

*Infrastructure Financing in India – Progress and Prospects**

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Distinguished members of faculty and students, IIT, Kharagpur is one of the very few educational institutes of India which has a strong linkage to our struggle for Independence and our vision for the future India. The Institute started its illustrious journey from Hijli Detention Camp where some of our freedom fighters were kept captive and had to make the supreme sacrifice for the freedom of our country. As Pandit Nehru, in his first convocation address in 1956, said *'....here in the place of that Hijli Detention Camp stands this fine monument of India today representing India's urges. India's future is in the making here.'* Today, 61 years since the inception of this Institute, our struggle for freedom from a colonial empire has resulted in emergence of one of the strongest democracies of the world. But then our struggle for developing our country continues. I see all the reasons for reposing faith in all the bright students of the next generation of this Institute, young minds with shoulders to take responsibilities, for a greater role to play in shaping the future of this country. It is very important to understand and be passionate about the structure and emerging issues on the growth front of the Indian economy. All of you must be aware that except for the estimated sub eight per cent growth this year, our country is only next to China in achieving high economic growth rate over the last few years. However, that is not enough as still a large number of our populace live below the poverty line. Thus, we have to carry forward this growth performance in a sustainable and inclusive way to reduce poverty levels in our country. This also assumes further significance as emerging market economies (EMEs) like India and

China will have to continue as the major contributors to the global growth, especially in the current context when severe slowdown is afflicting the advanced countries. There are many structural factors on which we have to focus to achieve this objective. One important among them is no doubt the development of infrastructure. As such the theme of today's conference 'infrastructure financing' is a very topical one.

2. The relationship between infrastructure development and economic growth is well established in the literature. While infrastructure development facilitates economic growth; economic growth increases demand for more infrastructure. Thus, development of adequate and quality infrastructure is a necessary, if not sufficient; condition to maintain growth momentum in any economy. So it is beyond anybody's doubt that India being a country which has been going through a high growth phase, needs to ensure adequate investments in the development of infrastructure. However, infrastructure development is an arduous job for any country as it involves huge investments, long gestation periods, procedural delays and returns spread over a long period of time. These unique features of infrastructure development raise some issues which are specific to the financing of infrastructure. My intent in today's speech is to touch upon these issues in brief particularly from the point of view of Indian banking system and also present a perspective of Reserve Bank's enabling regulatory measures.

Investment in the Infrastructure Sector during the Eleventh Plan

3. The eleventh five year plan of India recognised inadequate infrastructure as a major constraint on rapid growth. Recognising the importance of infrastructure development in stimulating economic growth, Government of India planned to raise infrastructure investment to over 8 per cent of GDP by the end of the

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Table 1: Revised Projected Investment on Infrastructure

(₹ billion at 2006-07 prices)							
	Tenth Plan	2007-08	2008-09	2009-10	2010-11	2011-12	Eleventh Plan
GDP	178,408.77	47,171.87	50,035.45	55,638.00	57,929.04	63,142.65	271,917.00
Public Investment	6,940.06	1,995.39	2,380.54	2,629.63	2,908.32	3,199.04	13,112.93
Private Investment	2,252.20	1,042.68	1,211.38	1,398.66	1,692.27	2,084.13	7,429.12
Total	9,19,225	3,038.07	3,591.92	4,02,829	4,600.59	5,283.16	20,542.05
Investment as percentage of GDP							
Public Investment	3.89	4.23	4.76	4.90	5.02	5.07	4.82
Private Investment	1.26	2.21	2.42	2.61	2.92	3.30	2.73
Total	5.15	6.44	7.18	7.51	7.94	8.37	7.55

Source: Mid-Term Appraisal of the Eleventh Five Year Plan, Planning Commission.

Eleventh Five Year Plan (2007-12). The total revised estimated expenditure for investment in infrastructure during the eleventh five year plan is estimated at around ₹21 trillion.

4. The total investment in infrastructure is estimated to have increased from 5.7 per cent of GDP in the base year (2006-07) of the Eleventh Plan to around 8.0 per cent in the last year of the Plan. To step up investment in the infrastructure sector, apart from increasing budgetary allocation for the sector, the Government has been encouraging the private sector to participate and invest in the sector. Resultantly, during the past four years, a number of Public-Private Partnerships (PPP) have come up in the sector. It may be mentioned that private investments accounted for about 36 per cent of total investment in infrastructure in the Eleventh Plan.

