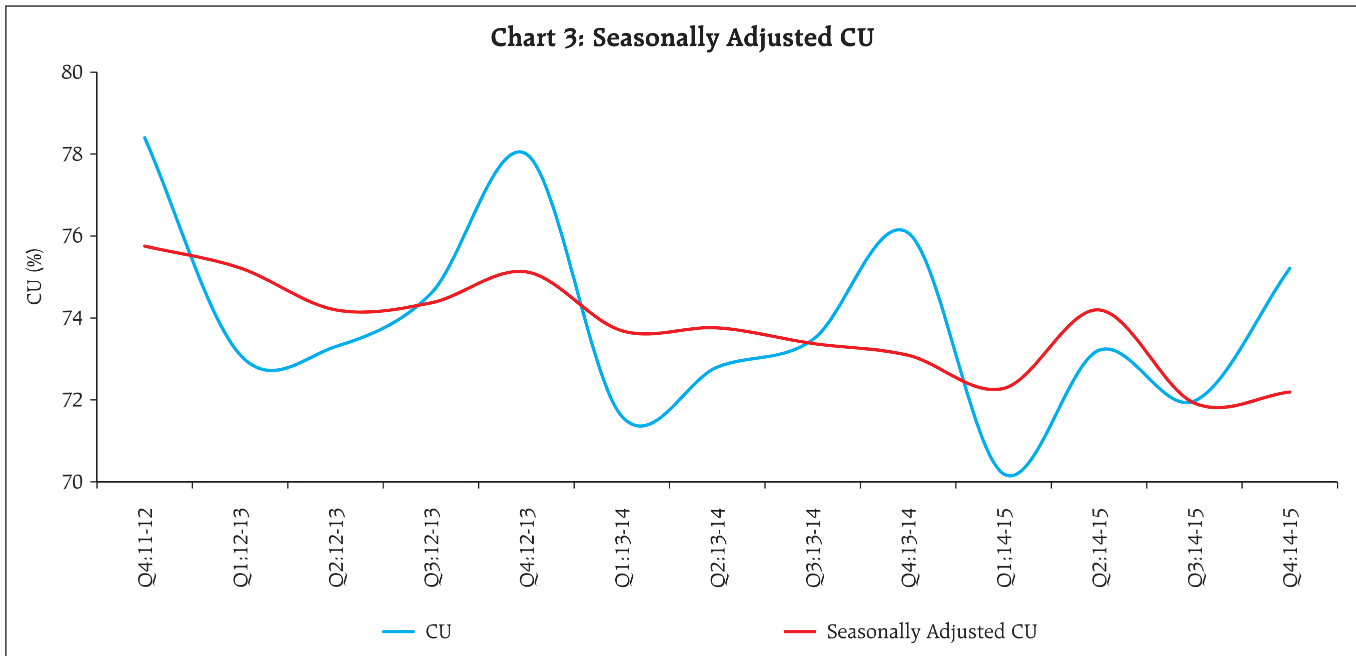


Chart 2: FG Inventory and RM Inventory to Sales Ratio



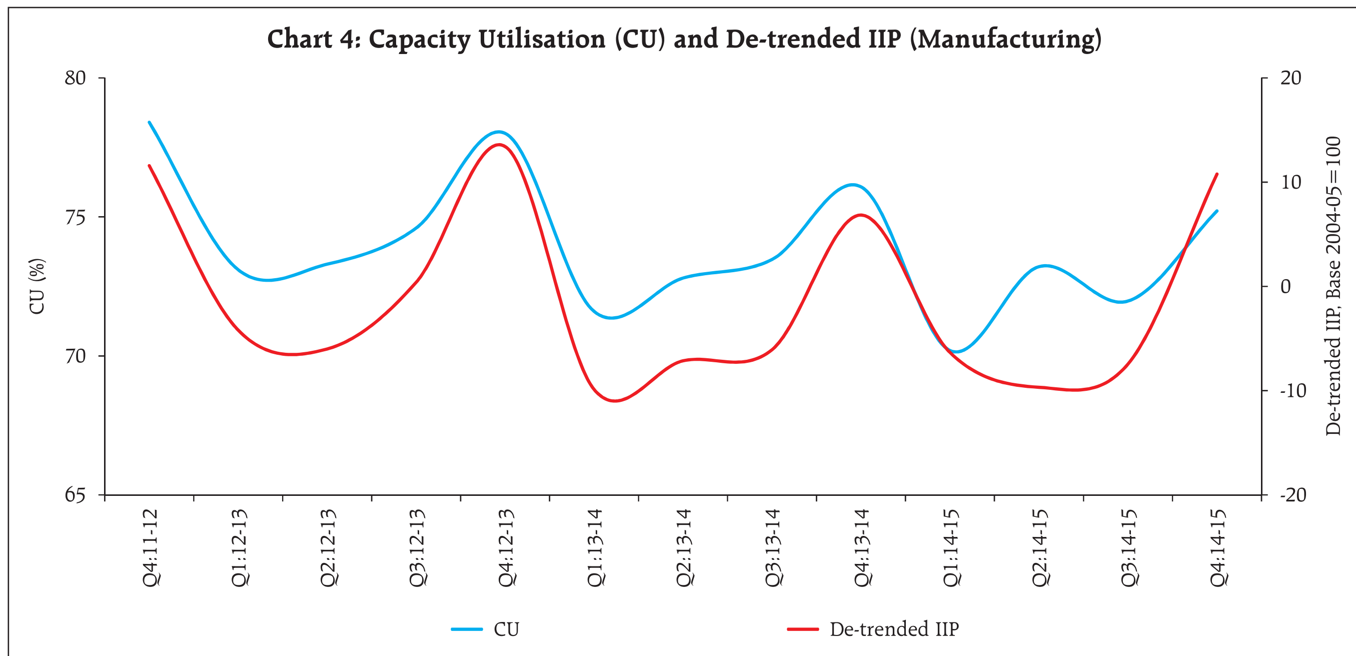
II.3 Capacity Utilisation

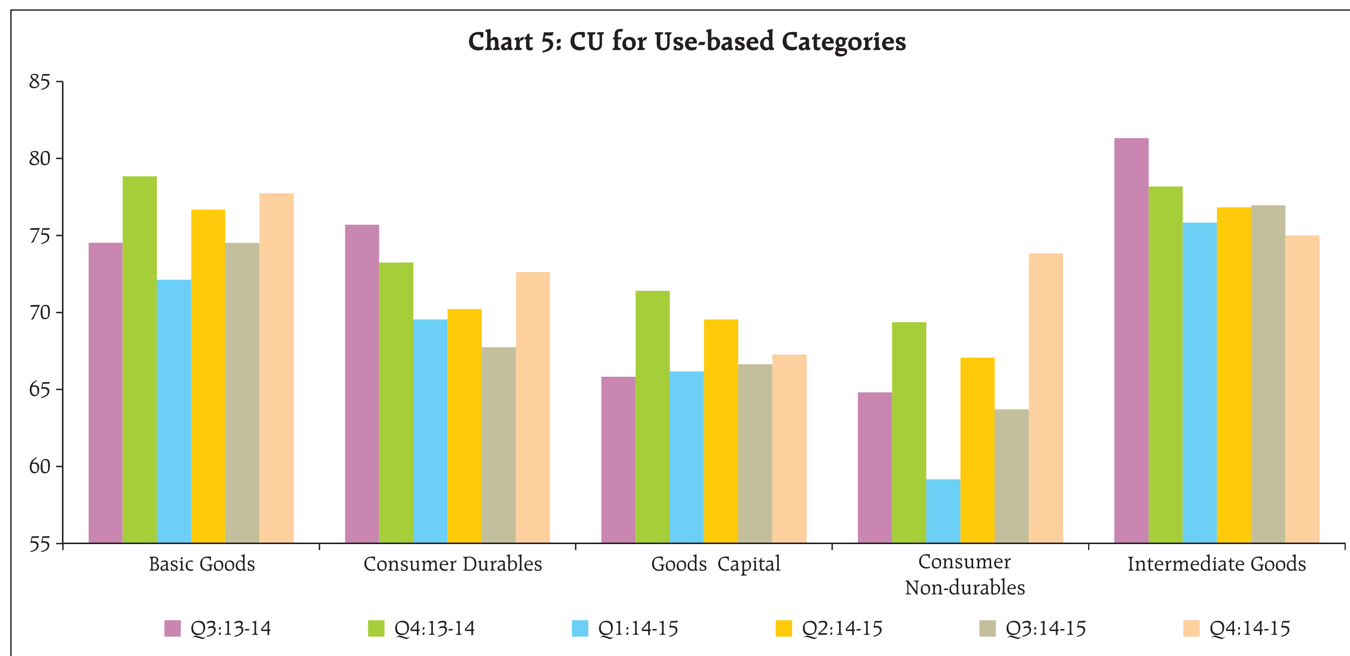
Level of capacity utilisation in the Indian manufacturing industry continued to show declining trend since 2011-12. Further, the average (4-quarter) CU in FY:2014-15 was lower (72.6 per cent) than that of FY:2013-14 (73.5 per cent). Reflecting seasonal movements, CU recorded high values in the last quarter of the financial year (FY) and found to fall in the subsequent quarter, *i.e.,* Q1 of the following FY. CU picked up in Q4:2014-15 by more than 3 percentage points from its previous quarter, partly reflecting seasonality. After adjusting for seasonality, the CU at aggregate level rose marginally in Q4:2014-15 from Q3:2014-15 (Chart 3).



The movements in CU remained broadly in line with the movements in the de-trended IIP for manufacturing sector (Chart 4).

A further disaggregated analysis of CU for use-based categories indicates co-movement across all the categories except for the intermediate goods category, wherein it moved in the opposite direction in H2:2014-15. For both intermediate goods and basic goods categories, CU level remained above 70 per cent in all the quarters under the period of study.





In Q4:2014-15, the rise in the CU at overall level from its previous quarter was largely driven by sharp rise in CU level in the consumer non-durables sector (63.7 per cent to 73.8 per cent). This is followed by the consumer durables (67.7 per cent to 72.6 per cent) and the basic goods (74.5 per cent to 77.7 per cent) segments. The average CU level of basic goods and intermediate goods remained higher at 75.3 per cent and 76.2 per cent respectively in FY:2014-15 as compared to other use-based categories, *viz.*, consumer durables (70.0 per cent), capital goods (67.4 per cent) and consumer non-durables (65.9 per cent) (Chart 5).

III. Validation of results of different rounds of Surveys (Round 24 to Round 29):

The estimated survey indicators undergo some changes from one round to another due to changes in the constituent sample of companies[2] (ranges are indicated in respective tables). However, the above changes may not pose much problem as long as the trend observed in earlier rounds is retained. It may also be mentioned that the direction of changes in the key indicators have more relevance rather than their absolute values for the decision makers. Overall, it is observed that there were some variations in the key indicators due to change in the constituent set of companies but the broad trend remained similar.

The new orders growth in Q3:2013-14 to Q4:2014-15 reported in rounds 24 to 29 moved in a reasonable range and its direction remained similar. Further, the estimates appeared to be quite close in the high growth phase (Q3:2013-14 to Q2:2014-15). Movements of CU also remained consistent across the survey rounds, though the estimates of CU in the round 29 have generally tended to be higher. Estimates of FG inventory to sales ratio for a particular quarter remained generally range bound in different rounds of the survey. However, the estimates for Q4:2013-14 and Q1:2014-15, as derived from various rounds of the survey varied in a wider range.

[2] For the purpose of analysis, a common sample of companies for 5 quarters (including the reference quarter) is considered so that q-o-q and y-o-y growths can be compared. In this process, estimates of each business indicator (*viz.*, new orders growth, inventory ratios and CU) can be obtained from 5 successive rounds of survey.

IV. Concluding Observations

The demand conditions in the Indian manufacturing sector improved during 2013-14 and in the first half of 2014-15. However, it weakened in the second half of 2014-15. The finished goods inventory level (as percentage to sales) declined progressively in FY:2013-14 but rose thereafter in line with slowing demand conditions.

The CU level in the manufacturing sector is on a declining path since 2011-12. The CU in FY:2014-15 generally remained at lower levels than those of FY:2013-14. However, it picked up in Q4:2014-15 by more than 3 percentage points, partly reflecting the seasonality and also on account of a sharp increase in CU in consumer non-durables sector.

Annex - Data Tables

Table 1: Final Estimates for Order Books Y-o-Y growth

Quarter	Based on	No. of companies	Order Books Y-o-Y growth (%)	Range#
Q3:2012-13	Round 24	504	-4.9	NA
Q4:2012-13	Round 25	436	-6.7	(-9.1,-6.7)
Q1:2013-14	Round 26	502	-3.8	(-6.2,-3.8)
Q2:2013-14	Round 27	516	9.5	(4.3,9.5)
Q3:2013-14	Round 28	530	12.1	(11.3,13.5)
Q4:2013-14	Round 29	518	9.8	(7.4,9.8)
Q1:2014-15	Round 29	518	9.8*	(9.8,12.0)
Q2:2014-15	Round 29	518	9.4*	(5.6,9.4)
Q3:2014-15	Round 29	518	-3.6*	(-3.6,-2.3)
Q4:2014-15	Round 29	518	-0.3*	NA

*These growth figures are provisional estimates from Round 29.
#Range indicates the high and the low of the indicator in various rounds.

Table 2: Final Estimates for Finished Goods (FG) Inventories to Sales Ratio

Quarter	Based on	No. of companies	FG Inv/Sales (%)	Range#
Q3:2012-13	Round 24	986	15.5	NA
Q4:2012-13	Round 25	879	18.8	(18.0,18.8)
Q1:2013-14	Round 26	1017	19.7	(19.6,20.0)
Q2:2013-14	Round 27	1074	19.3	(18.8,19.3)
Q3:2013-14	Round 28	1090	17.2	(17.2,17.6)
Q4:2013-14	Round 29	1070	16.7	(16.6,19.9)
Q1:2014-15	Round 29	1070	17.8*	(17.4,20.5)
Q2:2014-15	Round 29	1070	19.7*	(17.7,19.7)
Q3:2014-15	Round 29	1070	18.4*	(17.0,18.4)
Q4:2014-15	Round 29	1070	19.4*	NA

*These ratios are provisional estimates from Round 29.
#Range indicates the high and the low of the indicator in various rounds.

Table 3: Final Estimates for Capacity Utilisation (CU)

Quarter	Based on	No. of companies	CU level (%)	Range#
Q3:2012-13	Round 24	1191	74.6	NA
Q4:2012-13	Round 25	1049	78.0	(77.0,78.0)
Q1:2013-14	Round 26	1224	71.6	(71.6,72.5)
Q2:2013-14	Round 27	1288	72.8	(72.8,74.3)
Q3:2013-14	Round 28	1297	73.5	(73.4,74.6)
Q4:2013-14	Round 29	1273	76.1	(74.2,76.1)
Q1:2014-15	Round 29	1273	70.2*	(69.4,70.2)
Q2:2014-15	Round 29	1273	73.2*	(71.0,73.2)
Q3:2014-15	Round 29	1273	72.0*	(71.7,72.0)
Q4:2014-15	Round 29	1273	75.2*	NA

*These CU levels are provisional estimates from Round 29.
#Range indicates the high and the low of the indicator in various rounds.

*Private Corporate Investment: Growth in 2014-15 and Prospects for 2015-16**

This article endeavours to gauge business sentiments from the envisaged fixed capital investment of the private and joint business sector, which is compiled based on the estimated cost of projects financed through funds raised from Banks/Financial Institutions (FIs) or External Commercial Borrowings (ECBs) or Foreign currency convertible bonds (FCCBs) or domestic equity investments. In the year 2014-15, altogether 830 companies intended to invest in projects with aggregate cost of ₹1,459 billion in comparison with an investment intention of ₹2,148 billion by 1,065 companies in 2013-14, which has now been revised to ₹2,081 billion by 1,056 companies. The capital expenditure (CapEx) plans so aggregated, therefore, reflect a downward trend in the investment cycle.

The sectors attracting investment in 2014-15 were led by 'Power' and 'Metal' followed by 'Transport Equipment & Parts', 'Telecom' and 'Textile'. The time phasing details of the investment intentions of these companies indicate likely investments worth ₹1,933 billion in 2014-15, which is 27 per cent lower than the revised estimate of 2013-14. Based on the plans up to 2014-15, CapEx already planned for 2015-16, was ₹819 billion. Thus, for maintaining the level of aggregate CapEx in 2015-16, with that of the previous year's level, an investment of ₹1,114 billion should come from new investments of the private corporate sector in the forthcoming year. Though, uncertainty about revival of the demand cycle would weigh on decisions, CapEx can be maintained around last year's level, given the continued efforts being made to improve business confidence of investors.

* Prepared in the Corporate Studies Division of the Department of Statistics and Information Management, Reserve Bank of India, Mumbai. The previous study titled 'Corporate Investment: Growth in 2013-14 and Prospects for 2014-15' was published in the September 2014 issue of the Reserve Bank of India Bulletin.

1. Introduction

The productive capacity of an economy is acquired from the fixed assets formation in its industries. A capital expenditure or CapEx is said to be incurred when a business entity either buys fixed assets or adds value to existing fixed assets with a useful life that extends beyond an accounting year. Economic growth takes place when such capital expenditure is undertaken for new projects, or for expansion, modernisation or diversification of business activity. Thus, it can be said that capital expenditure is a barometer of economic development of a country.

This article captures investment intentions of companies in private and joint business sector based on the financing details of such investments. The phasing plans furnished by companies indicated the likely level of capital expenditure that would have been made during 2014-15. The capital expenditure of pipelined projects is also estimated for the following year (2015-16).

The article is organised in five sections. Section 2 briefly presents the methodology, scope, coverage and the limitations. Section 3 outlines nature of new projects planned by the corporates in 2014-15. It covers all projects where funds have been raised through banks/ FIs/ capital markets/ external commercial borrowings (ECBs). However, due to the paucity of detailed data, analysis at disaggregated levels according to size-class, industrial sector, location/ State and purpose have been made only for institutionally assisted projects. Section 4 estimates how much capital expenditure the corporate sector planned to have incurred during 2014-15. Section 5 looks into the trends in other sources of financing of corporate investment in projects *e.g.* debt private placement and foreign direct investment (FDI). Section 6 presents an outlook for corporate investment during 2015-16 based on current economic scenario.

2. The Approach – Methodology, Coverage and Limitations

While obtaining financing details of investment (i.e., capital expenditure) intentions of the companies in private and joint business sector from responding banks / FIs, the phasing details indicated by the companies are also acquired. This information is analysed to capture the capital expenditure that would have been made during the implementation of the project and juxtaposed with the CapEx envisaged from pipeline projects captured in previous years. This is in line with the methodology proposed by Dr. C. Rangarajan in his article titled 'Forecasting Capital Expenditure in the Corporate Sector' published in the December 13, 1970 issue of the "Economic and Political Weekly" and subsequent studies published by other authors. The envisaged phasing details of the total project cost as mentioned in the project proposals by companies should indicate the likely level of capital expenditure (CapEx) in the years of their implementation.

It is also seen that companies have been funding their capital expenditure through various channels. Apart from arranging finances from Banks/FIs and through domestic IPOs, companies are also increasingly raising funds through several other avenues such as ECBs/FCCBs / Private Placement of Debt/ American Depository Receipts (ADRs)/ Global Depository Receipts (GDRs)/ FDI, etc. In case financial assistance has been received by a company from more than one channel *i.e.,* banks/FIs, ECBs/FCCBs and IPOs, care was taken to include the project only once, to the extent possible.

The estimate of Capital Expenditure made in this study is largely based on projects in the Private Corporate Sector that were financially assisted by banks/FIs. Such data were obtained from Banks/ FIs, which include various components such as 'Total Project Cost' and 'Phasing Details' together with information on 'Purpose', 'Industry' and 'Location' of the project. However, the assessment of corporate investment rests on the assumption that the companies would largely stick to their plans of envisaged expenditure outlined in their proposals.

Capital spending envisaged by companies that raised funds through ECBs/FCCBs, IPOs were also captured and included in this study. The data for this purpose was sourced from Form 83 submitted to RBI by companies contracting ECBs/ FCCBs and information on funds raised by companies through IPOs was obtained from the inputs provided by SEBI. However, there is an inadequacy of information on the end-use and spending pattern over the years in case of companies raising funds through Private Placement/ FDI/ ADRs/ GDRs. Projects not financed through any of the above mentioned channels or of size lower than ₹100 million are not covered in this study. Moreover, in case of roads and bridges projects falling under the category of 'Infrastructure', projects implemented on 'Build Operate & Transfer (BOT)', 'Design, Build, Finance, Operate & Transfer (DBFOT)', 'Engineering, Procurement & Construction (EPC) Contract' basis are not included, since the focus is on private corporate investment. It may also be noted that estimates of corporate investment presented in this article are *ex ante* and differ in scope and methodology from the *ex-post* estimates of corporate fixed investment available in National Accounts Statistics (NAS).

3. Projects Planned during 2014-15

During 2014-15, 39 banks/FIs[1], who are actively involved in project finance, reported 328 projects with an envisaged project cost of ₹ 876 billion, each with project cost of ₹ 100 million and above. In addition, 478 companies contracted ECBs/FCCBs in 2014-15 to the tune of ₹ 572 billion and investment of ₹ 11 billion was proposed by 24 companies raising resources by issue of domestic equity during 2014-15, which did not avail of finances from the responding banks/FIs.

[1] All public sector and major private sector and foreign banks, Infrastructure Development Finance Company (IDFC), Industrial Financial Corporation of India (IFCI), Life Insurance Corporation (LIC), Power Finance Corporation (PFC), Infrastructure Leasing & Financial Services Limited (IL&FS) and Export-Import Bank of India.

Table 1: Spending Pattern of Projects Sanctioned by Banks/FIs in 2013-14 and 2014-15

(₹ in billion)

Envisaged Capital expenditure in the Year →	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
	1	2	3	4	5	6	7	8	9	10
Projects Sanctioned in 2013-14	Number of Projects : 472									
	13 (1.1)	151 (11.9)	348 (27.3)	449 (35.3)	199 (15.6)	71 (5.6)	27 (2.1)	15 (1.2)	- -	1,273 (100.0)
Projects Sanctioned in 2014-15	Number of Projects: 328									
	- -	1 (0.1)	148 (16.9)	348 (39.7)	259 (29.6)	95 (10.9)	12 (1.4)	2 (0.2)	10 (1.2)	876 (100.0)

- : Nil/Negligible.

Note: Figures in the brackets denote percentage share in the total.

Thus, all together, 830 companies made investment plans in 2014-15 aggregating ₹1,459 billion as against the investment intentions of 1,065 companies totalling ₹ 2,148 billion captured in 2013-14 (which stands revised to ₹2,081 billion by 1,056 companies, due to cancellation / revision).

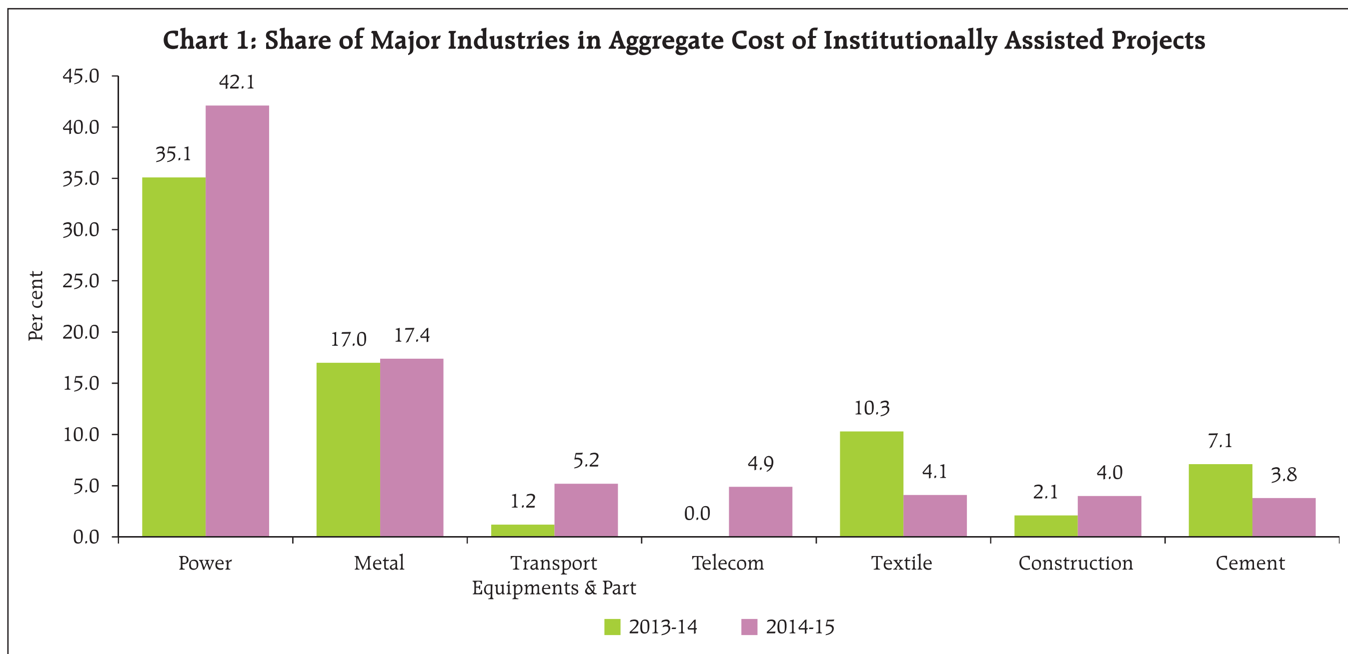
3.1. Aggregate cost of Projects Funded/ Assisted by Banks/ Financial Institutions reduced further

During 2014-15, 328 projects with envisaged cost of ₹ 876 billion were sanctioned financial assistance by banks/FIs as against 481 projects with an outlay of ₹1,340 billion in 2013-14. However, 9 such projects were cancelled and 4 were modified during the current year and, as such, the cost of projects sanctioned during 2013-14 has been revised to ₹1,273 billion.

The phasing details of fresh sanctions in 2014-15 indicated that around 39.7 per cent (₹ 348 billion) of the total proposed expenditure was planned to be incurred in the year of sanction, and another 29.6 per cent (₹259 billion) was to be spent in the next year (2015-16). It may be noted that an amount of ₹119 billion (13.7 per cent) was proposed to be spent beyond 2015-16. In previous year's study, an amount equivalent to 24.5 per cent was proposed to be spent cumulatively beyond 2 years from the period of sanction. Around 17 per cent of total project cost envisaged by projects in 2014-15 was already spent in the previous years, *i.e.,* in 2013-14 and 2012-13 (Table 1). The size wise and purpose wise pattern of projects as analysed in para 3.1.2 and 3.1.4 reveal the possible reasons of the significant reduction in elongation of the implementation period. It also implies that in future the investment from the pipeline projects would be drying up and more investment would have to come from 'New' initiatives to match the investment (Table 2).

3.1.1 Industrial Pattern of Projects – the share of infrastructure projects increased

An analysis of the industrial pattern of projects shows that investment plans in 2014-15 were led by 'Power' and 'Metal' followed by 'Transport Equipment & Parts', 'Telecom' and 'Textile' industries. The share of power sector accounted for 42.1 per cent of the total cost of envisaged projects which is higher than 35.1 per cent of the previous year. It may be noted that the telecom industry recorded a steep rise at 4.9 per cent compared with a negligible share in 2013-14. Share of Construction industry has increased to 4.0 per cent compared with 2.1 per cent share in the previous year. Power, Metal & Telecom industries together accounted for 64.4 per cent of the total project costs in the current year, resulting in higher percentage share of infrastructure sector over the previous year (Chart 1 and Annex 1).



3.1.2 Size-wise Pattern of Projects – Share of high-value projects decreased

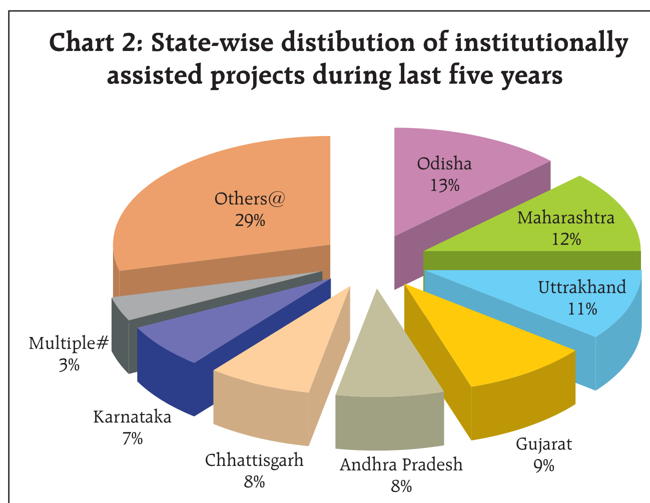
A look at the size wise pattern of projects for the current year indicated that there was only one mega (₹50 billion & above) project which has been undertaken. While the number of high value projects (with envisaged cost of ₹10 billion and above) decreased, their share in the total project cost at 59.5 per cent remained almost the same as that of last year. Out of the 328 institutionally assisted projects, more than 50 per cent of the projects (223 projects) are small with size of less than ₹ 1 billion (Annex 2).

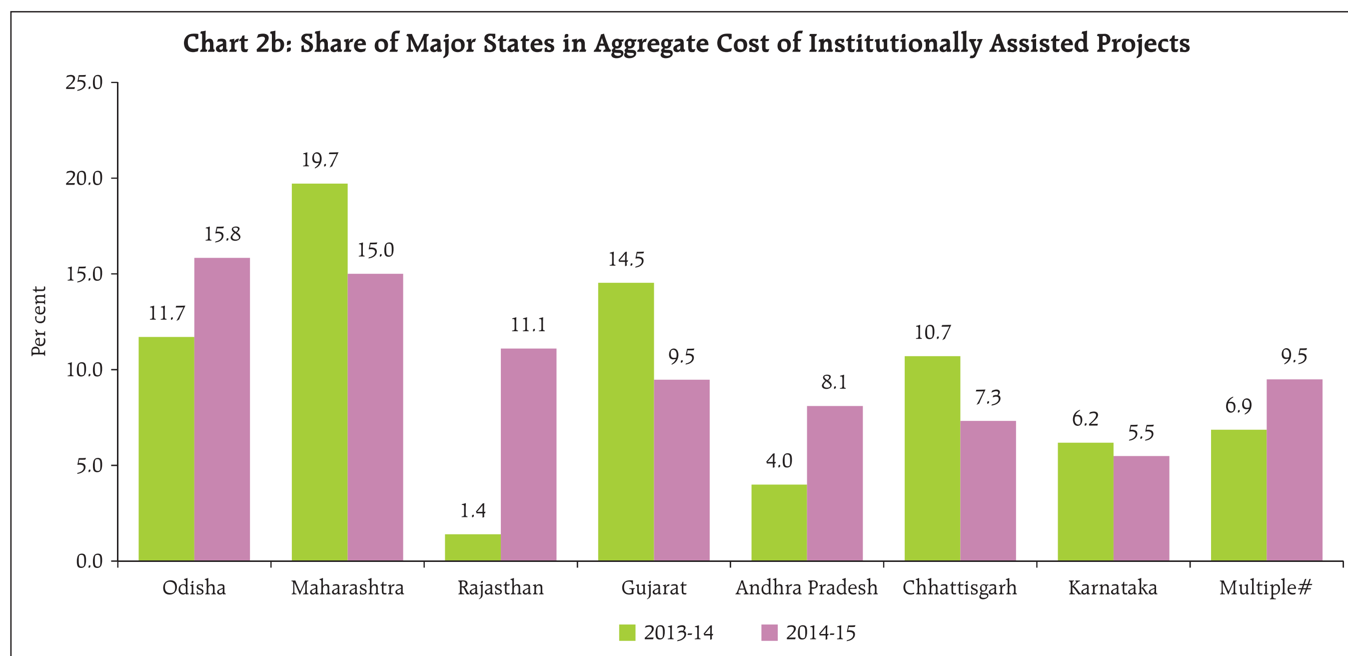
3.1.3 State-wise Pattern of Projects – Reflecting industry preference

The data for spatial distribution of projects is available only for those financed by Banks/FIs. Location of projects changes from year to year depending on various factors such as accessibility of raw material, nature of project, skilled labour, adequate infrastructure, market size, growth prospects, suppliers and good demand for the product.

