

Emerging Markets' Infrastructural Sector

At a Tipping Point



Thematic Report By

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Global infrastructure sector continues to bear the brunt of constrained public budgets and lack of effective government and private partnerships that have led to inadequate investment and a disappointing growth. Consequently, the gap between the required and actual investment continues to widen. We believe, selective investment strategy in emerging markets will open door to plethora of investment opportunities in the sector.

While in emerging markets basic infrastructural facilities are not up to the mark, there is an increasing demand underpinned by growing populations, rising affordability, the need to upgrade to better standards of living, and improving levels of urbanization and modernization.

We believe emerging markets in Asia and Africa offer better growth opportunities supported by high single digit growth in their economies in real terms. However, these opportunities tag along challenges related to executional bottlenecks associated with poor governance, and a lack of experience in implementing projects using superior methods.



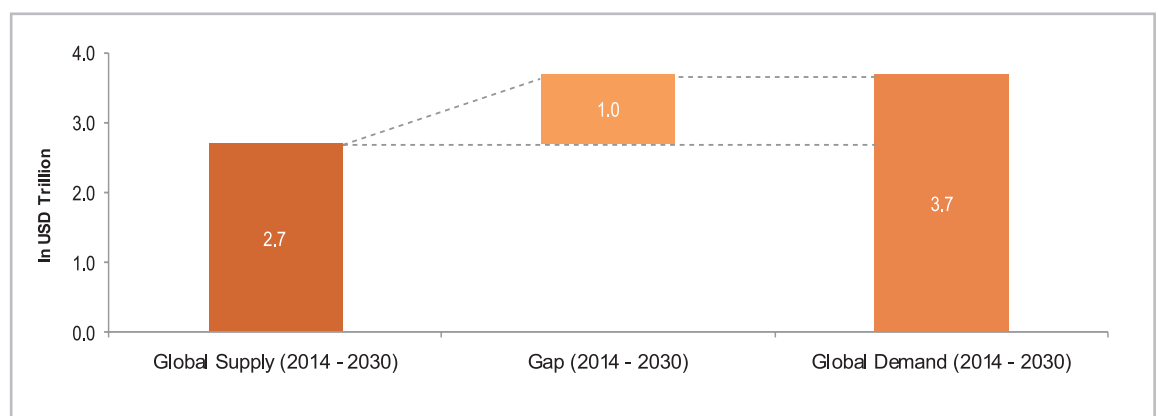
UNLOCKING THE VALUE IN EMERGING MARKETS' INFRASTRUCTURE

Global Gap Between Infrastructure Demand and Investment Continues to Widen...

Adequate and sophisticated infrastructural facilities remain vital in building a progressive country that is experiencing robust growth in trade and economy. With booming population, rising per capita incomes, and a higher rate of urbanisation amongst emerging markets (Asia-Pacific and Africa score better here), the demand for infrastructure facilities like roads, power stations, schools, water, and transport systems remains at an all-time high. Similarly, an increasing necessity to replace and renovate aging infrastructure systems is driving the need for renovation across developed markets like the US and the Europe.

Despite the rising need for infrastructural facilities, infrastructural spending continues to remain inadequate. Constrained by public budgets as tough economic conditions continue. This has resulted in a significant gap between the required and actual investment in infrastructural facilities. As per the World Economic Forum, total annual investment in infrastructure currently stands at around USD 2.7 trillion, while demand far exceeds this amount, at USD 3.7 trillion. Furthermore, over 2014–30, this mismatch is expected to widen to an annual gap of USD 1.0–1.5 trillion.

2014-30: Global Infrastructural Spending Gap Expected to Widen Further as Supply-side Impediments Lead to Inadequate Investments



Source: World Economic Forum (WEF), 2015

Apart from constrained government budgets, investment in infrastructure has taken a hit due to several other impediments:

Lack of Investment in Maintenance Projects

While developed economies stay at the top of the infrastructural pyramid, paucity of adequate public capital means inadequate investment in maintenance projects. As per a report by the American Society of Civil Engineers, a significant backlog of maintenance has created a pressing need for modernization which presents an immense opportunity to create reliable, long-term funding in the developed economies.

