K C Chakrabarty: Infrastructure finance – experiences and the road ahead

Address by Dr K C Chakrabarty, Deputy Governor of the Reserve Bank of India, at the 13th Financial Services Convention of Bombay Management Association, Mumbai, 5 February 2010.

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Respected Dr Rangarajan, Chairman of the Economic Advisory Council of PM, Padma Vibhushan Dr Y V Reddy, Shri G Pinto, Executive Director, BMA, distinguished guests and representatives from the print and electronic media.

1. Getting an award is always an exciting and motivating event particularly when you are getting it in the presence of the doyens or giants of the sector like Dr Rangarajan and Padma Vibhushan Dr Y V Reddy. I am extremely grateful to Bombay Management Association (BMA) for honouring me with the BMA Finance Man of the Year Award and would like to sincerely thank them. I accept this award with full humility and understanding that the award belongs to all the employees and customers of the institutions that I have served during the last 30 years. In fact, it is an award to all stakeholders of those institutions. It is indeed an honour and privilege for me to have been presented this award by Dr Y V Reddy, our ex-governor, who has himself been awarded the Finance Man of the Decade Award. It is a matter of great jubilation that, in the past, eminent personalities like Shri A. K. Purwar, Shri M. Damodaran, Dr Y. V. Reddy, Dr Bimal Jalan, etc. have been conferred this award and it is indeed a matter of great pride for me that I have been included in this pantheon of awardees. I congratulate the BMA for organising the 13th Financial Services Convention on the theme ***"Infrastructure Finance: Experiences and The Road Ahead"***. I would now like to take this opportunity and share my thoughts on the theme of the Convention before the distinguished dignitaries.

Introduction

2. As you know, the Indian economy has enormous growth potential, a fact that is equally acknowledged by the analysts in-house as well as abroad. India can be one of the economic powerhouses in the current millennium following the success of China this decade. The economic dominance of India along with China looks all the more likely in view of the expected change in the epicentre of growth to emerging Asia after the crisis. The 8.8 per cent average growth clocked by the Indian economy during 2003–08 is the highest ever recorded after independence second only to China in the contemporary world. This has emanated from an upsurge in the domestic savings rate (23.5 per cent in 2001–02 to 37.7 per cent in 2007–08) supported by the step up in investment rate (from 22.8 per cent to 39.1 per cent) in an environment of moderate inflation and macro-economic stability. Although the contagion from the global economic crisis had brought the growth down to 6.7 per cent in 2008–09, large fiscal stimulus and accommodative monetary policy ensured that the economy performed better than expected in 2009–10. The Planning Commission in the Eleventh Five Year Plan Document (2007–12) identified a number of priorities to hasten an inclusive growth process so that the economy can grow at a rate of around 9 per cent during the plan period. While the success of the same revolves around a number of wide ranging issues adequately flagged in the Plan Document, certain basic problems need to be addressed first. These are agriculture reforms, governance reforms and infrastructure reforms. In today's address, I would confine myself to the third issue – that is infrastructure – finance as well as the beyond.

Role of infrastructure and the traditional constraints as regards finance

3. If we have to maintain high growth rate, we require better infrastructure; as simple as that. Infrastructure is also a key driver of inclusive growth. It is already identified as one of the serious impediments to high growth in India in the coming years. With fast pace of economic growth and urbanisation, availability of adequate facilities as well as upgrading the quality of existing infrastructure would assume paramount importance. Infrastructure development in new townships is a priority to redistribute the influx of growing population. Attention is to be paid to the rural infrastructure provision such as irrigation, electrification, roads, drinking water, sanitation, housing, community IT service, etc. Financial issues are often cited as the key constraint to the availability of provisions in an emerging economy like India.

4. The infrastructure projects are characterised by non-recourse or limited recourse financing, i.e., lender can only be repaid from the revenues generated by the projects requiring to the large scale of investments. The share of high initial capital and low operating cost in infrastructure projects explains why financing infrastructure involves a mix of complex and varied contractual arrangements. Wrong projections, collection risks of the payables and reneging of the contract are commonly cited as the major risks associated with an infrastructure projects. As returns from the projects are uncertain and low in the risk adjusted terms, it also necessitated additional incentives to be created to attract private investment.