A look at the data over the last five year period (2010-11 to 2014-15) shows that majority of the projects were taken up in the states of Odisha, Maharashtra, Uttarakhand, Gujarat, Andhra Pradesh and Chhattisgarh, accounting for nearly 61 per cent of the envisaged project cost of that period (Chart 2a).

Odisha, Maharashtra, Rajasthan, Gujarat, Andhra Pradesh and Chhattisgarh received higher investment for the major industries, accounting for 66.8 per cent of envisaged project cost of institutionally assisted projects in the current year. Majority of power projects were taken up in Chhattisgarh and Utter Pradesh while 'Textile' sector was dominated by Gujarat and Maharashtra. Major 'Metal' projects were based in





Odhisa and Maharashtra, while 'Telecom', 'Hotels' and 'Cement' were spread across multiple states (Chart 2b).

3.1.4 Purpose-wise Pattern of Projects: Fresh investments in new projects reduced considerably

The purpose of projects, financed by banks/FIs has been classified into four groups such as 'New', 'Expansion/Modernisation', 'Diversification' and 'Others'. A look at the purpose-wise pattern of projects indicated that investment in 'New Projects' accounted for 39.7 per cent of the total cost of projects in the current year indicating a sharp reduction, as against 65.2 per cent share in the previous year. There were 92 projects in the group of 'Expansion and Modernisation' having a share of 14.6 per cent (Annex 4). It is observed that the big ticket 'New projects' with longer gestation periods have reduced in recent times.

3.2 Project funding through ECBs (including FCCBs) reduced considerably

During 2014-15, 478 private sector companies contracted funding through ECBs/FCCBs for the purpose of CapEx, which were not figuring in the institutionally assisted projects discussed above. These companies mobilised funds amounting to ₹ 572 billion to be spent on the projects. The corresponding figure for 2013-14 was ₹803 billion mobilised by 563 companies, which was higher in terms of number and amount compared with the previous five years. However, there is a reduction in the funding through ECBs/ FCCBs in 2014-15 (Table 3).

3.3 Contribution of IPOs/FPOs/ Right Issues remains low

During 2014-15, 24 non-government non-financial companies raised ₹11 billion through public/rights issues to fund their capital projects in comparison with ₹5 billion raised by 21 companies in 2013-14. Care has been taken to ensure that the projects receiving financial assistance from banks/FIs or contracting ECBs / FCCBs for financing the capital expenditure are not included here. Though the amount raised in 2014-15 through IPOs has been more than the previous year, it still remains very low compared to the other modes of financing (Table 4).

4. Envisaged Capital Expenditure during 2014-15

4.1 Envisaged capital expenditure on projects financed by banks/FIs went further down

The likely investment of private corporate sector in a given year is arrived at by suitably aggregating the

envisaged capital expenditure intended by companies on projects that were sanctioned assistance in various years up to that year. The data so consolidated are presented in Table 2. When horizontally read, it shows the CapEx that was expected to take place on projects sanctioned assistance in a particular year. In case of financial assistance received by a company from more than one channel i.e., banks/FIs, ECBs/FCCBs and IPOs, sufficient care was taken to avoid duplication of inclusion of the project in the database.

The time phasing details reflect the capital expenditure likely to be incurred over the implementation period of the project. A summation of these expenses (column-wise) indicates the total envisaged CapEx in that particular year. It is evident from Table 2 that CapEx of ₹936 billion would have been made during 2014-15 on projects sanctioned by banks/FIs prior to 2014-15. In addition, a sum of ₹348 billion is estimated to be spent during the current year on fresh projects. Thus, the aggregate CapEx planned to be incurred in 2014-15 amounts to ₹1,284 billion, which showed a decline of 30.8 per cent over the previous year (Table 2).

4.2 Envisaged capital expenditure on projects funded through ECBs (including FCCBs) decreased

In 2014-15, 478 non-government non-financial private limited companies contracted ECBs/FCCBs to the tune of ₹ 572 billion to part finance their capital projects. It is observed from Table 3 that a CapEx of ₹ 274 billion has been estimated to be spent during the current year based on projects sanctioned prior to 2014-15, and an additional sum of ₹ 368 billion is estimated to be spent on fresh projects. Thus, aggregate CapEx planned to be incurred in 2014-15 amounts to ₹ 642 billion, reflecting a reduction of 18.5 per cent, compared with the previous year.

4.3 Envisaged capital expenditure on projects funded through IPOs/FPOs/Rights Issues remains low

In 2014-15, 24 non-government non-financial private limited companies raised funds amounting to ₹11 billion through IPOs/FPOs/Rights Issues to part

Table 2: Phasing of Capital Expenditure of Institutionally Assisted Projects by Banks/FIs

Year of sanction ↓	Project Cost in the Year of Sanction	Project Cost due to Revision/ Cancellation@	Envisaged Capital expenditure in the Year ® (₹ billion)										
			2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Beyond 2015-16
	1	2	3	4	5	6	7	8	9	10	11	12	13
upto 2005- 06			593	291	97	24	18						
2006-07	2,834	2,754(2.8)	946	942	496	148	31	20					
2007-08	2,844	2,297(19.2)	113	593	723	411	326	78	47				
2008-09	4,228	3,111(26.4)	1	263	1,013	829	529	346	84	46			
2009-10	5,560	4,095(26.3)		2	436	1,324	1,161	747	314	77	34		
2010-11	4,603	3,752(18.5)			3	286	1,071	1,046	788	464	85	1	9
2011-12	2,120	1,916(9.6)				57	230	669	554	282	95	29	-
2012-13	1,963	1,895(3.5)					1	367	567	490	273	112	85
2013-14	1,340	1,273(5.0)						13	151	348	449	199	113
2014-15	876								1	148	348	259	119
Grand Total #			**1,653**	**2,091**	**2,768**	**3,079**	**3,367**	**3,286**	**2,506**	**1,855**	**1,284**	**600**	**326**
Percentage change				**26.5**	**32.4**	**11.2**	**9.4**	**-2.4**	**-23.7**	**-26.0**	**-30.8**	*****	

#: The estimate is ex ante, incorporating only envisaged investment, they are different from those actually realised/utilised.
*: Per cent change for 2015-16 is not worked out as CapEx from proposals that are likely to be sanctioned in 2015-16 is not available.
@ : Figures in bracket are percentage of cancellation

Table 3 : Phasing of Capital Expenditure of Projects funded through ECBs/ FCCBs *

Loans contracted in	No of Companies	Total loan contracted (₹ billion)	Envisaged drawal schedule of capital expenditure (₹ Billion)								
			2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Beyond 2015-16
	1	2	3	4	5	6	7	8	9	10	11
Upto 2007-08	1,703	1,427	197	19	0	0	0				
2008-09	272	312	220	121	1						
2009-10	255	324		148	143	22	2				
2010-11	302	316			174	109	27	5			
2011-12	438	379				252	128	19	1		
2012-13	519	660					378	203	63	13	
2013-14	563	803						562	210	31	3
2014-15	478	572							368	168	38
Total	**4,530**	**4,794**	**417**	**288**	**318**	**383**	**534**	**788**	**642**	**212**	**41**

* :Projects which did not receive assistance from banks/FIs/ IPOs.

finance their capital projects. It is evident from Table 4 that CapEx of ₹5 billion would have been spent on projects funded through IPOs/ FPOs/ Right Issues prior to 2014-15. A sum of ₹2 billion is estimated to be spent in 2014-15. The aggregate CapEx so planned to be incurred amounts to ₹7 billion (total under column 9 of Table 4).Thus, CapEx through this route has increased marginally compared with the previous year.

4.4. Envisaged capital expenditure in aggregate declined

Considering the combined figures as indicated in Paras 4.1, 4.2 and 4.3, it is estimated that a total CapEx of ₹1,933 billion would have been incurred by the companies in 2014-15. Of this ₹718 billion is planned to be spent by the companies on the fresh projects in 2014-15. Thus, the total CapEx planned to be spent in the year 2014-15 reflects a reduction of 27.0 per cent over the previous year (Table 5).

5. Finances through Private Placement, FDI and other sources have increased

A look at the five years data on the mobilisation of funds through private placement of debt indicates that funding of projects through this route decreased to ₹270 billion in 2011-12 compared with ₹429 billion

Table 4: Phasing of Capital Expenditure of Projects Funded Through Equity Issues*

Equity issued during	No. of Companies	Capex Envisaged (₹ billion)	Implementation Schedule (₹ billion)								
			2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Beyond 2015-16
	1	2	3	4	5	6	7	8	9	10	11
Upto 2007-08	158	205	200	5							
2008-09	21	9	8	1							
2009-10	19	17	2	8	7	1					
2010-11	30	21		1	12	6	2				
2011-12	21	10			2	5	3				
2012-13	25	11					5	5	1		
2013-14	21	5							4	1	
2014-15	24	11							2	6	3
Total	**319**	**289**	**210**	**15**	**21**	**12**	**10**	**5**	**7**	**7**	**3**

* :Projects which did not receive assistance from banks/FIs/ECBs/FCCBs

Table 5 : Phasing of Capital Expenditure of Projects Funded Through Banks/IPOs/ECBs/FCCBs/IPOs

Year of sanction ↓	No. of Companies	Project Cost (₹ billion)	Envisaged Capital expenditure in the Year ® (₹ billion)								
	Banks/ FIs, ECBs/ FCCBs/ IPOs		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Beyond 2015-16
	1	2	3	4	5	6	7	8	9	10	11
Upto 2007-08	5,306	7,996	1,713	607	375	98	47	-	-	-	-
2008-09	1,001	3,432	1,241	951	530	346	84	46	-	-	-
2009-10	1,003	4,436	438	1,480	1,311	770	316	77	34	-	-
2010-11	1,029	4,089	3	287	1,257	1,161	817	469	85	1	9
2011-12	1,095	2,305	-	57	232	926	685	301	96	29	-
2012-13	958	2,566	-	-	1	367	950	698	337	125	85
2013-14	1,056	2,081	-	-	-	13	151	910	663	231	116
2014-15	830	1,459	-	-	-	-	1	148	718	433	160
Total #			**3,395**	**3,382**	**3,706**	**3,681**	**3,050**	**2,648**	**1,933**	**819**	**370**
Percentage change				**-0.4**	**9.6**	**-0.7**	**-17.1**	**-13.2**	**-27.0**	*****	

#: The estimate is ex ante, incorporating only envisaged investment, they are different from those actually realised/utilised.
*: Per cent change for 2015-16 is not worked out as capex from proposals that are likely to be sanctioned in 2015-16 is not available.

in 2010-11. However, it has risen to ₹757 billion in 2014-15 compared with ₹424 billion in the previous year, indicating a substantial rise in project investment through this channel (Table 6).

As per the available information, non-financial companies in private corporate sector raised funds through ADRs/ GDRs to the tune of ₹23.19 billion in 2014-15 (₹2.19 billion in 2013-14). A noticeable increase was also observed in total FDI inflows in equity, re-invested earnings and other capital from US$ 36 billion in 2013-14 to US$ 44.9 billion in 2014-15. However, the investment intentions of companies using their internal sources or raising funds exclusively through private placements of debenture/ bonds or FDI or through ADRs/ GDRs could not be captured due to inadequacy of information on the end-use and the spending pattern over the years.

Table 6: Debt Private Placements

Period	Issue Amount (in ₹ Billion)
2010-11	429
2011-12	270
2012-13	591
2013-14	424
2014-15	757

Source: PRIME Database

6. Outlook on Investment for 2015-16 – Expectation of a turn-around persists

As per the methodology indicated in this article, envisaged capital expenditure in 2015-16 would be the summation of pipeline investment intentions of the projects, which were taken up prior to 2015-16 and the new capital spending proposals expected to come up in the year 2015-16. Tables 2, 3 and 4 reveal that the capital expenditure already planned for 2015-16 amounted to ₹819 billion (total project cost financed by banks/FIs: ₹600 billion; drawal from ECBs/ FCCBs: ₹212 billion and funding through domestic equity issues: ₹7 billion), if the companies stick to their investment plans. In order to improve the level of CapEx envisaged in 2014-15, a capital expenditure exceeding ₹1,114 billion would have to come from new investment intentions of the private corporate sector in 2015-16.

In 2014-15, domestic economic activity was weak marked by subdued corporate performance, low manufacturing growth and a sluggish credit expansion. However, there were some positive signs such as lower inflation, lower fiscal and current account deficit and surging foreign investment inflows. The low

manufacturing growth could improve with policy efforts and better input supply. Though consumption demand remained weak, an upturn in the capital goods production seems underway, which could signal a revival in the investment cycle.

Positive measures for unclogging of stalled projects, addressing the financial stress of certain sectors like power, arising out of under utilisation of capacities, on a priority basis (as brought out by the survey under quarterly 'Order Books, Inventories and Capacity Utilisation Survey (OBICUS)' October-December 2014 (28th Round) published on the RBI website), and timely implementation of supportive policies and reforms could pave the way for a momentum in private investment to expect a turnaround of the economy in the coming months.

Annex 1: Industry-wise Distribution of Institutionally Assisted Projects: 2005-06 to 2014-15

Industry	2005-06		2006-07		2007-08		2008-09		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15	
	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share
Infrastructure	109	33.9	123	36.5	124	39.4	97	45.1	100	48.9	120	53.7	107	47.4	88	49.2	87	39.8	75	48.8
i) Power	66	26.9	62	18.3	60	29.4	54	27.9	75	30.7	104	46.2	82	42.4	71	39.4	70	35.1	66	42.1
ii) Telecom	5	2.0	9	6.5	7	1.6	6	10.9	6	16.4	2	5.7	1	0.0	2	5.6	1	-	1	4.9
iii) Ports & Airports	3	1.8	7	3.9	6	0.9	4	2.8	2	0.3	1	0.7	1	1.3	1	1.9	1	0.8	-	-
iv) Storage & Water Management	13	1.0	5	4.6	4	2.1	2	0.0	2	0.9	1	0.0	12	0.5	-	-	5	1.1	2	0.5
v) SEZ, Industrial, Biotech and IT Park	13	1.4	37	3.1	47	5.4	28	3.2	15	0.6	12	1.1	11	3.2	8	0.9	8	1.5	3	0.9
vi) Roads & Bridges	9	0.8	3	0.1	-	-	3	0.1	-	-	-	-	-	-	-	-	2	1.2	3	0.3
Food Products	31	0.9	38	0.9	41	0.7	50	1.0	41	0.5	39	0.7	41	1.5	36	0.9	43	1.8	35	3.1
Sugar	20	2.2	33	3.2	16	1.3	21	1.2	21	0.8	21	0.8	12	1.1	5	0.5	8	0.8	6	1.3
Textiles	158	10.8	255	9.2	116	4.5	45	1.2	77	2.2	77	2.9	94	7.0	31	1.9	58	10.3	50	4.1
Petroleum Products	2	0.8	10	14.3	5	7.5	4	0.1	2	1.3	3	2.6	3	1.2	-	-	1	0.5	1	3.4
Chemicals & Pesticides	26	2.3	35	1.5	25	1.0	27	1.7	28	0.8	27	1.3	17	3.5	19	1.1	15	1.0	7	2.6
Glass & Pottery	10	0.8	9	0.3	9	0.4	6	0.3	9	0.2	6	0.4	10	1.3	3	-	11	0.3	19	0.7
Cement	13	1.5	26	3.7	24	5.9	28	6.0	29	2.8	14	2.4	9	2.0	11	3.9	12	7.1	7	3.8
Metal & Metal Products	126	16.6	130	14.5	122	15.6	97	17.7	134	18.1	113	21.1	73	16.3	51	28.9	44	17.0	17	17.4
Electrical Equipment	17	0.6	22	0.4	26	0.9	17	1.3	16	0.2	24	2.0	12	0.3	10	1.9	9	2.0	7	0.2
Transport Equipment & Parts	13	0.8	29	1.9	38	3.5	30	3.0	25	1.3	28	0.8	26	2.6	17	0.9	16	1.2	7	5.2
Construction	33	3.6	33	3.2	38	3.9	30	10.8	20	11.5	18	3.3	22	1.7	20	2.8	27	2.1	29	4.0
Hotel & Restaurants	37	3.4	74	4.0	51	3.9	57	2.8	56	2.6	63	3.5	51	4.6	31	3.1	29	2.7	15	1.1
Transport Services	21	12.9	17	0.6	17	1.4	14	1.0	22	1.4	14	0.6	19	2.7	16	1.7	15	0.5	5	0.6
Hospitals	14	0.8	21	0.5	27	1.3	16	0.5	23	0.9	22	0.6	9	0.3	17	1.4	10	0.7	2	0.1
Entertainment	9	1.4	20	0.3	10	0.5	19	1.2	12	1.1	5	0.8	9	1.3	7	0.2	9	2.5	2	0.3
Others*	173	6.7	170	5.1	179	8.3	150	5.3	114	5.5	103	2.5	122	5.0	58	3.0	78	9.7	44	3.3
Total	**812**	**100.0**	**1,045**	**100.0**	**868**	**100.0**	**708**	**100.0**	**729**	**100.0**	**697**	**100.0**	**636**	**100.0**	**414**	**100.0**	**472**	**100.0**	**328**	**100.0**
Total Cost of Projects (₹ in Billion)	**1,313**		**2,754**		**2,297**		**3,111**		**4,095**		**3,752**		**1,916**		**1,895**		**1,273**		**876**	

*: Comprise industries like Pharmaceuticals & Drugs, Agricultural, Mining, Paper, Printing, Rubber, IT Software, Communication, and Trading etc.
-: Nil/Negligible.

Annex 2: Size-wise Distribution of Projects and their Envisaged Cost in 2005-06 to 2014-15

Period		Less than ₹1 billion	₹1 billion to ₹5 billion	₹5 billion to ₹10 billion	₹10 billion to ₹50 billion	₹50 billion & above	TOTAL*
2005-06	No of Projects	596	167	23	24	2	**812**
	Per cent Share	13.0	29.9	11.7	32.2	13.2	**100.0 (1,313)**
2006-07	No of Projects	714	245	37	41	8	**1,045**
	Per cent Share	9.5	19.4	9.1	31.4	30.6	**100.0 (2,754)**
2007-08	No of Projects	558	228	35	43	4	**868**
	Per cent Share	9.3	22.5	10.7	38.3	19.3	**100.0 (2,297)**
2008-09	No of Projects	420	194	35	48	11	**708**
	Per cent Share	5.1	14.1	7.5	29.7	43.7	**100.0 (3,111)**
2009-10	No of Projects	439	189	40	39	22	**729**
	Per cent Share	3.8	11.0	6.8	20.8	57.5	**100.0 (4,095)**
2010-11	No of Projects	412	172	42	51	20	**697**
	Per cent Share	4.4	10.2	8.6	29.3	47.5	**100.0 (3,752)**
2011-12	No of Projects	420	145	36	26	9	**636**
	Per cent Share	8.3	17.0	13.7	27.6	33.4	**100.0 (1,916)**
2012-13	No of Projects	245	119	20	23	7	**414**
	Per cent Share	4.8	14.6	7.3	26.8	46.4	**100.0 (1,895)**
2013-14	No of Projects	306	115	25	21	5	**472**
	Per cent Share	8.3	20.0	13.9	29.1	28.7	**100.0 (1,273)**
2014-15	No of Projects	223	67	18	19	1	**328**
	Per cent Share	9.0	16.9	14.6	47.6	11.9	**100.0 (876)**

*: Figures in brackets are total cost of projects in ₹ billion.

Annex 3: State-wise Distribution of Institutionally Assisted Projects: 2005-06 to 2014-15

State	2005-06		2006-07		2007-08		2008-09		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15	
	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share	Number of Projects	Per cent Share
Odisha	20	3.4	23	5.4	21	13.1	15	9.0	25	13.9	25	7.4	15	6.3	10	26.8	10	11.7	5	15.8
Maharashtra	121	18.9	140	8.7	141	9.7	110	18.1	117	10.0	71	7.4	86	19.1	67	10.7	76	19.7	39	15.0
Rajasthan	27	1.9	38	3.6	22	1.2	22	0.6	23	2.9	28	0.8	49	4.9	41	5.3	24	1.4	29	11.1
Gujarat	95	18.7	84	26.3	95	26.4	75	18.4	69	3.2	65	9.6	75	9.0	58	5.6	66	14.5	71	9.5
Andhra Pradesh	76	8.6	103	8.7	87	7.8	74	7.6	73	7.1	65	11.4	52	5.1	35	5.7	37	4.0	24	8.1
Chhattisgarh	19	3.9	13	0.9	10	4.7	16	2.3	23	6.0	31	12.1	11	2.4	9	4.1	16	10.7	8	7.3
Karnataka	51	3.5	91	7.2	62	4.1	44	2.4	42	1.4	40	7.2	39	12.0	20	1.6	39	6.2	28	5.5
Uttar Pradesh	50	7.9	60	3.6	41	4.2	32	3.1	27.0	0.4	32	4.6	42	7.8	26	4.4	21	1.1	20	5.4
Madhya Pradesh	12	1.9	23	1.8	18	0.6	20	7.2	23	4.2	21	5.2	16	5.6	13	3.9	30	6.1	14	3.9
Tamil Nadu	124	9.3	156	6.9	94	5.1	63	2.3	66	5.5	93	6.1	58	5.7	22	1.8	33	5.4	27	2.9
Haryana	29	1.4	42	1.4	28	1.2	24	1.1	29	2.6	35	0.8	45	1.4	18	1.2	15	1.1	11	1.8
West Bengal	27	1.9	37	1.2	41	2.6	43	3.0	33	2.6	29	3.3	19	4.9	13	1.0	12	1.2	9	1.3
Jharkhand	8	0.3	13	2.6	15	2.9	9	1.7	11	2.7	9	3.5	12	1.3	8	1.2	4	0.3	2	0.7
Punjab	27	1.6	48	2.1	29	0.7	23	0.7	23	0.4	38	1.1	37	1.7	12	10.9	28	1.5	6	0.3
Uttrakhand	24	2.3	31	2.0	27	0.7	19	0.8	23	0.7	10	0.1	7	1.4	5	0.6	5	0.1	5	0.2
Kerala	8	0.8	10	0.2	13	0.1	5	0.1	11	0.5	4	-	3	0.1	3	0.3	3	-	4	0.2
Multiple#	29	4.4	46	9.2	61	10.3	55	19.0	45	29.0	48	16.2	34	4.5	15	7.7	23	9.0	10	9.5
Others@	65	9.3	87	8.2	63	4.6	59	2.6	66	6.9	53	3.2	36	6.8	39	7.2	30	6.0	16	1.4
Total*	**812**	**100.0**	**1,045**	**100.0**	**868**	**100.0**	**708**	**100.0**	**729**	**100.0**	**697**	**100.0**	**636**	**100.0**	**414**	**100.0**	**472**	**100.0**	**328**	**100.0**
Total Cost of Projects (₹ in Billion)	**1,313**		**2,754**		**2,297**		**3,111**		**4,095**		**3,752**		**1,916**		**1,895**		**1,273**		**876**	

: Comprise projects over several States @: Comprise States/ Union Territories - : Nil/ Negligible

Note: Per cent share is the share in total project cost.

Annex 4: Purpose-wise Distribution of Institutionally Assisted Projects during 2010-11 to 2014-15

Period		New	Expansion & Modernisation	Diversification	Others	Total*
2010-11	No. of Projects	454	224	6	13	**697**
	Per cent Share	66.8	30.9	1.8	0.5	**100.0 (3,752)**
2011-12	No. of Projects	449	172	5	10	**636**
	Per cent Share	70.6	23.1	0.1	6.3	**100.0 (1,916)**
2012-13	No. of Projects	303	107	-	4	**414**
	Per cent Share	84.2	14.7	-	1.1	**100.0 (1,895)**
2013-14	No. of Projects	361	95	2	14	**472**
	Per cent Share	65.2	20.1	-	14.7	**100.0 (1,273)**
2014-15	No. of Projects	205	92	2	29	**328**
	Per cent Share	39.7	14.6	0.2	45.5	**100.0 (876)**

* : Figures in brackets are total cost of projects in ₹ billion
- : Nil/ Negligible

*Monthly Seasonal Factors of Selected Economic Time Series**

Analysis of seasonal behavior helps in differentiating between the seasonal changes and long-run changes of economic time series, which is useful for understanding the underlying economic phenomenon. This article presents the estimated monthly seasonal factors of selected 85 economic/financial time series covering five broad sectors, namely, Monetary and Banking; Price; Industrial Production; External Trade and Services Sector, over the period 2005-06 to 2014-15. Analysis of average seasonal factors during the last 10 years (2005-06 to 2014-15) revealed that the seasonal peak occurred during March-May for majority of monetary and banking indicators and Industrial production. Seasonal variation was found to be higher among sub-group (NIC 2 digit) level items of IIP-manufacturing and 'coal production'. Seasonal variation was found to be minimal in CPI (AL, RL and IW) and WPI-all commodities. WPI-food article was, however, found to have higher seasonal variation with seasonal peak in October due to festive season. On the other hand, WPI-manufactured items indicated very low variation in seasonal factors and the seasonal peak occurred in May. Among service sector indicators like 'sales of commercial motor vehicles' and 'production of commercial motor vehicles' exhibited high seasonal variation. Seasonal fluctuation of monetary and banking series was found to have moderated during the last 10 years (2005-06 to 2014-15). Out of broad categories of IIP, seasonal variation increased for 'consumer goods' (durables and non-durables), 'mining', 'manufacturing' and 'electricity'. Further, similar variation was observed in 'cement production', 'coal production', 'crude oil production' and 'petroleum refinery production'. Among WPI items, seasonal variation of 'food items' increased significantly. During 2014-15, the seasonal peak and trough was found to have shifted by one month for majority of series though seasonal variation remained same compared to the last five years (2009-10 to 2013-14).

* Prepared in the Modeling and Forecasting Division of the Department of Statistics and Information Management, Reserve Bank of India, Mumbai.

Economic variables, when measured at a frequency less than a year (*e.g.*, weekly, monthly, quarterly *etc.*), may exhibit seasonal fluctuations around its annual trend. Such seasonal variations can occur due to climatic conditions, production cycle characteristics, seasonal nature of economic activity, festivals, vacation practices *etc.* Analysis of its direction and magnitude is useful in interpretation of movements of economic variables over time. Seasonal adjustment, *i.e.*, removal of seasonal effects, helps in bringing out long-run changes in the variables and is useful from the policy perspective in understanding the underlying economic phenomenon. Prior knowledge of seasonal fluctuations also allows the economic agents to setup policies or measurements to attenuate the impact. Towards this objective, monthly seasonal factors for selected economic and financial time series of the Indian economy are being regularly published in the RBI Bulletin since 1980[1].

2. Data Coverage and Methodology

For estimating and analysing the seasonal factors, 85 monthly economic/financial time series in the Indian context, covering (i) Monetary and Banking Indicators (17 series); (ii) Wholesale Price Index (WPI) (26 series); (iii) Consumer Price Index (CPI) (3 series); (iv) Industrial Production (29 series); (v) External Trade Sector (3 series) and (vi) Service Sector Indicators (7 series) have been considered in this article.

The reference period was broadly considered as April 1994 to March 2015, *i.e.*, last 20 years. For some series, the reference period was 10 years depending on the availability of consistent time series data.

The seasonal factors have been estimated using X-13ARIMA-SEATS software package, developed by the US Bureau of Census[2], taking care of Diwali as major

[1] The previous article in the series was published in October 2014 issue of the Reserve Bank of India, Bulletin

[2] http://www.census.gov/srd/www/x13as/

festival as well as trading day effects. The seasonality of the series is further subjected to various parametric and non-parametric statistical test procedures for their statistical significance.

3. Salient Findings

3.1 Seasonal Variation during Last Ten Years (2005-06 to 2014-15)

The average monthly seasonal factors over the last ten years (2005-06 to 2014-15) are presented in Table 1. The annual estimates of seasonal variation, in terms of range (difference between peak and trough values of seasonal factors (*SF*) during a year), during the period, are presented in Table 2. The changing pattern of seasonality in the latest period *i.e.*, 2014-15 is provided in Table 3. The list of top-twenty and bottom-twenty series based on the average range of seasonal factors, during last five years (*i.e.*, 2010-11 to 2014-15) and the corresponding peak and trough months are presented in Table 4. The salient features of observed seasonal variation over the reference period are briefly discussed below.

3.2 Characteristics of Seasonal Factors

3.2.1 Seasonality across Indicators

- **Monetary and Banking Indicators:** Seasonal variation remained stable and range bound for majority of monetary and banking indicators during the last 10 years. Aggregate deposits of schedule commercial banks (SCB) exhibited the lowest seasonal variation (average range =1.8), followed by broad money (average range =2.4) and bank credit (SCB) (average range = 3.5). Within aggregate deposits, seasonal variation of time deposits started moderating post 2009-10. Seasonal variation of broad money remained at a lower level than narrow money and reserve money. Assets with the banking system (SCB) and demand deposits (SCB) exhibited very high seasonal fluctuation (Table 2). 15 out of 17 series (around 90%) have been found to have seasonal peak during March-May while seasonal trough of majority of series happened during August-September and in December (Chart 1).