Lengthy Bureaucratic Procedures

Stringent rules and regulations lead to a further delay in investments at the right time as investors hold back supply of private capital. For instance, investments in infrastructure, especially energy and power, in the US are adversely affected by certain regulatory issues like lengthy licensing processes. Similarly, in most of the developing nations, the projects lack effectiveness due to various technical and non-technical inefficiencies, and poor governance (both public and private).

Lack of Effective Collaboration Between Government and Private Sector

The successful formation and management of public-private-partnerships (PPPs) could play a major role in filling the infrastructural gap. However, poor management and inefficient service provisions cause most PPPs across several developing economies to fail due to executional inefficiencies.

Lack of Confidence from Institutional Investors

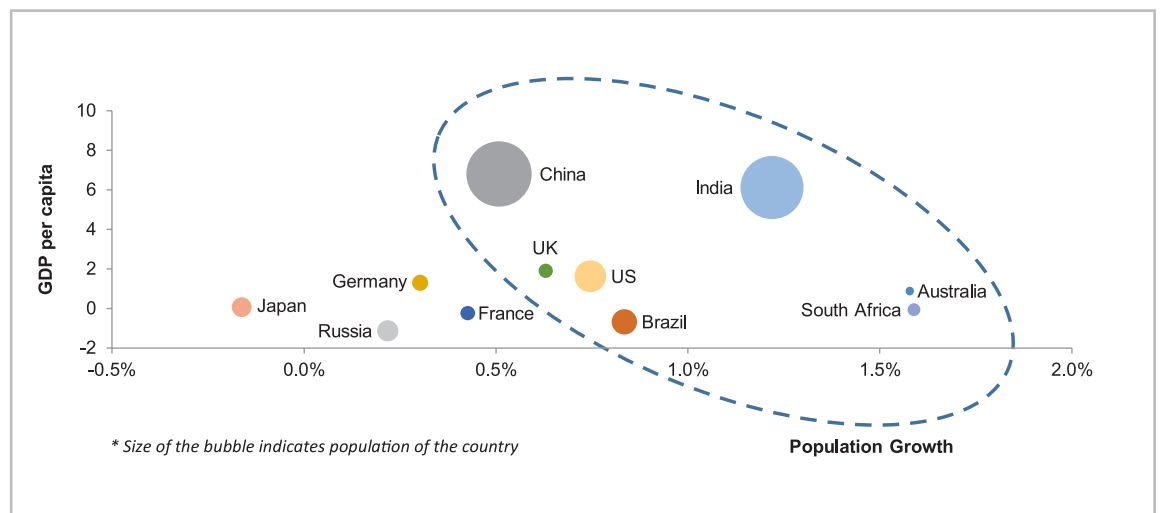
Owing to various barriers to effective investing in the infrastructure sector in developing countries, institutional investors mostly prefer to invest in developed market projects that are at the mature stage and offer a steady stream of cash flow rather than significantly high returns.

Nevertheless, Emerging Markets Offer Promising Investment Opportunities

The fiscal austerity measures implemented by governments in developed economies in response to the weakening economic condition continue to weigh heavy on the infrastructural spending. In contrast, the activity in infrastructure sector is expected to remain

notably high across emerging markets like the BRIC nations and other Asia-Pacific countries. Emerging market infrastructural demand is expected to arise out of large populations, rising income levels and higher rates of urbanisation.

