Infrastructure Investment in Asia

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Good infrastructure plays a crucial role towards the growth of an economy. Infrastructure not only acts as a catalyst for faster economic growth but also serves as an important tool for achieving inclusive growth. Hence this is an area that holds very high importance for policy makers worldwide. Infrastructure investment requirements are very high globally, more so in developing economies. The investment requirement in infrastructure is estimated to reach around 4% of GDP globally (about US$ 3 trillion per annum) by year 2020, and the need is even higher for emerging economies at 6% -8%, and 6.5% of GDP for Asia. Infrastructure development also involves long gestation period and there are various other barriers and risks attached to such investment. This affects the risk appetite of investors and lenders, making them reluctant to extend funds for infrastructure development. So in most economies, public sector has taken the lead role in infrastructure financing, with the share of private sector remaining comparatively low. This is despite various measures that governments across countries have taken to attract private investment in infrastructure.

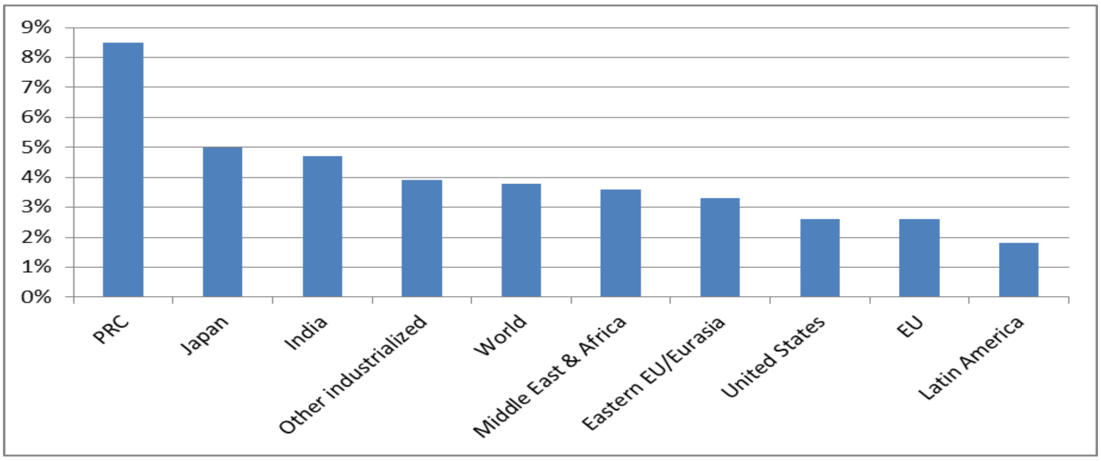
Asian Development Bank Institute has recently conducted a study to evaluate infrastructure investment and finance scenario in Asia from a global perspective. The paper - "Infrastructure Investment, Private Finance, and Institutional Investors: Asia from a Global Perspective", has provided an overview of infrastructure investment needs of economies across the globe including those within Asia. The study has highlighted the various sources of private finance presently available in these economies. The analysis suggests that institutional investors have emerged as a promising new financing source. There is a heterogeneous group of investors comprising pension funds, insurance companies and sovereign wealth funds (SWF) that exist in Asia which are looking for investment opportunities in this area. Based on past experiences and lessons learnt, the paper has offered some recommendations for policy makers for attracting private sector investments in infrastructure.

Infrastructure Financing Needs

Past data shows that about 3.8% of world GDP has been spent on economic infrastructure over the last 20 years, or about US$ 2,400 billion (applied to 2010 GDP). Infrastructure investment in both the US and the EU amounted to 2.6% of GDP, but was much higher in East Asia, with 5% in Japan and 8.5% in the People's Republic of China (PRC). Between 1980 and 2008, there has been an increase in infrastructure spending in emerging economies from 3.5% to 5.7% of GDP, mainly driven by East Asia, the report showed.

In future, emerging markets and developing economies (EMDEs) will have higher infrastructure investment needs compared to developed economies. It is projected that developing economies will have to increase their spending from US$ 800 billion – US$ 900 billion (estimated in 2008) to about US$ 1.8 trillion – US$ 2.3 trillion per year by 2020, which translates into a spending gap of approximately US$1 trillion per annum. The report highlights that 32 developing economies in Asia would need infrastructure investment of US$ 8.2 trillion (in 2008 prices) over the period 2011–2020.

Chart 1: Infrastructure Spending, 1992–2011 (% of GDP)



EU = European Union, GDP = gross domestic product, PRC = People's Republic of China.

Source: McKinsey (2013).

The People Republic of China (PRC) would require more than half, and India more than a quarter of the estimated amounts, followed by Indonesia (5%).