Infrastructure developments in India

5. Despite its critical role in the development process in India, most of the state and local governments in India would not be in a position to undertake such investments and resultantly our various flagship programs had to depend on central assistance. While funding is understandably a key issue, it is needless to say that much of the success in creating the provision would depend upon some related non-financial factors like project viability, realisation of user costs, avoiding time and costs overrun, contract enforcement and efficient utilisation of funds. Traditionally the government bore the burden of building up infrastructure in India. However, the strategy of development has been revisited with economic reforms in the 1990s. Accordingly, the infrastructure industry has been opening up to the private players in various sectors. The Electricity (Supply) Act of 1948 was amended in 1991 to promote the entry of Independent Power Producers. Similarly, the National Highways Act of 1956 was amended in June 1995 to allow and attract private investment in road development, maintenance and operation. The telecommunications sector was deregulated and the Telecom Regulatory Authority of India (TRAI) was established in 1997 to oversee the industry.

6. Overall, there has been some notable progress in attracting private investment in the infrastructure industries. Usually investments from private sources are high in those sectors where user cost is well defined and easily recoverable. For the remaining segment, it is primarily the public investments that have to supplement infrastructure provisions given their importance in the economy. Irrigation, water supply, electricity and gas are the specific cases in point where user charges need to be defined and contract enforcement mechanism need to be strengthened further to ensure an uninterrupted flow of investments from private sources. Overall, the financing requirement from the private sectors during Eleventh Five Year Plan is estimated to be over 30 per cent from a little less than 20 per cent during the Tenth Plan period. The flagship Bharat Nirman programme of the Government of India focuses on the provision of key rural infrastructure like irrigation, electrification, roads, drinking water supply and sanitation, affordable housing, and connectivity via community IT service centres.

7. At the macro-level, the Eleventh Five Year Plan envisages stepping up of the gross capital formation in infrastructure from 5 per cent in 2006–07 to 9 per cent of GDP. It envisaged an investment requirement of over US$ 500 billion (Rs.20,11,521 crore). It is

estimated that traditional sources of infrastructure financing can raise a little more than half of the requirement (McKinsey, 2009). Financial shortfall is one of the reasons for the slow pace of transition towards creating world class infrastructure facilities in India through private initiatives. There is an urgent need to create enabling conditions, e.g., a vibrant debt market, easy exit rout for equity capital and appropriate instruments for credit institutions to lend infrastructure while hedging the associated risks, etc. Estimated investment flow in various infrastructure sectors during the Tenth and Eleventh Five Year Plan is outlined in Table 1. It can be seen from the table that the investment requirements in various sectors had gone up substantially in the Eleventh Plan.

Table 1

Estimated investment flows to various sectors

(Rs Crore at 2006-07 Price)

Sectors	Tenth Plan (2002-07)	Eleventh Plan (2007-12)
Electricity, Roads and Bridges	436742	980677
Telecommunication	103365	258439
Railways, Irrigations, Water Supply and Sanitation	295964	658839
Ports and Airports	20842	118963
Storage and Gas	14532	39233
Total	871445	2056150

Source: Planning Commission

8. Apart from the direct investment route, public private partnerships (PPPs) models have grown in popularity around the world in recent years, with governments around the world finding it difficult to finance infrastructure investments through conventional route. Despite the emphasis placed on PPP in the Plan Documents, the private sector response to infrastructure development in India has been lukewarm for a number of reasons, e.g., overlapping regulatory jurisdiction, improper design, appraisal and risk allocation mechanism under PPP, bidding transparency issues, project costs and time overruns considerations, etc. Probably a centralised PPP mechanism and a single window clearance of the project under direct investment route is called for at this juncture. With inadequate financial market developments, PPPs in India typically rely on commercial banks for funding exposing them to risk concentration, maturity mismatches and related exposures to the rising interest rates and tightening credit conditions over the life of the project.

Issues relating to the financing of infrastructure investments in India

9. The importance of long-term debt financing can hardly be overstated owing to the longer pay-back period of infrastructure projects and delays due to complexities in the design, safety and environmental aspects, etc. The development of a mature and vibrant corporate debt market is eminently suited for long-term committed funding to match the investment requirements of a long term risk-averse investors seeking regular returns after a lock-in period. Greater deepening in the non-government debt market with sound financial, legal, and regulatory framework would enhance the benefit of price discovery and risk diversification. The PPP model pioneered in Europe in the late 1960s has benefited immensely from the financial flexibility offered by the debt market by reducing over-reliance on the banking system. However, the European economy has also got the advantage of an enabling investment environment before the reliance on banking system could be lowered.