Projected Investment in the Infrastructure Sector during the Twelfth Plan

5. To support the high economic growth, the investment requirements in the infrastructure sector

is estimated to be around 41 lakh crore (revised to ₹45 lakh crore in the Approach paper for the Twelfth Plan) during the Twelfth plan period. This implies that infrastructure investment will need to increase from about 8.0 per cent of GDP in the base year (2011-12) of the Plan to about 10.0 per cent of GDP in 2016-17. Over the plan period as a whole, the infrastructure investment is estimated to be about 9.95 per cent of GDP. Financing of this investment would require larger outlays from the public sector, but this has to be coupled with a more than proportional rise in private investment. Going forward, the share of private investment in infrastructure may, in fact, have to increase to 50.0 per cent in the Twelfth Plan. However, this estimate on infrastructure investment has to be understood with caution as the underlying assumption is nine per cent growth in GDP throughout the plan period. But at any case, even with GDP growth of seven or eight per cent, if we want to invest around ten per cent of GDP in the infrastructure sector, the financing requirement is going to be huge (Table 2).

Table 2: Projected Investment in Infrastructure during the Twelfth Five Year Plan

(₹ billion at 2006-07 prices)						
	2012-13	2013-14	2014-15	2015-16	2016-17	Twelfth Plan
GDP	68,825.49	75,019.78	81,771.56	89,131.00	97,152.80	411,900.64
Rate of Growth of GDP	9.00	9.00	9.00	9.00	9.00	9.00
Infrastructure Investment as per cent of GDP	9.00	9.50	9.90	10.30	10.70	9.95
Infrastructure Investment	6,194.29	7,126.88	8,095.38	9,180.49	10,395.35	40,992.40

Source: Mid-Term Appraisal of the Eleventh Five Year Plan, Planning Commission.

Now the Question is How do we Finance it?

6. First, let us look at the broad pattern of financing of infrastructure in our country before highlighting some of the issues involved in it. According to the Planning Commission, during the first three years of Eleventh Five Year Plan, funds from the Central Government budget financed around 45 per cent of the total investment in infrastructure. The remaining 55 per cent was divided between debt financing (41 per cent) and equity financing (14 per cent). It is noteworthy that within the debt financing, commercial banks alone financed around 21 per cent and another 10 per cent was financed by the NBFCs. Notably other sources of financing, such as, External Commercial Borrowings (ECBs), equity, FDI and insurance companies financed less than 10 per cent of the total infrastructure investment each.

7. Now, having seen the broad pattern of financing of infrastructure, the question is: whether this pattern sustainable in the long run? Or, to put it differently, what are the issues our country faces on this front?

Issues in Infrastructure Financing Funding Gap

8. Funding Gap is the most important issue that we face on this front. According to the estimates made by the Planning Commission in March 2010, after taking into account the recent trends in different sources of

Table 3: Funding Gap in Infrastructure Finance during 2010-11 and 2011-12

(₹ billion)			
Source of Funds	Estimated Requirement*	Estimated Availability#	Funding Gap
Commercial Banks	2,674.80	2,020.27	1,256.85
NBFCs@	1,246.99	1,006.51	
Insurance Companies	520.46	423.30	
ECBs	769.84	505.15	
Total Debt Funds	5,212.08	3,955.23	
Equity\$	1,864.56	1,845.71	18.85
Total	7,076.64	5,800.94	1,275.70

As per existing pattern, # As per trends.

@ Including IIFCL, \$ Including FDI.

Source: Planning Commission (2010), Conference on 'Building Infrastructure: Challenges and Opportunities – Financing of Infrastructure', March 2010.

infrastructure financing, the funding gap in the infrastructure sector during the last two years of the Eleventh Five Year Plan is likely to be ₹1,275.70 billion, which is around 18 per cent of the total estimated requirement (Table 3). The slowdown in the economy experienced after March 2010 has further aggravated this funding gap in the infrastructure sector during the Eleventh Plan. More recently, in the context of Eurozone debt crisis, accessing external resources by way of ECBs could also become difficult and this would also accentuate the funding gap.

Fiscal Burden

9. We have already seen that almost half of the total investment in the infrastructure sector was done by the Government through budget allocations. Here the point to be noted is that Government funds have competing demands, such as, education, health, employment generation, among others. Given that there is a limit to the Government's financing of infrastructure, especially in the context of a rule-based fiscal policy framework, it is important to explore other avenues for financing infrastructure.

Asset-Liability Mismatch of Commercial Banks

10. After the budgetary support, next in line for financing infrastructure were funds from the commercial banking sector. However, it is a well-known fact that these are institutions that primarily leverage on short-term liabilities and, as such, their ability to extend long-term loans to the infrastructure sector is limited. This is because, by doing so they get into serious asset-liability mismatches.

Takeout Financing

11. Takeout financing offers a window to the banks to free their balance sheet from exposure to infrastructure loans, lend to new projects and also enable better management of the asset liability position. In other words, takeout financing enables financing longer term projects with medium-term funds. However, due to several factors 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 oft-

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.

