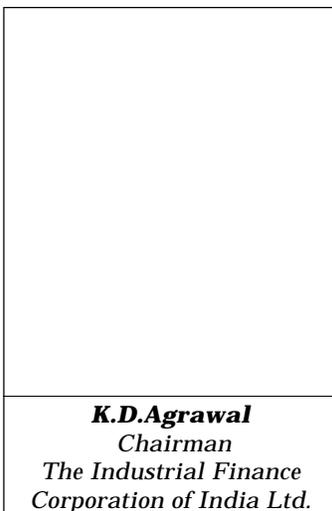


Financing India's Infrastructure



K.D. Agrawal

Chairman

The Industrial Finance Corporation of India Ltd.

Arranging adequate finance for infrastructure projects has been a major cause of concern in developing countries. However, even among the developing countries, the experience of financing infrastructure projects has been found to vary widely. This paper deals with the international experience in the developing countries in infrastructure

financing and then addresses some major issues of infrastructure financing in India and their probable solutions.

International Experience in Infrastructure Financing - Lessons for India

In developing countries, Governments have traditionally been providing bulk of infrastructure financing and have been bearing almost all project related risks associated with the financing of infrastructure projects. A survey conducted by The World Bank has revealed that about 90 percent of financial flows relating to the infrastructure sector in developing countries are channeled through government/government sponsors. Tax revenues and government borrowings were the two prominent sources of infrastructure financing.

During the last decade, it was, however, realised that governments had been bearing more of the burden of infrastructure expenditure/financing than they could reasonably be expected to manage. Efforts were, therefore, initiated for commercialisation of infrastructure projects and thereby attracting private and foreign investments in a large way.

While some countries opted for a government - private partnership for infrastructure development and financing, some others offered a dominant role for private /foreign entrepreneurs. Governments of developing countries have relied in varying degrees on foreign financing for infrastructure with a large part of these flows directed to energy, telecom and transport sectors. Foreign finance was used primarily to import equipment, especially in the electronics, power and telecommunications sectors.

The problems experienced with external financing of infrastructure sector included the stipulation of

the financiers that goods and services be sourced only from specified countries. Their focus had been on financing new physical construction. These funds also carried the risks associated with exchange rate fluctuations.

Infrastructure investments in developing countries represent, on an average, 4 percent of GDP (5.5 percent of GDP for India), but they often need to be substantially higher. Where telecommunications or power supply networks are expanding rapidly, annual investments in either sector can be as high as 2 percent of GDP. The World Bank survey reveals that the countries whose rapid economic growth is placing a heavy burden on infrastructure, the demand for infrastructure investment in such countries is expected to be as high as 7 percent to 8 percent of GDP during the next decade.

While Governments will continue to be an important source of financing infrastructure projects in developing countries, there will be an increasing need for private participation and foreign investments to supplement these efforts.

In the case of financing the industrial sector, lenders normally have recourse to assets of the borrower and the appraisal of the projects is based on their creditworthiness, customer base and cash-flow besides tangible assets. However, in the case of new companies in the infrastructure sector, lenders have recourse only to the prospects of future earning stream. In non recourse financing, lenders are repaid only from the cash flow generated by the project or in the event of project failure, from the value of the project assets. Lenders could also have limited recourse to the assets of the parent company sponsoring a project.

Most project financing in infrastructure sector in developing countries is based on either non recourse or limited recourse mechanism. Private infrastructure projects are normally preferred because of their efficiency in project management and as service providers. Besides, private infrastructure projects also provide an opportunity for efficient risk allocations among the various parties concerned, thereby reducing the exposure of the promoters and the lenders to residuary risks.

It has been observed that the complexity of risk allocation of infrastructure projects increases with the size of the project, as the number of parties involved in project implementation increases with project size. This statement has been corroborated by the actual experience with infrastructure projects world over.

One of the major advantages of private participation in infrastructure projects is also risk sharing. Since most infrastructure services cannot

be exported, these cannot directly generate any foreign exchange earnings to repay their foreign currency borrowings. This problem of absence of natural hedge against foreign exchange risk is likely to affect the project viability. In order to circumvent this problem, most international power projects set their charges in US dollars. Another way of handling the foreign exchange risk is by ensuring foreign exchange payments through an international escrow account.

Risks of project cost and time over-runs are mitigated by designing suitable EPC/O&M contracts. Risk of non-supply or rise in price of inputs is mitigated through suitable input supply agreements. Government-private partnership helps in mitigating, to a certain extent, sector policy induced risks and support from the government in case the services generated by the utilities are not adequately demanded. In case of the power sector, usually the transmission and distribution networks are owned by the government and the power generated has to be sold to government agencies. Through suitable power purchase agreements, risks of non-payment/default, sharing of forex risks etc., are normally mitigated. Commercial risks which include risk of increase in cost of production and uncertainties in demand for services for most infrastructure sectors are borne by promoters which tend to eventually devolve on lenders as credit risks.

Most developed countries have set up specialised development financial institutions/development banks for infrastructure financing. Infrastructure funds have been created with investments of domestic and/or foreign investors. In case of most developing countries, debt market is under developed and there is little investors' appetite for long term investments. The market for securitisation of assets/future cash flows/loans of banks and FIs in most developing countries are yet to emerge.