- **Wholesale Price Index:** The seasonal fluctuation of WPI-all commodities increased marginally during the last 3 years primarily due to increase in seasonal fluctuation in prices of primary articles. Within primary articles, the seasonal variation of food articles remained much higher than non-food articles. Among food articles, WPI-fruit & vegetables and WPI-egg indicated the highest average seasonal variation of 17.7 and 11.2 respectively (Table 2). On the other hand, WPI-manufactured products exhibited very low seasonal fluctuation. Majority of WPI series

Chart 1: Seasonal peaks and troughs of Monetary and Banking indicators

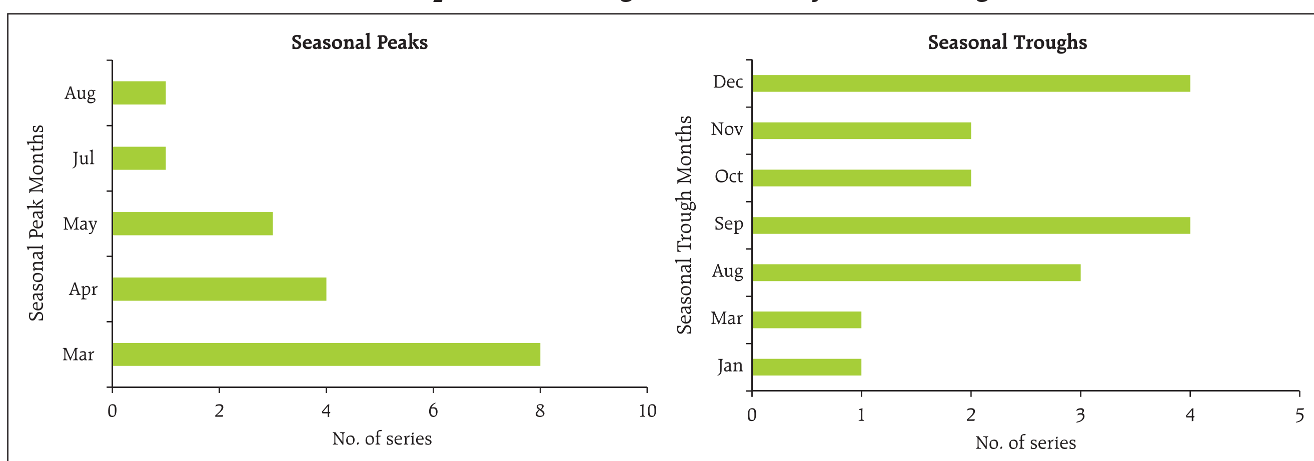
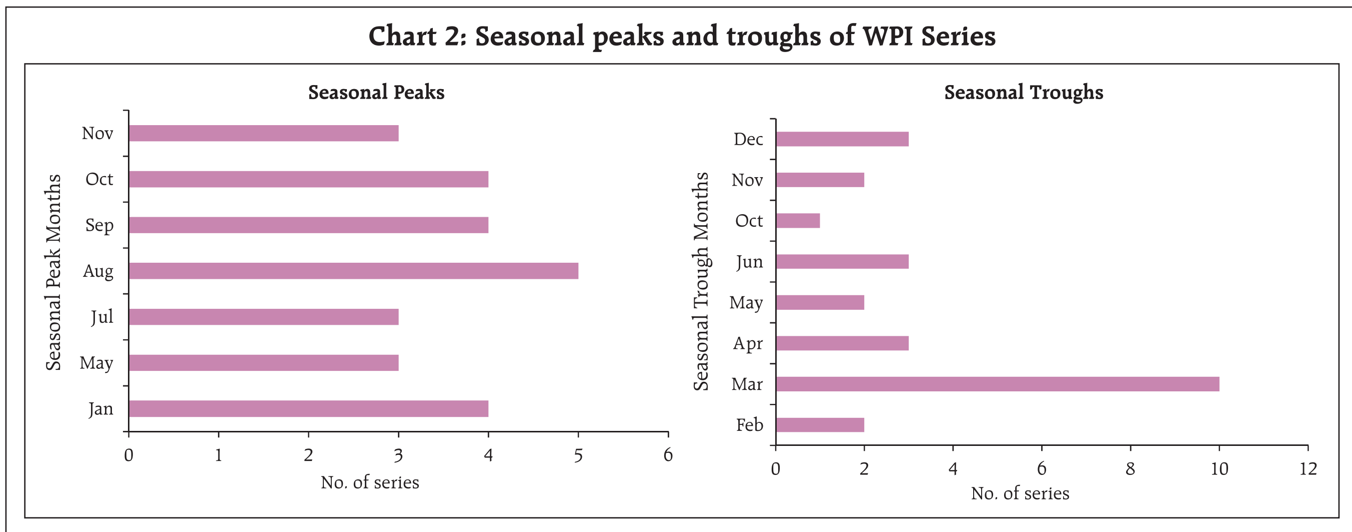


Chart 2: Seasonal peaks and troughs of WPI Series

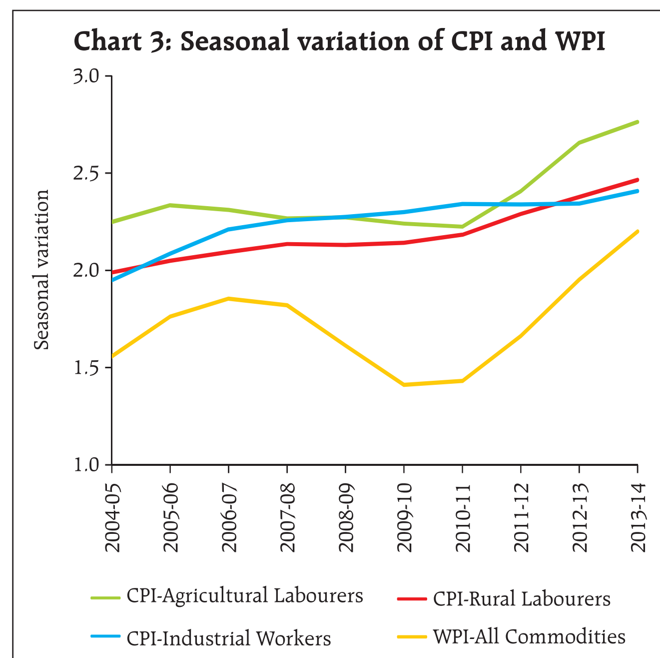


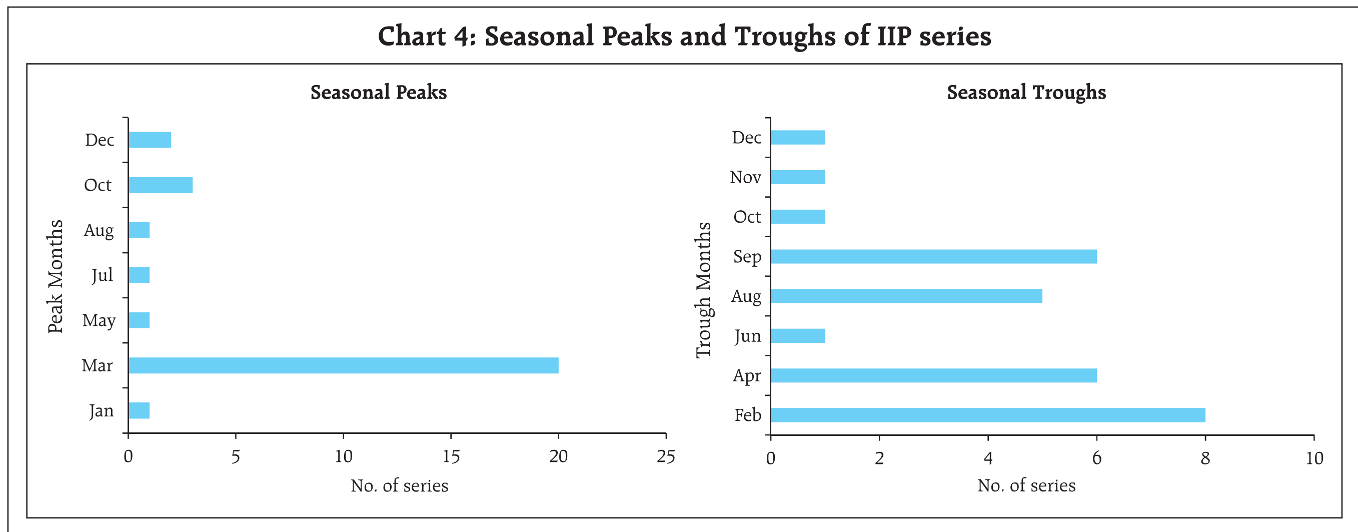
exhibited seasonal peaks in January and between August-October while the seasonal trough was visible in March for 10 out of 26 series (Chart 2). Seasonal peaks of WPI-manufactured products were observed in May whereas WPI-food articles were found to have the highest seasonality in October.

- **Consumer Price Index:** The seasonal variation in CPI series remained low. In the case of CPI for Agricultural Labourers (AL) and Rural Labourers (RL), similar movement in seasonal variations was observed during the last ten years with CPI-AL having consistently higher variation than the CPI-RL. The seasonality of different CPI series were marginally higher than WPI-all commodities. However, the gap between seasonal variation of CPI series and WPI-all commodities narrowed down in recent times (Chart 3 & Table 2). CPI series were found to have the highest seasonality in October, probably due to the festive season, while seasonal peak month for WPI occurred in August.

- **Industrial production:** The seasonal variation was found to be high in IIP-general index during the last 10 years (2005-06 to 2014-15). As per use-based classification, IIP-consumer non-durable and IIP-intermediate goods exhibited high and low seasonal fluctuation respectively (Table 2). IIP for mining and electricity exhibited the highest and the lowest seasonal variation respectively. Among the core-industries, seasonal patterns are found to be consistently higher for cement production compared to steel production. The highest seasonal fluctuation was observed in March for majority of IIP series while February, April and August-September observed low level of seasonal variation for these series (Chart 4).

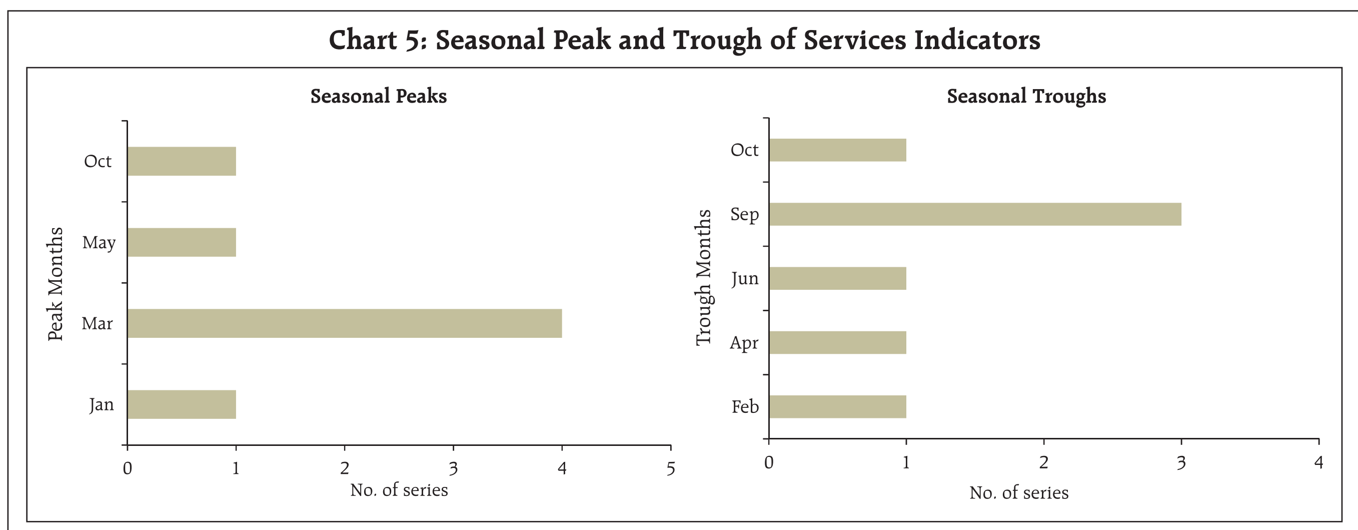
Chart 3: Seasonal variation of CPI and WPI

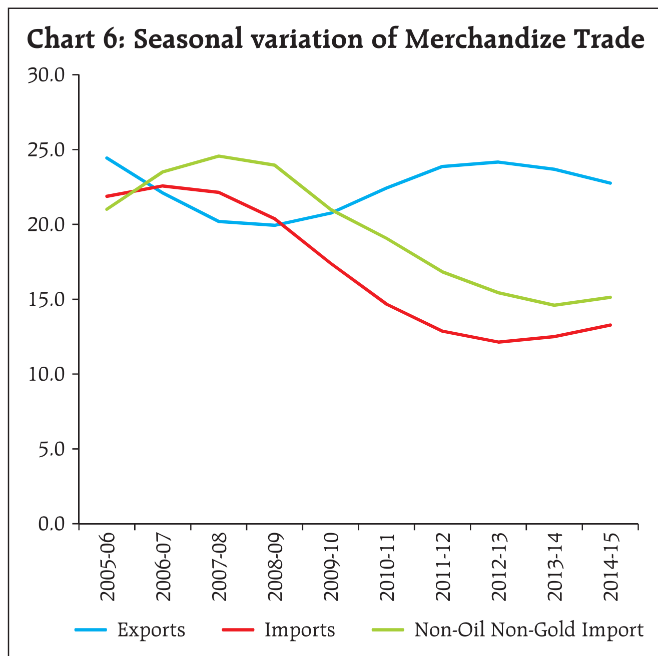




- **Service Sector Indicators:** Seasonal variation was higher for passenger kilometer flown in the domestic sector compared to that of international destinations and the gap between seasonal fluctuations widened till 2010-11 after which it started narrowing down. Expectedly, domestic passenger air traffic peaked in months of May and December coinciding with school holidays. During the reference period, seasonality in 'railway freight traffic' was higher as compared to that of 'cargo handled at major ports' and the seasonal variation of 'cargo handled at major ports' also moderated gradually (Table 2). The seasonal peak and trough were observed in March and September respectively for most of the series (Chart 5).

- **External Trade (Merchandise):** The seasonal variation in exports rose since 2009-10 while that in non-oil non-gold imports declined during the same period (Chart 6 & Table 2). Seasonal variation of merchandise exports was found to be higher in March while the trough happened in November. On the imports side, seasonality of merchandise imports (including non-oil, non-gold import) peaked in May and it was the lowest in February.





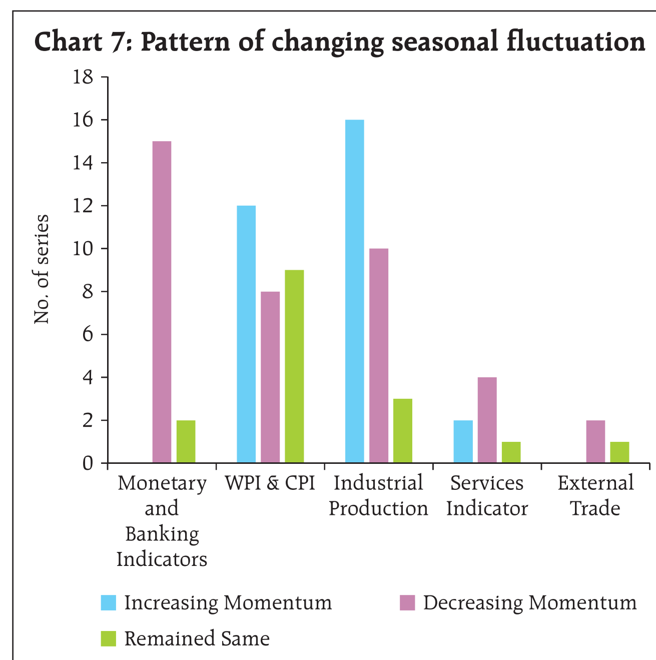
3.2.2 Indicators with High and Low Seasonality

Based on the average range of monthly seasonal factors during last five years (*i.e.,* 2010-11 to 2014-15), external trade and service sector indicators have exhibited highest seasonal volatility followed by industrial production (IIP General and its components) while seasonal variations of WPI and CPI have been found to be lower than other series. Money and banking series have shown lower seasonal variability relatively. Comparing seasonal variability of all 85 series, 'IIP-Food products and beverages' (*Peak seasonal factor value of 134.8 in January vis-à-vis trough value 69.5 in September*), 'IIP-fabricated metal products, except machinery & equipment' (*Peak seasonal factor value of 139.7 in March vis-à-vis trough value 83.2 in April*), 'coal production' (*Peak seasonal factor value of 135.8 in March vis-à-vis trough value 81.9 in September*), 'sales of commercial motor vehicles' (*Peak seasonal factor value of 128.2 in March vis-à-vis trough value 87.3 in September*) and 'production of commercial motor vehicles' (*Peak seasonal factor value of 116.8 in March vis-à-vis trough value 89.5 in June*) have exhibited high seasonal variation. On the other hand, 'WPI-manufactured products', 'WPI-non food manufactured products', 'WPI-edible oil', and 'WPI-milk' have shown low seasonal variation (Table 4).

3.3 Changing Seasonality

3.3.1 Pattern in Seasonal Fluctuation over Last 10 Years

Seasonal fluctuations in some of the indicators were found to be varying over past 10 years and also the pattern of change differed among indicators. A regression based test[3] indicates that seasonal fluctuation moderated in 39 series, 30 series exhibited increased volatility of seasonal component and remaining 16 series maintained the same level of volatility in terms of seasonality over the years (Chart 7). Out of these series, seasonal fluctuation of monetary and banking series moderated or remained same over last 10 years. Among the broad categories of IIP, seasonal variation increased for 'consumer goods' (durables and non-durables), 'mining', 'manufacturing' and 'electricity'. In the core industries, similar pattern was observed in 'cement production', 'coal production', 'crude oil production', and 'petroleum refinery production'. Among WPI items, seasonal variation of 'food items' increased significantly during the last 10 years.



[3] Seasonal fluctuation has been regressed over time and the significance of the estimated time coefficient along with sign of the coefficient has been checked.

3.3.2 Change in Seasonal Peak and Trough Months

The seasonal peak and trough months shifted in the recent period (2014-15) as compared to last 5 years (2009-10 to 2013-14) in respect of some of the indicators. However, the shift was by only one month for majority of these series. Out of 17 series under money and banking category, seasonal peak and trough month shifted for 2 series and 11 series respectively while they remained unchanged for 5 series. Similarly, out of 26 WPI series, shift in seasonal peak and trough was observed for 9 and 7 series respectively whereas no change in seasonal peak-trough was observed in 14 series (Chart 8). In the above, shifting of both peak and trough months was observed only in 5 series, namely, 'cash in hand and balances with RBI (SCB)', 'WPI-milk', 'WPI- sugar', 'WPI- edible oils' and 'WPI- non-food non-fuel'.

3.3.3 Seasonal Variation in the Latest Year

Across 85 series, seasonal variation was found to remain in the same level in 2014-15 compared to the last five years average (2009-10 to 2013-14) indicating no significant change in seasonal fluctuation in recent times (Chart 9).

Chart 8: Instance of shifting seasonal peak and trough months

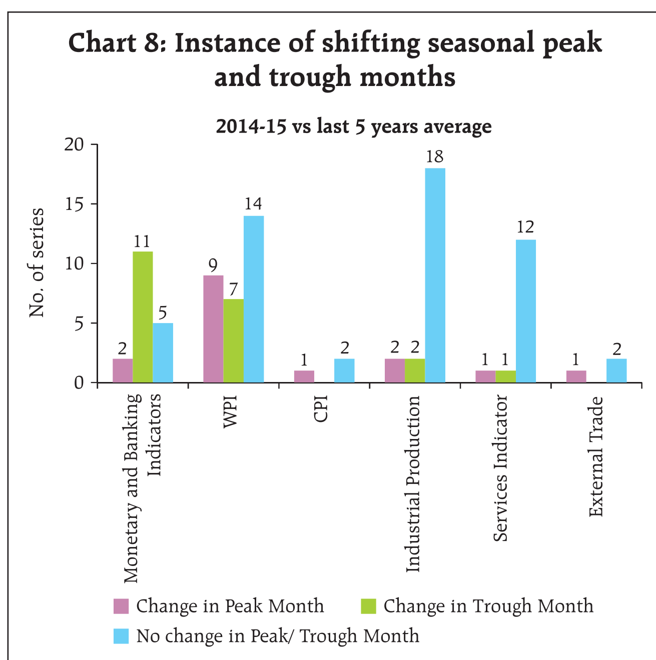


Chart 9: Comparative Analysis of Seasonal Fluctuation

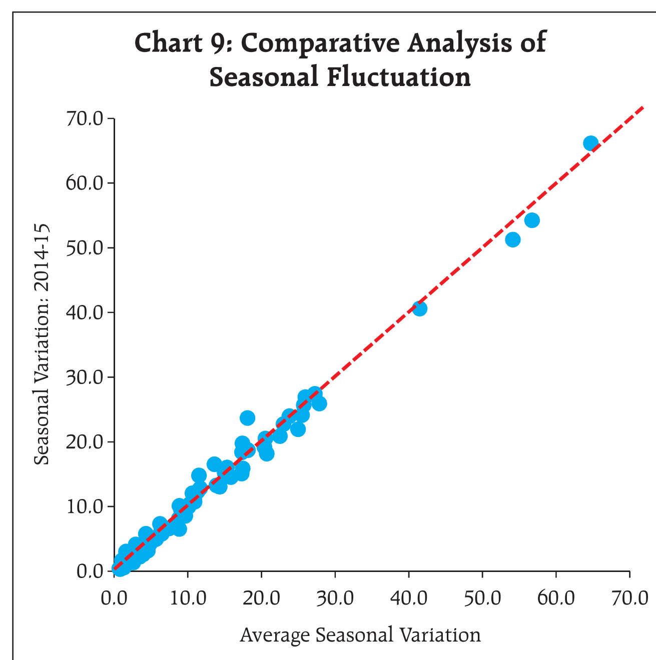


Table 1: Average Monthly Seasonal Factors of Selected Economic Time Series

Series Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	2	3	4	5	6	7	8	9	10	11	12	13
A.1.1 Broad Money (M_3)	101.5	100.9	100.2	100.2	99.8	99.6	99.7	99.4	99.0	99.4	99.6	100.9
A.1.1.1 Net Bank Credit to Government	101.5	101.4	100.9	101.5	100.8	99.6	99.6	99.7	97.4	98.8	98.7	100.2
A.1.1.2 Bank Credit to Commercial Sector	101.0	100.2	100.1	99.2	99.0	99.8	99.2	99.3	99.9	99.7	100.1	102.4
A.1.2 Narrow Money (M_1)	102.4	101.4	100.7	99.2	98.7	99.3	98.2	98.5	99.2	99.1	100.0	103.4
A.1.2.1 Currency with Public	103.0	103.4	101.9	99.4	98.5	97.4	98.2	99.0	99.1	99.6	100.3	100.3
A.1.3 Reserve Money (RM)	102.8	101.8	101.2	99.8	98.9	98.0	98.2	99.0	98.6	98.6	99.0	104.3
A.1.3.1 Currency in Circulation	102.9	103.3	102.0	99.3	98.5	97.3	98.4	99.1	99.2	99.6	100.2	100.4
A.1.3.1.1 Notes in Circulation	102.9	103.4	102.0	99.3	98.5	97.2	98.4	99.0	99.1	99.6	100.2	100.5
A.2.1 Aggregate Deposits (SCBs)	101.0	100.4	99.6	100.3	100.0	99.9	100.1	99.6	99.2	99.5	99.7	100.6
A.2.1.1 Demand Deposits (SCBs)	101.4	98.4	98.1	98.4	98.6	101.9	98.2	98.0	99.5	99.0	100.0	108.3
A.2.1.2 Time Deposits (SCBs)	100.8	100.6	99.9	100.6	100.2	99.6	100.3	99.9	99.1	99.6	99.6	99.7
A.3.1 Cash in Hand and Balances with RBI (SCBs)	103.5	99.1	100.7	101.4	101.5	101.3	99.4	100.6	98.3	97.1	98.2	99.6
A.3.2 Assets with the Banking System (SCBs)	103.5	100.9	102.1	97.6	98.2	99.0	97.8	94.2	97.7	96.2	99.5	113.1
A.3.3 Bank Credit (SCBs)	101.2	100.3	100.2	99.5	99.0	99.5	99.0	99.1	99.7	99.8	100.2	102.5
A.3.3.1 Loans, Cash, Credits and Overdrafts (SCBs)	100.6	100.0	100.3	99.0	98.8	100.6	99.1	99.1	99.6	99.6	100.0	103.2
A.3.3.2 Non-Food Credit (SCBs)	101.4	100.0	99.9	99.5	99.0	99.6	99.2	99.1	99.7	99.8	100.2	102.6
A.3.4 Investments (SCBs)	100.6	100.6	100.1	101.2	101.8	100.9	100.9	100.3	98.5	98.8	98.8	97.6
B. WPI (Base: 2004-05=100) All Commodities	100.0	100.0	100.1	100.6	100.8	100.7	100.5	100.2	99.4	99.6	99.1	99.2
B.1 WPI - Primary Articles	99.4	99.6	100.4	101.3	102.0	101.5	101.3	101.1	99.1	98.8	97.8	97.6
B.1.1 WPI - Food Articles	98.8	99.1	99.9	101.5	101.9	102.3	102.7	102.1	99.0	99.0	97.0	96.6
B.1.1.1 WPI - Food Grains (Cereals+Pulses)	99.1	99.0	99.1	99.7	100.2	100.3	101.2	101.1	100.6	100.4	100.1	99.2
B.1.1.1.1 WPI - Cereals	99.3	99.2	99.2	99.5	100.0	100.2	100.7	100.7	100.5	100.6	100.4	99.6
B.1.1.1.1.1 WPI - Wheat	99.0	98.4	98.3	98.9	99.4	99.6	99.4	101.0	101.7	102.1	102.1	99.9
B.1.1.1.1.2 WPI - Rice	99.0	99.2	99.4	100.1	100.6	100.9	101.4	101.1	100.2	99.7	99.5	99.0
B.1.1.1.2 WPI - Pulses	98.6	98.3	98.5	100.4	101.1	101.5	102.2	102.5	100.9	99.7	98.5	97.9
B.1.1.2 WPI - Fruits & Vegetables	97.9	97.9	100.6	105.0	106.8	107.0	107.3	106.4	96.0	95.3	89.5	89.8
B.1.1.3 WPI - Milk	99.7	99.7	99.9	100.3	100.2	100.2	100.3	100.2	99.9	100.0	99.9	99.6
B.1.1.4 WPI - Egg, Meat and Fish	98.6	100.3	100.4	101.1	100.6	100.8	99.6	100.3	99.7	100.2	100.0	98.9
B.1.1.4.1 WPI - Egg	95.1	95.1	97.8	97.4	97.4	98.9	100.3	105.2	105.5	106.3	101.7	99.4
B.1.1.4.2 WPI - Meat	98.7	99.7	100.6	100.6	100.1	99.4	99.2	99.9	100.0	101.0	100.3	100.0
B.1.1.4.3 WPI - Fish	99.2	101.3	100.7	101.9	101.9	101.4	99.7	99.6	98.8	98.9	99.2	98.5
B.1.1.5 WPI - Protein Items (viz., Pulses, Milk, Egg, Meat and Fish) Group	99.0	99.7	99.9	100.9	100.8	100.9	100.5	100.1	99.8	99.9	99.7	98.9
B.1.2 WPI - Non-Food Articles	100.5	100.4	100.3	100.2	100.8	100.4	98.9	99.2	99.5	99.9	99.5	100.4
B.1.2.1 WPI - Fibres	98.9	99.3	100.5	102.1	102.0	102.9	99.7	99.3	99.2	99.3	98.4	98.1
B.1.2.1.1 WPI - Raw Cotton	98.7	99.4	100.4	103.1	103.1	104.1	99.5	99.2	98.5	98.8	97.7	97.5
B.1.2.2 WPI - Oil Seeds	100.5	101.0	101.3	101.4	101.8	101.0	98.6	98.0	98.5	99.4	99.1	99.2
B.2 WPI - Manufactured Products	100.4	100.4	100.3	100.2	100.2	100.1	99.9	99.7	99.5	99.8	99.8	99.8
B.2.1 WPI - Food Products	99.8	99.7	99.6	100.2	100.5	100.6	100.4	100.2	100.0	100.1	99.8	99.2
B.2.1.1 WPI - Grain Mill Products	99.1	98.3	98.5	99.2	99.4	100.0	100.5	100.9	100.8	101.4	101.3	100.4
B.2.1.2 WPI - Sugar	98.9	98.5	98.1	99.1	100.4	101.6	101.6	101.7	101.3	100.7	99.4	98.8
B.2.1.3 WPI - Edible Oils	99.8	100.3	100.1	100.4	100.7	100.4	99.5	99.4	100.1	100.1	99.7	99.5
B.3 WPI - Non Food Manufactured Products	100.3	100.4	100.2	100.1	100.1	100.0	99.9	99.7	99.5	99.8	99.9	100.1
B.4 WPI - Non Food Non-Fuel	100.5	100.5	100.4	100.2	100.3	100.1	99.8	99.6	99.4	99.6	99.7	100.0
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	99.1	99.3	99.6	100.8	100.9	100.7	101.1	101.0	99.9	99.7	99.2	98.8
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	98.9	99.0	99.4	100.2	100.8	100.9	101.2	101.1	100.4	99.8	99.3	98.9
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	99.0	99.1	99.5	100.3	100.7	100.9	101.1	101.0	100.3	99.8	99.4	98.9

Table 1: Average Monthly Seasonal Factors of Selected Economic Time Series *(Concld.)*

Series/Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	2	3	4	5	6	7	8	9	10	11	12	13
D. IIP (Base 2004-05 = 100) General Index	96.7	98.6	98.0	98.1	95.6	97.2	98.8	98.2	104.5	104.6	99.6	110.1
D.1.1 IIP - Basic Goods Industries	98.2	101.0	98.2	98.3	97.6	95.0	99.7	97.9	103.2	104.5	97.6	108.9
D.1.2 IIP - Intermediate Goods Industries	96.7	100.5	99.4	101.4	100.1	98.3	99.2	97.9	102.6	101.2	96.9	105.9
D.1.3 IIP - Consumer Goods Industries	99.1	98.5	97.0	97.5	92.5	95.0	96.2	95.9	105.8	108.9	104.5	108.9
D.1.3.1 IIP - Consumer Durable Goods Industries	99.0	100.8	98.7	100.7	96.1	101.5	105.8	99.3	93.0	100.1	99.5	105.3
D.1.3.2 IIP - Consumer Non-Durable Goods Industries	98.5	96.4	95.7	95.1	90.3	90.2	89.8	95.9	114.8	114.3	109.0	109.9
D.2.1 IIP - Mining	97.7	100.2	95.8	93.8	91.9	90.4	98.1	99.8	106.6	108.1	101.6	116.5
D.2.2 IIP - Manufacturing	96.1	97.9	97.8	98.3	95.8	97.9	98.6	97.9	104.7	104.5	100.2	110.3
D.2.2.1 IIP - Food products and beverages	97.5	90.1	89.2	82.0	72.3	70.1	76.8	97.6	134.6	135.6	126.9	126.7
D.2.2.2 IIP - Textiles	98.6	99.8	98.6	102.4	102.5	99.9	100.7	99.5	101.5	101.3	94.9	100.2
D.2.2.3 IIP - Wood and products of wood & cork except furniture; articles of straw & plating materials	90.2	101.8	98.0	100.7	99.6	96.2	95.6	98.9	108.6	101.0	104.5	105.0
D.2.2.4 IIP - Paper and paper products	96.9	101.6	98.6	102.4	101.4	99.9	100.7	98.3	100.0	99.4	95.5	105.4
D.2.2.5 IIP - Publishing, printing & reproduction of recorded media	98.6	101.3	98.8	103.0	101.3	98.3	103.1	99.4	102.3	99.8	94.4	99.8
D.2.2.6 IIP - Coke, refined petroleum products & nuclear fuel	94.6	98.8	100.0	101.8	100.6	96.4	101.0	97.9	102.4	104.1	96.7	106.0
D.2.2.7 IIP - Chemicals and chemical products	96.1	100.7	102.1	103.1	102.3	101.3	100.4	99.3	101.4	99.6	93.7	100.0
D.2.2.8 IIP - Rubber and plastics products	99.2	103.7	102.3	100.1	95.5	97.2	98.3	98.7	101.7	101.1	96.6	105.7
D.2.2.9 IIP - Other non-metallic mineral products	101.4	101.7	98.3	99.0	94.3	94.2	100.2	94.7	102.5	103.3	99.1	111.4
D.2.2.10 IIP - Basic metals	98.1	100.1	98.4	99.1	100.2	98.0	100.4	98.2	101.4	102.2	97.1	106.9
D.2.2.11 IIP - Fabricated metal products, except machinery & equipment	84.2	91.2	96.9	95.3	96.9	102.2	94.7	97.4	104.7	99.0	100.0	137.9
D.2.2.12 IIP - Motor vehicles, trailers & semi-trailers	96.9	97.4	90.0	98.5	97.3	98.1	101.9	100.7	92.0	105.9	105.6	115.2
D.2.2.13 IIP - Other transport equipment	91.1	95.4	94.8	97.7	98.9	103.8	110.9	102.5	96.1	100.4	97.8	111.0
D.2.3 IIP - Electricity	100.3	104.1	99.4	100.7	100.3	97.7	102.3	96.1	99.8	101.3	93.8	103.8
D.3 Cement Production	104.8	103.9	99.5	96.8	90.3	91.7	98.7	92.4	102.0	105.8	101.0	113.2
D.4 Steel Production	97.5	101.7	97.6	98.6	100.2	97.4	99.3	96.1	101.6	104.6	98.2	106.8
D.5 Coal Production	90.7	93.1	88.6	86.0	84.8	83.1	97.4	103.2	113.0	116.7	110.0	134.1
D.6 Crude Oil Production	99.0	101.3	99.2	101.3	100.7	97.9	102.0	98.9	102.3	101.6	92.7	103.0
D.7 Petroleum Refinery Production	96.1	100.1	99.7	101.7	101.0	95.7	100.6	98.9	102.1	103.7	96.2	104.5
D.8 Fertiliser Production	82.1	94.8	99.3	105.9	106.6	104.2	108.2	106.1	107.9	102.5	93.6	88.5
D.9 Natural Gas Production	97.6	101.3	98.5	101.9	100.9	98.0	102.5	99.6	102.7	102.2	92.0	102.8
D.10 Production of Commercial Motor Vehicles	93.0	94.1	89.6	97.1	97.7	99.9	100.5	102.3	95.2	106.6	105.4	117.4
E.1 Cargo handled at Major Ports	99.7	103.0	95.5	97.8	97.2	92.8	99.5	99.7	103.2	105.3	96.2	109.3
E.2 Railway Freight Traffic	97.7	101.1	96.7	97.9	95.4	92.9	97.5	98.1	104.2	106.6	98.4	113.5
E.3 Sales of Commercial Motor Vehicles	84.1	89.5	96.2	92.9	95.3	106.3	100.1	95.6	99.8	104.8	105.0	128.6
E.4 Passenger flown (Km) - Domestic	101.1	112.4	104.4	95.5	93.3	88.5	98.7	100.2	108.8	103.3	96.0	97.6
E.5 Passenger flown (Km) - International	97.0	100.4	100.8	106.0	104.0	92.5	92.3	94.8	106.2	110.0	94.9	101.5
E.6 Freight Tonne Km flown - Domestic	93.5	99.5	97.0	101.4	102.8	104.1	111.5	101.5	101.0	95.0	91.2	100.9
F.1 Exports	97.4	100.3	100.0	99.4	97.7	101.4	98.1	93.0	101.2	100.0	95.8	115.4
F.2 Imports	100.1	106.6	99.1	103.0	99.3	103.6	105.9	98.4	97.1	98.4	89.8	99.1
F.3 Non-Oil Non-Gold Imports	96.4	105.8	102.6	102.6	99.6	102.0	105.6	101.5	101.3	98.3	87.3	96.7