Attractive Opportunity in Infrastructure Sector Trending in Emerging Markets

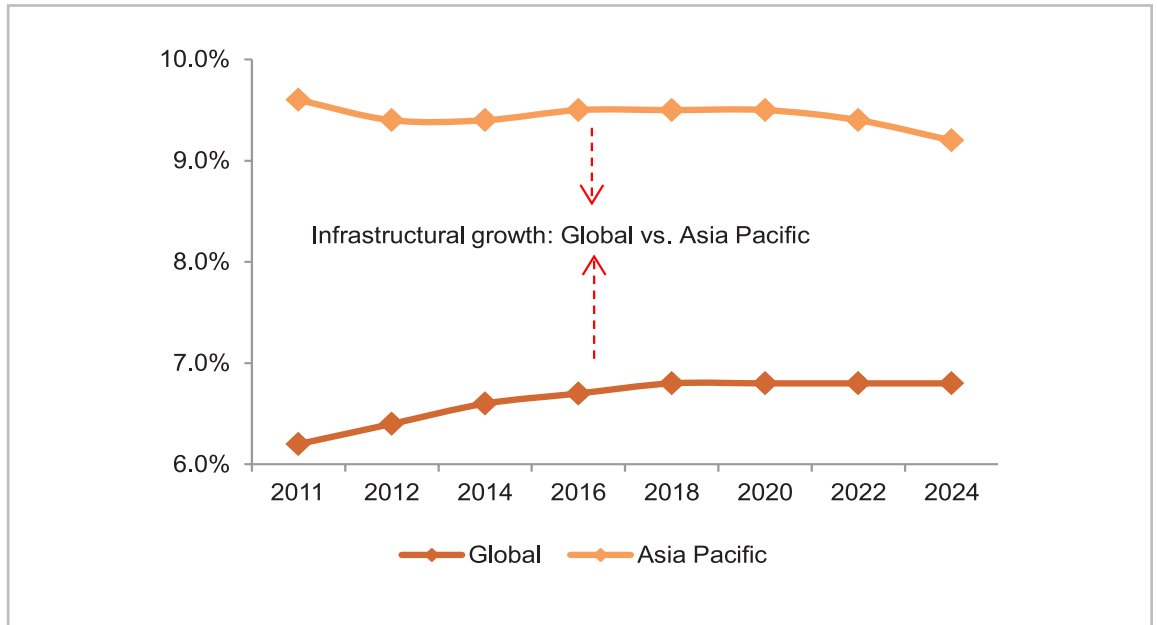


Source: The World Bank Data, 2015

Basic infrastructural facilities in developed markets like the US and Europe are advanced and larger in scale. The new infrastructural investments in the developed markets are mostly targeted towards secondary stages, i.e., innovation and renovation of the aged projects. On the other hand, infrastructural investments in emerging markets are large-scale in nature and

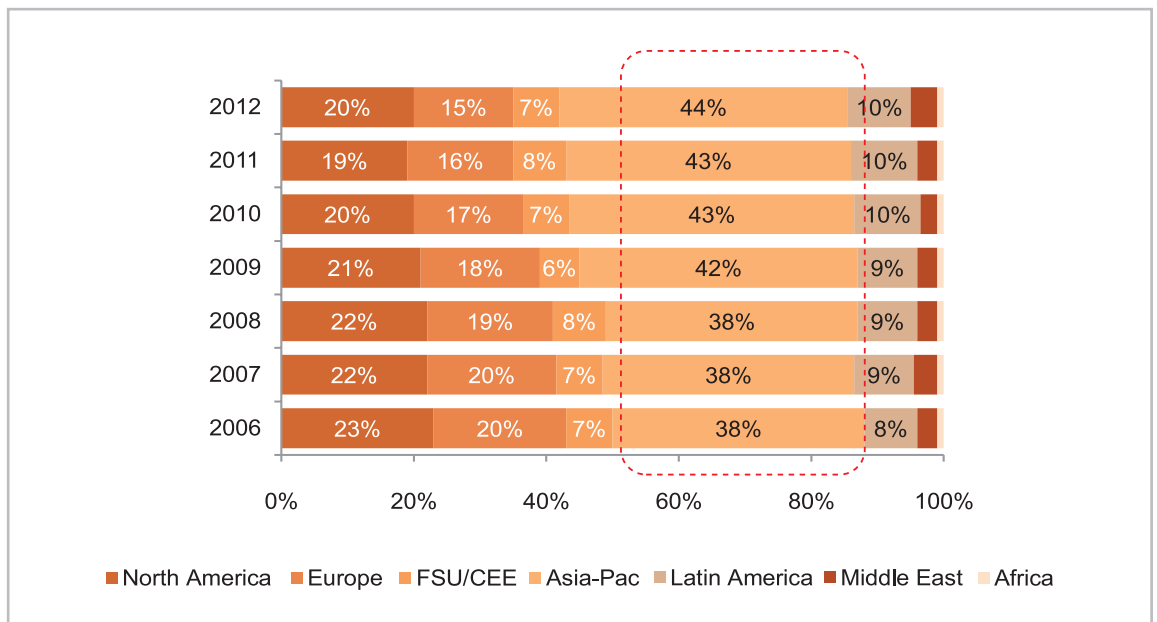
are primarily targeted towards economic and social development and offer greater investment opportunities. Total global spending in infrastructure moved up at an average rate of 6.4% over 2011–14, whereas spending across Asia-Pacific region alone moved up at a higher average rate of 9.5%, for the same period.

