

## **Sustainable Development for India: Solving the Infrastructure Puzzle**

*By Andrew Chen and Jennifer Warren Kubik*

In one sense, development of public works assets can be seen as a barometer of a country's economic, political, and populace well being. Infrastructure development is critical for sustainable growth for countries such as India, Indonesia, China, and the Philippines to name a few. In India, it is often noted that poor infrastructure—a lack of water and sanitation, shoddy roads, and unpredictable energy supply—constrains foreign direct investment and overall economic potential.

The Indian government has made clear recently that it will tap the private sector, in contrast with China's government-financed model, to help fund and develop infrastructure projects. Deputy Chairman of India's Planning Commission Montek Singh Ahluwalia expects infrastructure spending to rise to 9% of gross domestic product versus a current 5%; thus current infrastructure investment of \$50 billion would need to double by the 2011-2012 time period.

How will India raise and attract these vast sums of private investment? In the period 2006/7, foreign direct investment inflows amounted to \$16 billion, nearly triple the year before. Large-scale projects require massive capital investment with long completion times, however, and many carry political, regulatory and financial risk. A key issue becomes how to attract private investors willing to participate in infrastructure projects given their complex and risky nature. Cases of corruption and political and economic risk make investors hesitate, especially in a developing country.

In India, one case still looms in investors' psyche, the Enron power plant of Dabhol in Maharashtra state. The \$2.9 billion Dabhol power plant project, 180 kilometers south of Mumbai, was initiated in April 1992 with former Houston-based Enron. Bad contracts, politics, and economic circumstances ultimately doomed the initiative. Allegations of corruption abound. Construction halted on the final phase in 2001 and the plant closed. The four-fifths completed Dabhol power plant was to be the largest independent liquefied natural gas (LNG) power plant in the world. In the end, the Indian economy and final consumer lost out.

The case of Dabhol and various obstacles to investment have deterred investors from India in the past. Today, companies are back with a vengeance, keen on the promise of India once again. To fulfill the visions of India's potential that investors and multinationals predict, the Indian government is promoting the idea that India is open for business and that the needed infrastructure will evolve. Out of necessity, governments across the globe, India's included, hail the virtues of public-private partnerships to save the day. But infrastructure financing with transparency and efficiency in mind may do more for India than would be obvious. A new approach is needed in financing infrastructure to properly cultivate this form of social investment which yields more benefits beyond the infrastructure project itself.

## **A Tale of Two Indias**

India with its 30 states and seven union territories displays great regional disparities in terms of economic growth and specialization. A two-speed, divergent India has emerged with infrastructure development a key piece of the puzzle. Under typical patterns of economic development, countries or areas tend to go through labor-intensive manufacturing cycles before they specialize. But in India, fast growth states or areas have skipped steps in the economic development models and focused where they appear to have comparative advantage, according to a 2006 International Monetary Fund working paper. That is, leading regions like Delhi, Karnataka (Bangalore), and Maharashtra (Mumbai) which embraced the IT wave with their first-tier cities, have realized faster growth and rising incomes alongside better infrastructure offerings.

Conversely, slow growth or lagging regions — Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh—suffer with growing, less-educated populations, which are expected to follow more traditional economic growth and development patterns. These areas may also be a political force for redistributing resources unless they are incentivized to reform governance, business climates, and infrastructure offerings. Recent research reports that politicians in electorally competitive states announce large numbers of infrastructure projects ahead of elections, and then don't follow through. States, particularly in lagging regions, have proved wasteful and corrupt in infrastructure spending.

An antidote for both fast growth states attracting most of the foreign investment—in dynamic cities such as Delhi, Mumbai, Bangalore, and Chennai—and lagging states, may be a new approach to private investment in infrastructure. As a new form of public-private partnership, global capital markets can offer a viable source of funds, promote better governance, and bring transparency to infrastructure's complexities.

With India ready to further embark in public-private partnerships for infrastructure projects, getting the formulas right is imperative. This can make the difference between further regional divergences and politicization which deters reforms and development, and the opportunity for more balanced growth for those who will need it most.