Table 2: Range (Difference Between Peak and Trough) of Seasonal Factors

Series/Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
A.1.1 Broad Money (M_3)	3.1	3.2	3.1	2.9	2.6	2.4	2.1	2.0	1.9	1.8	2.4
A.1.1.1 Net Bank Credit to Government	4.8	5.2	5.4	5.4	5.1	4.5	4.0	3.4	2.9	2.6	4.1
A.1.1.2 Bank Credit to Commercial Sector	4.0	4.2	4.2	4.2	4.0	3.7	3.2	2.8	2.5	2.2	3.4
A.1.2 Narrow Money (M_1)	6.0	6.4	6.4	6.2	5.7	5.3	4.7	4.3	4.0	4.2	5.2
A.1.2.1 Currency with Public	6.8	6.9	6.7	6.6	6.3	5.9	5.6	5.5	5.4	5.2	6.1
A.1.3 Reserve Money (RM)	7.5	7.0	6.4	6.8	7.1	6.9	6.6	6.2	6.0	5.8	6.3
A.1.3.1 Currency in Circulation	6.9	6.9	6.8	6.6	6.3	5.9	5.6	5.3	5.1	5.0	6.0
A.1.3.1.1 Notes in Circulation	7.1	7.0	6.9	6.7	6.4	6.0	5.6	5.3	5.1	5.0	6.1
A.2.1 Aggregate Deposits (SCBs)	2.2	2.2	2.2	2.2	2.0	1.9	1.7	1.7	1.6	1.4	1.8
A.2.1.1 Demand Deposits (SCBs)	14.4	14.9	14.5	14.3	13.0	11.2	8.8	7.5	6.8	6.5	10.3
A.2.1.2 Time Deposits (SCBs)	1.8	1.8	1.9	1.9	2.0	1.9	1.8	1.5	1.3	1.1	1.7
A.3.1 Cash in Hand and Balances with RBI (SCBs)	13.7	12.7	11.2	9.8	7.8	5.8	4.9	3.6	4.2	4.9	6.4
A.3.2 Assets with the Banking System (SCBs)	14.2	16.2	17.8	19.0	20.3	21.4	21.7	20.8	19.3	18.2	18.8
A.3.3 Bank Credit (SCBs)	3.6	3.9	4.1	4.3	4.2	3.9	3.5	3.0	2.5	2.2	3.5
A.3.3.1 Loans, Cash, Credits and Overdrafts (SCBs)	5.1	5.0	4.8	4.5	4.4	4.3	4.2	4.2	4.1	4.0	4.4
A.3.3.2 Non-Food Credit (SCBs)	3.6	3.9	4.2	4.5	4.5	4.1	3.6	3.1	2.7	2.5	3.6
A.3.4 Investments (SCBs)	3.6	3.8	4.1	4.5	4.7	4.8	4.6	4.3	3.9	3.5	4.2
B. WPI (Base 2004-05=100) All Commodities	1.6	1.8	1.9	1.8	1.6	1.4	1.4	1.7	2.0	2.2	1.7
B.1 WPI - Primary Articles	4.1	4.3	4.2	4.0	3.7	3.7	4.1	4.7	5.3	5.8	4.3
B.1.1 WPI - Food Articles	5.4	5.7	5.9	6.1	6.1	6.2	6.3	6.8	7.1	7.3	6.0
B.1.1.1 WPI - Food Grains (Cereals+Pulses)	1.9	2.2	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.2
B.1.1.1.1 WPI - Cereals	1.8	1.8	1.9	1.9	1.7	1.6	1.7	1.9	2.0	2.1	1.5
B.1.1.1.1.1 WPI - Wheat	4.6	4.4	4.1	3.8	3.5	3.4	3.6	3.8	3.9	4.0	3.8
B.1.1.1.1.2 WPI - Rice	1.8	1.5	1.4	1.6	1.9	2.4	3.0	3.5	3.9	4.1	2.4
B.1.1.1.2 WPI - Pulses	5.1	5.0	5.1	5.1	5.2	5.2	5.2	5.1	5.1	5.0	4.6
B.1.1.2 WPI - Fruits & Vegetables	18.9	18.4	17.6	16.8	16.8	17.0	17.5	20.1	21.8	23.7	17.7
B.1.1.3 WPI - Milk	1.0	0.7	0.5	0.4	0.6	0.9	1.2	1.3	1.5	1.7	0.7
B.1.1.4 WPI - Egg, Meat and Fish	4.9	4.6	3.8	3.0	2.6	3.4	3.8	3.6	3.1	2.6	2.5
B.1.1.4.1 WPI - Egg	12.7	11.5	10.4	9.7	9.3	10.0	11.6	13.0	14.1	14.8	11.2
B.1.1.4.2 WPI - Meat	4.7	3.8	2.9	2.0	1.5	1.4	1.7	2.2	2.8	3.0	2.3
B.1.1.4.3 WPI - Fish	8.3	7.6	6.0	4.8	3.7	4.1	4.5	4.4	3.8	3.3	3.4
B.1.1.5 WPI - Protein Items (viz., Pulses, Milk, Egg, Meat and Fish) Group	1.9	1.9	1.9	2.0	2.2	2.5	2.7	2.9	2.8	2.6	2.0
B.1.2 WPI - Non-Food Articles	2.5	2.7	2.8	2.5	2.7	3.0	3.0	2.7	2.0	1.3	1.9
B.1.2.1 WPI - Fibres	4.5	5.1	5.4	5.3	4.9	4.4	4.4	4.6	5.2	5.3	4.8
B.1.2.1.1 WPI - Raw Cotton	7.2	7.9	7.8	7.5	6.9	6.3	6.2	6.2	6.6	6.6	6.7
B.1.2.2 WPI - Oil Seeds	3.5	3.5	3.5	3.8	3.9	4.0	4.2	4.4	4.5	4.4	3.8
B.2 WPI - Manufactured Products	1.3	1.3	1.3	1.2	1.1	0.9	0.7	0.5	0.4	0.4	0.9
B.2.1 WPI - Food Products	1.6	1.2	1.0	1.0	1.2	1.3	1.5	1.8	2.1	2.2	1.4
B.2.1.1 WPI - Grain Mill Products	4.3	3.8	3.4	3.2	3.1	3.0	2.9	2.7	2.6	2.4	3.1
B.2.1.2 WPI - Sugar	1.9	2.2	2.8	3.8	4.6	5.0	5.0	4.5	4.3	4.5	3.6
B.2.1.3 WPI - Edible Oils	2.1	1.9	1.8	1.9	1.8	1.6	1.3	1.0	0.8	0.6	1.4
B.3 WPI - Non Food Manufactured Products	1.0	1.1	1.2	1.2	1.1	1.0	0.8	0.6	0.5	0.3	0.9
B.4 WPI - Non Food Non-Fuel	1.1	1.4	1.6	1.8	1.8	1.6	1.2	0.8	0.5	0.5	1.2
C.1 Consumer Price Index for Industrial Workers (2001=100)	1.9	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.2
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.4	2.7	2.8	2.3
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.2

Table 2: Range (Difference Between Peak and Trough) of Seasonal Factors *(Concld.)*

Series/Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
D. IIP (Base 2004-05 = 100) General Index	13.9	14.1	13.9	14.2	14.5	14.8	15.1	15.2	15.3	15.3	14.5
D.1.1 IIP - Basic Goods Industries	12.4	13.2	13.8	14.3	14.6	14.8	14.6	14.1	13.6	13.1	13.8
D.1.2 IIP - Intermediate Goods Industries	9.8	10.1	10.1	9.8	9.4	9.0	8.7	8.4	8.3	8.1	9.2
D.1.3 IIP - Consumer Goods Industries	16.0	15.2	14.7	14.8	15.4	16.2	17.4	18.6	19.4	19.8	16.5
D.1.3.1 IIP - Consumer Durable Goods Industries	13.3	13.2	12.4	10.8	10.7	12.0	13.9	15.2	16.2	16.5	12.7
D.1.3.1 IIP - Consumer Non-Durable Goods Industries	22.6	23.2	23.8	24.6	25.1	25.7	25.9	26.4	26.7	26.9	25.0
D.2.1 IIP - Mining	22.7	23.9	25.0	25.8	26.5	27.0	27.5	27.6	27.6	27.4	26.1
D.2.2 IIP - Manufacturing	14.7	14.8	14.4	14.0	14.4	14.9	15.5	15.8	16.0	16.0	14.5
D.2.2.1 IIP - Food products and beverages*	68.0	67.6	66.5	65.5	64.7	64.1	64.6	65.5	66.0	66.2	65.4
D.2.2.2 IIP - Textiles*	9.0	9.0	8.8	8.3	7.8	7.6	7.6	7.5	7.0	6.6	7.6
D.2.2.3 IIP - Wood and products of wood & cork except furniture; articles of straw & plating materials*	21.1	20.8	20.1	19.5	18.8	18.4	17.6	16.7	16.0	15.9	18.4
D.2.2.4 IIP - Paper and paper products*	10.9	11.0	10.9	10.6	10.1	9.6	9.3	9.0	9.0	9.2	10.0
D.2.2.5 IIP - Publishing, printing & reproduction of recorded media*	8.6	8.6	8.5	8.3	8.2	8.3	8.9	9.3	9.8	10.1	8.7
D.2.2.6 IIP - Coke, refined petroleum products & nuclear fuel*	11.1	10.7	10.5	10.7	11.0	11.3	11.6	12.0	12.4	12.8	11.4
D.2.2.7 IIP - Chemicals and chemical products*	9.7	10.1	10.5	10.5	10.3	9.5	8.9	8.6	9.0	9.4	9.5
D.2.2.8 IIP - Rubber and plastics products*	8.5	8.9	9.1	9.5	10.1	10.5	11.1	11.3	11.4	11.3	10.2
D.2.2.9 IIP - Other non-metallic mineral products*	16.3	16.4	16.7	17.2	17.8	18.1	18.4	18.6	18.9	18.7	17.2
D.2.2.10 IIP - Basic metals*	10.7	10.8	10.7	10.5	10.1	10.3	10.2	9.5	8.6	8.6	9.8
D.2.2.11 IIP - Fabricated metal products, except machinery & equipment*	47.8	48.7	50.3	52.5	55.1	57.1	58.0	57.4	56.0	54.3	53.7
D.2.2.12 IIP - Motor vehicles, trailers & semi-trailers*	26.2	26.2	26.3	26.5	26.6	26.2	25.2	23.9	22.9	22.0	25.2
D.2.2.13 IIP - Other transport equipment*	24.1	23.8	22.9	21.3	20.6	20.5	20.5	20.5	20.5	20.5	19.9
D.2.3 IIP - Electricity	9.9	9.8	10.3	10.6	11.1	11.0	10.5	11.1	11.6	12.1	10.3
D.3 Cement Production	21.5	21.3	21.6	22.1	22.9	23.4	24.1	24.1	24.3	24.0	22.9
D.4 Steel Production	12.1	11.6	10.6	10.2	10.8	11.0	11.3	11.6	11.8	12.3	10.6
D.5 Coal Production	42.3	46.2	49.0	50.6	52.3	54.3	55.6	55.2	53.2	51.3	51.0
D.6 Crude Oil Production	10.1	10.1	10.2	10.1	10.2	10.3	10.5	10.4	10.5	10.4	10.2
D.7 Petroleum Refinery Production	8.8	8.4	8.3	8.1	8.6	9.7	10.6	10.9	10.6	9.9	8.8
D.8 Fertiliser Production*	27.5	27.3	26.8	26.3	25.9	25.9	25.7	25.6	25.6	25.7	26.1
D.9 Natural Gas Production*	11.5	12.0	12.1	11.9	11.2	11.0	10.9	10.8	10.7	10.7	10.8
D.10 Production of Commercial Motor Vehicles	32.3	28.8	28.7	29.1	29.4	29.0	27.8	26.6	26.3	25.9	27.8
E.1 Cargo handled at Major Ports	18.3	18.2	17.8	17.3	16.8	16.3	15.9	15.3	14.9	14.6	16.5
E.2 Railway Freight Traffic	20.7	21.3	21.5	21.4	21.2	20.9	20.4	20.0	19.5	19.2	20.6
E.3 Sales of Commercial Motor Vehicles	53.3	50.5	47.6	45.2	43.3	41.9	40.9	40.5	40.7	40.6	44.4
E.4 Passenger flown (Km) - Domestic	20.7	21.1	22.6	23.8	25.3	25.9	26.1	25.4	24.8	24.2	23.9
E.5 Passenger flown (Km) - International	20.1	19.5	18.7	18.1	17.2	17.1	17.3	17.7	18.0	18.4	17.7
E.6 Freight Tonne Km flown - Domestic	14.8	16.6	18.5	20.3	22.0	23.3	23.3	22.4	21.4	20.9	20.4
F.1 Exports	24.4	22.1	20.2	19.9	20.8	22.4	23.9	24.2	23.7	22.8	22.4
F.2 Imports	21.9	22.6	22.1	20.4	17.4	14.7	12.9	12.1	12.5	13.3	16.8
F.3 Non-Oil Non-Gold Imports	21.0	23.5	24.6	24.0	21.0	19.1	16.8	15.4	14.6	15.1	18.6

* Seasonal adjustment for these series is based on 10 years data depending on availability. Guidelines of both, Office of National Statistics (ONS), UK, and US Census Bureau, however, suggest using more than ten years data for estimating stable monthly seasonal factors.

Table 3: Change in seasonal variation in 2014-15 *vis-à-vis* previous 5-years (2009-10 to 2013-14)

Series	2014-15	Average Range*	Change
1	2	3	4
A.1.1 Broad Money (M_3)	1.8	2.1	-0.3
A.1.1.1 Net Bank Credit to Government	2.6	3.9	-1.3
A.1.1.2 Bank Credit to Commercial Sector	2.2	3.2	-1.0
A.1.2 Narrow Money (M_1)	4.2	4.8	-0.6
A.1.2.1 Currency with Public	5.2	5.7	-0.5
A.1.3 Reserve Money (RM)	5.8	6.5	-0.7
A.1.3.1 Currency in Circulation	5.0	5.6	-0.7
A.1.3.1.1 Notes in Circulation	5.0	5.7	-0.7
A.2.1 Aggregate Deposits (SCBs)	1.4	1.6	-0.2
A.2.1.1 Demand Deposits (SCBs)	6.5	8.8	-2.3
A.2.1.2 Time Deposits (SCBs)	1.1	1.7	-0.6
A.3.1 Cash in Hand and Balances with RBI (SCBs)	4.9	4.6	0.2
A.3.2 Assets with the Banking System (SCBs)	18.2	20.7	-2.5
A.3.3 Bank Credit (SCBs)	2.2	3.4	-1.2
A.3.3.1 Loans, Cash, Credits and Overdrafts (SCBs)	4.0	4.1	-0.1
A.3.3.2 Non-Food Credit (SCBs)	2.5	3.5	-1.0
A.3.4 Investments (SCBs)	3.5	4.4	-1.0
B. WPI (BASE 2004-05=100) All Commodities	2.2	1.6	0.6
B.1 WPI - Primary Article	5.8	4.3	1.5
B.1.1 WPI - Food Articles	7.3	6.2	1.1
B.1.1.1 WPI - Food Grains (Cereals+Pulses)	2.3	2.3	-0.1
B.1.1.1.1 WPI - Cereals	2.1	1.6	0.4
B.1.1.1.1.1 WPI - Wheat	4.0	3.5	0.5
B.1.1.1.1.2 WPI - Rice	4.1	2.9	1.2
B.1.1.1.2 WPI - Pulses	3.2	4.6	-1.4
B.1.1.2 WPI - Fruits & Vegetables	23.7	18.1	5.6
B.1.1.3 WPI - Milk	1.7	1.0	0.6
B.1.1.4 WPI - Egg, Meat and Fish	2.6	3.3	-0.7
B.1.1.4.1 WPI - Egg	14.8	11.5	3.3
B.1.1.4.2 WPI - Meat	3.0	1.6	1.4
B.1.1.4.3 WPI - Fish	3.3	3.9	-0.6
B.1.1.5 WPI - Protein Items (viz., Pulses, Milk, Egg, Meat and Fish)	2.6	2.5	0.1
B.1.2 WPI - Non-Food Articles	1.3	2.6	-1.2
B.1.2.1 WPI - Fibres	5.3	4.6	0.7
B.1.2.1.1 WPI - Raw Cotton	6.6	6.4	0.2
B.1.2.2 WPI - Oil Seeds	4.4	4.1	0.3
B.2 WPI - Manufactured Products	0.4	0.7	-0.3
B.2.1 WPI - Food Products	2.2	1.5	0.7
B.2.1.1 WPI - Grain Mill Products	2.4	2.8	-0.4
B.2.1.2 WPI - Sugar	4.5	4.6	-0.1
B.2.1.3 WPI - Edible Oils	0.6	1.3	-0.7
B.3 WPI - Non Food Manufactured Products	0.3	0.8	-0.5
B.4 WPI - Non Food Non-Fuel	0.5	1.1	-0.6

Series	2014-15	Average Range*	Change
1	2	3	4
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	2.4	2.3	0.1
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.8	2.3	0.5
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	2.5	2.2	0.3
D.IIP (Base: 2004-05=100) General Index	15.3	15.0	0.3
D.1.1 IIP - Basic Goods Industries	13.1	14.3	-1.2
D.1.2 IIP - Intermediate Goods Industries	8.1	8.8	-0.6
D.1.3 IIP - Consumer Goods Industries	19.8	17.4	2.4
D.1.3.1 IIP - Consumer Durable Goods Industries	16.5	13.6	2.9
D.1.3.2 IIP - Consumer Non-Durable Goods Industries	26.9	25.9	1.0
D.2.1 IIP - Mining	27.4	27.2	0.2
D.2.2 IIP - Manufacturing	16.0	15.3	0.7
D.2.2.1 IIP - Food products and beverages	66.2	64.7	1.5
D.2.2.2 IIP - Textiles	6.6	7.4	-0.8
D.2.2.3 IIP - Wood and products of wood & cork except furniture; articles of straw & plating materials	15.9	17.4	-1.5
D.2.2.4 IIP - Paper and paper products	9.2	9.4	-0.2
D.2.2.5 IIP - Publishing, printing & reproduction of recorded media	10.1	8.9	1.3
D.2.2.6 IIP - Coke, refined petroleum products & nuclear fuel	12.8	11.7	1.2
D.2.2.7 IIP - Chemicals and chemical products	9.4	9.1	0.3
D.2.2.8 IIP - Rubber and plastics products	11.3	10.9	0.4
D.2.2.9 IIP - Other non-metallic mineral products	18.7	18.1	0.6
D.2.2.10 IIP - Basic metals	8.6	9.6	-1.1
D.2.2.11 IIP - Fabricated metal products, except machinery & equipment	54.3	56.7	-2.5
D.2.2.12 IIP - Motor vehicles, trailers & semi-trailers	22.0	24.9	-3.0
D.2.2.13 IIP - Other transport equipment	20.5	20.5	0.0
D.2.3 IIP - Electricity	12.1	10.6	1.4
D.3 Cement Production	24.0	23.8	0.2
D.4 Steel Production	12.3	11.3	1.0
D.5 Coal Production	51.3	54.1	-2.8
D.6 Crude Oil Production	10.4	10.3	0.1
D.7 Petroleum Refinery Production	9.9	10.1	-0.1
D.8 Fertiliser Production	25.7	25.7	0.0
D.9 Natural Gas Production	10.7	10.9	-0.2
D.10 Production of Commercial Motor Vehicles	25.9	27.8	-1.9
E.1 Cargo handled at Major Ports	14.6	15.8	-1.3
E.2 Railway Freight Traffic	19.2	20.4	-1.2
E.3 Sales of Commercial Motor Vehicles	40.6	41.5	-0.9
E.4 Passenger flown (Km) - Domestic	24.2	25.5	-1.3
E.5 Passenger flown (Km) - International	18.4	17.3	1.1
E.6 Freight Tonne Km flown - Domestic	20.9	22.5	-1.6
F.1 Exports	22.8	23.0	-0.2
F.2 Imports	13.3	13.9	-0.6
F.3 Non-oil Non-Gold Imports	15.1	17.3	-2.2

*Average Range of Monthly Seasonal Factors for the last 5-years (2009-10 to 2013-14).

Table 4: List of Top-Twenty and Bottom-Twenty Series based on Average Range of Monthly Seasonal Factors during Last Five Years (2010-11 to 2014-15) and corresponding Peak and Trough Months

Name of Top-Twenty Series	Average Range	Peak Month	Trough Month	Name of Bottom-Twenty Series	Average Range	Peak Month	Trough Month
1	2	3	4	1	2	3	4
D.2.2.1 IIP - Food products and beverages	65.3	Jan	Sep	A.1.1.2 Bank Credit to Commercial Sector	2.8	Mar	Oct
D.2.2.11 IIP - Fabricated metal products, except machinery & equipment	56.5	Mar	Apr	B.2.1.1 WPI - Grain Mill Products	2.7	Jan	May
D.5 Coal Production	53.9	Mar	Sep	B.1.1.5 WPI - Protein Items (*viz.*, Pulses, Milk, Egg, Meat and Fish) Group	2.7	Sep	Apr
E.3 Sales of Commercial Motor Vehicles	40.9	Mar	Apr	C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.4	Oct	Mar
D.2.1 IIP - Mining	27.4	Mar	Sep	B.1.2 WPI - Non-Food Articles	2.4	Apr	Oct
D.10 Production of Commercial Motor Vehicles	27.1	Mar	Jun	C.1 Consumer Price Index for Industrial Workers (2001=100)	2.3	Oct	Mar
D.1.3.1 IIP - Consumer Non-Durable Goods Industries	26.3	Dec	Oct	B.1.1.1 WPI - Food Grains (Cereals+Pulses)	2.3	Oct	May
D.8 Fertiliser Production*	25.7	Oct	Apr	C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	2.3	Oct	Mar
E.4 Passenger flown (Km) - Domestic	25.3	May	Sep	B.1.1.4.2 WPI - Meat	2.1	Jun	Apr
D.2.2.12 IIP - Motor vehicles, trailers & semi-trailers*	24.0	Mar	Jun	A.1.1 Broad Money (M3)	1.9	Apr	Sep
D.3 Cement Production	24.0	Mar	Aug	B.1.1.1.1 WPI - Cereals	1.8	Oct	Apr
F.1 Exports	23.4	Mar	Nov	B.2.1 WPI - Food Products	1.7	Sep	Mar
E.6 Freight Tonne Km flown - Domestic	22.3	Oct	Feb	B. WPI (Base 2004-05=100) All Commodities	1.7	Sep	Feb
D.2.2.13 IIP - Other transport equipment*	20.5	Mar	Apr	A.2.1 Aggregate Deposits (SCBs)	1.6	Apr	Jan
A.3.2 Assets with the Banking System (SCBs)	20.3	Mar	Nov	A.2.1.2 Time Deposits (SCBs)	1.5	Apr	Dec
E.2 Railway Freight Traffic	20.0	Mar	Sep	B.1.1.3 WPI - Milk	1.2	Jul	Mar
B.1.1.2 WPI - Fruits & Vegetables	19.8	Aug	Feb	B.2.1.3 WPI - Edible Oils	1.0	Aug	Nov
D.2.2.9 IIP - Other non-metallic mineral products*	18.5	Mar	Aug	B.4 WPI - Non Food Non-Fuel	0.8	Apr	Dec
D.1.3 IIP - Consumer Goods Industries	18.3	Mar	Aug	B.3 WPI - Non Food Manufactured Products	0.7	Apr	Dec
E.5 Passenger flown (Km) - International	17.7	Jan	Sep	B.2 WPI - Manufactured Products	0.5	May	Dec

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

Occasional Series

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

No. 1: Select Economic Indicators

Item	2014-15	2013-14	2014-15		2015-16
		Q4	Q1	Q4	Q1
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	7.2	5.3	7.4	6.1	7.1
1.1.1 Agriculture	0.2	4.4	2.6	-1.4	1.9
1.1.2 Industry	6.6	5.5	8.1	7.2	6.4
1.1.3 Services	9.4	5.6	8.4	8.0	8.6
1.1a Final Consumption Expenditure	6.4	4.7	5.3	5.5	6.3
1.1b Gross Fixed Capital Formation	4.6	-1.4	8.7	4.1	4.9

	2014-15	2014		2015	
		Jun.	Jul.	Jun.	Jul.
	1	2	3	4	5
1.2 Index of Industrial Production	2.5	4.3	0.9	3.8	..
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	10.7	11.7	12.3	11.4	11.8
2.1.2 Credit	9.0	12.8	12.8	9.3	9.4
2.1.2.1 Non-food Credit	9.3	13.0	12.8	9.5	9.6
2.1.3 Investment in Govt. Securities	12.6	7.0	5.9	14.5	14.8
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	11.3	9.7	11.3	10.2	10.8
2.2.2 Broad Money (M3)	11.2	8.9	12.4	11.0	11.5
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.00	4.00	4.00	4.00	4.00
3.2 Statutory Liquidity Ratio	21.50	23.00	22.50	21.50	21.50
3.3 Cash-Deposit Ratio	4.9	4.9	4.9	4.8	4.8
3.4 Credit-Deposit Ratio	75.5	77.2	76.6	75.7	74.9
3.5 Incremental Credit-Deposit Ratio	37.9	52.0	38.6	46.3	34.2
3.6 Investment-Deposit Ratio	29.9	28.9	29.1	29.7	29.8
3.7 Incremental Investment-Deposit Ratio	51.6	36.2	41.1	45.9	45.3
4 Interest Rates (%)					
4.1 Policy Repo Rate	7.50	8.00	8.00	7.25	7.25
4.2 Reverse Repo Rate	6.50	7.00	7.00	6.25	6.25
4.3 Marginal Standing Facility (MSF) Rate	8.50	9.00	9.00	8.25	8.25
4.4 Bank Rate	8.50	9.00	9.00	8.25	8.25
4.5 Base Rate	10.00/10.25	10.00/10.25	10.00/10.25	9.70/10.00	9.70/10.00
4.6 Term Deposit Rate >1 Year	8.00/8.75	8.00/9.05	8.00/9.05	8.00/8.50	8.00/8.25
4.7 Savings Deposit Rate	4.00	4.00	4.00	4.00	4.00
4.8 Call Money Rate (Weighted Average)	7.36	8.11	8.67	7.08	7.03
4.9 91-Day Treasury Bill (Primary) Yield	8.27	8.56	8.65	7.69	7.48
4.10 182-Day Treasury Bill (Primary) Yield	8.14	8.66	8.71	7.75	7.53
4.11 364-Day Treasury Bill (Primary) Yield	7.98	8.70	8.70	7.72	7.62
4.12 10-Year Government Securities Yield	7.80	8.72	8.51	7.87	7.84
5 RBI Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (₹ Per Foreign Currency)	62.59	60.09	60.25	63.60	63.89
5.2 INR-Euro Spot Rate (₹ Per Foreign Currency)	67.51	82.01	80.70	71.23	70.12
5.3 Forward Premia of US$ 1-month (%)	9.78	9.39	8.76	7.36	7.32
3-month (%)	8.50	9.25	8.63	7.30	7.20
6-month (%)	8.11	8.75	8.56	7.23	7.20
6 Inflation (%)					
6.1 All India Consumer Price Index	5.9	7.5	8.0	5.4	3.8
6.2 Consumer Price Index for Industrial Workers	6.3	6.5	7.2	6.1	4.4
6.3 Wholesale Price Index	2.0	5.7	5.4	-2.4	-4.1
6.3.1 Primary Articles	3.0	7.0	6.8	-0.8	-3.7
6.3.2 Fuel and Power	-0.9	9.0	7.4	-10.0	-12.8
6.3.3 Manufactured Products	2.4	4.0	4.1	-0.8	-1.5
7 Foreign Trade (% Change)					
7.1 Imports	-0.6	8.3	4.5	-13.4	-10.3
7.2 Exports	-1.2	10.3	-0.2	-15.8	-10.3

Reserve Bank of India

No. 2: RBI - Liabilities and Assets

(₹ Billion)