Table 1: Infrastructure Investment Needs 2010-2020 (as % of GDP)

Regions	Energy	Transport	Telecom	Water and Sanitation	All sectors
East and Southeast Asia	3.2	1.6	0.5	0.2	**5.5**
South Asia	3.0	5.6	2.0	0.4	**11.0**
Central Asia	3.0	1.9	1.4	0.4	**6.6**
Pacific	0.0	2.6	0.7	0.3	**3.6**
All Developing Asia	**3.2**	**2.3**	**0.8**	**0.2**	**6.5**

Sources of Infrastructure Finance

Public and Private Finance

In EMDEs, public sector (comprising central, regional, local and other government institutions) has been the major source of finance for infrastructure, accounting for 70% of the total investment, followed by private sources (either in the form of corporate finance or project finance) with a share of 20% while the development banks and agencies accounting for the remaining. Unlike this trend, in developed countries private financing accounts for a major share. In the European region, the ratio of public to private financing is about 1:2 in the old member states and 1:1 in the new member states. The proportion of public and private finance in infrastructure investment in Asia varies considerably across countries.

Government's share in infrastructure is estimated to be 90% in the Philippines, 80% in Thailand, 65% in Indonesia, and 50% in Malaysia.

Private Infrastructure Finance

In recent years, private infrastructure investments have been found to be growing globally, including emerging markets. Private investors have been using a range of instruments for investing in infrastructure comprising equity and debt (bonds and loans) instruments, listed and unlisted vehicles, direct and indirect investment routes, and commercial funds or in funds sponsored by governments or national/international development institutions.

Corporate Finance

Corporate finance is an important component of private infrastructure finance.

- *Listed Infrastructure Companies:* Capital expenditure incurred by listed infrastructure companies (developers and operators of infrastructure projects, infrastructure service providers, and well-diversified conglomerates) has contributed substantially to infrastructure investment in many countries. Globally, these listed infrastructure and utility companies represent about 5%–6% of the equity market universe, or around 4% of GDP. Asia has a weighting in the range of 10%-20% in global infrastructure indices. There are some very different regional Asian indices in the market, covering infrastructure companies with a market capitalization of up to US$ 500 billion. This is about 2%–2.5% of GDP in Asia, which is only about half the global percentage.

- *Infrastructure Funds:* Private or unlisted infrastructure investments through infrastructure funds (both equity as well as debt) have also come into focus in recent times. Over the period between 2004 and 2014, about 400 infrastructure funds have been launched worldwide, with an aggregate volume of around US$ 300 billion, including 73 Asia-focused private infrastructure funds with an aggregate capital raised of US$ 27 billion. Infrastructure funds are reportedly undertaking around 700 transactions per year worldwide with deal volume of about US$ 300 billion. As compared to this, in Asia, 100 such deals are undertaken, with an estimated annual deal value of around US$ 20 billion–US$ 30 billion. Highest number of deals has been observed in India and the PRC. However, the primary focus of infrastructure investors has still remained on traditional markets of Europe and North America, rather than Asia. Out of 150 new infrastructure funds, only 22, looking at US$ 11 billion worth of investment, have a specific focus on Asia.

- *Direct Investment:* Lately, investors have also adopted direct investment route through raising equity stakes in infrastructure projects and companies. Also, several (Asian and other) Sovereign Wealth Funds (SWFs), financial and industrial companies have raised their interest in infrastructure assets.

Project Finance

Project finance statistics are often used as indicators of private finance developments in infrastructure. The overall global project finance volume (equity and debt) was estimated to be worth around US$ 408 billion in 2014 from around 1,100 deals. Of this, 12% was financed by equity, 9% by bonds, and 79% by loans. In Asia (excluding India), project finance deal volume has ranged between US$ 40 billion-US$ 60 billion per year or about 0.2% - 0.3% of GDP. In terms of countries, India has been the second largest project finance markets in the world (behind the US). The Indian subcontinent volume was US$ 46 billion in 2014.

Public Private Participations

Public Private Participations (PPPs) have become an alternative financing mechanism to spending by governments or infrastructure companies. Globally, about 18% of project finance has been through the PPP route in 2014. The total global PPP volume in the same year was US$ 72 billion and about 0.1% of global GDP. However, many countries still make very little or no use of PPPs. In Asia (excluding India) PPP deals of less than US$ 10 billion per year has been observed which is far below the global average.

Institutional Investors as Infrastructure Financiers

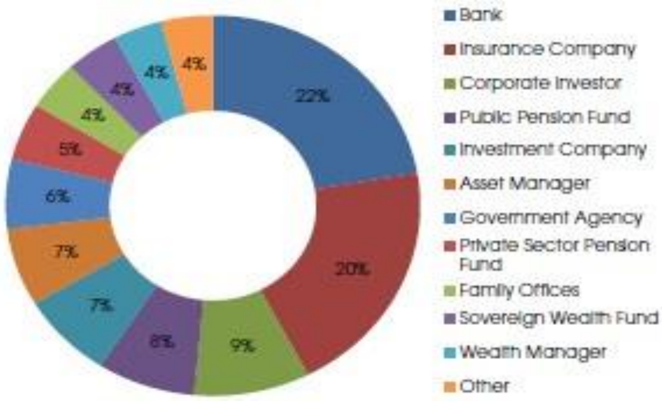
Infrastructure has appeared as an attractive asset class for many investors as it offers an alternative source of income and better diversification in a low interest rate regime witnessed in major markets, globally. Infrastructure investments are especially useful for pensions and insurance companies which look for assets offering long term and predictable income. Traditionally, however, most asset owners had been investors in infrastructure securities, as either shareholders of infrastructure companies listed on public stock exchanges, in IPOs of privatized utility companies, or as buyers of corporate bonds or municipal bonds.