Investment Obligations of Insurance and Pension Funds

12. From the point of view of asset-liability mismatches, insurance and pension funds are one of the best suited institutions to invest in the infrastructure sector. This is because, in contrast to the commercial banking sector, these institutions leverage on long-term liabilities. However, they are constrained by their obligation to invest a substantial portion of their funds in Government securities. Of course, in a way, this facilitates the financing of gross fiscal deficit of the Central Government and hence enables the Central Government to make more investments. However, this limits the direct investment of these institutions in the infrastructure sector.

Need for an Efficient and Vibrant Corporate Bond Market

13. India has traditionally been a bank-dominated financial system with corporates raising resources through loan route/public deposits/FCCBs or private placements. This is probably due to a combination of factors, such as, banks find loan financing convenient as they do not have to mark to market loans in contrast to bonds, absence of a robust bankruptcy law, limited investor base, limited number of issuers, *etc.* This however, does not undermine the need for developing an efficient and vibrant corporate bond market in general, and for infrastructure financing, in particular. An active corporate bond market can facilitate long-term funding for the infrastructure sector. However, despite the various initiatives taken by the Reserve Bank, Securities & Exchange Board of India and Government of India, the corporate bond market is still a long way to go in providing adequate financing to the infrastructure sector in India.

Developing Municipal Bond Market for Financing Urban Infrastructure

14. For large scale financing urban infrastructure which is assuming critical importance in the context of rapid urbanisation, conventional fiscal transfers to the urban local bodies or municipals from governments are no longer considered sufficient. There have been some earnest experimentations by these bodies to tap unconventional methods of financing such as public private partnerships, utilising urban assets more productively, accessing carbon credits, *etc.* but then these do not address the financing needs. One possible way of addressing the problem is developing a municipal bond market. Today, the size of the market is insignificant and distributed among a few municipals of Ahmedabad, Nashik and some around Bangalore. Given the fact that the credit ratings for the municipalities of the 63 Jawahar Nehru National Urban Renewal Mission (JNURM) cities are regularly released and quite a few of them are rated as investment grade, we need to provide them avenues to tap the markets. Absence of the secondary market for the municipal bonds, problems relating to rating of bonds, accounting practices followed by the municipal bodies, adequacy of user charges for generating cash flows for servicing of bonds, availability of escrow mechanism are some of the issues which require to be addressed to encourage investments.

Insufficiency of User Charges

15. It is a well known fact that a large part of the infrastructure sector in India (especially irrigation, water supply, urban sanitation, and state road transport) is not amenable to commercialisation for various reasons, such as, regulatory, political and legal constraints in the real sector. Due to this, Government is not in a position to levy sufficient user charges on these services. The insufficiency of user charges on infrastructure projects negatively affect the servicing of the infrastructure loans. Generally, such loans are taken on a non-recourse basis and are highly dependent on cash flows. Hence, levy and collection of appropriate user charges becomes essential for financial viability of the projects.

Legal and Procedural Issues

16. As mentioned earlier, infrastructure development involves long gestation periods, and also many legal and procedural issues. The problems related to infrastructure development range from those relating to land acquisition for the infrastructure project to environmental clearances for the project. Many a times there are legal issues involved in it and these increase procedural delays. The added uncertainty due to these factors affects the risk appetite of investors as well as banks to extend funds for the development of infrastructure.

17. Given the various issues in financing infrastructure, it is important to glance through what we have already done for facilitating fund flow to the sector. This will help us in understanding what more can be done. In fact, it is important to note that both the Central Government and the Reserve Bank of India have taken a lot of measures to facilitate fund flow to this sector especially during the recent years.

Measures taken by the Central Government *Public-Private Partnership Projects in Infrastructure*

18. As Government faces a tight budget constraint in the context of a rule based fiscal policy framework, it was important to encourage the private sector to invest more in the infrastructure sector. Resultantly, the Government started encouraging Public-Private Partnership (PPP) projects in the infrastructure sector. PPP mechanism provides built in credit enhancement for improving project viability by way of buyback guarantee, escrow arrangement, substitution rights for the lenders, etc. Government has taken several initiatives, especially to standardise the documents and process for structuring and award of PPP projects. This has improved transparency in relation to the issues involved in setting up PPP projects.

Setting up of Various Committees to Simplify the Procedures

19. Recently Government has set up many committees to facilitate more private funding into the infrastructure sector. These include Committee on Infrastructure, Cabinet Committee on Infrastructure, PPP Appraisal

Committee and Empowered Committee among others. These were mainly aimed at streamlining the policies to ensure time bound creation of infrastructure and to develop an institutional framework that would facilitate more flow of funds to the infrastructure sector.

Viability Gap Funding

20. Viability gap funding was introduced in 2006, which provides Central Government grants up to 20 per cent of the total capital cost to PPP projects undertaken by any central ministry, state government, statutory entity, or local body. The scheme aimed at providing upfront capital grant to PPP projects to enable financing of commercially unviable projects. The level of grant is the net present value of the gap between the project cost and estimated revenue generation over the concession period based on a user fee that was to be levied in a pre-determined manner.