Item	As on the Last Friday/ Friday						
	2014-15	2014	2015				
		Aug.	Jul. 31	Aug. 7	Aug. 14	Aug. 21	Aug. 28
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	14,264.95	13,206.64	14,550.17	14,681.88	14,741.87	14,663.34	14,580.67
1.1.2 Notes held in Banking Department	0.12	0.12	0.11	0.14	0.15	0.14	0.14
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**14,265.06**	**13,206.76**	**14,550.28**	**14,682.02**	**14,742.02**	**14,663.49**	**14,580.81**
1.2 Assets							
1.2.1 Gold Coin and Bullion	642.29	668.44	637.23	612.09	612.09	612.09	612.09
1.2.2 Foreign Securities	13,609.92	12,525.76	13900.64	14,058.00	14,118.57	14,038.51	13,956.44
1.2.3 Rupee Coin	2.38	2.10	1.94	1.47	0.89	2.42	1.82
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	5,953.69	4,141.41	4,923.11	4,720.76	5,202.57	5,203.81	5,076.70
2.1.1.1 Central Government	1.01	47.82	1.01	1.01	1.00	1.01	1.01
2.1.1.2 Market Stabilisation Scheme	–	–	–	–	–	–	–
2.1.1.3 State Governments	21.40	2.18	0.42	0.42	0.42	0.42	0.42
2.1.1.4 Scheduled Commercial Banks	3,573.56	3,595.39	3,657.25	3,684.10	3,608.57	3,688.94	3,677.13
2.1.1.5 Scheduled State Co-operative Banks	35.10	34.71	33.37	32.51	31.89	32.17	32.74
2.1.1.6 Non-Scheduled State Co-operative Banks	11.24	7.19	13.24	12.51	13.01	12.50	12.34
2.1.1.7 Other Banks	189.63	173.56	190.52	192.12	189.79	192.24	192.10
2.1.1.8 Others	2,121.76	280.55	1,027.30	798.10	1,357.89	1,276.54	1,160.97
2.1.2 Other Liabilities	8,002.15	8,336.12	9,019.53	9079.04	8,891.50	9,179.18	9,117.65
2.1/2.2 Total Liabilities or Assets	**13,955.84**	**12,477.52**	**13,942.64**	**13,799.81**	**14,094.08**	**14,382.99**	**14,194.36**
2.2 Assets							
2.2.1 Notes and Coins	0.12	0.12	0.11	0.14	0.15	0.14	0.15
2.2.2 Balances held Abroad	6,408.77	5,276.47	7,402.99	7,204.17	7,617.48	7,975.41	7,908.77
2.2.3 Loans and Advances							
2.2.3.1 Central Government	–	–	–	123.45	–	–	–
2.2.3.2 State Governments	57.60	7.16	19.39	19.86	23.33	21.00	22.73
2.2.3.3 Scheduled Commercial Banks	1,403.93	871.85	292.86	278.33	297.58	249.83	141.98
2.2.3.4 Scheduled State Co-op.Banks	–	0.35	–	0.35	0.35	0.35	0.35
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	107.73	107.29	40.61	37.41	37.98	42.10	47.73
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	5,260.32	5,402.41	5,386.15	5347.99	5,329.35	5,314.63	5,298.06
2.2.6 Other Assets	717.38	811.88	800.55	788.10	787.87	779.52	774.59
2.2.6.1 Gold	583.45	607.20	556.01	556.01	556.01	556.01	556.01

No. 3: Liquidity Operations by RBI

(₹ Billion)

Date	Liquidity Adjustment Facility				MSF	Standing Liquidity Facilities	OMO (Outright)		Net Injection (+)/ Absorption (-) (1+3+5+6+8-2-4-7)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo			Sale	Purchase	
	1	2	3	4	5	6	7	8	9
Jul. 1, 2015	31.65	193.10	–	450.31	2.80	–	–	–	–608.96
Jul. 2, 2015	24.97	57.54	–	648.16	15.40	–	–	–	–665.33
Jul. 3, 2015	20.39	139.89	96.75	554.59	0.20	–23.87	–	–	–601.01
Jul. 4, 2015	–	33.61	–	–	–	–	–	–	–33.61
Jul. 6, 2015	12.99	16.40	–	545.78	8.25	–3.45	–	–	–544.39
Jul. 7, 2015	14.49	35.98	107.40	244.02	–	–0.50	6.00	–	–164.61
Jul. 8, 2015	23.47	43.69	–	96.26	0.35	–0.30	2.15	–	–118.58
Jul. 9, 2015	33.17	32.42	–	147.84	1.20	–1.40	4.25	–	–151.54
Jul. 10, 2015	48.07	59.65	90.50	220.28	2.60	–1.55	2.90	–	–143.21
Jul. 11, 2015	–	8.99	–	–	–	–	–	–	–8.99
Jul. 13, 2015	24.77	60.05	–	172.90	–	–	1.80	–	–209.98
Jul. 14, 2015	28.62	36.28	117.65	176.92	–	3.05	–	–	–63.88
Jul. 15, 2015	25.77	38.05	–	300.09	0.10	–	82.70	–	–394.97
Jul. 16, 2015	26.62	30.77	–	176.50	0.25	0.71	6.20	–	–185.89
Jul. 17, 2015	26.80	54.47	107.50	123.02	0.75	–	1.10	–	–43.54
Jul. 20, 2015	36.42	29.39	–	180.22	–	–2.00	4.10	–	–179.29
Jul. 21, 2015	76.33	30.08	136.20	–	0.15	–	1.10	–	181.50
Jul. 22, 2015	74.40	13.78	–	92.57	–	2.00	1.75	–	–31.70
Jul. 23, 2015	31.06	23.00	–	100.02	–	0.05	2.05	–	–93.97
Jul. 24, 2015	31.60	108.93	75.00	318.05	0.45	–1.28	4.85	–	–326.06
Jul. 25, 2015	–	41.25	–	–	–	–	–	–	–41.25
Jul. 27, 2015	20.11	13.76	–	230.07	4.85	–10.30	3.80	–	–232.97
Jul. 28, 2015	20.96	21.42	54.10	100.02	0.10	2.31	3.60	–	–47.57
Jul. 29, 2015	24.62	29.58	–	60.70	0.25	–	5.00	–	–70.41
Jul. 30, 2015	24.60	58.20	–	114.91	–	–	0.95	–	–149.46
Jul. 31, 2015	22.24	41.82	25.25	271.27	0.25	–	2.60	–	–267.95

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

Item	2014-15	2014	2015	
		Jul.	Jun.	Jul.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US$ Million) (1.1–1.2)	54,837.00	5,453.00	565.00	169.00
1.1 Purchase (+)	124,414.00	9,348.00	5,530.00	4,123.00
1.2 Sale (–)	69,577.00	3,895.00	4,965.00	3,954.00
2 ₹ equivalent at contract rate (₹ Billion)	3,308.59	305.07	37.51	13.86
3 Cumulative (over end-March) (US $ Million)	56,882.00	15,751.00	8,574.00	8,743.00
(₹ Billion)	3,430.69	922.26	548.93	562.79
4 Outstanding Net Forward Sales (–)/ Purchase (+) at the end of month (US$ Million)	8,322.00	5,397.00	2,592.00	4,599.00

No. 4 A : Maturity Breakdown (by Residual Maturity) of Outstanding Forwards of RBI (US$ Million)

Item	As on July 31, 2015		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	4,347	1,375	2,972
2. More than 1 month and upto 3 months	9,350	1,496	7,854
3. More than 3 months and upto 1 year	19,852	975	18,877
4. More than 1 year	865	25,969	-25,104
Total (1+2+3+4)	34,414	29,815	4,599

No. 5: RBI's Standing Facilities

(₹ Billion)

Item	As on the Last Reporting Friday							
	2014-15	2014	2015					
		Jul. 25	Mar. 20	Apr. 17	May 29	Jun. 26	Jul. 24	Aug. 21
	1	2	3	4	5	6	7	8
1 MSF	41.9	23.5	41.9	2.2	13.1	–	0.5	12.5
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	128.2	326.9	128.2	127.1	127.1	127.1	127.1	–
2.2 Outstanding	51.8	276.3	51.8	45.5	39.9	36.6	12.3	–
3 Liquidity Facility for PDs								
3.1 Limit	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
3.2 Outstanding	17.0	20.7	17.0	20.6	20.6	20.3	16.0	16.5
4 Others								
4.1 Limit	–	–	–	–	–	–	–	–
4.2 Outstanding	–	–	–	–	–	–	–	–
5 Total Outstanding (1+2.2+3.2+4.2)	110.7	320.5	110.7	68.3	73.5	56.9	28.8	29.0

Money and Banking

No. 6: Money Stock Measures

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2014-15	2014	2015		
		Jul. 25	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	13,863.5	12,936.5	14,302.3	14,385.6	14,230.0
1.1 Notes in Circulation	14,288.8	13,307.8	14,774.3	14,821.0	14,675.9
1.2 Circulation of Rupee Coin	186.9	173.1	192.5	192.5	192.5
1.3 Circulation of Small Coins	7.4	7.4	7.4	7.4	7.4
1.4 Cash on Hand with Banks	619.6	551.9	671.9	635.3	645.8
2 Deposit Money of the Public	9,053.4	8,138.7	9,225.2	8,961.0	9,174.2
2.1 Demand Deposits with Banks	8,907.5	8,057.3	9,134.8	8,850.4	8,973.5
2.2 'Other' Deposits with Reserve Bank	145.9	81.4	90.5	110.6	200.7
3 M_1 (1 + 2)	**22,916.8**	**21,075.2**	**23,527.6**	**23,346.6**	**23,404.2**
4 Post Office Saving Bank Deposits	467.0	444.6	467.0	467.0	467.0
5 M_2 (3 + 4)	**23,383.8**	**21,519.7**	**23,994.5**	**23,813.6**	**23,871.2**
6 Time Deposits with Banks	82,538.7	77,113.1	84,992.3	86,132.7	86,028.0
7 M_3 (3 + 6)	**105,455.5**	**98,188.3**	**108,519.9**	**109,479.4**	**109,432.2**
8 Total Post Office Deposits	1,729.2	1,643.3	1,729.2	1,729.2	1,729.2
9 M_4 (7 + 8)	**107,184.7**	**99,831.6**	**110,249.1**	**111,208.6**	**111,161.4**

No. 7: Sources of Money Stock (M_3)

(₹ Billion)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2014-15	2014	2015		
		Jul. 25	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
1 Net Bank Credit to Government	**30,061.6**	**29,796.3**	**32,081.6**	**33,015.1**	**32,859.6**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	3,645.2	5,282.5	4,443.5	5,002.4	4,853.8
1.1.1 Claims on Government	5,293.6	5,392.9	5,206.9	5,202.6	5,105.4
1.1.1.1 Central Government	5,258.3	5,390.3	5,198.1	5,173.4	5,076.0
1.1.1.2 State Governments	35.3	2.6	8.8	29.2	29.4
1.1.2 Government deposits with RBI	1,648.4	110.4	763.4	200.2	251.7
1.1.2.1 Central Government	1,647.9	110.0	762.9	199.8	251.2
1.1.2.2 State Governments	0.4	0.4	0.4	0.4	0.4
1.2 Other Banks' Credit to Government	26,416.3	24,513.8	27,638.0	28,012.7	28,005.8
2 Bank Credit to Commercial Sector	**70,395.8**	**65,551.7**	**71,517.3**	**71,578.5**	**71,471.9**
2.1 RBI's credit to commercial sector	148.5	115.0	63.3	43.8	46.2
2.2 Other banks' credit to commercial sector	70,247.4	65,436.7	71,454.0	71,534.7	71,425.7
2.2.1 Bank credit by commercial banks	65,364.2	60,842.6	66,593.3	66,705.4	66,560.9
2.2.2 Bank credit by co-operative banks	4,825.1	4,541.1	4,806.9	4,775.6	4,810.5
2.2.3 Investments by commercial and co-operative banks in other securities	58.0	53.0	53.8	53.7	54.3
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**22,506.5**	**20,095.7**	**23,712.4**	**23,588.6**	**23,702.8**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	21,272.8	19,103.6	22,478.7	22,354.9	22,469.1
3.1.1 Gross foreign assets	21,273.0	19,103.9	22,479.0	22,355.1	22,469.4
3.1.2 Foreign liabilities	0.2	0.3	0.3	0.3	0.3
3.2 Other banks' net foreign exchange assets	1,233.7	992.0	1,233.7	1,233.7	1,233.7
4 Government's Currency Liabilities to the Public	**194.3**	**180.5**	**199.9**	**199.9**	**199.9**
5 Banking Sector's Net Non-monetary Liabilities	**17,702.7**	**17,436.0**	**18,991.3**	**18,902.7**	**18,802.0**
5.1 Net non-monetary liabilities of RBI	7,852.7	8,751.4	8,695.4	8,493.7	8,600.6
5.2 Net non-monetary liabilities of other banks (residual)	9,849.9	8,684.6	10,295.9	10,409.0	10,201.4
M_3 (1+2+3+4–5)	**105,455.5**	**98,188.3**	**108,519.9**	**109,479.4**	**109,432.2**

No. 8: Monetary Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2014-15	2014	2015		
		Jul. 25	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1 + 1.2.1+1.3)	22,916.8	21,075.2	23,527.6	23,346.6	23,404.2
NM_2 (NM_1+ 1.2.2.1)	58,851.4	54,606.3	60,504.4	60,848.2	60,843.6
NM_3 (NM_2 + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	105,030.2	97,551.8	108,137.4	109,017.0	108,993.3
1 Components					
1.1 Currency with the Public	13,863.5	12,936.5	14,302.3	14,385.6	14,230.0
1.2 Aggregate Deposits of Residents	88,762.2	82,571.0	91,305.5	92,187.2	92,172.1
1.2.1 Demand Deposits	8,907.5	8,057.3	9,134.8	8,850.4	8,973.5
1.2.2 Time Deposits of Residents	79,854.7	74,513.6	82,170.7	83,336.8	83,198.6
1.2.2.1 Short-term Time Deposits	35,934.6	33,531.1	36,976.8	37,501.6	37,439.4
1.2.2.1.1 Certificates of Deposit (CDs)	2,974.5	3,232.1	2,223.4	2,356.1	2,233.8
1.2.2.2 Long-term Time Deposits	43,920.1	40,982.5	45,193.9	45,835.2	45,759.2
1.3 'Other' Deposits with RBI	145.9	81.4	90.5	110.6	200.7
1.4 Call/Term Funding from Financial Institutions	2,258.7	1,963.0	2,439.1	2,333.6	2,390.5
2 Sources					
2.1 Domestic Credit	105,143.8	99,469.7	108,379.4	109,464.7	109,215.0
2.1.1 Net Bank Credit to the Government	30,061.6	29,796.3	32,081.6	33,015.1	32,859.6
2.1.1.1 Net RBI credit to the Government	3,645.2	5,282.5	4,443.5	5,002.4	4,853.8
2.1.1.2 Credit to the Government by the Banking System	26,416.3	24,513.8	27,638.0	28,012.7	28,005.8
2.1.2 Bank Credit to the Commercial Sector	75,082.2	69,673.4	76,297.8	76,449.6	76,355.4
2.1.2.1 RBI Credit to the Commercial Sector	148.5	115.0	63.3	43.8	46.2
2.1.2.2 Credit to the Commercial Sector by the Banking System	74,933.8	69,558.4	76,234.5	76,405.8	76,309.2
2.1.2.2.1 Other Investments (Non-SLR Securities)	4,653.3	4,072.7	4,735.9	4,825.7	4,823.2
2.2 Government's Currency Liabilities to the Public	194.3	180.5	199.9	199.9	199.9
2.3 Net Foreign Exchange Assets of the Banking Sector	19,441.0	17,290.4	20,044.1	20,003.6	19,866.3
2.3.1 Net Foreign Exchange Assets of the RBI	21,272.8	19,103.6	22,478.7	22,354.9	22,469.1
2.3.2 Net Foreign Currency Assets of the Banking System	–1,831.8	–1,813.2	–2,434.6	–2,351.3	–2,602.8
2.4 Capital Account	16,773.5	16,580.2	17,319.0	17,333.4	17,324.8
2.5 Other items (net)	2,975.3	2,808.7	3,167.0	3,317.7	2,963.1

No. 9: Liquidity Aggregates

(₹ Billion)

Aggregates	2014-15	2014	2015		
		Jul.	May	Jun.	Jul.
	1	2	3	4	5
1 NM_3	**105,030.2**	**97,551.8**	**108,144.6**	**108,137.4**	**108,993.3**
2 Postal Deposits	1,729.2	1,643.3	1,729.2	1,729.2	1,729.2
3 L_1 (1 + 2)	**106,759.4**	**99,195.1**	**109,873.8**	**109,866.5**	**110,722.5**
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)	**106,788.7**	**99,224.4**	**109,903.1**	**109,895.9**	**110,751.8**
6 Public Deposits with Non-Banking Financial Companies	297.4	..	..	297.4	..
7 L_3 (5 + 6)	**107,086.1**	..	..	**110,193.3**	..

No. 10: Reserve Bank of India Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2014-15	2014	2015		
		Jul. 25	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	14,483.1	13,488.4	14,974.3	15,020.9	14,875.9
1.2 Bankers' Deposits with the RBI	4,655.6	3,583.1	3,883.7	3,864.4	3,928.5
1.2.1 Scheduled Commercial Banks	4,396.7	3,371.3	3,652.1	3,630.4	3,692.7
1.3 'Other' Deposits with the RBI	145.9	81.4	90.5	110.6	200.7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	19,284.6	17,152.8	18,948.5	18,995.8	19,005.0
2 Sources					
2.1 RBI's Domestic Credit	5,670.3	6,620.0	4,965.2	4,934.8	4,936.6
2.1.1 Net RBI credit to the Government	3,645.2	5,282.5	4,443.5	5,002.4	4,853.8
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)	3,610.4	5,280.3	4,435.2	4,973.6	4,824.8
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	5,256.2	5,388.1	5,195.9	5,172.1	5,073.6
2.1.1.1.3.1 Central Government Securities	5,245.7	5,377.7	5,185.4	5,161.6	5,063.2
2.1.1.1.4 Rupee Coins	2.2	2.2	2.2	1.3	2.4
2.1.1.1.5 Deposits of the Central Government	1,647.9	110.0	762.9	199.8	251.2
2.1.1.2 Net RBI credit to State Governments	34.9	2.2	8.3	28.8	29.0
2.1.2 RBI's Claims on Banks	1,876.6	1,222.5	458.4	-111.4	36.6
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	1,876.1	1,221.2	458.0	-111.9	36.2
2.1.3 RBI's Credit to Commercial Sector	148.5	115.0	63.3	43.8	46.2
2.1.3.1 Loans and Advances to Primary Dealers	24.1	20.7	20.3	13.1	16.0
2.1.3.2 Loans and Advances to NABARD	–	–	–	–	–
2.2 Government's Currency Liabilities to the Public	194.3	180.5	199.9	199.9	199.9
2.3 Net Foreign Exchange Assets of the RBI	21,272.8	19,103.6	22,478.7	22,354.9	22,469.1
2.3.1 Gold	1,191.6	1,240.0	1,233.2	1,216.1	1,216.1
2.3.2 Foreign Currency Assets	20,081.4	17,863.8	21,245.7	21,139.0	21,253.2
2.4 Capital Account	8,166.4	8,253.0	8,145.0	8,145.0	8,145.0
2.5 Other Items (net)	-313.7	498.4	550.5	348.8	455.6

No. 11: Reserve Money - Components and Sources

(₹ Billion)

Item	Outstanding as on March 31/ last Fridays of the month/ Fridays						
	2014-15	2014	2015				
		Aug. 1	Jun. 26	Jul. 10	Jul. 17	Jul. 24	Jul. 31
	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)	19,284.6	17,065.7	18,948.5	18,995.8	18,989.0	19,005.0	18,807.6
1 Components							
1.1 Currency in Circulation	14,483.1	13,455.2	14,974.3	15,020.9	15,023.5	14,875.9	14,750.1
1.2 Bankers' Deposits with RBI	4,655.6	3,540.1	3,883.7	3,864.4	3,858.1	3,928.5	3,894.4
1.3 'Other' Deposits with RBI	145.9	70.4	90.5	110.6	107.4	200.7	163.2
2 Sources							
2.1 Net Reserve Bank Credit to Government	3,645.2	5,394.5	4,443.5	5,002.4	4,927.2	4,853.8	5,295.5
2.2 Reserve Bank Credit to Banks	1,876.6	1,063.7	458.4	-111.4	-51.3	36.6	-281.9
2.3 Reserve Bank Credit to Commercial Sector	148.5	107.1	63.3	43.8	55.1	46.2	53.6
2.4 Net Foreign Exchange Assets of RBI	21,272.8	19,257.3	22,478.7	22,354.9	22,326.5	22,469.1	22,496.6
2.5 Government's Currency Liabilities to the Public	194.3	180.5	199.9	199.9	199.9	199.9	199.9
2.6 Net Non- Monetary Liabilities of RBI	7,852.7	8,937.4	8,695.4	8,493.7	8,468.5	8,600.6	8,956.1

No. 12: Commercial Bank Survey

(₹ Billion)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2014-15	2014	2015		
		Jul. 25	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	82,648.9	76,792.7	85,163.7	86,026.8	86,003.8
1.1.1 Demand Deposits	7,940.3	7,122.1	8,146.5	7,859.9	7,981.0
1.1.2 Time Deposits of Residents	74,708.6	69,670.6	77,017.3	78,167.0	78,022.7
1.1.2.1 Short-term Time Deposits	33,618.9	31,351.8	34,657.8	35,175.1	35,110.2
1.1.2.1.1 Certificates of Deposits (CDs)	2,974.5	3,232.1	2,223.4	2,356.1	2,233.8
1.1.2.2 Long-term Time Deposits	41,089.7	38,318.8	42,359.5	42,991.8	42,912.5
1.2 Call/Term Funding from Financial Institutions	2,258.7	1,963.0	2,439.1	2,333.6	2,390.5
2 Sources					
2.1 Domestic Credit	94,881.9	87,966.4	97,423.4	98,002.5	97,862.6
2.1.1 Credit to the Government	24,897.5	23,072.2	26,111.5	26,488.2	26,479.7
2.1.2 Credit to the Commercial Sector	69,984.3	64,894.2	71,311.9	71,514.3	71,382.8
2.1.2.1 Bank Credit	65,364.2	60,842.6	66,593.3	66,705.4	66,560.9
2.1.2.1.1 Non-food Credit	64,420.0	59,717.9	65,478.9	65,626.7	65,475.2
2.1.2.2 Net Credit to Primary Dealers	35.7	51.5	47.2	48.0	62.9
2.1.2.3 Investments in Other Approved Securities	20.7	16.9	25.1	24.8	25.5
2.1.2.4 Other Investments (in non-SLR Securities)	4,563.7	3,983.1	4,646.3	4,736.1	4,733.6
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	–1,831.8	–1,813.2	–2,434.6	–2,351.3	–2,602.8
2.2.1 Foreign Currency Assets	1,647.0	1,628.8	1,461.7	1,447.7	1,208.7
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	2,684.0	2,599.5	2,821.6	2,795.9	2,829.4
2.2.3 Overseas Foreign Currency Borrowings	794.8	842.5	1,074.7	1,003.1	982.1
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	2,741.5	2,632.4	3,778.1	4,289.8	4,215.9
2.3.1 Balances with the RBI	3,730.7	3,371.3	3,652.1	3,630.4	3,692.7
2.3.2 Cash in Hand	533.5	482.3	583.9	547.5	559.3
2.3.3 Loans and Advances from the RBI	1,522.8	1,221.2	458.0	–111.9	36.2
2.4 Capital Account	8,365.4	8,085.5	8,932.4	8,946.7	8,938.1
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	2,518.6	1,944.5	2,231.6	2,633.8	2,143.1
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	3,777.2	3,474.2	3,219.5	3,203.1	3,363.4
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	–620.4	–298.7	–595.3	–631.5	–603.6

No. 13: Scheduled Commercial Banks' Investments

(₹ Billion)

Item	As on March 20, 2015	2014	2015		
		Jul. 25	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
1 SLR Securities	24,918.3	23,089.2	26,001.4	26,513.0	26,505.2
2 Commercial Paper	467.9	224.6	614.0	573.9	588.7
3 Shares issued by					
3.1 PSUs	81.8	75.1	75.8	75.9	77.4
3.2 Private Corporate Sector	365.8	332.6	384.8	386.3	386.1
3.3 Others	32.7	23.4	36.7	39.2	31.6
4 Bonds/Debentures issued by					
4.1 PSUs	809.5	744.6	762.3	734.6	727.1
4.2 Private Corporate Sector	1,159.2	1,196.3	1,112.0	1,106.2	1,093.2
4.3 Others	505.1	447.8	490.5	531.5	536.4
5 Instruments issued by					
5.1 Mutual funds	585.6	432.5	623.1	686.8	683.3
5.2 Financial institutions	627.6	572.6	628.1	601.7	609.7

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			
	2014-15	2014	2015		2014-15	2014	2015	
		Jul.	Jun.	Jul.		Jul.	Jun.	Jul.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	214	213	212	212	147	146	145	145
1 Liabilities to the Banking System	**1,619.2**	**1,364.0**	**1,671.0**	**1,730.4**	**1,561.5**	**1,314.2**	**1,616.6**	**1,673.8**
1.1 Demand and Time Deposits from Banks	1,153.7	1,032.7	1,242.4	1,343.5	1,102.0	985.9	1,189.0	1,288.1
1.2 Borrowings from Banks	404.1	266.7	371.3	329.6	398.2	263.8	370.4	328.6
1.3 Other Demand and Time Liabilities	61.5	64.5	57.3	57.2	61.4	64.5	57.2	57.2
2 Liabilities to Others	**94,577.6**	**88,118.3**	**96,699.2**	**99,680.9**	**92,163.6**	**85,772.0**	**94,270.0**	**97,214.1**
2.1 Aggregate Deposits	87,651.2	81,758.2	89,795.3	92,343.7	85,332.9	79,492.3	87,457.5	89,980.3
2.1.1 Demand	8,125.7	7,307.5	8,247.9	8,700.7	7,940.3	7,122.1	8,054.1	8,503.0
2.1.2 Time	79,525.6	74,450.7	81,547.4	83,643.0	77,392.6	72,370.2	79,403.4	81,477.3
2.2 Borrowings	2,279.0	1,978.6	2,453.9	2,665.8	2,258.7	1,963.0	2,438.9	2,642.3
2.3 Other Demand and Time Liabilities	4,647.3	4,381.5	4,450.0	4,671.4	4,572.0	4,316.7	4,373.7	4,591.4
3 Borrowings from Reserve Bank	**1,582.5**	**1,256.0**	**772.5**	**292.9**	**1,582.0**	**1,254.7**	**772.0**	**292.9**
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	1,582.5	1,256.0	772.5	292.9	1,582.0	1,254.7	772.0	292.9
4 Cash in Hand and Balances with Reserve Bank	4,379.4	3,964.9	4,346.6	4,354.0	4,264.3	3,853.7	4,231.7	4,238.3
4.1 Cash in Hand	544.9	493.8	592.2	592.8	533.5	482.3	579.5	581.0
4.2 Balances with Reserve Bank	3,834.6	3,471.1	3,754.4	3,761.2	3,730.7	3,371.3	3,652.1	3,657.3
5 Assets with the Banking System	**2,581.2**	**2,080.0**	**2,455.8**	**2,689.7**	**2,217.7**	**1,664.5**	**2,096.8**	**2,336.0**
5.1 Balances with Other Banks	1,540.2	1,211.2	1,596.0	1,849.0	1,374.1	1,066.6	1,433.2	1,690.1
5.1.1 In Current Account	109.3	100.9	98.3	104.4	91.3	79.7	81.4	88.6
5.1.2 In Other Accounts	1,430.9	1,110.4	1,497.7	1,744.6	1,282.7	986.9	1,351.8	1,601.5
5.2 Money at Call and Short Notice	374.3	334.3	264.5	231.8	225.9	151.5	125.6	95.9
5.3 Advances to Banks	192.5	203.4	183.9	218.0	189.2	200.1	175.3	216.5
5.4 Other Assets	474.2	331.0	411.4	390.9	428.5	246.3	362.7	333.5
6 Investment	**25,610.7**	**23,817.6**	**26,726.9**	**27,541.5**	**24,918.3**	**23,089.2**	**26,001.4**	**26,814.4**
6.1 Government Securities	25,586.6	23,798.1	26,703.5	27,514.9	24,897.5	23,072.2	25,980.4	26,790.2
6.2 Other Approved Securities	24.0	19.4	23.4	26.6	20.7	16.9	21.0	24.2
7 Bank Credit	**67,426.9**	**62,729.8**	**68,310.8**	**69,212.7**	**65,364.2**	**60,842.6**	**66,306.2**	**67,175.5**
7a Food Credit	1,078.0	1,235.1	1,249.2	1,206.3	944.2	1,124.7	1,114.4	1,071.5
7.1 Loans, Cash-credits and Overdrafts	65,154.2	60,504.1	66,098.1	66,960.4	63,123.9	58,645.4	64,125.4	64,955.2
7.2 Inland Bills-Purchased	348.6	360.5	351.5	363.8	344.1	356.9	345.7	357.8
7.3 Inland Bills-Discounted	1,221.1	1,187.9	1,208.8	1,236.2	1,199.9	1,167.9	1,188.7	1,215.9
7.4 Foreign Bills-Purchased	242.6	236.1	224.3	220.1	241.2	234.9	223.5	219.4
7.5 Foreign Bills-Discounted	460.3	441.2	428.2	432.2	455.2	437.5	423.0	427.2

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

(₹ Billion)

Item	Outstanding as on				Growth (%)	
	Mar. 20, 2015	2014	2015		Financial year so far	Y-o-Y
		Jul. 25	Jun. 26	Jul. 24	2015-16	2015
	1	2	3	4	5	6
1 Gross Bank Credit	**61,023**	**56,930**	**61,756**	**61,592**	**0.9**	**8.2**
1.1 Food Credit	**994**	**1,134**	**1,042**	**1,105**	**11.2**	**–2.6**
1.2 Non-food Credit	**60,030**	**55,796**	**60,714**	**60,487**	**0.8**	**8.4**
1.2.1 Agriculture & Allied Activities	**7,659**	**7,166**	**7,946**	**8,043**	**5.0**	**12.2**
1.2.2 Industry	**26,576**	**25,011**	**26,301**	**26,220**	**–1.3**	**4.8**
1.2.2.1 Micro & Small	3,800	3,507	3,740	3,720	–2.1	6.1
1.2.2.2 Medium	1,265	1,261	1,204	1,193	–5.7	–5.4
1.2.2.3 Large	21,511	20,243	21,357	21,307	–0.9	5.3
1.2.3 Services	**14,131**	**13,190**	**14,331**	**14,039**	**–0.6**	**6.4**
1.2.3.1 Transport Operators	916	913	925	940	2.7	2.9
1.2.3.2 Computer Software	172	180	176	194	12.8	8.0
1.2.3.3 Tourism, Hotels & Restaurants	370	364	369	368	–0.6	1.2
1.2.3.4 Shipping	101	100	104	103	2.1	3.8
1.2.3.5 Professional Services	844	815	862	876	3.8	7.5
1.2.3.6 Trade	3,657	3,249	3,700	3,705	1.3	14.0
1.2.3.6.1 Wholesale Trade	1,801	1,615	1,808	1,795	–0.3	11.1
1.2.3.6.2 Retail Trade	1,856	1,634	1,892	1,910	2.9	16.9
1.2.3.7 Commercial Real Estate	1,665	1,586	1,669	1,669	0.3	5.3
1.2.3.8 Non-Banking Financial Companies (NBFCs)	3,117	2,934	3,118	2,964	–4.9	1.0
1.2.3.9 Other Services	3,289	3,089	3,409	3,220	–2.1	4.2
1.2.4 Personal Loans	**11,663**	**10,430**	**12,135**	**12,184**	**4.5**	**16.8**
1.2.4.1 Consumer Durables	153	141	159	159	3.9	12.7
1.2.4.2 Housing	6,285	5,664	6,534	6,672	6.1	17.8
1.2.4.3 Advances against Fixed Deposits	625	536	611	581	–7.0	8.5
1.2.4.4 Advances to Individuals against share & bonds	54	35	52	54	–0.9	52.2
1.2.4.5 Credit Card Outstanding	305	273	329	331	8.7	21.3
1.2.4.6 Education	633	612	639	649	2.5	6.1
1.2.4.7 Vehicle Loans	1,246	1,120	1,295	1,305	4.8	16.6
1.2.4.8 Other Personal Loans	2,362	2,049	2,518	2,433	3.0	18.7
1.2A Priority Sector	**20,103**	**18,348**	**20,585**	**20,755**	**3.2**	**13.1**
1.2A.1 Agriculture & Allied Activities	7,659	7,166	7,946	8,043	5.0	12.2
1.2A.2 Micro & Small Enterprises	8,003	7,317	8,046	7,975	–0.4	9.0
1.2A.2.1 Manufacturing	3,800	3,507	3,740	3,720	–2.1	6.1
1.2A.2.2 Services	4,203	3,811	4,306	4,255	1.2	11.6
1.2A.3 Housing	3,224	3,128	3,208	3,305	2.5	5.7
1.2A.4 Micro-Credit	177	177	176	178	0.5	0.4
1.2A.5 Education Loans	592	577	587	593	0.3	2.8
1.2A.6 State-Sponsored Orgs. for SC/ST	3	2	4	5	29.5	91.1
1.2A.7 Weaker Sections	4,049	3,733	4,186	4,290	6.0	14.9
1.2A.8 Export Credit	426	471	405	395	–7.3	–16.1