## **A Chance for Progress**

Under existing approaches, infrastructure project financing is structured in a way which creates flaws: inefficiencies and added costs, greater political (policy) risk, and a lack of diverse ownership needed for transparent incentives. The Enron-Dabhol project highlights some of the issues surrounding infrastructure projects. In this case, there was a lack of competitive bidding, unfair contracts, and limited knowledge by the seller (the government) in terms of project scale, technologies and complexity. Unfair competition for contracts will not yield the longer-term goals of sustainable growth and development and better governance records. Consequently, project sponsors and investors may then be deterred from future projects in a host country or region as happened in India post-Enron.

Government should re-think how infrastructure's role interacts with other areas that impact firms' decisions to invest such as bureaucracy, corruption, and macroeconomic stability. These areas beg the question of how to reconcile existing infrastructure

financing approaches with a country's desire for better governance and a more attractive business climate for private investment.

Given the vast infrastructure needs in India, a progressive approach is needed that levels the playing field, deters political and policy risk, and develops more efficient, transparent market mechanisms. If there is to be real progress toward development goals and reduced poverty, this modernization of approaches offers a way forward.

### **A More Efficient Market**

The experiences to date with privatizations and securitizations suggest that a “market finance” approach, which creates immediate private ownership of public investment projects among diverse groups of investors, may lead to more efficient and successful infrastructure development. Current “contract finance” approaches have led to successful projects, but also spectacular failures have occurred which waste considerable resources. The financing of projects should be guided by global capital markets' invisible hand to determine the economic value of an infrastructure project and provide the necessary resources for construction, operations, and maintenance.

Project securitizations or initial public offerings of project securities can be designed with financial innovations for any new large-scale infrastructure project. This would create diversification, liquidity, and mitigate many of the problems that accompany existing approaches in financing infrastructure. It would also begin to unravel the perverse incentives pervading infrastructure spending in India.

This approach would bring true private sector participation for economic development and legitimize further business activity. It would ensure ample funding, strong interest, and awareness of a project on a global scale. Managerial incentives could be more aligned with productivity, thus reducing the widespread problems of cost overruns and inefficiency. Governments—central, state, and local—could be allocated project securities to achieve true public-private ownership.

Financial innovations in the securities offering can serve as both a deterrent and an incentive. For example, including event-risk provisions in project bonds can deter politicians' attempts to make undesirable policy changes. This can ultimately foster a more investment-friendly environment, prized by many countries. Sound decisions and proper management will bring its own reward through enhanced project value and the value it brings to the community and economy at large, which must be communicated to stakeholders. In the end, the explicit costs of debt financing for infrastructure would be lower. Of great consequence, the invisible hand may prove more capable in setting infrastructure project agendas which span varied administrations and political agendas.

### **State-of-the-art Development (Policy)**

This approach to financing infrastructure is a way forward to realize economic and development goals and greater prosperity. In addition to physical infrastructure, India has a solid foundation in “soft” infrastructure. A reliable banking system, functional capital markets, a well-developed legal system, and educational opportunities underpins India's

political and economic life. The appearance of many diverse stakeholders—foreign investors, governments, and domestic investors and consumers—can further catalyze the reforms needed to infuse additional private sector activity. Prior methods of infrastructure project finance have worked, but at costs hidden to society.

The private sector is developing an enhanced capability in managing infrastructure assets and operations on behalf of governments that are privatizing or leasing public infrastructure. A number of international investment banks have developed infrastructure funds, which act as project securitizations of existing projects. One Australian investment bank's infrastructure fund owns stakes in a major Chinese port, a Japanese turnpike, a major English toll road plus other US and European infrastructure assets.

This new approach complements private sector developments in progress. But most importantly, it applies to the launch of new infrastructure projects, utilizing financial innovations to mitigate risk and participate in gains. The capital market finance approach can also be applied to groups or consortia of new smaller-scale projects related by sector or geography.

Individual and institutional investors alike can have new choices available in social investment. With pension funds seeking better returns through alternative assets, holding a portion of an Indian power plant or water utility is not so far-fetched. For economic and financial policymakers, new incentives to attract capital and projects may emerge. Greater access to global capital markets can further expand the mix and amount of resources available for development as in the case of India.

Parts of the vicious cycle of infrastructure project finance can be turned more virtuous, supporting ends beyond simply funding the infrastructure project itself. Infrastructure-challenged India represents a fertile opportunity for a new approach that would attract needed financial resources for sustainable development and allow even greater participation in the global economy.

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