These are some of the illustrative, if not exhaustive, lessons from the international experience in infrastructure financing and we, in India, could as well factor these while dealing with development of the domestic infrastructure.

Infrastructure Financing in India

The Expert Group on the Commercialisation of Infrastructure Projects (Rakesh Mohan Expert Group), has assessed the requirement of resources for infrastructure development in India at Rs. 12,000 billion during the decade 1996-97 to 2005-06. This computation has been based on the assumption that the GDP would grow at the rate of 6-7 per cent per annum and the investments in infrastructure sector would increase from the current level of 5.5 per cent of GDP to around 7 per cent by 2000-01 and 8 per cent of GDP by 2005-06.

The Expert Group has recommended for a healthy public-private partnership for development of

infrastructure projects. It has been estimated by the Expert Group that such massive investment in infrastructure sector would only be possible by increasing the domestic savings and investment rate from the current 25 per cent of GDP to over 30 per cent of GDP in the next five years, increasing net foreign capital inflows to around US \$ 25-30 billion by 2005-06, of which 40 per cent is to flow to the infrastructure sector. The power sector alone would require an investment of the order of Rs. 5000 billion during the said period while the total funds required by the telecom sector for the provision of basic and cellular mobile telecom services by 2006 will be of the order of Rs. 1915 billion.

Major Issues of Infrastructure Financing in India

General

- Infrastructure projects in India require various statutory and techno-economic as well as environmental clearances from various agencies and unusual delays take place in getting these multi-stage clearances from the concerned authorities. This could be tackled effectively by ensuring a single-window dispensation for all such clearances.
- Most infrastructure projects have a high gestation period and the cash flows during the initial years are not adequate to meet the repayment obligations and thus are required to be financed by the promoters. As such, resourcefulness of the sponsors becomes extremely vital.
- Absence of suitable debt market and facilities for securitisation in India has been a matter of great concern. The Government may have to take necessary procedural, legal and administrative steps to find a solution to this problem. The gains in the long run will far outweigh the loss to the exchequer in the form of stamp duty.
- Tariff fixation for most of the infrastructure projects has to be progressive, to ensure comfort both for private promoters and lenders. Suitable institutional network has to be developed for effective tariff fixation in various sectors and the method for tariff fixation has to be simplified, transparent and competitive.
- Prudential and financing norms of FIs and banks have imposed certain limitations to infrastructure financing. As a matter of policy, these norms have been amended (group exposure has been permitted upto 60 per cent against earlier 50 per cent, provided the additional 10 per cent is towards infrastructure financing) in order to make them practicable in the interest of the large scale infrastructure development required in India.
- Banks and FIs, whose large part of liabilities are short to medium term, may suffer from an asset-

liability mismatch problem by resorting to large scale infrastructure financing until the time an exit route through securitisation is made available. The recently created IDFC can solve this problem by providing "Take out Financing" to these institutions after the initial phase of 5 to 7 years of project operation.

Power

- In case of the power sector, greater efficiency for service provision could be ensured through effective vertical and horizontal disintegrations. Vertical disintegration would imply administrative and operational segregation of generation, transmission and distribution systems. Horizontal disintegration would imply segregation built around smaller geographical territories (district, block) for effective supervision. The practical case of success of disintegration process in Orissa under the guidance of The World Bank could be the fore-runner for other states to follow.
- The general health of most of the State Electricity Boards (SEBs) is not found to be satisfactory thereby imposing a limit on their capability of servicing escrow accounts.
- Undue delay has been observed in signing of Power Purchase Agreements (PPAs) because of various complexities involved in the negotiations and legal documentation process resulting in cost and time overruns. A model draft PPA could be developed by the legal and field experts to mitigate this problem. Major problems arise out of the agreement regarding servicing capacity of escrow accounts by SEBs considering their financial health, charges recovery record, ability to revise tariffs based on inflation and other related (including forex) risk exposures. Reorganisation (disintegration as suggested above) of SEBs and their partial/complete privatisation could be an answer to this problem.
- Transmission and Distribution (T&D) losses are

very high (22 per cent) in India. This issue has to be tackled with a positive political will and gradual privatisation of the T&D sector. World over, investments in the T&D sector are almost equal to the investments in power generation. However, in India, investments in the T&D sector are proportionately very low and this imbalance has to be removed so that T&D problems could be solved.

Telecom

- Analysis of the market demand has remained a complex problem for most of the infrastructure projects, especially for value-added telecom services.
 - In case of the telecom projects, the payment of disproportionately large amount as license fee, inability of the projects to generate sufficient cash flow during initial years of operation, non-availability of adequate securities etc., have forced the financing institutions to insist for a low debt-equity ratio of around 1:1 and financing of losses beyond first one year of operation by promoters' own sources, have often been referred as stringent conditions by private promoters. Permission for assignability of licenses has provided some comfort to the lenders.
 - Faster technological obsolescence and simultaneous existence of competing technologies and competing services have also been major problems for the telecom sector. For example, mobile systems are competing with satellite-based systems, two-way paging with cellular mobile services etc.
 - In many of the value-added services sectors, DOT / MTNL have either already entered the competition or have reserved their right of entry on a future date. A demand has been made for level playing between these institutions and private players for encouraging healthy competition.
-