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

(₹ Billion)

Industry	Outstanding as on				Growth (%)	
	Mar. 20, 2015	2014	2015		Financial year so far	Y-o-Y
		Jul. 25	Jun. 26	Jul. 24	2015-16	2015
	1	2	3	4	5	6
1 Industry	**26,576**	**25,011**	**26,301**	**26,220**	**–1.3**	**4.8**
1.1 Mining & Quarrying (incl. Coal)	**360**	**396**	**358**	**343**	**–4.6**	**–13.4**
1.2 Food Processing	**1,715**	**1,459**	**1,609**	**1,583**	**–7.7**	**8.5**
1.2.1 Sugar	414	349	395	376	–9.3	7.6
1.2.2 Edible Oils & Vanaspati	211	197	195	192	–9.0	–2.8
1.2.3 Tea	32	28	30	30	–6.9	5.2
1.2.4 Others	1,058	884	989	986	–6.8	11.5
1.3 Beverage & Tobacco	**186**	**182**	**183**	**174**	**–6.8**	**–4.7**
1.4 Textiles	**2,019**	**1,943**	**1,982**	**1,970**	**–2.4**	**1.4**
1.4.1 Cotton Textiles	1,000	960	978	974	–2.7	1.4
1.4.2 Jute Textiles	22	21	22	21	–3.9	2.0
1.4.3 Man-Made Textiles	204	194	210	209	2.6	7.5
1.4.4 Other Textiles	793	768	772	766	–3.4	–0.2
1.5 Leather & Leather Products	**102**	**100**	**101**	**100**	**–2.0**	**0.2**
1.6 Wood & Wood Products	**98**	**94**	**97**	**97**	**–0.9**	**3.6**
1.7 Paper & Paper Products	**341**	**328**	**339**	**340**	**–0.3**	**3.6**
1.8 Petroleum, Coal Products & Nuclear Fuels	**561**	**579**	**492**	**433**	**–22.8**	**–25.1**
1.9 Chemicals & Chemical Products	**1,545**	**1,568**	**1,516**	**1,510**	**–2.3**	**–3.7**
1.9.1 Fertiliser	254	322	233	226	–11.1	–29.8
1.9.2 Drugs & Pharmaceuticals	493	476	499	497	0.8	4.4
1.9.3 Petro Chemicals	331	332	342	336	1.5	1.2
1.9.4 Others	467	438	443	451	–3.4	3.0
1.10 Rubber, Plastic & their Products	**378**	**362**	**363**	**363**	**–4.0**	**0.2**
1.11 Glass & Glassware	**88**	**88**	**88**	**86**	**–2.8**	**–2.3**
1.12 Cement & Cement Products	**560**	**528**	**563**	**560**	**–0.1**	**6.1**
1.13 Basic Metal & Metal Product	**3,854**	**3,492**	**3,829**	**3,862**	**0.2**	**10.6**
1.13.1 Iron & Steel	2,834	2,590	2,846	2,861	0.9	10.5
1.13.2 Other Metal & Metal Product	1,020	902	983	1,001	–1.8	11.0
1.14 All Engineering	**1,540**	**1,447**	**1,528**	**1,504**	**–2.3**	**4.0**
1.14.1 Electronics	368	343	387	364	–1.2	6.1
1.14.2 Others	1,172	1,104	1,141	1,141	–2.7	3.3
1.15 Vehicles, Vehicle Parts & Transport Equipment	**682**	**655**	**686**	**673**	**–1.4**	**2.8**
1.16 Gems & Jewellery	**718**	**654**	**705**	**699**	**–2.6**	**7.0**
1.17 Construction	**743**	**707**	**724**	**729**	**–1.9**	**3.1**
1.18 Infrastructure	**9,245**	**8,672**	**9,339**	**9,388**	**1.5**	**8.3**
1.18.1 Power	5,576	5,150	5,731	5,744	3.0	11.5
1.18.2 Telecommunications	919	850	892	903	–1.7	6.3
1.18.3 Roads	1,687	1,599	1,675	1,698	0.6	6.2
1.18.4 Other Infrastructure	1,064	1,074	1,041	1,043	–2.0	–2.9
1.19 Other Industries	**1,839**	**1,758**	**1,800**	**1,806**	**–1.8**	**2.7**

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					
	2014-15	2014	2015			
		Apr. 25	Mar. 27	Apr. 3	Apr. 10	Apr. 17
	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)	**422.3**	**413.6**	**422.3**	**420.6**	**409.4**	**415.8**
2 Demand and Time Liabilities						
2.1 Demand Liabilities	**148.1**	**136.1**	**148.1**	**149.8**	**142.2**	**139.3**
2.1.1 Deposits						
2.1.1.1 Inter-Bank	33.7	22.5	33.7	33.9	28.5	25.3
2.1.1.2 Others	77.7	74.5	77.7	78.5	78.0	78.5
2.1.2 Borrowings from Banks	9.3	7.0	9.3	8.3	9.0	9.0
2.1.3 Other Demand Liabilities	27.4	32.1	27.4	29.2	26.8	26.5
2.2 Time Liabilities	**854.6**	**897.7**	**854.6**	**853.9**	**849.5**	**853.0**
2.2.1 Deposits						
2.2.1.1 Inter-Bank	499.2	547.6	499.2	499.7	508.3	505.9
2.2.1.2 Others	344.6	339.1	344.6	342.2	331.4	337.2
2.2.2 Borrowings from Banks	0.1	0.5	0.1	2.4	–	0.1
2.2.3 Other Time Liabilities	10.8	10.5	10.8	9.5	9.8	9.7
3 Borrowing from Reserve Bank	–	–	–	–	–	–
4 Borrowings from a notified bank / State Government	450.9	287.6	450.9	454.8	449.6	448.6
4.1 Demand	174.9	157.8	174.9	175.4	174.5	174.7
4.2 Time	276.0	229.8	276.0	279.4	275.1	273.9
5 Cash in Hand and Balances with Reserve Bank	**40.5**	**39.1**	**40.5**	**49.0**	**39.3**	**38.9**
5.1 Cash in Hand	2.4	2.1	2.4	2.2	2.2	2.1
5.2 Balance with Reserve Bank	38.1	37.0	38.1	46.7	37.1	36.8
6 Balances with Other Banks in Current Account	10.0	7.1	10.0	11.0	7.6	7.6
7 Investments in Government Securities	282.4	299.6	282.4	263.2	310.8	262.9
8 Money at Call and Short Notice	198.8	216.9	198.8	189.4	202.2	183.0
9 Bank Credit (10.1+11)	**426.4**	**391.8**	**426.4**	**428.3**	**425.5**	**425.9**
10 Advances						
10.1 Loans, Cash-Credits and Overdrafts	**426.4**	**391.7**	**426.4**	**426.0**	**425.4**	**425.8**
10.2 Due from Banks	709.2	626.3	709.2	680.8	673.5	668.6
11 Bills Purchased and Discounted	0.1	0.1	0.1	2.3	0.1	0.1

Prices and Production

No. 18: Consumer Price Index (Base: 2012=100)

Group/Sub group	2014-15			Rural			Urban			Combined		
	Rural	Urban	Combined	Jul. 14	Jun. 15	Jul. 15	Jul. 14	Jun. 15	Jul. 15	Jul. 14	Jun. 15	Jul. 15
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	122.6	124.1	123.1	123.3	126.6	127.6	127.1	128.5	129.5	124.7	127.3	128.3
1.1 Cereals and products	122.0	123.9	122.6	121.7	124.1	124.0	123.8	123.6	123.2	122.4	123.9	123.7
1.2 Meat and fish	122.3	125.5	123.5	122.5	130.4	131.7	126.4	134.4	134.2	123.9	131.8	132.6
1.3 Egg	119.0	118.4	118.7	117.7	122.1	122.1	118.0	120.9	119.6	117.8	121.6	121.1
1.4 Milk and products	122.3	122.7	122.5	120.6	128.7	128.8	121.6	127.3	127.7	121.0	128.2	128.4
1.5 Oils and fats	110.6	103.7	108.1	110.4	114.1	113.5	103.5	106.0	106.3	107.9	111.1	110.9
1.6 Fruits	128.6	126.1	127.4	129.1	133.2	133.4	133.7	132.3	132.8	131.2	132.8	133.1
1.7 Vegetables	140.0	146.7	142.3	150.1	135.2	141.0	172.4	146.7	153.5	157.7	139.1	145.2
1.8 Pulses and products	115.1	117.8	116.0	113.2	131.9	133.8	113.1	148.1	149.5	113.2	137.4	139.1
1.9 Sugar and confectionery	102.8	99.5	101.7	104.8	96.3	94.1	102.7	89.8	85.7	104.1	94.1	91.3
1.10 Spices	115.0	122.6	117.5	113.3	123.0	123.3	120.0	130.5	131.5	115.5	125.5	126.0
1.11 Non-alcoholic beverages	116.4	114.9	115.8	115.6	121.1	121.1	113.8	118.0	118.3	114.8	119.8	119.9
1.12 Prepared meals, snacks, sweets	123.0	125.4	124.1	120.9	131.2	131.8	123.4	130.5	131.1	122.1	130.9	131.5
2 Pan, tobacco and intoxicants	120.0	123.7	120.9	118.0	128.2	129.5	121.0	132.1	133.1	118.8	129.2	130.5
3 Clothing and footwear	121.7	118.5	120.5	120.3	128.0	128.4	117.4	122.3	122.7	119.1	125.7	126.1
3.1 Clothing	122.1	119.2	121.0	120.7	128.4	128.8	118.0	123.2	123.5	119.6	126.4	126.7
3.2 Footwear	119.6	114.7	117.6	118.3	125.1	125.6	113.6	117.6	117.9	116.3	122.0	122.4
4 Housing	-	116.1	116.1	-	-	-	114.8	119.0	119.9	114.8	119.0	119.9
5 Fuel and light	116.5	112.3	114.9	115.3	122.6	122.9	111.6	115.1	115.3	113.9	119.8	120.0
6 Miscellaneous	113.6	113.1	113.4	113.1	117.9	118.1	113.5	116.0	116.3	113.3	117.0	117.2
6.1 Household goods and services	116.9	115.8	116.4	115.4	122.8	123.1	114.9	119.2	119.5	115.2	121.1	121.4
6.2 Health	114.9	112.5	114.0	113.4	120.4	120.8	111.5	115.4	116.0	112.7	118.5	119.0
6.3 Transport and communication	112.0	110.3	111.1	113.2	114.2	114.1	113.0	111.7	111.5	113.1	112.9	112.7
6.4 Recreation and amusement	112.8	113.3	113.1	111.8	117.9	118.0	112.4	116.2	116.6	112.1	116.9	117.2
6.5 Education	116.4	118.4	117.6	115.5	122.0	123.0	117.8	123.8	125.5	116.8	123.1	124.5
6.6 Personal care and effects	109.4	110.2	109.7	108.8	113.0	112.7	109.7	112.5	111.7	109.2	112.8	112.3
General Index (All Groups)	119.5	118.1	118.9	119.5	124.1	124.8	118.9	121.7	122.4	119.2	123.0	123.7

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

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2014-15	2014	2015	
				Jul.	Jun.	Jul.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2001	4.63	251	252	261	263
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	800	799	820	822
3 Consumer Price Index for Rural Labourers	1986-87	–	802	801	824	827

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

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

Item	2014-15	2014	2015	
		Jul.	Jun.	Jul.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	27,415	28,008	26,646	25,539
2 Silver (₹ per kilogram)	40,558	45,450	37,481	35,257

Source: Business Standard/Business Line/The Economic Times, Mumbai for Gold and Silver prices in Mumbai.

No. 21: Wholesale Price Index

(Base: 2004-05 = 100)

Commodities	Weight	2014-15	2014	2015		
			Jul.	May	Jun. (P)	Jul. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**181.2**	**185.0**	**178.0**	**178.6**	**177.5**
1.1 PRIMARY ARTICLES	**20.118**	**248.8**	**256.6**	**244.2**	**248.4**	**247.2**
1.1.1 Food articles	**14.337**	**253.4**	**258.7**	**251.3**	**257.3**	**255.7**
1.1.1.1 Food Grains	4.090	235.0	235.3	240.0	244.6	247.0
1.1.1.1.1 Cereals	3.373	233.6	235.6	230.5	230.9	231.9
1.1.1.1.2 Pulses	0.717	241.4	234.1	284.6	308.9	317.8
1.1.1.2 Fruits & Vegetables	3.843	257.3	285.6	238.8	249.4	242.7
1.1.1.2.1 Vegetables	1.736	276.6	334.0	224.8	253.6	252.1
1.1.1.2.2 Fruits	2.107	241.5	245.8	250.3	245.9	234.8
1.1.1.3 Milk	3.238	242.6	237.7	249.7	249.9	250.3
1.1.1.4 Eggs, Meat & Fish	2.414	282.3	273.5	277.9	286.3	280.4
1.1.1.5 Condiments & Spices	0.569	298.8	301.9	313.2	326.3	333.8
1.1.1.6 Other Food Articles	0.183	249.4	259.7	247.0	244.5	249.1
1.1.2 Non-Food Articles	**4.258**	**212.1**	**217.2**	**216.7**	**218.5**	**215.6**
1.1.2.1 Fibres	0.877	215.3	232.6	208.9	210.4	208.1
1.1.2.2 Oil Seeds	1.781	208.9	214.0	216.2	217.6	212.1
1.1.2.3 Other Non-Food Articles	1.386	215.6	215.1	230.0	232.7	232.9
1.1.2.4 Flowers	0.213	202.6	194.4	166.3	167.0	163.3
1.1.3 Minerals	**1.524**	**308.5**	**347.3**	**254.3**	**248.5**	**255.9**
1.1.3.1 Metallic Minerals	0.489	388.6	383.3	332.1	337.8	331.1
1.1.3.2 Other Minerals	0.135	211.8	206.3	211.8	211.2	212.1
1.1.3.3 Crude Petroleum	0.900	279.6	348.8	218.5	205.6	221.7
1.2 FUEL & POWER	**14.910**	**203.5**	**214.6**	**192.1**	**191.0**	**187.1**
1.2.1 Coal	2.094	189.8	189.8	189.9	189.9	189.9
1.2.2 Mineral Oils	9.364	219.6	237.6	200.4	198.8	192.5
1.2.3 Electricity	3.452	168.0	167.4	170.5	170.5	170.5
1.3 MANUFACTURED PRODUCTS	**64.972**	**155.1**	**156.0**	**154.3**	**154.2**	**153.7**
1.3.1 Food Products	**9.974**	**172.9**	**175.1**	**172.3**	**173.1**	**172.0**
1.3.1.1 Dairy Products	0.568	199.5	192.3	208.3	209.1	207.7
1.3.1.2 Canning, Preserving & Processing of Food	0.358	167.2	165.2	167.4	163.6	162.7
1.3.1.3 Grain Mill Products	1.340	175.1	174.6	173.2	173.2	172.8
1.3.1.4 Bakery Products	0.444	149.2	153.1	152.4	148.2	152.5
1.3.1.5 Sugar, Khandsari & Gur	2.089	182.7	188.9	165.5	164.3	158.4
1.3.1.6 Edible Oils	3.043	145.0	146.3	147.1	149.2	148.8
1.3.1.7 Oil Cakes	0.494	227.0	233.1	242.1	252.9	257.1
1.3.1.8 Tea & Coffee Proccessing	0.711	189.7	201.4	195.3	196.7	197.4
1.3.1.9 Manufacture of Salt	0.048	197.3	196.8	209.7	209.7	209.7
1.3.1.10 Other Food Products	0.879	194.1	191.3	203.4	203.7	203.2
1.3.2 Beverages, Tobacco & Tobacco Products	**1.762**	**200.8**	**199.9**	**205.9**	**206.7**	**206.1**
1.3.2.1 Wine Industries	0.385	137.0	137.5	136.1	136.7	135.9
1.3.2.2 Malt Liquor	0.153	177.5	175.9	180.3	182.5	180.6
1.3.2.3 Soft Drinks & Carbonated Water	0.241	162.6	158.8	168.0	168.3	167.9
1.3.2.4 Manufacture of Bidi, Cigarettes, Tobacco & Zarda	0.983	238.7	238.2	246.5	247.3	246.9
1.3.3 Textiles	**7.326**	**142.6**	**144.3**	**141.1**	**140.9**	**141.2**
1.3.3.1 Cotton Textiles	2.605	162.6	166.3	158.3	157.3	158.6
1.3.3.1.1 Cotton Yarn	1.377	179.2	186.5	169.2	168.2	170.0
1.3.3.1.2 Cotton Fabric	1.228	144.0	143.6	146.0	145.1	145.9
1.3.3.2 Man-Made Textiles	2.206	135.3	137.0	134.0	134.4	133.5
1.3.3.2.1 Man-Made Fibre	1.672	134.5	136.5	134.2	134.4	132.9
1.3.3.2.2 Man-Made Fabric	0.533	138.0	138.5	133.5	134.3	135.1
1.3.3.3 Woollen Textiles	0.294	159.5	158.5	161.1	160.9	159.3
1.3.3.4 Jute, Hemp & Mesta Textiles	0.261	192.9	191.3	200.2	201.2	205.0
1.3.3.5 Other Misc. Textiles	1.960	115.0	115.1	115.4	115.4	115.5
1.3.4 Wood & Wood Products	**0.587**	**187.8**	**185.7**	**196.5**	**196.3**	**197.9**
1.3.4.1 Timber/Wooden Planks	0.181	156.9	156.3	162.5	162.5	163.0
1.3.4.2 Processed Wood	0.128	191.1	190.5	192.5	192.5	192.4
1.3.4.3 Plywood & Fibre Board	0.241	214.9	210.2	231.7	231.1	234.5
1.3.4.4 Others	0.038	152.6	154.6	149.3	150.0	149.8

No. 21: Wholesale Price Index (Concld.)

(Base: 2004-05 = 100)

Commodities	Weight	2014-15	2014	2015		
			Jul.	May	Jun. (P)	Jul. (P)
	1	2	3	4	5	6
1.3.5 Paper & Paper Products	**2.034**	**150.7**	**149.8**	**153.3**	**152.9**	**153.6**
1.3.5.1 Paper & Pulp	1.019	149.8	148.6	151.5	151.1	151.3
1.3.5.2 Manufacture of boards	0.550	133.8	133.8	134.4	134.4	135.3
1.3.5.3 Printing & Publishing	0.465	172.4	171.0	179.8	178.6	180.1
1.3.6 Leather & Leather Products	**0.835**	**145.0**	**147.9**	**144.1**	**145.3**	**144.3**
1.3.6.1 Leathers	0.223	116.0	116.3	118.1	118.7	115.9
1.3.6.2 Leather Footwear	0.409	161.9	166.3	159.4	161.8	160.1
1.3.6.3 Other Leather Products	0.203	143.1	145.6	141.7	141.4	143.5
1.3.7 Rubber & Plastic Products	**2.987**	**149.9**	**150.6**	**149.1**	**149.4**	**149.4**
1.3.7.1 Tyres & Tubes	0.541	177.3	177.5	177.0	177.2	177.0
1.3.7.1.1 Tyres	0.488	177.5	177.5	177.7	177.9	177.7
1.3.7.1.2 Tubes	0.053	175.7	176.7	170.6	170.6	170.6
1.3.7.2 Plastic Products	1.861	140.2	141.3	138.9	139.2	139.5
1.3.7.3 Rubber Products	0.584	155.3	155.4	155.9	156.2	155.6
1.3.8 Chemicals & Chemical Products	**12.018**	**152.8**	**154.0**	**151.3**	**151.4**	**151.4**
1.3.8.1 Basic Inorganic Chemicals	1.187	156.1	157.1	155.8	155.9	156.0
1.3.8.2 Basic Organic Chemicals	1.952	150.9	156.1	143.5	142.5	142.4
1.3.8.3 Fertilisers & Pesticides	3.145	152.0	151.5	153.6	154.0	154.8
1.3.8.3.1 Fertilisers	2.661	154.9	154.4	156.7	157.3	158.1
1.3.8.3.2 Pesticides	0.483	135.7	135.4	136.2	135.8	136.5
1.3.8.4 Paints, Varnishes & Lacquers	0.529	149.9	149.8	152.4	151.2	151.1
1.3.8.5 Dyestuffs & Indigo	0.563	144.8	147.7	141.7	141.6	141.2
1.3.8.6 Drugs & Medicines	0.456	129.3	128.7	130.2	129.9	130.4
1.3.8.7 Perfumes, Cosmetics, Toiletries etc.	1.130	160.7	160.7	162.9	163.3	163.5
1.3.8.8 Turpentine, Plastic Chemicals	0.586	156.4	156.1	154.1	154.4	155.5
1.3.8.9 Polymers including Synthetic Rubber	0.970	152.3	153.3	147.6	147.6	147.2
1.3.8.10 Petrochemical Intermediates	0.869	162.0	165.4	156.4	157.9	155.0
1.3.8.11 Matches, Explosives & other Chemicals	0.629	153.5	153.1	154.7	155.3	155.1
1.3.9 Non-Metallic Mineral Products	**2.556**	**172.9**	**169.5**	**176.1**	**175.8**	**174.2**
1.3.9.1 Structural Clay Products	0.658	192.4	187.0	196.4	195.6	198.0
1.3.9.2 Glass, Earthenware, Chinaware & their Products	0.256	135.5	133.2	140.4	140.4	140.8
1.3.9.3 Cement & Lime	1.386	169.6	166.3	172.3	172.0	168.3
1.3.9.4 Cement, Slate & Graphite Products	0.256	177.7	177.8	179.6	180.5	178.3
1.3.10 Basic Metals, Alloys & Metal Products	**10.748**	**165.6**	**167.1**	**160.2**	**158.7**	**157.1**
1.3.10.1 Ferrous Metals	8.064	155.6	157.6	148.4	146.8	145.0
1.3.10.1.1 Iron & Semis	1.563	156.7	160.7	147.8	145.8	143.8
1.3.10.1.2 Steel: Long	1.630	164.7	167.8	156.7	154.4	151.9
1.3.10.1.3 Steel: Flat	2.611	150.8	152.4	140.6	138.4	136.0
1.3.10.1.4 Steel: Pipes & Tubes	0.314	133.4	132.3	132.3	132.5	131.3
1.3.10.1.5 Stainless Steel & alloys	0.938	167.3	167.8	163.8	163.6	163.3
1.3.10.1.6 Castings & Forgings	0.871	145.6	146.2	145.9	145.6	145.6
1.3.10.1.7 Ferro alloys	0.137	158.9	158.4	150.9	150.3	150.5
1.3.10.2 Non-Ferrous Metals	1.004	168.6	168.2	166.7	165.8	165.3
1.3.10.2.1 Aluminium	0.489	144.9	143.0	141.7	139.8	138.6
1.3.10.2.2 Other Non-Ferrous Metals	0.515	191.1	192.1	190.6	190.6	190.7
1.3.10.3 Metal Products	1.680	211.6	212.0	212.8	211.8	210.2
1.3.11 Machinery & Machine Tools	**8.931**	**134.6**	**134.7**	**135.0**	**135.0**	**135.2**
1.3.11.1 Agricultural Machinery & Implements	0.139	148.7	148.8	149.5	149.6	149.6
1.3.11.2 Industrial Machinery	1.838	152.3	152.3	153.1	153.3	154.0
1.3.11.3 Construction Machinery	0.045	141.1	141.4	141.5	141.5	141.5
1.3.11.4 Machine Tools	0.367	165.0	163.8	165.8	165.8	165.8
1.3.11.5 Air Conditioner & Refrigerators	0.429	120.6	120.3	120.7	120.7	120.5
1.3.11.6 Non-Electrical Machinery	1.026	126.9	127.3	127.6	127.6	127.7
1.3.11.7 Electrical Machinery, Equipment & Batteries	2.343	138.6	138.8	137.9	137.9	138.2
1.3.11.8 Electrical Accessories, Wires, Cables etc.	1.063	156.0	156.8	157.4	157.7	157.0
1.3.11.9 Electrical Apparatus & Appliances	0.337	119.8	117.6	121.7	121.7	121.7
1.3.11.10 Electronics Items	0.961	89.6	89.9	89.3	89.3	89.3
1.3.11.11 IT Hardware	0.267	91.5	91.5	91.7	91.7	91.7
1.3.11.12 Communication Equipments	0.118	98.7	99.1	98.5	98.5	98.5
1.3.12 Transport, Equipment & Parts	**5.213**	**136.2**	**136.1**	**137.7**	**137.7**	**137.8**
1.3.12.1 Automotives	4.231	135.3	135.2	136.6	136.6	136.7
1.3.12.2 Auto Parts	0.804	138.1	137.2	140.4	140.4	140.1
1.3.12.3 Other Transport Equipments	0.178	150.1	150.8	152.6	151.6	152.4

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	2013-14	2014-15	April-June		June	
				2014-15	2015-16	2014	2015
	1	2	3	4	5	6	7
General Index	**100.00**	**172.0**	**176.9**	**173.3**	**178.9**	**172.0**	**178.5**
1 Sectoral Classification							
1.1 Mining and Quarrying	14.16	124.7	126.5	123.3	124.2	122.1	121.7
1.2 Manufacturing	75.53	181.9	186.1	181.7	188.2	180.1	188.4
1.3 Electricity	10.32	164.7	178.6	181.2	185.4	181.6	184.0
2 Use-Based Classification							
2.1 Basic Goods	45.68	156.9	167.8	164.5	172.3	163.5	171.9
2.2 Capital Goods	8.83	242.6	258.0	244.6	248.3	270.7	260.9
2.3 Intermediate Goods	15.69	151.3	153.8	152.1	154.5	151.2	152.4
2.4 Consumer Goods	29.81	185.3	178.9	177.0	181.2	166.9	177.9
2.4.1 Consumer Durables	8.46	264.2	231.0	243.3	252.3	211.9	245.8
2.4.2 Consumer Non-Durables	21.35	154.0	158.3	150.7	153.1	149.0	151.0

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–July			
	2015-16 (Budget Estimates)	2014-15 (Actuals)	2015-16 (Actuals)	Percentage to Budget Estimates	
				2014-15	2015-16
	1	2	3	4	5
1 Revenue Receipts	11,415.8	1,756.3	2,089.8	14.8	18.3
1.1 Tax Revenue (Net)	9,198.4	1,468.7	1,538.5	15.0	16.7
1.2 Non-Tax Revenue	2,217.3	287.7	551.3	13.5	24.9
2 Capital Receipts	6,359.0	3,283.1	3,920.0	54.3	61.6
2.1 Recovery of Loans	107.5	32.6	35.1	31.0	32.7
2.2 Other Receipts	695.0	1.2	33.8	0.2	4.9
2.3 Borrowings and Other Liabilities	5,556.5	3,249.2	3,851.0	61.2	69.3
3 Total Receipts (1+2)	**17,774.8**	**5,039.4**	**6,009.8**	**28.1**	**33.8**
4 Non-Plan Expenditure	13,122.0	3,718.9	4,431.4	30.5	33.8
4.1 On Revenue Account	12,060.3	3,380.5	4,087.5	30.3	33.9
4.1.1 Interest Payments	4,561.5	1,186.2	1,276.4	27.8	28.0
4.2 On Capital Account	1,061.7	338.4	344.0	32.1	32.4
5 Plan Expenditure	4,652.8	1,320.5	1,578.4	23.0	33.9
5.1 On Revenue Account	3,300.2	1,040.0	1,062.0	22.9	32.2
5.2 On Capital Account	1,352.6	280.5	516.3	23.1	38.2
6 Total Expenditure (4+5)	**17,774.8**	**5,039.4**	**6,009.8**	**28.1**	**33.8**
7 Revenue Expenditure (4.1+5.1)	15,360.5	4,420.5	5,149.5	28.2	33.5
8 Capital Expenditure (4.2+5.2)	2,414.3	618.9	860.3	27.3	35.6
9 Revenue Deficit (7-1)	**3,944.7**	**2,664.2**	**3,059.7**	**70.4**	**77.6**
10 Fiscal Deficit {6-(1+2.1+2.2)}	**5,556.5**	**3,249.2**	**3,851.0**	**61.2**	**69.3**
11 Gross Primary Deficit [10-4.1.1]	**995.0**	**2,063.1**	**2,574.7**	**198.1**	**258.7**

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

No. 24: Treasury Bills – Ownership Pattern

(₹ Billion)

Item	2014-15	2014	2015					
		Aug. 1	Jun. 26	Jul. 3	Jul. 10	Jul. 17	Jul. 24	Jul. 31
	1	2	3	4	5	6	7	8
1 14-day								
1.1 Banks	–	–	–	–	–	–	–	–
1.2 Primary Dealers	–	–	–	–	–	–	–	–
1.3 State Governments	838.1	1,009.3	739.8	787.1	573.3	608.4	659.7	643.4
1.4 Others	14.7	6.3	8.4	9.4	8.3	8.2	9.8	8.5
2 91-day								
2.1 Banks	446.9	309.2	436.0	488.0	439.4	452.7	405.0	402.6
2.2 Primary Dealers	284.1	323.6	306.2	290.7	303.5	322.9	304.0	261.7
2.3 State Governments	368.3	556.5	690.3	695.3	700.3	681.8	619.8	683.8
2.4 Others	264.9	565.4	443.1	485.9	439.7	414.1	479.6	519.5
3 182-day								
3.1 Banks	231.5	214.4	323.5	337.9	373.6	401.0	386.6	354.7
3.2 Primary Dealers	408.9	322.3	289.7	278.9	227.5	213.8	198.2	259.2
3.3 State Governments	13.9	74.5	7.1	15.1	15.1	15.1	15.1	15.1
3.4 Others	113.9	205.6	160.7	166.7	183.3	171.4	201.9	166.9
4 364-day								
4.1 Banks	330.8	442.7	413.8	446.0	458.3	464.6	457.2	399.4
4.2 Primary Dealers	657.3	570.6	676.1	703.7	679.8	696.4	640.3	674.7
4.3 State Governments	12.0	12.7	19.6	19.6	19.6	23.2	23.2	23.2
4.4 Others	483.4	392.5	416.2	357.4	374.0	363.9	420.9	383.2
5 Total	4,468.7	5,005.7	4,930.6	5,081.8	4,795.8	4,837.6	4,821.1	4,795.8