10. The current state of financial market in India does not support an optimal capital structure in financing infrastructure. While the public-sector debt market is fairly liquid, constituting approximately 35 per cent of GDP, the stock of listed non-public sector debt is an abysmal 2 per cent of the GDP (Goldman Sachs, 2007). This is far below the depth of the equity market capitalisation placed almost at 100 per cent of GDP. Even emerging countries such as Malaysia, Korea, and China have a higher percentage of corporate bonds to GDP. Further, segmentation in gilt securities failed to create a credible benchmark to price other long-term securities in India despite an intensive effort by the RBI to consolidate the issuance of gilt securities. Accordingly, there is a tendency to adopt lopsided structures in the form of over-reliance on equity. While the government uses tax revenues and PSUs surplus to fund infrastructure, a large percentage of capital requirements in the private sector too are met through equity. Of the total expenditure of the Eleventh Plan, nearly 52 per cent is likely to be financed through internal accrual/equity primarily appropriating the internal and extra-budgetary resources of the PSUs. For private sector, the share of debt is relatively less at 30 per cent.

11. Of the total debt requirement at Rs. 9,88,035 crore (USD 247.01 billion), the actual availability during the Eleventh Plan period is estimated to be around 83.5 per cent. More than half of the total estimated resource flows are likely to come from bank credit, while close to 15 per cent is estimated to come from external commercial borrowings. The resource flow from pension/insurance companies, which is potentially a high source of long term debt, is expected to provide resources by less than 7 per cent. Understandably, these institutions have been restricted by their respective regulatory authorities from exposing them too highly to the infrastructure sector on prudential considerations.

12. The credit extended by commercial banks is also restricted through exposure norms besides a cash reserve and statutory liquidity ratio requirements. Although often argued for more flexibility, it needs to be appreciated that for credit institutions, it would be difficult to assume bulk of the project risk and capital costs indefinitely without a commensurate development of the corporate debt market. Infrastructure financing brings additional risks in view of their long term nature and is not good for the banks from an ALM perspective to increase their exposure excessively. Though prudential norms have been relaxed by RBI for infrastructure projects, RBI is not in favour of further relaxations in exposure norms. The infrastructure finance requirements cannot be filled by banks alone but would have to be met by financing from long term finance agencies like insurance and pension funds.

13. The High Level Expert Committee on Corporate Bonds and Securitisation (Chairman: Dr. R H Patil) comprehensively examined the issues concerning corporate bond market in India and made recommendations to activate the market, some of which have already been implemented. As per the regulatory jurisdiction, SEBI is responsible for the primary (public issues and private placement by listed companies) and secondary (OTC and exchange) markets in corporate bonds. The various pre-conditions for allowing repos in corporate bonds, e.g., an efficient and safe clearing and settlement system based on DvP and availability of fair prices is gradually settling in. The draft guidelines for allowing repos in corporate bonds are also due for finalisation.

14. Foreign sources are supplementing the domestic financial market in financing infrastructure during recent years. The inflows through External Commercial Borrowing are rising even though such inflows have end-use restrictions besides having a cap on borrowing cost in most of the time. Further, India is receiving a sizeable amount of foreign investment through foreign direct investment (FDI) in the current decade. The cumulative amount of FDI inflows since 2000 is at a staggering US$100 billion. While the highest share of FDI has been received by the services sector followed by the ICT, the telecom sector too received success in attracting foreign capital. Besides a sizeable and almost continuous investment support is received from Foreign Institutional Investor (FII) to the domestic financial market *albeit* with high volatility.

15. Further, the banks in India had developed the appraisal skills to enter into long-term lending including infrastructure finance in a big way. Bank credit to the infrastructure sector increased steadily from Rs. 7,243 crore in 1999–2000 to Rs. 2,69,972 crore in 2008–09, a compound annual growth of 43.6 per cent during the last ten years (Table 2). The share of bank finance to infrastructure in gross bank credit increased from 1.8 per cent in 2001 to 10.2 per cent in 2009. The banks' exposure to infrastructure lending has grown by over 3.7 times between March 2005 and 2009. Still a large part of the gap in demand over the supply of bank credit is explained by the inadequate commercialisation of projects for regulatory, political and legal constraints and total absence or insufficiency of user charges in many sectors. Therefore, the current issue to meet the demand for infrastructure finance by the banks arise from the bankable and commercially viable projects.