Foreign Direct Investment and Infrastructure Development

21. To facilitate infrastructure financing 100 per cent FDI is allowed under the automatic route in some of the sectors such as mining, power, civil aviation sector, construction and development projects, industrial parks, petroleum and natural gas sector, telecommunications and special economic zones. Further, FDI is also allowed through the Government approval route in some sectors such as civil aviation sector, (Domestic Airlines (beyond 49 per cent), Existing airports (beyond 74 per cent to 100 per cent); investing companies in infrastructure/services sector (except telecom); Petroleum and Natural Gas sector – refining PSU companies; Telecommunications – Basic and Cellular Services (beyond 49 per cent to 74 per cent), ISP with gateways, radio paging, end-to-end bandwidth (beyond 49 per cent to 74 per cent, ISP without gateway (beyond 49 per cent); Satellites (up to 74 per cent) and, mining and mineral separation of titanium bearing minerals and ores (100 per cent).

Setting up of India Infrastructure Finance Company Limited (IIFCL)

22. Another major development was the setting up of IIFCL by the Central Government for providing long-

term loans to the infrastructure projects. IIFCL is involved both in direct lending to project companies and refinancing of banks and other financial institutions. IIFCL can provide funds to the infrastructure project up to 20 per cent of the total project cost as long-term debt. Recently, IIFCL has come up with modifications to its takeout finance scheme, which will make the infrastructure loans cheaper. Further, IIFCL has decided to go for a transparent and competitive pricing for its takeout financing to ensure fair treatment to all participants. With this change, all developers irrespective of their size will get same treatment from the IIFCL depending on the rating of the project.

Relaxation in take-out financing scheme of IIFCL

23. The pricing mechanism of the recently announced takeout finance scheme of IIFCL is now based on credit rating of the project and is declared upfront. The rules related to timing of the takeout have also been changed. While for road projects the takeout can take place after commercial operation date (COD), for other sectors it has been relaxed to six months. Under existing norms, takeout financing can only be done one year after the scheduled COD of the project. Another notable change is that the developer can now approach for take out financing unlike earlier scheme where only the banks could exercise such an option. Further, lenders, instead of paying commission to IIFCL, would now be compensated upto a certain percentage of interest gain accruing to the borrower under the take-out finance scheme. Besides, interest rates to be charged by IIFCL have now become non-discretionary and transparent.

Setting up of Infrastructure Debt Funds

24. In the Union Budget for 2011-12, the Union Finance Minister announced the setting up of Infrastructure Debt Funds (IDFs) to accelerate the flow of long-term funds to the infrastructure projects. Accordingly, in November 2011, Reserve Bank of India and the Securities and Exchange Board of India (SEBI) notified detailed guidelines for setting up of IDFs which can either be a mutual fund (trusts) (IDF-MF) or an NBFC (companies) (IDF-NBFC). The Scheduled commercial banks are allowed to act as sponsors to IDF-MFs and IDF-NBFCs with prior approval from

Reserve Bank subject to certain terms and conditions. Further, to attract off-shore funds into IDFs, Government of India is contemplating the reduction of withholding tax on interest payments on the borrowings by the IDFs from 20 per cent to 5 per cent. Income of the IDFs is also expected to be exempt from income tax. The IDF-NBFC can raise resources through issue of either rupee or dollar denominated bonds of minimum five year maturity. IDFs are expected to channelize funds from insurance companies, pension funds and other long term sources into infrastructure sector. This will provide an alternative source of foreign currency funds for the infrastructure projects. However, certain dimensions need to be kept in mind while assessing the success of the model. Infrastructure financing presents quite a few challenges *viz.*, little tangible security, high debt equity ratio, long implementation and repayment periods, *etc.* Banks and financial institutions have over the years gained experience and expertise in assessing and pricing these risks. IDFs are likely to face severe challenges on these issues. Therefore, these Funds have been allowed to invest only in PPP and post commencement operations date (COD) infrastructure projects which have completed at least one year of satisfactory commercial operations. Of course, IDF-MFs can also be set up in respect of non-PPP projects under higher risk-return framework. If a bank has a mutual fund, then it can float an infrastructure debt fund, mop up resources from investors, including private equity and strategic investors, and invest the proceeds in the equity of infrastructure projects. Thus, IDFs could be game changers in the way infrastructure projects are being financed.

Tapping the retail investor base through Infrastructure Bonds

25. To provide further impetus to infrastructure financing, Government of India has permitted IFCI, IDFC, LIC and infrastructure finance firms to issue long-term infrastructure bonds providing for tax benefit of up to ₹20,000 in the year of investment, under the Income Tax Act. The tax-free status has been granted by the government to these bonds issued only by designated financial institutions. By introduction of such instruments, the retail base can be tapped for

raising funds for infrastructure projects. Of the proposed ₹30 billion funds to be raised, National Highway Authority of India (NHAI) & the Railway Finance Corporation are raising ₹10 billion each and HUDCO another ₹50 billion.