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										
2015-16										
Jul. 2	80	76	746.87	5.52	12	80.00	5.52	85.52	98.15	7.5602
Jul. 8	80	81	421.16	59.02	23	80.00	59.02	139.02	98.16	7.5186
Jul. 15	80	75	398.05	15.00	30	80.00	15.00	95.00	98.16	7.5186
Jul. 22	80	85	563.55	27.53	29	80.00	27.53	107.53	98.17	7.4769
Jul. 29	80	75	459.63	93.05	43	80.00	93.05	173.05	98.17	7.4769
182-day Treasury Bills										
2015-16										
Jul. 2	60	66	304.25	8.00	13	60.00	8.00	68.00	96.32	7.6622
Jul. 15	60	84	256.42	–	45	60.00	–	60.00	96.35	7.5974
Jul. 29	60	68	268.84	–	8	60.00	–	60.00	96.38	7.5326
364-day Treasury Bills										
2015-16										
Jun. 10	60	67	152.77	–	33	60.00	–	60.00	92.81	7.7683
Jun. 24	60	87	236.70	19.59	27	60.00	19.59	79.59	92.85	7.7217
Jul. 8	60	90	315.67	0.02	32	60.00	0.02	60.02	92.94	7.6172
Jul. 22	60	78	193.00	0.03	37	60.00	0.03	60.03	92.94	7.6172

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
July 1, 2015	5.70-7.40	7.08
July 2, 2015	5.70-8.20	7.07
July 3, 2015	4.00-7.25	6.99
July 4, 2015	4.00-7.00	5.79
July 6, 2015	5.60-7.30	7.00
July 7, 2015	5.60-7.25	7.03
July 8, 2015	5.70-7.25	7.06
July 9, 2015	5.50-7.30	6.91
July 10, 2015	5.00-7.25	7.08
July 11, 2015	4.00-7.10	5.79
July 13, 2015	5.50-7.25	7.05
July 14, 2015	5.50-7.26	7.07
July 15, 2015	5.65-7.25	7.07
July 16, 2015	5.75-7.25	7.06
July 17, 2015	5.70-7.35	7.06
July 20, 2015	5.70-7.25	7.08
July 21, 2015	5.70-7.30	6.84
July 22, 2015	5.75-7.30	7.07
July 23, 2015	5.70-7.35	7.06
July 24, 2015	4.75-7.25	7.08
July 25, 2015	4.00-6.75	5.68
July 27, 2015	5.70-7.50	7.12
July 28, 2015	5.70-7.25	7.06
July 29, 2015	5.70-7.30	7.09
July 30, 2015	5.70-7.28	7.02
July 31, 2015	4.25-7.30	7.07
August 1, 2015	4.00-6.48	5.45
August 3, 2015	5.70-7.25	7.01
August 4, 2015	5.70-7.35	7.06
August 5, 2015	5.70-7.25	7.06
August 6, 2015	5.70-7.28	7.08
August 7, 2015	4.75-7.30	7.10
August 8, 2015	4.00-7.75	6.39
August 10, 2015	5.70-7.55	7.09
August 11, 2015	5.70-7.25	7.09
August 12, 2015	5.70-7.25	7.11
August 13, 2015	5.70-7.28	7.10
August 14, 2015	5.75-7.30	7.07

No. 27: Certificates of Deposit

Item	2014	2015			
	Jul. 25	Jun. 12	Jun. 26	Jul. 10	Jul. 24
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	3,032.5	2,340.4	2,306.6	2,378.8	2,271.1
1.1 Issued during the fortnight (₹ Billion)	84.8	347.7	342.0	226.5	37.6
2 Rate of Interest (per cent)	8.38-9.41	7.74-8.29	7.68-8.50	7.54-8.16	7.25-8.11

No. 28: Commercial Paper

Item	2014	2015			
	Jul. 31	Jun. 15	Jun. 30	Jul. 15	Jul. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	2,015.0	3,126.9	2,706.1	3,185.9	3,149.4
1.1 Reported during the fortnight (₹ Billion)	397.4	712.6	593.4	616.7	571.9
2 Rate of Interest (per cent)	8.12-11.77	7.07-13.06	7.39-11.56	7.45-11.52	7.36-11.76

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Billion)

Item	2014-15	2014	2015					
		Aug. 1	Jun. 26	Jul. 3	Jul. 10	Jul. 17	Jul. 24	Jul. 31
	1	2	3	4	5	6	7	8
1 Call Money	190.3	187.3	165.1	162.8	157.1	178.5	183.7	148.9
2 Notice Money	65.4	67.7	54.7	43.4	69.9	1.6	79.6	36.5
3 Term Money	4.1	3.7	2.7	5.4	2.9	5.6	4.9	2.2
4 CBLO	1,168.3	1,164.2	1,289.2	1,311.9	1,144.8	1,413.6	1,406.4	1,387.1
5 Market Repo	1,097.6	872.0	1,223.0	990.0	1,181.5	1,005.8	1,373.7	955.6
6 Repo in Corporate Bond	0.3	–	0.4	2.5	0.4	1.2	0.4	1.2
7 Forex (US $ million)	56,541	59,866	54,544	55,335	52,179	44,276	48,094	57,532
8 Govt. of India Dated Securities	772.4	567.7	930.8	570.7	850.7	606.0	521.7	602.2
9 State Govt. Securities	15.8	3.4	34.2	9.9	13.6	13.5	17.0	36.7
10 Treasury Bills								
10.1 91-Day	35	24.4	38.1	56.6	36.9	33.4	47.0	43.1
10.2 182-Day	12.1	18.0	11.3	11.1	15.6	20.1	8.0	8.2
10.3 364-Day	21.4	7.4	29.3	35.5	30.7	13.2	18.8	19.9
10.4 Cash Management Bills	0.7	–	–	–	–	–	–	–
11 Total Govt. Securities (8+9+10)	857.4	620.9	1,043.6	683.9	947.5	686.2	612.6	710.0
11.1 RBI	–	0.4	1.6	6.4	4.2	21.0	2.8	6.2

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

(Amount in ₹ Billion)

Security & Type of Issue	2014-15		2014-15 (Apr.-Jul.)		2015-16 (Apr.-Jul.) *		Jul. 2014		Jul. 2015 *	
	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	**63**	**93.1**	**15**	**10.0**	**23**	**105.4**	**3**	**0.3**	**7**	**7.2**
1A Premium	53	76.8	13	8.8	21	102.7	3	0.2	7	6.2
1.1 Prospectus	46	30.4	10	2.7	20	29.4	3	0.3	6	6.2
1.1.1 Premium	40	28.0	9	2.3	18	27.8	3	0.2	6	5.9
1.2 Rights	17	62.8	5	7.3	3	76.0	–	–	1	1.0
1.2.1 Premium	13	48.8	4	6.5	3	75.0	–	–	1	0.3
2 Preference Shares	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2.1 Prospectus	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Debentures	**23**	**77.4**	**10**	**39.1**	**2**	**5.7**	**4**	**25.7**	**1**	**1.6**
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Prospectus	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	23	77.4	10	39.1	2	5.7	4	25.7	1	1.6
3.2.1 Prospectus	23	77.4	10	39.1	2	5.7	4	25.7	1	1.6
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Bonds	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
4.1 Prospectus	–	–	–	–	–	–	–	–	–	–
4.2 Rights	–	–	–	–	–	–	–	–	–	–
5 Total (1+2+3+4)	**86**	**170.6**	**25**	**49.1**	**25**	**111.1**	**7**	**26.0**	**8**	**8.8**
5.1 Prospectus	69	107.8	20	41.8	22	35.2	7	26.0	7	7.8
5.2 Rights	17	62.8	5	7.3	3	76.0	–	–	1	1.0

* : Data is Provisional

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	2014-15	2014	2015				
			Jul.	Mar.	Apr.	May	Jun.	Jul.
		1	2	3	4	5	6	7
1 Exports	₹ Billion	18,970.3	1,549.1	1,491.6	1,375.7	1,402.9	1,423.4	1,472.3
	US $ Million	310,533.9	25,792.7	23,884.5	21,922.1	21,989.3	22,289.4	23,137.3
1.1 Oil	₹ Billion	3,476.1	320.9	159.9	170.6	144.4	184.3	193.1
	US $ Million	57,042.3	5,343.3	2,560.3	2,718.0	2,262.7	2,885.5	3,034.2
1.2 Non-oil	₹ Billion	15,494.2	1,228.2	1,331.7	1,205.1	1,258.6	1,239.1	1,279.3
	US $ Million	253,491.6	20,449.4	21,324.1	19,204.1	19,726.6	19,403.9	20,103.1
2 Imports	₹ Billion	27,340.5	2,406.4	2,229.7	2,067.0	2,091.9	2,114.8	2,287.7
	US $ Million	447,548.3	40,068.0	35,703.9	32,938.6	32,788.6	33,116.6	35,949.7
2.1 Oil	₹ Billion	8,428.7	875.3	463.2	467.4	545.8	554.1	603.7
	US $ Million	138,324.7	14,574.4	7,417.2	7,448.4	8,543.8	8,676.4	9,486.9
2.2 Non-oil	₹ Billion	18,911.8	1,531.1	1,766.5	1,599.6	1,546.1	1,560.8	1,684.0
	US $ Million	309,223.6	25,493.6	28,286.7	25,490.2	24,244.8	24,440.2	26,462.8
3 Trade Balance	₹ Billion	–8,370.2	–857.4	–738.1	–691.3	–689.0	–691.4	–815.3
	US $ Million	–137,014.5	–14,275.3	–11,819.5	–11,016.5	–10,799.3	–10,827.1	–12,812.5
3.1 Oil	₹ Billion	–4,952.6	–554.4	–303.3	–296.9	–401.5	–369.8	–410.6
	US $ Million	–81,282.5	–9,231.1	–4,856.9	–4,730.5	–6,281.1	–5,790.8	–6,452.8
3.2 Non-oil	₹ Billion	–3,417.6	–302.9	–434.8	–394.5	–287.5	–321.6	–404.7
	US $ Million	–55,732.0	–5,044.2	–6,962.6	–6,286.1	–4,518.2	–5,036.3	–6,359.7

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

No. 32: Foreign Exchange Reserves

Item	Unit	2014	2015					
		Aug. 22	Jul. 17	Jul. 24	Jul. 31	Aug. 7	Aug. 14	Aug. 21
		1	2	3	4	5	6	7
1 Total Reseves	**₹ Billion**	**19,314**	**22,408**	**22,552**	**22,580**	**22,511**	**22,989**	**23,269**
	US $ Million	**318,580**	**353,326**	**353,648**	**353,461**	**353,347**	**354,433**	**355,354**
1.1 Foreign Currency Assets	₹ Billion	17,670	20,854	20,995	21,070	21,005	21,472	21,747
	US $ Million	291,318	328,931	329,245	329,875	329,797	330,837	331,731
1.2 Gold	₹ Billion	1,276	1,216	1,216	1,168	1,168	1,168	1,168
	US $ Million	21,174	19,074	19,074	18,250	18,250	18,250	18,250
1.3 SDRs	SDRs Million	2,889	2,889	2,889	2,889	2,889	2,889	2,889
	₹ Billion	266	255	257	258	256	264	268
	US $ Million	4,397	4,018	4,024	4,029	4,020	4,055	4,075
1.4 Reserve Tranche Position in IMF	₹ Billion	102	83	83	84	82	84	85
	US $ Million	1,691	1,303	1,304	1,306	1,280	1,291	1,298

No. 33: NRI Deposits

(US$ Million)

Scheme	Outstanding				Flows	
	2014-15	2014	2015		2014-15	2015-16
		Jul.	Jun.	Jul.	Apr.-Jul.	Apr.-Jul.
	1	2	3	4	5	6
1 NRI Deposits	**115,163**	**108,498**	**119,892**	**120,494**	**4,710**	**6,969**
1.1 FCNR(B)	42,824	43,131	44,196	44,231	1,309	1,407
1.2 NR(E)RA	62,746	56,225	66,020	66,589	3,367	5,269
1.3 NRO	9,593	9,141	9,676	9,674	34	293

No. 34: Foreign Investment Inflows

(US$ Million)

Item	2014-15	2014-15	2015-16	2014	2015	
		Apr.-Jul.	Apr.-Jul.	Jul.	Jun.	Jul.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	**32,628**	**11,505**	**10,662**	**3,625**	**1,681**	**1,943**
1.1.1 Direct Investment to India (1.1.1.1–1. 1.1.2)	**34,427**	**11,890**	**11,426**	**3,861**	**1,756**	**1,853**
1.1.1.1 Gross Inflows/Gross Investments	**44,291**	**14,550**	**15,299**	**4,564**	**2,888**	**2,984**
1.1.1.1.1 Equity	31,885	11,034	11,814	3,576	2,128	2,082
1.1.1.1.1.1 Government (SIA/FIPB)	2,219	826	841	210	169	91
1.1.1.1.1.2 RBI	22,530	6,183	9,758	2,241	1,604	1,750
1.1.1.1.1.3 Acquisition of shares	6,185	3,726	916	1,049	280	166
1.1.1.1.1.4 Equity capital of unincorporated bodies	952	299	299	76	74	76
1.1.1.1.2 Reinvested earnings	8,983	2,755	2,755	696	686	696
1.1.1.1.3 Other capital	3,423	760	730	292	73	206
1.1.1.2 Repatriation/Disinvestment	**9,864**	**2,660**	**3,873**	**703**	**1,131**	**1,131**
1.1.1.2.1 Equity	9,612	2,587	3,783	683	1,103	1,103
1.1.1.2.2 Other capital	252	73	90	20	28	28
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	**1,799**	**384**	**763**	**236**	**75**	**–90**
1.1.2.1 Equity capital	4,075	1,056	1,490	343	447	357
1.1.2.2 Reinvested Earnings	1,092	375	375	99	92	99
1.1.2.3 Other Capital	3,280	1,039	905	318	226	144
1.1.2.4 Repatriation/Disinvestment	6,649	2,086	2,006	523	690	690
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	**40,934**	**17,820**	**–641**	**5,380**	**–1,712**	**–694**
1.2.1 GDRs/ADRs	–	–	1,544	–	273	–
1.2.2 FIIs	40,923	17,882	–2,318	5,417	–1,967	–676
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	–11	62	–133	37	18	18
1 Foreign Investment Inflows	**73,562**	**29,325**	**10,021**	**9,005**	**–31**	**1,248**

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

(US$ Million)

Item	2014-15	2014	2015		
		Jun.	Apr.	May	Jun.
	1	2	3	4	5
1 Outward Remittances under the LRS	**1,325.8**	**76.0**	**141.9**	**106.0**	**140.7**
1.1 Deposit	51.4	3.2	8.6	5.1	6.8
1.2 Purchase of immovable property	45.5	0.5	9.8	6.5	9.0
1.3 Investment in equity/debt	195.5	11.7	27.6	18.3	21.2
1.4 Gift	403.5	27.6	53.1	35.5	43.6
1.5 Donations	3.2	0.2	0.2	0.6	0.6
1.6 Travel	11.0	0.8	0.7	1.0	1.5
1.7 Maintenance of close relatives	174.4	9.7	17.0	14.3	20.5
1.8 Medical Treatment	7.2	0.6	0.5	0.4	0.6
1.9 Studies Abroad	277.1	12.6	10.1	12.5	21.9
1.10 Others	157.1	9.2	14.2	11.8	15.1

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

Item	2013-14	2014-15	2014	2015	
			August	July	August
	1	2	3	4	5
36-Currency Export and Trade Based Weights (Base: 2004-05=100)					
1 Trade-Based Weights					
1.1 NEER	72.32	74.08	72.72	75.63	74.74
1.2 REER	103.27	108.93	108.16	112.96	111.63
2 Export-Based Weights					
2.1 NEER	73.56	75.21	73.84	76.75	75.72
2.2 REER	105.48	111.24	110.50	115.44	113.88
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	67.75	68.63	67.27	69.51	68.09
1.2 REER	112.77	120.02	118.63	125.54	122.96
2 Base: 2013-14 (April-March) =100					
2.1 NEER	100.00	101.30	99.29	102.60	100.50
2.2 REER	100.00	106.43	105.19	111.32	109.04

No. 37: External Commercial Borrowings (ECBs)

(Amount in US$ Million)

Item	2014-15	2014	2015	
		Jul.	Jun.	Jul.
	1	2	3	4
1 Automatic Route				
1.1 Number	733	58	54	57
1.2 Amount	19,215	2,560	807	694
2 Approval Route				
2.1 Number	88	8	8	5
2.2 Amount	9,170	1,162	2,353	1,450
3 Total (1+2)				
3.1 Number	821	66	62	62
3.2 Amount	28,385	3,722	3,160	2,144
4 Weighted Average Maturity (in years)	6.49	6.28	8.75	4.99
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	2.12	1.93	1.59	1.48
5.2 Interest rate range for Fixed Rate Loans	0.00-13.50	1.25-9.00	0.00-5.00	0.00-5.25

No. 38: India's Overall Balance of Payments

(US $ Million)

Item	Jan-Mar 2014 (PR)			Jan-Mar 2015 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**271,294**	**264,188**	**7,106**	**281,577**	**251,428**	**30,149**
1 CURRENT ACCOUNT (1.1+ 1.2)	**144,473**	**145,813**	**–1,340**	**131,383**	**132,908**	**–1,525**
1.1 MERCHANDISE	**83,660**	**114,328**	**–30,668**	**70,768**	**102,493**	**–31,725**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**60,812**	**31,485**	**29,328**	**60,615**	**30,415**	**30,200**
1.2.1 Services	40,645	21,040	19,605	39,841	20,436	19,406
1.2.1.1 Travel	5,014	2,959	2,056	5,648	3,669	1,979
1.2.1.2 Transportation	4,977	4,215	763	3,827	4,011	–184
1.2.1.3 Insurance	582	278	304	498	239	258
1.2.1.4 G.n.i.e.	154	234	–81	115	237	–122
1.2.1.5 Miscellaneous	29,918	13,354	16,564	29,753	12,279	17,475
1.2.1.5.1 Software Services	18,492	787	17,706	19,238	613	18,625
1.2.1.5.2 Business Services	6,853	6,721	132	7,072	7,490	–419
1.2.1.5.3 Financial Services	1,367	1,113	254	1,383	577	805
1.2.1.5.4 Communication Services	684	215	469	518	184	334
1.2.2 Transfers	17,410	1,258	16,152	17,543	1,150	16,393
1.2.2.1 Official	200	247	–47	44	260	–216
1.2.2.2 Private	17,209	1,010	16,199	17,500	891	16,609
1.2.3 Income	2,757	9,187	–6,430	3,231	8,829	–5,599
1.2.3.1 Investment Income	1,839	8,353	–6,514	2,311	8,136	–5,825
1.2.3.2 Compensation of Employees	918	835	84	919	693	226
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**126,821**	**117,626**	**9,195**	**149,231**	**118,521**	**30,711**
2.1 Foreign Investment (2.1.1+2.1.2)	**66,501**	**56,333**	**10,168**	**83,170**	**61,102**	**22,067**
2.1.1 Foreign Direct Investment	12,384	11,475	910	15,699	6,083	9,616
2.1.1.1 In India	10,945	1,164	9,781	13,982	3,646	10,336
2.1.1.1.1 Equity	8,008	1,083	6,925	10,152	3,574	6,578
2.1.1.1.2 Reinvested Earnings	2,457	–	2,457	2,457	–	2,457
2.1.1.1.3 Other Capital	480	80	400	1,373	72	1,301
2.1.1.2 Abroad	1,440	10,311	–8,872	1,717	2,437	–720
2.1.1.2.1 Equity	1,440	9,312	–7,872	1,717	1,268	449
2.1.1.2.2 Reinvested Earnings	–	297	–297	–	260	–260
2.1.1.2.3 Other Capital	–	703	–703	–	910	–910
2.1.2 Portfolio Investment	54,116	44,858	9,258	67,471	55,019	12,452
2.1.2.1 In India	54,005	44,484	9,521	67,272	54,837	12,436
2.1.2.1.1 FIIs	54,005	44,484	9,521	67,272	54,837	12,436
2.1.2.1.1.1 Equity	37,244	33,980	3,264	53,992	48,344	5,648
2.1.2.1.1.2 Debt	16,761	10,504	6,257	13,280	6,493	6,788
2.1.2.1.2 ADR/GDRs	–	–	–	–	–	–
2.1.2.2 Abroad	111	374	–263	198	182	16
2.2 Loans (2.2.1+2.2.2+2.2.3)	**32,481**	**30,902**	**1,579**	**34,747**	**30,424**	**4,323**
2.2.1 External Assistance	1,781	839	942	1,802	1,036	766
2.2.1.1 By India	11	61	–50	15	97	–82
2.2.1.2 To India	1,770	778	992	1,787	939	848
2.2.2 Commercial Borrowings	11,153	6,043	5,111	7,324	5,559	1,765
2.2.2.1 By India	526	323	203	388	51	337
2.2.2.2 To India	10,627	5,719	4,908	6,936	5,508	1,428
2.2.3 Short Term to India	19,547	24,021	–4,474	25,621	23,829	1,792
2.2.3.1 Suppliers' Credit > 180 days & Buyers' Credit	19,547	23,674	–4,127	25,621	23,219	2,402
2.2.3.2 Suppliers' Credit up to 180 days	–	347	–347	–	610	–610
2.3 Banking Capital (2.3.1+2.3.2)	**19,846**	**21,643**	**–1,796**	**22,999**	**21,340**	**1,659**
2.3.1 Commercial Banks	19,681	21,643	–1,962	21,810	21,340	470
2.3.1.1 Assets	2,838	5,246	–2,409	146	6,752	–6,606
2.3.1.2 Liabilities	16,843	16,396	447	21,665	14,588	7,077
2.3.1.2.1 Non-Resident Deposits	16,386	12,641	3,745	16,866	12,866	4,000
2.3.2 Others	165	–	165	1,189	–	1,189
2.4 Rupee Debt Service	–	24	–24	–	23	–23
2.5 Other Capital	7,993	8,723	–730	8,315	5,631	2,684
3 Errors & Omissions	–	**749**	**–749**	**963**	–	**963**
4 Monetary Movements (4.1+ 4.2)	–	**7,106**	**–7,106**	–	**30,149**	**–30,149**
4.1 I.M.F.	–	–	–	–	–	–
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	–	7,106	–7,106	–	30,149	–30,149

No. 39: India's Overall Balance of Payments

(₹ Billion)

Item	Jan-Mar 2014 (PR)			Jan-Mar 2015 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**16,761**	**16,322**	**439**	**17,525**	**15,648**	**1,876**
1 CURRENT ACCOUNT (1.1+ 1.2)	**8,926**	**9,009**	**–83**	**8,177**	**8,272**	**–95**
1.1 MERCHANDISE	**5,169**	**7,063**	**–1,895**	**4,404**	**6,379**	**–1,974**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**3,757**	**1,945**	**1,812**	**3,773**	**1,893**	**1,880**
1.2.1 Services	2,511	1,300	1,211	2,480	1,272	1,208
1.2.1.1 Travel	310	183	127	352	228	123
1.2.1.2 Transportation	308	260	47	238	250	–11
1.2.1.3 Insurance	36	17	19	31	15	16
1.2.1.4 G.n.i.e.	10	14	–5	7	15	–8
1.2.1.5 Miscellaneous	1,848	825	1,023	1,852	764	1,088
1.2.1.5.1 Software Services	1,142	49	1,094	1,197	38	1,159
1.2.1.5.2 Business Services	423	415	8	440	466	–26
1.2.1.5.3 Financial Services	84	69	16	86	36	50
1.2.1.5.4 Communication Services	42	13	29	32	11	21
1.2.2 Transfers	1,076	78	998	1,092	72	1,020
1.2.2.1 Official	12	15	–3	3	16	–13
1.2.2.2 Private	1,063	62	1,001	1,089	55	1,034
1.2.3 Income	170	568	–397	201	550	–348
1.2.3.1 Investment Income	114	516	–402	144	506	–363
1.2.3.2 Compensation of Employees	57	52	5	57	43	14
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**7,835**	**7,267**	**568**	**9,288**	**7,376**	**1,911**
2.1 Foreign Investment (2.1.1+2.1.2)	4,109	3,480	628	5,176	3,803	1,373
2.1.1 Foreign Direct Investment	765	709	56	977	379	598
2.1.1.1 In India	676	72	604	870	227	643
2.1.1.1.1 Equity	495	67	428	632	222	409
2.1.1.1.2 Reinvested Earnings	152	–	152	153	–	153
2.1.1.1.3 Other Capital	30	5	25	85	4	81
2.1.1.2 Abroad	89	637	–548	107	152	–45
2.1.1.2.1 Equity	89	575	–486	107	79	28
2.1.1.2.2 Reinvested Earnings	–	18	–18	–	16	–16
2.1.1.2.3 Other Capital	–	43	–43	–	57	–57
2.1.2 Portfolio Investment	3,343	2,771	572	4,199	3,424	775
2.1.2.1 In India	3,336	2,748	588	4,187	3,413	774
2.1.2.1.1 FIIs	3,336	2,748	588	4,187	3,413	774
2.1.2.1.1.1 Equity	2,301	2,099	202	3,360	3,009	352
2.1.2.1.1.2 Debt	1,036	649	387	827	404	422
2.1.2.1.2 ADR/GDRs	–	–	–	–	–	–
2.1.2.2 Abroad	7	23	–16	12	11	1
2.2 Loans (2.2.1+2.2.2+2.2.3)	**2,007**	**1,909**	**98**	**2,163**	**1,894**	**269**
2.2.1 External Assistance	110	52	58	112	64	48
2.2.1.1 By India	1	4	–3	1	6	–5
2.2.1.2 To India	109	48	61	111	58	53
2.2.2 Commercial Borrowings	689	373	316	456	346	110
2.2.2.1 By India	33	20	13	24	3	21
2.2.2.2 To India	657	353	303	432	343	89
2.2.3 Short Term to India	1,208	1,484	–276	1,595	1,483	112
2.2.3.1 Suppliers' Credit > 180 days & Buyers' Credit	1,208	1,463	–255	1,595	1,445	149
2.2.3.2 Suppliers' Credit up to 180 days	–	21	–21	–	38	–38
2.3 Banking Capital (2.3.1+2.3.2)	**1,226**	**1,337**	**–111**	**1,431**	**1,328**	**103**
2.3.1 Commercial Banks	1,216	1,337	–121	1,357	1,328	29
2.3.1.1 Assets	175	324	–149	9	420	–411
2.3.1.2 Liabilities	1,041	1,013	28	1,348	908	440
2.3.1.2.1 Non-Resident Deposits	1,012	781	231	1,050	801	249
2.3.2 Others	10	–	10	74	–	74
2.4 Rupee Debt Service	–	2	–2	–	1	–1
2.5 Other Capital	494	539	–45	518	350	167
3 Errors & Omissions	–	**46**	**–46**	**60**	–	**60**
4 Monetary Movements (4.1+ 4.2)	–	**439**	**–439**	–	**1,876**	**–1,876**
4.1 I.M.F.	–	–	–	–	–	–
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	–	439	–439	–	1,876	–1,876

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

(US $ Million)

Item	Jan-Mar 2014 (PR)			Jan-Mar 2015 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**144,379**	**145,589**	**–1,210**	**131,368**	**132,653**	**–1,286**
1.A Goods and Services (1.A.a+1.A.b)	**124,306**	**135,368**	**–11,063**	**110,609**	**122,928**	**–12,319**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**83,660**	**114,328**	**–30,668**	**70,768**	**102,493**	**–31,725**
1.A.a.1 General merchandise on a BOP basis	83,660	109,004	–25,344	70,768	93,955	–23,187
1.A.a.2 Net exports of goods under merchanting	–	–	–	–	–	–
1.A.a.3 Nonmonetary gold	–	5,324	–5,324	–	8,538	–8,538
1.A.b Services (1.A.b.1 to 1.A.b.13)	**40,645**	**21,040**	**19,605**	**39,841**	**20,436**	**19,406**
1.A.b.1 Manufacturing services on physical inputs owned by others	112	7	105	23	8	15
1.A.b.2 Maintenance and repair services n.i.e.	49	59	–10	37	68	–31
1.A.b.3 Transport	4,977	4,215	763	3,827	4,011	–184
1.A.b.4 Travel	5,014	2,959	2,056	5,648	3,669	1,979
1.A.b.5 Construction	420	296	124	420	315	105
1.A.b.6 Insurance and pension services	582	278	304	498	239	258
1.A.b.7 Financial services	1,367	1,113	254	1,383	577	805
1.A.b.8 Charges for the use of intellectual property n.i.e.	204	1,235	–1,030	74	1,206	–1,131
1.A.b.9 Telecommunications, computer, and information services	19,232	1,138	18,095	19,798	914	18,885
1.A.b.10 Other business services	6,853	6,721	132	7,072	7,490	–419
1.A.b.11 Personal, cultural, and recreational services	353	249	104	279	299	–20
1.A.b.12 Government goods and services n.i.e.	154	234	–81	115	237	–122
1.A.b.13 Others n.i.e.	1,328	2,536	–1,208	668	1,402	–734
1.B Primary Income (1.B.1 to 1.B.3)	**2,757**	**9,187**	**–6,430**	**3,231**	**8,829**	**–5,599**
1.B.1 Compensation of employees	918	835	84	919	693	226
1.B.2 Investment income	1,522	8,187	–6,665	1,761	7,784	–6,023
1.B.2.1 Direct investment	474	3,551	–3,077	735	3,055	–2,320
1.B.2.2 Portfolio investment	95	1,520	–1,425	28	1,635	–1,607
1.B.2.3 Other investment	129	3,115	–2,986	166	3,093	–2,927
1.B.2.4 Reserve assets	824	2	823	832	1	831
1.B.3 Other primary income	317	166	151	550	352	198
1.C Secondary Income (1.C.1+1.C.2)	**17,316**	**1,033**	**16,283**	**17,528**	**896**	**16,632**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	17,209	1,010	16,199	17,500	891	16,609
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	16,464	930	15,534	16,963	804	16,159
1.C.1.2 Other current transfers	746	80	666	536	86	450
1.C.2 General government	107	23	84	29	5	23
2 Capital Account (2.1+2.2)	**175**	**328**	**–153**	**98**	**310**	**–213**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	40	26	14	7	20	–13
2.2 Capital transfers	135	301	–167	91	290	–199
3 Financial Account (3.1 to 3.5)	**126,891**	**124,779**	**2,111**	**149,149**	**148,614**	**535**
3.1 Direct Investment (3.1A+3.1B)	**12,384**	**11,475**	**910**	**15,699**	**6,083**	**9,616**
3.1.A Direct Investment in India	10,945	1,164	9,781	13,982	3,646	10,336
3.1.A.1 Equity and investment fund shares	10,465	1,083	9,382	12,609	3,574	9,035
3.1.A.1.1 Equity other than reinvestment of earnings	8,008	1,083	6,925	10,152	3,574	6,578
3.1.A.1.2 Reinvestment of earnings	2,457	–	2,457	2,457	–	2,457
3.1.A.2 Debt instruments	480	80	400	1,373	72	1,301
3.1.A.2.1 Direct investor in direct investment enterprises	480	80	400	1,373	72	1,301
3.1.B Direct Investment by India	1,440	10,311	–8,872	1,717	2,437	–720
3.1.B.1 Equity and investment fund shares	1,440	9,609	–8,169	1,717	1,527	190
3.1.B.1.1 Equity other than reinvestment of earnings	1,440	9,312	–7,872	1,717	1,268	449
3.1.B.1.2 Reinvestment of earnings	–	297	–297	–	260	–260
3.1.B.2 Debt instruments	–	703	–703	–	910	–910
3.1.B.2.1 Direct investor in direct investment enterprises	–	703	–703	–	910	–910
3.2 Portfolio Investment	**54,116**	**44,858**	**9,258**	**67,471**	**55,019**	**12,452**
3.2.A Portfolio Investment in India	54,005	44,484	9,521	67,272	54,837	12,436
3.2.1 Equity and investment fund shares	37,244	33,980	3,264	53,992	48,344	5,648
3.2.2 Debt securities	16,761	10,504	6,257	13,280	6,493	6,788
3.2.B Portfolio Investment by India	111	374	–263	198	182	16
3.3 Financial derivatives (other than reserves) and employee stock options	**4,811**	**1,460**	**3,351**	**2,220**	**4,642**	**–2,422**
3.4 Other investment	**55,578**	**59,879**	**–4,301**	**63,759**	**52,720**	**11,038**
3.4.1 Other equity (ADRs/GDRs)	–	–	–	–	–	–
3.4.2 Currency and deposits	16,551	12,641	3,910	18,055	12,866	5,189
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	165	–	165	1,189	–	1,189
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	16,386	12,641	3,745	16,866	12,866	4,000
3.4.2.3 General government	–	–	–	–	–	–
3.4.2.4 Other sectors	–	–	–	–	–	–
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	16,230	15,883	346	14,071	15,069	–999
3.4.3.A Loans to India	15,692	15,499	193	13,668	14,921	–1,254
3.4.3.B Loans by India	537	384	153	403	148	255
3.4.4 Insurance, pension, and standardized guarantee schemes	165	47	118	54	54	–0
3.4.5 Trade credit and advances	19,547	24,021	–4,474	25,621	23,829	1,792
3.4.6 Other accounts receivable/payable - other	3,086	7,287	–4,201	5,958	902	5,057
3.4.7 Special drawing rights	–	–	–	–	–	–
3.5 Reserve assets	–	**7,106**	**–7,106**	–	**30,149**	**–30,149**
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)	–	7,106	–7,106	–	30,149	–30,149
4 Total assets/liabilities	**126,891**	**124,779**	**2,111**	**149,149**	**148,614**	**535**
4.1 Equity and investment fund shares	54,236	46,553	7,683	70,790	58,324	12,466
4.2 Debt instruments	69,568	63,832	5,736	72,400	59,239	13,161
4.3 Other financial assets and liabilities	3,086	14,394	–11,308	5,958	31,051	–25,093
5 Net errors and omissions	–	**749**	**–749**	**963**	–	**963**