The scenario has been different for unlisted infrastructure investments. For instance, the results of a survey of large pension funds conducted by OECD revealed US$ 70 billion of unlisted infrastructure equity investments and US$ 10 billion of infrastructure debt. However, infrastructure investments were only about 1% of the asset allocation of the whole investor group in the survey. Similarly, insurance companies have also had very limited investments in unlisted infrastructure assets traditionally. But the situation has changed slowly in recent years.

In the Asia-Pacific region, among 295 infrastructure investors (13% of the global infrastructure investor community) which were tracked, insurance companies and banks formed the largest investing group, with pension funds, foundations, and endowments less prominent compared to other regions. Data reveals that the top 100 Asian investors have invested only 0.3% of their total assets worth US$ 20 trillion in infrastructure i.e. about US$ 65 billion. Out of these 100 investors, 88 have invested in private investment vehicles and 62 have invested directly. From these 100 investors, 30 are Japanese, 20 are from the Republic of Korea, 13 from Australia, 11 from the PRC, and 10 from India. Some Asian insurance companies reportedly have also made substantial investments in infrastructure (listed and unlisted), especially in Japan; India; the Republic of Korea; and Taipei, China.

Asia also has a large share of SWFs that are growing their assets (US$ 7 trillion, with 40% of them based in Asia and 37% in the Middle East: SWFI 2015) and becoming increasingly involved in infrastructure.

Chart 2: Asia-based Infrastructure Investors



Source: Preqin (2015b).

With an estimated average asset allocation of 2%, a number of them already have direct holdings in infrastructure assets, although mostly in established markets.

Barriers and Risks

The infrastructure sector has specific barriers and risks for investors which need to be managed properly. The actual and perceived barriers include constraints on the supply side (lack of suitable projects, poor procurement processes, project size, others), demand side (investor resources and capability, portfolio concentration risk, others), as well as in the intermediation process and market structure (inappropriate, expensive investment vehicles; lack of secondary markets; weak capital markets, others).

There are several other risks which include construction and development risks of Greenfield projects; operational, demand and market risks; financial and interest rate risks; governance standards; legal, social and reputational risks; regulatory risks and risks associated with political uncertainty. Foreign investors face hurdles especially in emerging markets with capital markets of low liquidity and currency risks that can hardly be hedged. This calls for a careful evaluation of the risk mitigation mechanisms.

Infrastructure investment faces hindrance from investor regulations, the relevant ones being regulations related to solvency, accounting and investment rules. Risk-based solvency regulations and fair value IFRS accounting rules for insurers and pension funds could lead to de-risking and pro-cyclical investment behaviour. The investment (quantitative and/or qualitative) restrictions in many countries, especially emerging countries which investors have to abide by, may hamper infrastructure investment.

Conclusion and Recommendations

Data available for Asian economies indicates that the role of private players in infrastructure financing though has increased over the years but has remained weak in Asia as compared to global average and compared to future investment requirements. This is despite several initiatives that have been taken by countries to attract private investment in infrastructure, which include setting up dedicated infrastructure or PPP agencies, national infrastructure banks or green banks. World Bank has suggested various ways by which governments can facilitate and incentivize private infrastructure investments through use of financial leveraging tools such as guarantees, insurance policies, credit enhancements and extending grants, tax exemptions, incentives, amongst others; the public sector has been suggested to set up fund vehicles such as national or regional infrastructure fund.

Asian governments in particular need to increase the attractiveness of private investment in infrastructure. Joint initiative is needed involving government, infrastructure businesses, investors, the financial industry and academia.

The report has provided some specific recommendations for policy makers to consider to improve the public private ratio in infrastructure financing, which include:

- Implement clear infrastructure policies, stable sector and PPP regulation, and effective government institutions. Reduce policy inconsistencies between different departments.
- Expand the role of private long-term savings institutions with strong governance (such as autonomous pension funds and asset management).
- Review investor regulation (and regulators), especially in regard to its effect on infrastructure investment.
- Review sectoral regulation (in energy and transport, etc.), especially in regard to potential barriers for private investment.
- Increase the depth and breadth of local and regional capital markets (e.g., for project bonds, sub-national revenue bonds, and infrastructure funds).
- Review the competitive situation in loan markets, especially the position of public banks.
- Open markets for regional and international infrastructure investors.
- Improve statistical information on infrastructure investment, transparency of investment vehicles, and disclosure on infrastructure projects.