Emerging Markets Take a Front Seat ...



Source: PWC report on CPI-Outlook to 2025, released June 2014

...With Their Share in Infrastructure Spending Moving Past that of Developed Markets







Source: PWC report on CPI-Outlook to 2025, released June 2014





Within Asia-Pacific region, growth economies like China, India and Indonesia remain on the forefront of investments across different segments of infrastructure.

Some Key Infrastructural Investment Plans Across Emerging Markets Across Asia-Pacific and the World

The table below highlights some of the key infrastructural projects underway across key Emerging markets in the Asia-Pacific region and the world

Country	Projects	Expected Completion Year	Project Cost (In USD billion)	Project details
 INDIA	Gujarat International Finance Tec City	Phase 1 - 2016-2017	20	Built on 896 acres, with hi-tech offices, roads, electricity, and telecom.
	Delhi Metro	Phase 1 and 2 - Finished Phase 3 and 4 – 2018	2.3	Complex modern metro railway system; currently covers 194 km; phases 3 and 4 to cover 267 km.
	Delhi-Mumbai Industrial Corridor (DMIC)	By 2018	90	1,540-km-long freight corridor, with 24 investment and industrial regions across 7 states.
 CHINA	Gansu Wind Farm	By 2020	17.5	Expected to be the world's biggest wind turbine farm, with 20,000 megawatt capacity.
	South-North Water Transfer Project	Not Defined	80	A series of huge canals and pipelines that pump water from three different regions up north.
	West to East Gas Pipeline	By 2018	71	Groundbreaking starts on Beijing's third city airport, to be located south of the city.
 INDONESIA	Trans-Sumatran Highway	Phase 1 - 2016 Phase 2 – 2017	36.1	A road stretch of approximately 2,000 km.
	Jakarta-Bandung Super Express	By 2018	6.7	A super express train to be built in a 44-km span.
	West Kutai - Balikpapan Coal Railway	By 2017	2.4	A 240-km railway line, mostly to boost coal mining and transportation.
 PHILIPPINES	International Airport – Sangley Point	By 2025	10	International airport serving Metro Manila, a new railway and road projects.
	Daang Hari-SLEx Link	By 2021	2.6	Roadways, including bridges and toll plaza.
	North-South Railway	By 2020	3.6	Railway line construction of nearly 653km.

Other Emerging Markets

Country	Projects	Expected Completion Year	Project Cost (In USD billion)	Project details
 AFRICA	The Abidjan-Lagos Motorway	By 2016	8	Connects five West African countries, along a predominantly coastal route.
	The Mombasa-Kigali Rail Link	By 2018	13.5	Constructing a high-speed railway for 1,185 km.
	The Grand Inga Dam	By 2016	80	The world's largest hydropower scheme, proposed for the Congo River.
 BRAZIL	Ferrovía Bioceânica	By 2026	10.3	The Brazilian portion of the Bi-Oceanic Railway.
	BR-163 extension	Not Defined	1.7	976 km highway extension in Mato Grosso and Para.
	Ferrovía Norte-Sul	Not Defined	2	The North-South Railway from Palmas.
 RUSSIA	Power of Siberia	By 2019	17	Natural gas pipeline to transport Yakutia's gas.
	Baikal-Amur Mainline expansion	By 2030	150	Adding another 7000km of rails to the existing railways.
	Moscow-Kazan High-Speed Railway	By 2018	5.2	High speed railway lines of nearly 770km.
 UAE	World Islands	Not Defined	14	An artificial archipelago of small islands constructed in the shape of the world map.
	Masdar City	Between 2020 -2025	16	Hybrid City; sustained only on solar and renewable energy sources.
	Palm Jebel Ali	By 2021	3	Artificial archipelago; includes six marinas, a theme park, hotels, and homes built on stilts above the water.