Major steps taken by the Reserve Bank

26. The Reserve Bank has initiated a number of regulatory measures/concessions for facilitating increased flow of credit to infrastructure projects. I will briefly touch upon a few of the critical measures taken in this regard.

Use of Foreign Exchange Reserves for Infrastructure Development

27. In India, the increase in quantum of foreign exchange reserves during the decade of 2000, coupled with escalating infrastructure constraints and the related financing deficit led to a debate on possibility of using foreign exchange reserves for investment in infrastructure sector. Although use of reserves for such purposes does not meet the criterion of reserve management objectives, a special and limited window has been created. Accordingly, IIFC (UK) Ltd. was incorporated in London and was set up in April 2008. Under this scheme, Reserve Bank invests, in tranches, up to an aggregate amount of US\$ 5 billion in fully government guaranteed foreign currency denominated bonds issued by this overseas Special Purpose Vehicles (SPV) of the IIFCL. The funds, thus raised, are to be utilised by the company for on-lending to the Indian companies implementing infrastructure projects in India and/or to co-finance the ECBs of such projects for capital expenditure outside India without creating any monetary impact.

Enhanced Exposure Norms

28. In view of the generally large requirements of funds for infrastructure projects, the existing RBI guidelines provide for enhanced exposure ceilings for the infrastructure lending. The credit exposure ceiling limits are 15 per cent of capital funds in case of a single borrower and 40 per cent of capital funds in the case of a borrower group. Credit exposure to a single borrower may exceed the exposure norm of 15 per cent of the bank's capital funds by an additional 5 per cent

(i.e., up to 20 per cent) and a borrower group may exceed the exposure norm by an additional 10 per cent (i.e., up to 50 per cent), provided the additional credit exposure is on account of extension of credit to infrastructure projects.

Asset-Liability Management in the context of Infrastructure Financing

29. In order to meet long term financing requirements of infrastructure projects and address asset liability management issue, banks are permitted to enter into take out financing arrangement with IDFC/other FIs. Further, banks have also been allowed to issue long term bonds with a minimum maturity of five years to the extent of their exposure of residual maturity of more than five years to the infrastructure sector.

Issuance of Guarantee

30. Keeping in view the special features of lending to infrastructure projects, viz., high degree of appraisal skills on the part of lenders and availability of resources of a maturity matching with the project period, banks are permitted to issue guarantees favouring other lending institutions in respect of infrastructure projects provided the bank issuing the guarantee takes a funded share in the project at least to the extent of five per cent of the project cost and undertakes normal credit appraisal, monitoring and follow up of the project.

Financing Promoters' Equity

31. Banks have been permitted to extend finance for funding promoter's equity in cases where the proposal involves acquisition of share in an existing company engaged in implementing or operating an infrastructure project in India, subject to certain conditions.

Relaxation from Capital Market Exposure

32. In order to encourage lending by banks to the infrastructure, the promoters' shares in the SPV of an infrastructure project pledged to the lending bank is permitted to be excluded from the banks' capital market exposure.

Permission to invest in Unrated Bonds

33. In order to encourage banks to increase the flow of credit to infrastructure sector, banks are allowed to

invest in unrated bonds of companies engaged in infrastructure activities within the ceiling of 10 per cent for unlisted non SLR securities.

Relaxation in the Classification of Investments

34. Investment by banks in the long-term bonds issued by companies engaged in executing infrastructure projects and having a minimum residual maturity of seven years are allowed to be classified under the HTM category, which means they need not be marked to market.

Relaxations Relating to Asset Classification

35. With effect from March 31, 2008, the infrastructure project accounts of banks were permitted to be classified as sub-standard if the date of commencement of commercial production extended beyond a period of two years (as against 6 months in the case of other projects) after the date of completion of the project, as originally envisaged. With effect from March 31, 2010, if an infrastructure project loan classified as 'standard asset' is restructured any time during the above period of two years, it can be retained as a standard asset if the fresh date of commencement of operations is fixed within certain limits prescribed by the Reserve Bank, and provided the account continues to be serviced as per the restructured terms.

36. Certain relaxations as far as conditions specified for deriving asset classification benefits under our restructuring guidelines are made in respect of infrastructure exposure of banks *i.e.* in respect of repayment period of restructured advances and regarding tangible security.

Infrastructure Debt Funds

37. Realising the potential of Infrastructure Debt Funds in enhancing financing to the sector, Reserve Bank of India has, as a special case, permitted several prudential relaxations. Sponsor bank of IDF-NBFC has been permitted to contribute upto 49 per cent of the equity.