Table 2: Bank Credit to the Infrastructure Sector (Rs. crore)

	End-March									
Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Infrastructure	7,243	11,349	14,809	26,297	37,224	78,999	1,12,853	1,43,375	2,05,120	2,69,972
	(21.9)	(56.7)	(30.5)	(77.6)	(41.6)	(112.2)	(42.9)	(27.0)	(43.1)	(31.6)
of which:										
Power	3,289	5,246	7,373	15,042	19,655	38,235	60,157	73,158	95,067	1,24,447
Telecommunication	1,992	3,644	3,972	5,779	8,408	15,705	18,455	19,446	38,043	50,326
Roads and Ports	1,962	2,459	3,464	5,476	9,161	15,500	19,695	24,984	34,530	47,060

Note: *1. Figures in parentheses are annual growth rates.*
2. Data relate to select SCBs, which account for around 90 per cent of the bank credit extended by all scheduled commercial banks.
Source: *Handbook of Statistics on the Indian Economy, 2005-06, Reserve Bank of India.*

Measures taken by the Reserve Bank of India

16. Several new initiatives have been initiated by the central government and the Reserve Bank in the recent years. RBI initiated a number of regulatory concessions for infrastructure finance, such as a) allowing banks to enter into take out financing arrangement, b) freedom to issue long term bonds by banks for financing infrastructure, c) relaxation of single and group borrower limit for additional credit exposure in the infrastructure sector, d) flexibility to invest in unrated bonds of companies engaged in infrastructure activities within the overall ceiling of 10 percent, e) excluding the promoters' shares in the SPV of an infrastructure project to be pledged to the lending bank from the banks' capital market exposure and f) permitting banks to extend finance for funding promoter's equity where the proposal involves acquisition of share in an existing company engaged in implementing or operating an infrastructure project in India. Let me make some additional remarks on two of these areas.

17. To stimulate public investment in infrastructure, a special purpose vehicle – India Infrastructure Finance Company Limited (IIFCL) was set up for providing long-term financial assistance to infrastructure projects. The Union Budget for 2009–10 announced that IIFCL in consultation with banks will evolve "take out financing" scheme to facilitate lending to the infrastructure sector. To ease the financing constraints for infrastructure projects under the PPP mode, the Government has decided that IIFCL would refinance 60 per cent of commercial bank loans for PPP projects in critical areas over the next fifteen to eighteen months. The IIFCL was authorised to raise Rs.10,000 crore through Government guaranteed tax free bonds by the end of 2008–09 and an additional Rs.30,000 crore on the same basis as per the requirement in 2009–10. The refinancing option is expected to leverage bank financing for PPP programmes to the extent of about Rs.1,00,000 crore. As the experience

suggests, the take out financing failed to become popular as the cost of borrowing turn out to be high. As IIFCL sources banks substantially for its funding requirement as well as refinances banks for their infrastructure lending, the cost of finance goes up through the layers of intermediation. In view of the limited availability of resources, there is a limit to which IIFCL will be able to deliver a favourable leverage effect by extending equity support and credit enhancement.

18. Single and group exposure limits turn out to be binding for lending banks in view of the huge funds requirement. There is not much scope to increase them from prudential viewpoints going by the internationally accepted norms. The capital funds of Indian banks are small in size. The exposure limits of banks are fixed in relation to their capital funds. Even though we have allowed relaxation of 5 percent in case of single borrower limit and 10 percent in case of group borrower limits, banks find it difficult to lend to infrastructure projects set up by big industrial houses as they have already reached the maximum group exposure limit to such borrowers. Also, there is a tendency among borrowers to limit their borrowing to a few large banks which compounds the exposure limit constraints. As not all banks are active in infrastructure financing, the consolidation of banks could potentially provide higher exposure limits. However, such mergers and acquisitions may not serve the purpose as risk remains the same for the sector. Typically a bank may not like to take upon itself the entire financing risks but try to attract co-financer by syndication of loans, which would entail multiple lenders discouraging the borrowers.