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

(₹ Billion)

Item	Jan-Mar 2014 (PR)			Jan-Mar 2015 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**8,920**	**8,995**	**–75**	**8,176**	**8,256**	**–80**
1.A Goods and Services (1.A.a+1.A.b)	**7,680**	**8,363**	**–683**	**6,884**	**7,651**	**–767**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**5,169**	**7,063**	**–1,895**	**4,404**	**6,379**	**–1,974**
1.A.a.1 General merchandise on a BOP basis	5,169	6,734	–1,566	4,404	5,848	–1,443
1.A.a.2 Net exports of goods under merchanting	–	–	–	–	–	–
1.A.a.3 Nonmonetary gold	–	329	–329	–	531	–531
1.A.b Services (1.A.b.1 to 1.A.b.13)	**2,511**	**1,300**	**1,211**	**2,480**	**1,272**	**1,208**
1.A.b.1 Manufacturing services on physical inputs owned by others	7	–	6	1	0	1
1.A.b.2 Maintenance and repair services n.i.e.	3	4	–1	2	4	–2
1.A.b.3 Transport	308	260	47	238	250	–11
1.A.b.4 Travel	310	183	127	352	228	123
1.A.b.5 Construction	26	18	8	26	20	7
1.A.b.6 Insurance and pension services	36	17	19	31	15	16
1.A.b.7 Financial services	84	69	16	86	36	50
1.A.b.8 Charges for the use of intellectual property n.i.e.	13	76	–64	5	75	–70
1.A.b.9 Telecommunications, computer, and information services	1,188	70	1,118	1,232	57	1,175
1.A.b.10 Other business services	423	415	8	440	466	–26
1.A.b.11 Personal, cultural, and recreational services	22	15	6	17	19	–1
1.A.b.12 Government goods and services n.i.e.	10	14	–5	7	15	–8
1.A.b.13 Others n.i.e.	82	157	–75	42	87	–46
1.B Primary Income (1.B.1 to 1.B.3)	**170**	**568**	**–397**	**201**	**550**	**–348**
1.B.1 Compensation of employees	57	52	5	57	43	14
1.B.2 Investment income	94	506	–412	110	484	–375
1.B.2.1 Direct investment	29	219	–190	46	190	–144
1.B.2.2 Portfolio investment	6	94	–88	2	102	–100
1.B.2.3 Other investment	8	192	–184	10	193	–182
1.B.2.4 Reserve assets	51	–	51	52	0	52
1.B.3 Other primary income	20	10	9	34	22	12
1.C Secondary Income (1.C.1+1.C.2)	**1,070**	**64**	**1,006**	**1,091**	**56**	**1,035**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	1,063	62	1,001	1,089	55	1,034
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	1,017	57	960	1,056	50	1,006
1.C.1.2 Other current transfers	46	5	41	33	5	28
1.C.2 General government	7	1	5	2	0	1
2 Capital Account (2.1+2.2)	**11**	**20**	**–9**	**6**	**19**	**–13**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	2	2	1	–	1	–1
2.2 Capital transfers	8	19	–10	6	18	–12
3 Financial Account (3.1 to 3.5)	**7,839**	**7,709**	**130**	**9,283**	**9,249**	**33**
3.1 Direct Investment (3.1A+3.1B)	**765**	**709**	**56**	**977**	**379**	**598**
3.1.A Direct Investment in India	676	72	604	870	227	643
3.1.A.1 Equity and investment fund shares	647	67	580	785	222	562
3.1.A.1.1 Equity other than reinvestment of earnings	495	67	428	632	222	409
3.1.A.1.2 Reinvestment of earnings	152	–	152	153	–	153
3.1.A.2 Debt instruments	30	5	25	85	4	81
3.1.A.2.1 Direct investor in direct investment enterprises	30	5	25	85	4	81
3.1.B Direct Investment by India	89	637	–548	107	152	–45
3.1.B.1 Equity and investment fund shares	89	594	–505	107	95	12
3.1.B.1.1 Equity other than reinvestment of earnings	89	575	–486	107	79	28
3.1.B.1.2 Reinvestment of earnings	–	18	–18	–	16	–16
3.1.B.2 Debt instruments	–	43	–43	–	57	–57
3.1.B.2.1 Direct investor in direct investment enterprises	–	43	–43	–	57	–57
3.2 Portfolio Investment	**3,343**	**2,771**	**572**	**4,199**	**3,424**	**775**
3.2.A Portfolio Investment in India	3,336	2,748	588	4,187	3,413	774
3.2.1 Equity and investment fund shares	2,301	2,099	202	3,360	3,009	352
3.2.2 Debt securities	1,036	649	387	827	404	422
3.2.B Portfolio Investment by India	7	23	–16	12	11	1
3.3 Financial derivatives (other than reserves) and employee stock options	**297**	**90**	**207**	**138**	**289**	**–151**
3.4 Other investment	**3,434**	**3,699**	**–266**	**3,968**	**3,281**	**687**
3.4.1 Other equity (ADRs/GDRs)	–	–	–	–	–	–
3.4.2 Currency and deposits	1,023	781	242	1,124	801	323
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	10	–	10	74	–	74
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	1,012	781	231	1,050	801	249
3.4.2.3 General government	–	–	–	–	–	–
3.4.2.4 Other sectors	–	–	–	–	–	–
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	1,003	981	21	876	938	–62
3.4.3.A Loans to India	969	958	12	851	929	–78
3.4.3.B Loans by India	33	24	9	25	9	16
3.4.4 Insurance, pension, and standardized guarantee schemes	10	3	7	3	3	–0
3.4.5 Trade credit and advances	1,208	1,484	–276	1,595	1,483	112
3.4.6 Other accounts receivable/payable - other	191	450	–260	371	56	315
3.4.7 Special drawing rights	–	–	–	–	–	–
3.5 Reserve assets	–	**439**	**–439**	–	**1,876**	**–1,876**
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)	–	439	–439	–	1,876	–1,876
4 Total assets/liabilities	**7,839**	**7,709**	**130**	**9,283**	**9,249**	**33**
4.1 Equity and investment fund shares	3,351	2,876	475	4,406	3,630	776
4.2 Debt instruments	4,298	3,944	354	4,506	3,687	819
4.3 Other financial assets and liabilities	191	889	–699	371	1,933	–1,562
5 Net errors and omissions	**–**	**46**	**–46**	**60**	**–**	**60**

No. 42: International Investment Position

(US$ Million)

Item	As on Financial Year /Quarter End							
	2014-15		2014				2015	
			Mar.		Dec.		Mar.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1 Direct Investment Abroad/in India	130,508	264,672	128,709	242,694	129,788	252,141	130,508	264,672
1.1 Equity Capital and Reinvested Earnings	89,421	253,048	90,902	231,724	89,611	241,210	89,421	253,048
1.2 Other Capital	41,087	11,624	37,807	10,971	40,178	10,931	41,087	11,624
2 Portfolio Investment	1,428	228,090	1,206	197,486	1,412	211,232	1,428	228,090
2.1 Equity	1,050	148,443	946	139,661	1,034	141,157	1,050	148,443
2.2 Debt	379	79,647	261	57,825	379	70,075	379	79,647
3 Other Investment	44,190	388,037	49,554	380,266	38,631	380,781	44,190	388,037
3.1 Trade Credit	2,705	82,903	8,742	83,932	6,341	81,047	2,705	82,903
3.2 Loan	4,872	178,402	6,863	179,311	4,169	176,576	4,872	178,402
3.3 Currency and Deposits	19,763	115,313	17,862	103,992	11,935	110,199	19,763	115,313
3.4 Other Assets/Liabilities	16,851	11,420	16,087	13,030	16,186	12,959	16,851	11,420
4 Reserves	341,639	–	304,223	–	320,649	–	341,639	–
5 Total Assets/ Liabilities	517,766	880,800	483,693	820,447	490,480	844,154	517,766	880,800
6 IIP (Assets - Liabilities)		–363,034		–336,754		–353,674		–363,034

Payment and Settlement Systems

No. 43: Payment System Indicators

System	Volume (Million)				Value (₹ Billion)			
	2014-15	2015			2014-15	2015		
		May	Jun.	Jul.		May	Jun.	Jul.
	1	2	3	4	5	6	7	8
1 RTGS	**92.78**	**8.06**	**8.26**	**8.25**	**929,332.89**	**74,950.00**	**93,130.00**	**86,870.00**
1.1 Customer Transactions	88.39	7.69	7.88	7.87	631,050.74	51,060.00	64,280.00	59,710.00
1.2 Interbank Transactions	4.38	0.37	0.38	0.38	122,981.62	8,990.00	9,900.00	9,180.00
1.3 Interbank Clearing	0.012	0.001	0.001	0.001	175,300.73	14,900.00	18,950.00	17,980.00
2 CCIL Operated Systems	**3.03**	**0.26**	**0.28**	**0.26**	**752,000.42**	**63,693.28**	**76,446.45**	**69,847.28**
2.1 CBLO	0.21	0.02	0.02	0.02	167,645.96	13,002.70	18,136.03	17,550.23
2.2 Govt. Securities Clearing	1.09	0.09	0.10	0.09	258,916.76	21,158.73	25,663.06	23,104.84
2.2.1 Outright	0.98	0.08	0.09	0.08	101,561.62	8,572.16	9,724.64	8,531.05
2.2.2 Repo	0.109	0.010	0.012	0.011	157,355.15	12,586.57	15,938.42	14,573.79
2.3 Forex Clearing	1.73	0.16	0.16	0.15	325,437.69	29,531.85	32,647.36	29,192.21
3 Paper Clearing	**1,196.51**	**91.13**	**90.30**	**96.94**	**85,434.14**	**6,767.62**	**6,693.75**	**7,098.26**
3.1 Cheque Truncation System (CTS)	964.86	77.84	79.35	83.89	66,769.93	5,739.44	5,833.21	5,966.83
3.2 MICR Clearing	22.43	-	-	-	1,850.40	–	–	–
3.2.1 RBI Centres	7.50	-	-	-	614.51	–	–	–
3.2.2 Other Centres	14.93	-	-	-	1,235.89	–	–	–
3.3 Non-MICR Clearing	209.82	13.30	10.95	13.05	16,939.34	1,028.17	860.54	1,131.44
4 Retail Electronic Clearing	**1,687.44**	**219.57**	**227.61**	**245.17**	**65,365.51**	**6,144.27**	**6,899.17**	**6,923.25**
4.1 ECS DR	226.01	19.65	19.11	19.34	1,739.78	150.55	149.63	151.84
4.2 ECS CR (includes NECS)	115.35	3.95	3.02	3.70	2,019.14	98.51	85.92	104.43
4.3 EFT/NEFT	927.55	88.13	91.22	103.11	59,803.83	5,536.03	6,324.58	6,289.37
4.4 Immediate Payment Service (IMPS)	78.37	13.32	13.82	15.60	581.87	106.75	103.24	112.17
4.5 National Automated Clearing House (NACH)	340.17	94.52	100.44	103.43	1,220.88	252.43	235.80	265.43
5 Cards	**8,423.99**	**786.19**	**782.80**	**804.93**	**25,415.27**	**2,404.97**	**2,365.23**	**2,389.71**
5.1 Credit Cards	619.41	60.60	60.89	56.54	1,922.63	190.99	176.89	175.45
5.1.1 Usage at ATMs	4.29	0.47	0.47	0.39	23.47	2.33	2.18	2.07
5.1.2 Usage at POS	615.12	60.13	60.42	56.15	1,899.16	188.66	174.71	173.38
5.2 Debit Cards	7,804.57	725.60	721.91	748.39	23,492.65	2,213.98	2,188.34	2,214.26
5.2.1 Usage at ATMs	6,996.48	636.63	632.77	653.44	22,279.16	2,090.73	2,066.12	2,075.01
5.2.2 Usage at POS	808.09	88.97	89.13	94.95	1,213.49	123.25	122.23	139.26
6 Prepaid Payment Instruments (PPIs)	**314.46**	**46.91**	**55.43**	**64.53**	**213.42**	**28.20**	**32.31**	**37.92**
6.1 m-Wallet	255.00	39.95	47.31	53.60	81.84	11.76	12.68	14.29
6.2 PPI Cards	58.91	6.93	8.06	10.89	105.35	14.31	16.96	21.64
6.3 Paper Vouchers	0.55	0.04	0.05	0.04	26.24	2.13	2.66	1.99
7 Mobile Banking	**171.92**	**21.36**	**21.82**	**24.96**	**1,035.30**	**199.18**	**221.17**	**235.71**
8 Cards Outstanding	**574.56**	**592.29**	**596.21**	**604.62**	–	–	–	–
8.1 Credit Card	21.11	21.48	21.52	18.68	–	–	–	–
8.2 Debit Card	553.45	570.81	574.69	585.94	–	–	–	–
9 Number of ATMs (in actuals)	**181398**	**183887**	**184221**	**187448**	–	–	–	–
10 Number of POS (in actuals)	**1126735**	**1132120**	**1132955**	**1172770**	–	–	–	–
11 Grand Total (1.1+1.2+2+3+4+5+6)	**11,718.19**	**1,152.14**	**1,164.66**	**1,220.09**	**1,682,461.11**	**139,088.34**	**166,616.91**	**155,186.43**

Occasional Series

No. 44: Small Savings

(₹ Billion)

Scheme		2013-14	2014		2015	
			Feb.	Dec.	Jan.	Feb.
		1	2	3	4	5
1 Small Savings	**Receipts**	**2,020.60**	**184.55**	**199.80**	**220.43**	**208.25**
	Outstanding	**6,214.97**	**6,176.78**	**6,253.46**	**6,258.13**	**6,266.32**
1.1 Total Deposits	**Receipts**	**1,780.40**	**156.17**	**180.34**	**195.70**	**179.21**
	Outstanding	**3,866.31**	**3,843.38**	**3,950.71**	**3,949.13**	**3,947.00**
1.1.1 Post Office Saving Bank Deposits	Receipts	946.50	83.97	94.93	106.52	96.53
	Outstanding	430.17	418.09	454.03	461.74	464.27
1.1.2 MGNREG	Receipts	–	–	–	–	–
	Outstanding	–	–	–	–	–
1.1.3 National Saving Scheme, 1987	Receipts	0.80	0.29	0.01	0.02	–
	Outstanding	38.69	38.46	36.84	36.62	36.45
1.1.4 National Saving Scheme, 1992	Receipts	0.05	–	0.09	–0.09	–
	Outstanding	2.77	2.63	2.31	2.37	2.34
1.1.5 Monthly Income Scheme	Receipts	179.91	16.92	17.22	18.18	17.76
	Outstanding	2,020.85	2,023.31	2,014.58	2,013.33	2,010.35
1.1.6 Senior Citizen Scheme	Receipts	19.94	1.37	2.79	3.32	2.79
	Outstanding	224.92	225.21	191.52	184.94	181.76
1.1.7 Post Office Time Deposits	Receipts	246.74	21.83	29.09	31.17	27.35
	Outstanding	407.14	399.85	490.99	500.77	508.76
1.1.7.1 1 year Time Deposits	Outstanding	273.43	267.99	341.35	348.56	354.68
1.1.7.2 2 year Time Deposits	Outstanding	17.67	17.44	19.65	19.85	20.03
1.1.7.3 3 year Time Deposits	Outstanding	39.15	38.95	40.42	41.20	41.32
1.1.7.4 5 year Time Deposits	Outstanding	76.89	75.47	89.57	91.16	92.73
1.1.8 Post Office Recurring Deposits	Receipts	386.46	31.79	36.21	36.58	34.78
	Outstanding	741.49	735.61	760.16	749.08	742.75
1.1.9 Post Office Cumulative Time Deposits	Outstanding	0.06	–	0.06	0.06	0.10
1.1.10 Other Deposits	Outstanding	0.22	0.22	0.22	0.22	0.22
1.2 Saving Certificates	**Receipts**	**169.46**	**17.91**	**13.97**	**18.22**	**22.07**
	Outstanding	**1,882.58**	**1,887.49**	**1,822.51**	**1,823.75**	**1,827.80**
1.2.1 National Savings Certificate VIII issue	Receipts	169.24	17.91	11.59	13.63	15.27
	Outstanding	750.86	733.67	827.94	835.90	844.62
1.2.2 Indira Vikas Patras	Receipts	0.04	0.02	–	–	–
	Outstanding	8.96	8.96	8.89	8.86	7.97
1.2.3 Kisan Vikas Patras	Receipts	0.18	–0.02	0.51	0.91	1.48
	Outstanding	1,067.54	1,091.70	896.93	884.00	872.57
1.2.4 Kisan Vikas Patras - 2014	Receipts	0	0	1.87	3.68	5.32
	Outstanding		0	1.43	4.55	9.27
1.2.5 National Saving Certificate VI issue	Outstanding	–0.77	–0.77	–0.79	–0.80	–0.81
1.2.6 National Saving Certificate VII issue	Outstanding	–0.50	–0.49	–0.53	–0.53	–0.53
1.2.7 Other Certificates	Outstanding	56.49	54.42	88.64	91.77	94.71
1.3 Public Provident Fund	**Receipts**	**70.74**	**10.47**	**5.49**	**6.51**	**6.97**
	Outstanding	**466.08**	**445.91**	**480.24**	**485.25**	**491.52**

Source: Accountant General, Post and Telegraphs.

No. 45: Ownership Pattern of Government of India Dated Securities

(Per cent)

Category	2014			2015	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
1 Commercial Banks	43.43	42.95	42.77	43.30	43.14
2 Non-Bank PDs	0.28	0.20	0.34	0.31	0.35
3 Insurance Companies	20.21	20.55	21.02	20.87	21.37
4 Mutual Funds	1.29	1.26	1.68	1.89	2.37
5 Co-operative Banks	2.76	2.71	2.57	2.62	2.73
6 Financial Institutions	1.51	1.44	0.73	2.07	0.70
7 Corporates	0.89	1.06	1.12	1.25	1.12
8 Foreign Portfolio Investors	2.45	3.37	3.62	3.67	3.59
9 Provident Funds	7.21	7.13	7.47	7.58	7.08
10 RBI	15.03	14.33	14.50	13.48	13.06
11 Others	4.94	4.99	4.18	2.96	4.49

No. 46: Combined Receipts and Disbursements of the Central and State Governments

(₹ Billion)

Item	2010-11	2011-12	2012-13	2013-14	2014-15 RE	2015-16 BE
	1	2	3	4	5	6
1 Total Disbursements	**21,451.45**	**24,217.68**	**26,949.34**	**29,759.84**	**35,215.06**	**38,150.95**
1.1 Developmental	12,676.97	14,209.38	15,741.62	16,982.09	20,696.97	21,897.52
1.1.1 Revenue	10,260.24	11,394.64	12,807.14	13,822.71	16,423.47	16,997.21
1.1.2 Capital	1,935.80	2,163.39	2,446.11	2,747.06	3,822.08	4,461.52
1.1.3 Loans	480.93	651.35	488.38	412.32	451.41	438.79
1.2 Non-Developmental	8,520.46	9,695.88	10,850.47	12,345.16	13,978.45	15,715.18
1.2.1 Revenue	7,765.94	8,923.61	9,991.40	11,337.00	12,939.65	14,460.17
1.2.1.1 Interest Payments	3,485.61	4,000.03	4,543.06	5,329.30	5,948.62	6,656.95
1.2.2 Capital	747.48	754.79	837.14	984.41	1,008.93	1,212.41
1.2.3 Loans	7.04	17.48	21.93	23.75	29.87	42.60
1.3 Others	254.02	312.42	357.24	432.59	539.64	538.25
2 Total Receipts	**21,535.61**	**24,540.62**	**27,690.29**	**29,767.14**	**34,835.62**	**37,976.17**
2.1 Revenue Receipts	15,788.20	16,926.79	19,716.19	21,900.65	26,098.48	28,547.34
2.1.1 Tax Receipts	12,500.67	14,427.52	16,879.59	18,413.55	20,859.20	23,206.24
2.1.1.1 Taxes on commodities and services	7,393.66	8,745.55	10,385.91	11,227.26	12,658.88	14,372.85
2.1.1.2 Taxes on Income and Property	5,087.19	5,654.12	6,462.73	7,154.99	8,165.93	8,797.62
2.1.1.3 Taxes of Union Territories (Without Legislature)	19.82	27.85	30.94	31.30	34.38	35.77
2.1.2 Non-Tax Receipts	3,287.53	2,499.27	2,836.60	3,487.10	5,239.28	5,341.10
2.1.2.1 Interest Receipts	250.78	288.70	355.43	400.45	385.44	347.91
2.2 Non-debt Capital Receipts	322.93	441.23	389.20	390.75	437.97	773.45
2.2.1 Recovery of Loans & Advances	82.06	253.70	129.29	93.46	92.79	77.13
2.2.2 Disinvestment proceeds	240.87	187.53	259.91	297.28	345.18	696.32
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**5,340.32**	**6,849.66**	**6,843.95**	**7,468.43**	**8,678.61**	**8,830.16**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	5,104.76	6,725.18	6,771.94	7,395.52	8,581.56	8,718.43
3A.1.1 Net Bank Credit to Government	3,147.10	3,898.30	3,352.80	3,358.58	–297.54	..
3A.1.1.1 Net RBI Credit to Government	1,849.70	1,391.80	548.40	1,081.30	–3,253.01	..
3A.1.2 Non-Bank Credit to Government	1,957.66	2,826.88	3,419.14	4,036.94	8,879.10	8,718.43
3A.2 External Financing	235.56	124.48	72.01	72.92	97.05	111.73
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	5,104.76	6,725.18	6,771.94	7,395.52	8,581.56	8,718.43
3B.1.1 Market Borrowings (net)	4,151.75	6,195.07	6,536.94	6,381.30	6,941.44	7,266.61
3B.1.2 Small Savings (net)	–545.34	190.88	–85.70	–142.81	–577.67	–327.45
3B.1.3 State Provident Funds (net)	362.36	334.33	329.94	306.70	351.26	344.03
3B.1.4 Reserve Funds	35.62	178.51	–4.12	34.63	–127.46	56.50
3B.1.5 Deposits and Advances	342.92	122.10	27.22	255.45	203.85	131.87
3B.1.6 Cash Balances	–84.16	–322.94	–740.96	–7.30	379.45	174.77
3B.1.7 Others	841.61	27.23	708.62	567.54	1,410.69	1,072.10
3B.2 External Financing	235.56	124.48	72.01	72.92	97.05	111.73
4 Total Disbursements as per cent of GDP	*27.6*	*27.4*	*27.0*	*26.2*	*28.1*	*27.0*
5 Total Receipts as per cent of GDP	*27.7*	*27.8*	*27.7*	*26.2*	*27.8*	*26.9*
6 Revenue Receipts as per cent of GDP	*20.3*	*19.2*	*19.7*	*19.3*	*20.8*	*20.2*
7 Tax Receipts as per cent of GDP	*16.1*	*16.3*	*16.9*	*16.2*	*16.6*	*16.4*
8 Gross Fiscal Deficit as per cent of GDP	*6.9*	*7.8*	*6.9*	*6.6*	*6.9*	*6.3*

Source : Budget Documents of Central and State Governments.

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. 4

Maturity-wise position of outstanding forward contracts is available at http://nsdp.rbi.org.in under ''Reserves Template''.

Table No. 5

Special refinance facility to Others, i.e. to the EXIM Bank, is closed since March 31, 2013.

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. 15 & 16

Data are provisional and relate to select banks which cover 95 per cent of total non-food credit extended by all scheduled commercial banks (excludes ING Vysya which has been merged with Kotak Mahindra since April 2015).
Export credit under priority sector relates to foreign banks only.
Micro & small under item 2.1 includes credit to micro & small industries in manufacturing sector.
Micro & small enterprises under item 5.2 includes credit to micro & small enterprises in manufacturing as well as services sector.
Priority Sector is as per old definition and does not conform to FIDD Circular FIDD.CO.Plan.BC.54/04.09.01/2014-15 dated April 23, 2015.

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), SDRs transferred by Government of India to RBI and foreign currency received under SAARC SWAP arrangement. Foreign currency assets in US dollar take into account appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and Australian Dollar) 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 2012-13 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). Methodological details are available in December 2005 and April 2014 issues 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.

Table No. 45
The holdings of RBI have been revised since December 2014, based on the revised liquidity management framework.

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
1. Reserve Bank of India Bulletin 2015	₹200 per copy (over the counter) ₹240 per copy (inclusive of postage) ₹2,800 (one year subscription - inclusive of postage)	US$ 11 per copy (inclusive of postage) US$ 130 (one-year subscription) (inclusive of air mail courier charges)
2. Handbook of Statistics on the Indian Economy 2013-14	₹300 (Normal) ₹350 (inclusive of postage) ₹225 (concessional) ₹275 (concessional with postage)	US$ 35 (inclusive of air mail courier charges)
3. Report on Currency and Finance 2009-12 Fiscal-Monetary Co-ordination	₹515 (normal) ₹555 (inclusive of postage)	US$ 16 per copy (inclusive air mail courier charges)
4. Report on Currency and Finance 2003-08 Vol. I to V (Special Issue)	₹1,100 (normal) ₹ 1,170 (inclusive of postage) ₹ 830 (concessional) ₹ 900 (concessional inclusive of postage)	US$ 55 per copy (inclusive air mail courier charges)
5. State Finances - A Study of Budgets of 2014-15	₹390 per copy (over the counter) ₹430 per copy (including postal charges)	US$ 14 per copy (inclusive air mail courier charges)
6. Handbook of Statistics on State Government Finances 2010	CD-ROM ₹80 (normal) ₹105 (inclusive of postage) ₹60 (concessional) ₹85 (concessional inclusive of postage)	US$ 16 per CD (inclusive of air mail courier charges) US$ 4 per CD (inclusive of registered air mail charges)
7. CD Compendium of Articles on State Finances (1950-51 to 2010-11)	₹280 (over the counter) ₹305 (inclusive of postal charges) ₹210 (concessional) ₹235 (concessional inclusive of postage)	US$ 8 (inclusive of air mail book post charges)
8. Mint Road Milestones RBI at 75	₹1,650 per copy (over the counter)	US$ 50 per copy (inclusive of air mail courier charges)
9. India's Financial Sector, An Assessment Vol. I to VI 2009	₹2,000 per copy (over the counter) ₹2,300 per copy (inclusive postal charges) ₹1,500 per copy (concessional price) ₹1,800 per copy (concessional inclusive of postage)	US$ 40 per set and US$ 120 per set (inclusive of air mail courier charges)
10. The Paper and the Promise: A Brief History of Currency & Banknotes in India, 2009	₹200 per copy (over the counter)	US$ 30 per copy (inclusive of air mail courier charges)
11. Report of the committee on Fuller Capital account Convertibility (Tarapore Committee Report II)	₹140 per copy (normal) ₹170 (per copy by post)	US$ 25 per copy ((inclusive of air mail courier charges)
12. A Profile of Banks 2012-13	₹80 per copy (over the counter) ₹110 per copy (inclusive of postal charges)	US$ 7 per copy (inclusive of air mail courier charges)

Name of Publication	Price	
	India	Abroad
13. Selected Banking Indicators 1981 to 2002 (On CD-ROM)	₹250 per CD (over the counter) ₹300 per CD (including postal charges)	US$ 75 (per CD) (inclusive of air mail courier charges)
14. Statistical Tables Relating to Banks in India 2012-13	₹240 per copy (over the counter) ₹300 (inclusive of postage)	US$ 13 per copy (inclusive of air mail courier charges)
15. Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks 1981-2003 (on CD-ROM)	₹185 per copy (over the counter) ₹240 per copy (including postal charges)	US$ 20 per copy US$ 55 per copy (inclusive of air mail courier charges)
16. Basic Statistical Returns of Scheduled Commercial Banks in India Vol. 41 March 2012	₹270 per copy (over the counter) ₹310 per copy (inclusive of postal charges)	US$ 10 per copy (inclusive of air mail courier charges)
17. Private Corporate Business Sector in India - Selected Financial Statistics from 1950-51 to 1997-98	₹500 per CD (over the counter)	US$ 100 per CD ROM (inclusive of air mail courier charges)
18. Banking Glossary (2012)	₹80 (normal) (postage extra)	

Notes

1. Many of the above publications are available at the RBI website (www.rbi.org.in).
2. Time Series data are available at the Database on Indian Economy (http://dbie.rbi.org.in).
3. The Reserve Bank of India History 1935-1997 (4 Volumes), Challenges to Central Banking in the Context of Financial Crisis and the Regional Economy of India: Growth and Finance are available at leading book stores in India.

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Beneficiary Name	Department of Corporates Services, RBI
Name of the Bank	Reserve Bank of India
Branch and addess	Fort, Mumbai
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