38. In order to enable and encourage higher quantum of take out financing by an IDF-NBFC, they have been

permitted to take-on upto 50 per cent of its capital fund for individual projects. An additional exposure of 10 per cent can be taken subject to the approval of the Board. On a case to case basis, Reserve Bank will permit such entities for additional exposures of another 15 per cent, subject to conditions. Thus, exposure can go upto 75 per cent of the capital funds.

39. Another significant relaxation is that for the purpose of computing capital adequacy of the IDF-NBFC, bonds covering PPP and post-COD projects in existence over a year of commercial operation shall be assigned a lower risk weight of 50 per cent.

40. Under the extant provisions of Foreign Exchange Management Act, (FEMA) 1999, Reserve Bank has allowed investment on repatriation basis by new class of eligible non-resident investors (*viz.*, sovereign wealth funds (SWFs), multilateral agencies, pension funds, insurance funds, endowment funds) in Rupee and Foreign Currency denominated bonds issued by IDF-NBFCs and Rupee denominated units issued by IDF-MFs set up as SEBI registered Mutual Funds. IDFs would in turn lend to infrastructure projects as intermediaries. Further, SEBI registered FIIs, HNIs registered with SEBI and NRIs have also been allowed to invest in Rupee denominated bonds issued by the IDF-NBFCs and Rupee denominated units issued by IDF-MFs set up as SEBI registered domestic Mutual Funds. The original maturity of all the securities at the time of first investments by such investors shall be five years and the investments would be subject to a lock in period of three years. All such investments (excluding those by NRIs) will however be within an overall cap of US\$ 10 billion (which would be within the overall cap of US\$ 25 billion for FII investment in infrastructure debt).

Other Relaxations

41. Banks are permitted to treat annuities under build-operate-transfer (BOT) model in respect of road/highway projects and toll collection rights, where there are provisions to compensate the project sponsor if a certain level of traffic is not achieved, as tangible securities subject to the condition that banks' right to receive annuities and toll collection rights is legally enforceable and irrevocable.

42. In view of certain safeguards, such as, escrow accounts available in respect of infrastructure lending, unsecured sub standard infrastructure loan accounts which are classified as sub-standard will attract a lower provisioning of 15 per cent (20 per cent with effect from May 18, 2011). To avail of this benefit of lower provisioning, the banks should have in place an appropriate mechanism to escrow the cash flows and also have a clear and legal first claim on these cash flows.

43. Banks can finance special purpose vehicles (SPVs), registered under the Companies Act, set up for financing infrastructure projects on ensuring that these loans/investments are not used for financing the budget of State Governments.

Introduction of Credit Default Swaps

44. Further, the introduction of Credit Default Swaps (CDS) would help banks to manage exposures while increasing credit penetration, and lending to infrastructure and large firms without being constrained by the extant regulatory prescriptions in respect of single borrower gross exposure limits. With effect from November 30, 2011, the Reserve Bank of India has also permitted CDS on unlisted but rated bonds of infrastructure companies and unlisted/unrated bonds issued by the SPVs set up by infrastructure companies. While introducing the CDS, which caused considerable regulatory concern during global financial crisis in 2008-09, a calibrated approach has been followed, focusing on product safety and systemic stability issues. The intention was to introduce a plain vanilla CDS which is easily understood by the market. CDS has been designed to limit excessive leverage and build-up in risk positions and at the same time ensures credit risk mitigation. Therefore, users are not allowed to buy 'naked' CDS, *i.e.*, buying credit protection without underlying risk exposures. In order to restrict the users from holding naked CDS positions; physical delivery is mandated in case of credit events. Transparency in the CDS market which was major concern in other markets during the financial crisis, would be ensured through mandatory reporting of trades by market makers on the CDS trade reporting platform coupled with periodic dissemination of information by the trade

repository to the market and also to the regulators. These measures are going to provide fillip to bonds issued by infrastructure companies.

Securitisation

45. To facilitate healthy securitisation of loans, the Reserve Bank issued guidelines on Securitisation of Standard Assets which are applicable to all categories of loans including infrastructure loans. The circular contained various guidelines on true sale criteria, credit enhancement, Policy on provision of credit enhancement facilities, provision of liquidity facilities, provision of underwriting facilities, provision of services, prudential norms for investment in securities issued by SPVs, accounting treatment of the securitisation transactions, disclosures to be made, among others. Subsequently, keeping in mind the lessons learnt from the financial crisis that struck the developed economies, international developments in regulation of securitisation market and our review of existing regulatory norms on booking of profit on transfer of assets, reset of credit enhancements and transactions involving transfer of loans through direct assignment, the Reserve Bank of India has released a draft circular on 'Revisions to the Guidelines on Securitisation Transactions' to public comments on September 27, 2011.