Emerging Markets Governments — Changing Ways to Meet the Need

Understanding the importance of infrastructure growth, regulatory bodies in developing nations have implemented several reforms to boost infrastructure funding and timely completion of work. Permitting foreign direct investment (FDI) in government sectors and mega infrastructure projects such as roads, ports, railways and waterways is one major reform adopted by many developing nations. To spur FDI growth in infrastructure, the governments of many emerging markets are also amending important laws and bills in their countries' legislation. This would help the timely completion of stalled infrastructure projects and increase participation from foreign investors. Similarly, reducing key hurdles such as government

and environmental clearances for infrastructure projects, less bureaucratic tangles and a push towards the PPP methodology are other reforms adopted by the developing nations.

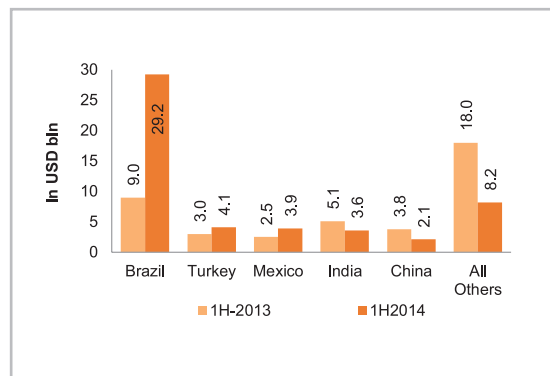
For instance, in the Indian Budget for 2015, the government focuses on concrete steps for infrastructural allocations in segments like railways, power, roadways, and rural infrastructure. Other common reforms/regulations include the creation of Special Economic Zones (SEZs), the adoption of tax holidays, and automated clearances of minor infrastructure projects to reduce backlogs and increase PPP participation.

Amongst the various solutions mentioned above, two solution frameworks are gaining higher importance:

Private Participation in Infrastructure (PPI)

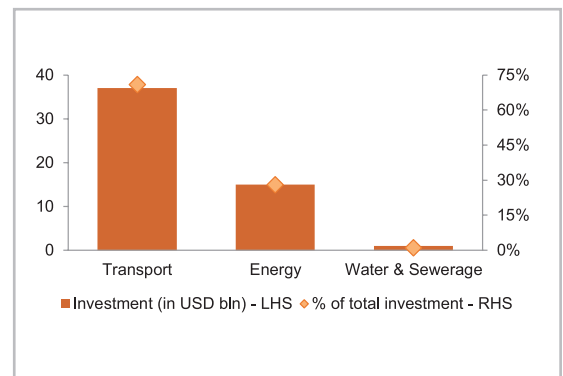
The increasing paucity of capital expenditure on infrastructure at government bodies is increasingly encouraging private sector participation in the sector. As of 1H-2014, the top five emerging markets – including Brazil, Turkey, Mexico, India and China – attracted about USD42.9 billion worth of private investments in infrastructural projects. The private investment in these five countries alone accounted for ~84% of total private investments worth USD51.2 billion in infrastructural projects across all the emerging markets in the world. Most of the private sector investment in the infrastructural sector of emerging markets is targeted towards industries like transport, energy, and water and sewerage.

Top five emerging countries with PPI projects



Source: PWC report on CPI-Outlook to 2025, released June 2014

Key sectors for PPI's in emerging markets



Source: PWC report on CPI-Outlook to 2025, released June 2014

Public Private Partnerships (PPPs)

Apart from private investments, the number of PPP-based projects across emerging as well as developed markets continue to increase. PPPs ensure effective and efficient execution of projects due to a perfect combination of the governments' control of regulations and the private sector's expertise and ability to fund the project. Despite the relevance, PPPs across emerging regions like Sub-Saharan Africa have frequently failed to generate the desired results. This is due to political instability, poor governance, lack of an effective roadmap for implementation, and a lack of adequate knowledge (like selecting appropriate partners; expertise; etc.) to operate efficiently. However, the scene is changing fast, with governments allowing private partners in the setup to take up key roles, in terms of project expertise and execution, and ensuring efficient governance practices.

The Way Forward

Promising Opportunities, Bigger Challenges

Activity in the infrastructure sector in emerging markets is expected to remain high, attracting greater interest from global markets.

While impediments to execution will remain, emerging markets are likely to show greater traction in the infrastructure sector, relative to developed markets that have already matured and mostly focus on renovation and updates of existing projects. Overall, the ability to harness the available opportunity in emerging markets will largely depend on the private sector's active participation, effectiveness of the Public Private Partnerships, and efficient and timely execution of the projects at hand.

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