Some possible measures and solutions to bridge the gap

19. Some specific measures are being talked about to bridge the gap in financing by extending the funding base for infrastructure projects.

a) One such measure is the participation of pension funds and insurance companies in funding the long term infrastructure projects. Pension funds are increasingly moving into new asset classes in a search for yield. Infrastructure is one type of investment being frequently discussed, given its potential to match long-term pension assets and provide diversification. Some larger funds globally are beginning to invest in infrastructure via private-equity funds, or, occasionally, even directly. Australian, Canadian and Dutch pension funds may be considered as leaders in this field.

b) The development of domestic long-term capital markets will be critical for private sector investment in infrastructure, but these markets must have much better regulation as well. In India, there is a need to improve the depth and liquidity of the corporate bond market to provide an additional source of funds for infrastructure companies. Limited investor base, limited number of issuers and preference for bank finance over bond finance are the main macro barriers for development of a deep and liquid corporate bond market. RBI has issued the guidelines on repo in corporate bonds, which would be effective from March 2010. Further, syndication of loans would diversify the risk in infrastructure financing, given the fact that a bank would not like to take upon itself the entire financing given the risks involved and the capital and consequent exposure constraints.

c) Also credit enhancement to infrastructure by way of risk transfer and risk reduction could help bridge the gap in the Indian context. Lenders tend to look for credit enhancement from government like policy guarantees, refinancing and maturity extension guarantees, grants/viability gap funding, etc. Similarly, non-government mechanisms like bond insurance, credit rating, etc. provide risk mitigation to the lenders. Providing credit enhancement by way of insuring the debt payment by insurance companies to banks for the loans extended by them towards infrastructure projects is a concept considered in the North American infrastructure market.

d) Comprehensive infrastructure development calls for simultaneous improvement of all infrastructure sectors, like power, telecommunications, irrigation, transport, housing, commercial complexes, water supply, sanitation and other urban amenities. In the current situation, it may no longer be possible for the Governments to develop, upgrade and maintain infrastructure and provide all civic amenities on their own. It is in this context that governments are involving the private sector in the area of infrastructure development to bridge the gap between demand and supply. The Public-Private Partnership is being actively pursued in India to meet the gaps in the provision of basic infrastructure services. The PPP model, where the state shares the risks and responsibilities with private firms while retaining the control of assets is generally expected to improve services while avoiding some of the pitfalls of privatization such as higher prices and corruption. However, for such partnerships to be successful, the framework of PPP including pricing has to be transparent. The development finance model has to be characterized by good planning, strong commitment of both the parties, effective monitoring, regulation and enforcement by the government. A separate Ministry for Infrastructure Development could help immensely in channelising government's efforts. The issue of pricing is crucial in view of the political sensitivities, while also simultaneously ensuring the viability of the project. If we are looking at world class infrastructure, then we will have to pay for it. Managing the transition from state-subsidised services to market based pricing is crucial as a fine balance has to be maintained between allowing companies to raise prices rapidly on existing, cheap public utility services and suppressing price hikes by ignoring market forces. Whenever PPP with proper pricing is not possible, then Government has to chip in. Rural areas and hinterland infrastructure development could be the responsibility of the government. So pricing on commercial consideration is a key issue and I hope the convention will discuss these key issues.

e) Additional flexibility for long term bonds issued by banks as regards the tenor of bond issuance or allowing Zero Coupon Bonds for infrastructure with income tax benefits are some of the other incentives that can be thought off in the years ahead. Another option is to treat the advances as unsecured so long as receivables from the project is the only basis of tangible primary security, as is normally the case for road project, provided cash flows generated are adequate for repayment of the advance.

Concluding remarks

20. I would like to conclude this address by saying that there is no dearth of finance for infrastructure development. Currently, there is adequate liquidity in the system that can support financial requirements in the next two to three year for any bankable infrastructure project. From a medium term perspective, while finance is surely a pertinent issue, it cannot be addressed independently. Addressing other concerns in infrastructure industries like defining user cost and a mechanism for their recovery, strengthening the contractual framework to speedup project implementations, plugging the loopholes behind the current PPP designs, a simplified project clearance mechanism by a centralized authority, etc. are perhaps of more importance than financial issues. In the long term, participation of pension funds, insurance companies and other long term finance institutions would be essential. Progress in these directions could activate infrastructure provisions at a much faster pace than is seen now. I hope this convention will deliberate on some of these key issues. As growth takes place with the improvement in infrastructure provisions, a number of funding issues could be self-correcting. High growth will generate resources for infrastructure investment besides pushing for the necessary reforms at the longer end of the financial market and products. On the contrary, relying heavily on the banking system without

commensurate reforms in the real economy may not facilitate finance, while running the risks from prudential viewpoint.

21. Thank you for your attention.