46. The objective of the draft guidelines is to discourage the 'originate to distribute' business model in which loans were originated with the sole intention of immediate securitisation and securitisation of tranches of project loans even before the total disbursement is complete, thereby passing on the project implementation risk to investors. The draft introduced norms on Minimum Holding Period, Minimum Retention Ratio, prohibition of securitisation of single loans, loan origination standards, standards of due diligence, among others. It is expected that introduction of these norms would result in development of an orderly and healthy securitisation market and ensure greater alignment of the interests of the originators and the investors.

47. As a result of the above measures initiated by the Reserve Bank, scheduled commercial banks' exposure to infrastructure sector has shown a steady increasing trend over the years. Infrastructure credit as a

percentage of bank credit has thus improved from 3.61 per cent as at end-March 2003 to 13.36 per cent as at end-March 2011.

Corporate Bond Market

48. Reserve Bank has issued guidelines on repo in corporate bonds to make the market more active. Further, all entities regulated by Reserve Bank of India are reporting corporate trades on FIMMDA developed platform, enabling greater transparency and thereby facilitating better price discovery. To ensure smooth settlement in the secondary market, the Reserve Bank has permitted clearing houses of the exchanges to have a funds account with the Reserve Bank to facilitate Delivery versus Payments (DvP-I) based settlement of trades. Primary dealers have been permitted higher exposure limits for corporates to enable better market making. As mentioned above, CDS on corporate bonds has been introduced to facilitate hedging of credit risk associated with holding of corporate bonds. Other measures, including permitting banks to classify investments in non-SLR bonds issued by companies engaged in infrastructure activities and having a minimum residual maturity of seven years under the held-to-maturity (HTM) category and investment in non-SLR debt securities which are proposed to be listed as investment in listed securities are expected to provide fillip to the market.

49. In fact, as a result of these measures, trading volumes in corporate bonds have increased many-fold from ₹1,458.28 billion in 2008-09 to ₹5,986.04 billion in 2010-11.

50. Even as we have been following calibrated approach to opening of debt market to foreign investors, a separate limit of US\$ 25 billion has been provided for investment by FIIs in corporate bonds issued by infrastructure companies with a three year lock-in period. The investments under this route can either be through mutual fund debt schemes (for Qualified Foreign Investors with a limit of US\$ three billion) or through investment in bonds issued by infrastructure companies with a lock-in period of one year within investment limit of US\$ five billion and with a lock in period of three years with an investment limit of US\$ 17 billion.

Liberalisation & Rationalisation of ECB policies

51. Corporates implementing infrastructure projects were eligible to avail of external commercial borrowing (ECB) up to US\$ 500 million in a financial year under the automatic route. This limit has been raised to US\$ 750 million. Infrastructure Finance Companies (IFCs), *i.e.*, Non-Banking Financial Companies (NBFCs) categorised as IFCs by the Reserve Bank, are permitted to avail of ECBs, including the outstanding ECBs, up to 50 per cent of their owned funds, for on-lending to the infrastructure sector as defined under the ECB policy, subject to their complying with certain conditions.

52. The Reserve Bank has further liberalised the ECB policy relating to the infrastructure sector in September 2011. Under this dispensation, the direct foreign equity holder (holding minimum 25 per cent of the paid-up capital) and indirect foreign equity holder holding at least 51 per cent of the paid-up capital will be permitted to provide credit enhancement for the domestic debt raised by Indian companies engaged exclusively in the development of infrastructure and infrastructure finance companies without prior approval from the Reserve Bank.

53. Further, considering the specific needs of the infrastructure sector, the existing ECB policy has been reviewed to allow Indian companies which are in the infrastructure sector to import capital goods by availing of short-term credit in the nature of 'bridge finance' subject to certain conditions.

54. Although refinancing of Rupee loan by ECB is generally not permitted, Indian companies in the infrastructure sector have now been allowed to utilise 25 per cent of the fresh ECB raised by them towards refinancing of the Rupee loan/s availed of by them from the domestic banking system, under the approval route, subject to certain conditions specified by the Reserve Bank.

55. Considering their specific needs, Indian companies which are in the infrastructure sector have now been allowed to avail of ECB in Renminbi, under the approval route, subject to an annual cap of US Dollar one billion.

What more needs to be done?

56. Now having glanced through what all have already been done to facilitate more fund flow to the sector, the question is what more can be done? We all need to think and come out with innovative suggestions. Now let me share some of my thoughts in this regard with you.

Making the Infrastructure Project Commercially Viable

57. This is the first and foremost thing we should do for financing infrastructure in a sustainable manner. As mentioned earlier infrastructure projects involve huge financing requirements, most of which are met by banks and other financial institutions directly and indirectly. Thus, it is very important to make the project commercially viable to ensure regular servicing of the loan. This will lead to sustainable development of infrastructure without jeopardising the soundness of the financial sector. Project appraisal and follow-up capabilities of many banks, particularly public sector banks, also need focused attention and upgradation so that project viability can be properly evaluated and risk mitigants provided where needed.

Greater Participation of State Governments

58. In a federal country like India, participation and support of the State governments is essential for developing high quality infrastructure. The State governments' support in maintenance of law and order, land acquisition, rehabilitation and settlement of displaced persons, shifting of utilities, and obtaining environmental clearances are necessary for the projects undertaken by the Central Government or the private sector. It is satisfying to know that many State governments have also initiated several PPP projects for improving infrastructure.

Improving efficiency of the Corporate Bond Market

59. As has been noted, vibrant corporate bond market will reduce the dependence on the banking sector for funds. Further, co-ordinated regulatory initiatives could be considered in the areas involving standardisation of stamp duties on corporate bonds across the states, encouraging public issuance and bringing in institutional

investors in a big way. It is also important to broad base the investor base by bringing in new classes of institutional investors (like insurance companies, pension funds, provident funds, *etc.*) apart from banks into this market. We also need to reorient the investment guidelines of institutional investors like insurance companies, provident funds, *etc.* since the existing mandates of most of these institutions do not permit large investment in corporate bonds. As of now, the insurance and pension funds are legally required to invest a substantial proportion of their funds in Government Securities. These investment requirements limit their ability to invest in infrastructure bonds. Further, they can only invest in a blue chip stock, which is also acting as a limiting factor since most of the SPVs created for infrastructure funding are unlisted entities. Interest rate derivatives to hedge interest rate risks are being broadened. Reserve Bank has therefore permitted introduction of Interest Rate Futures (IRFs) on 91-day Treasury bills and 10-year G-sec papers. Reserve Bank is also considering further broadening the IRF products by including cash settled IRFs in the two and five year segments¹.

Credit Enhancement

60. One of the major obstacles in attracting foreign debt capital for infrastructure is the sovereign credit rating ceiling. Domestic investors are also inhibited due to high level of credit risk perception, particularly in the absence of sound bankruptcy framework. A credit enhancement mechanism can possibly bridge the rating cap between the investment norms, risk perceptions and actual ratings. Ideally, the credit enhancement should not be provided by the banks as they are already over-exposed to the sector. Further, such bank based backup facility will not lead to genuine development of corporate bond market. Instead we need to think creatively of other mechanisms involving national or supranational support. Working towards this direction, recently Asian Development Bank has offered to partially guarantee infrastructure bonds issued by the Indian companies. One can expect with hope positive outcome from such an arrangement.

¹ On December 30, 2011, Reserve Bank of India has permitted cash settled IRF contracts in notional 2-year and 5-year coupon bearing Government of India securities.

Simplification of Procedures – Enabling Single Window Clearance

61. It is well-recognised that while funding is the major problem for infrastructure financing, there are other issues which aggravate the problems of raising funds. These include legal disputes regarding land acquisition, delay in getting other clearances (leading to time and cost overruns) and linkages (*e.g.*, coal, power, water, *etc.*) among others. It is felt that in respect of mega-projects, beyond certain cut-off point, single window clearance approach could cut down the implementation period. Once we solve these peripheral but critical issues with regard to an infrastructure project, it will greatly facilitate flow of funds to the projects and help in maintaining asset quality to the comfort of the lenders.

62. We also need to develop new financial markets for municipal bonds to enable infrastructure financing at the grass root levels. We need to create depth, liquidity and vibrancy in the G-Sec and corporate bond market so as to enable raising of finance and reduce dependence on the banking system. At the same time, there is a need to widen our investor base and offer adequate risk mitigating financial products, such as, CDS. Market players should also actively participate in such markets after the products have been introduced. A Working Group has been set up by the Reserve Bank recently to examine the issues and recommend measures to further improve the depth and breadth of the G-Sec

market. A vibrant G-Sec market would facilitate growth of the corporate debt market. We also need to revisit the existing provisions of stamp duty governed by separate State Government Acts in respect of corporate bond transactions.

Concluding Observations

63. In conclusion I would like to mention that infrastructure projects in developing countries like India are perceived as highly vulnerable to risks which constrains financing. Some of the notable risks that need to be reckoned are risks arising during the period of construction leading to time and cost over-runs, operational risks, market risks, interest rate risks, foreign exchange risks, payment risks, regulatory risks and political risks. At times, in the absence of proper risk mitigation mechanism, the costs of the projects tend to increase and such high level of risks cannot be traded off against high returns. The aim of the policy makers should be to reduce perceived risks by introducing greater policy clarity and, at the same time, providing an environment that will reassure investors. I am sure exciting times are ahead of us for infrastructure development in our country as we enter the year 2012 which promises to open more avenues for innovative planning, projects, policies, products and partnerships. I hope this international conference, which has several participants from within and outside the country, would throw up ideas and suggestions that would go a long way in addressing the issues confronting the financing of infrastructure in India.