

Capital Projects & Infrastructure and McKinsey Center for Government

Unlocking private-sector financing in emerging-markets infrastructure

Three levers can help governments and development finance institutions increase private-sector financing for infrastructure, narrowing some of the sector's largest investment gaps.

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Developing countries will need to invest more than \$2 trillion a year in infrastructure just to keep pace with projected GDP growth over the next 15 years—yet many of them face challenges in mobilizing the resources to finance this investment. To close the gap, governments in these countries, together with their partners in development finance institutions (DFIs), will need to unlock private-sector infrastructure financing at scale. As we show in this article, solutions are in sight: there are innovative approaches available that could trigger an exponential increase in private financing.

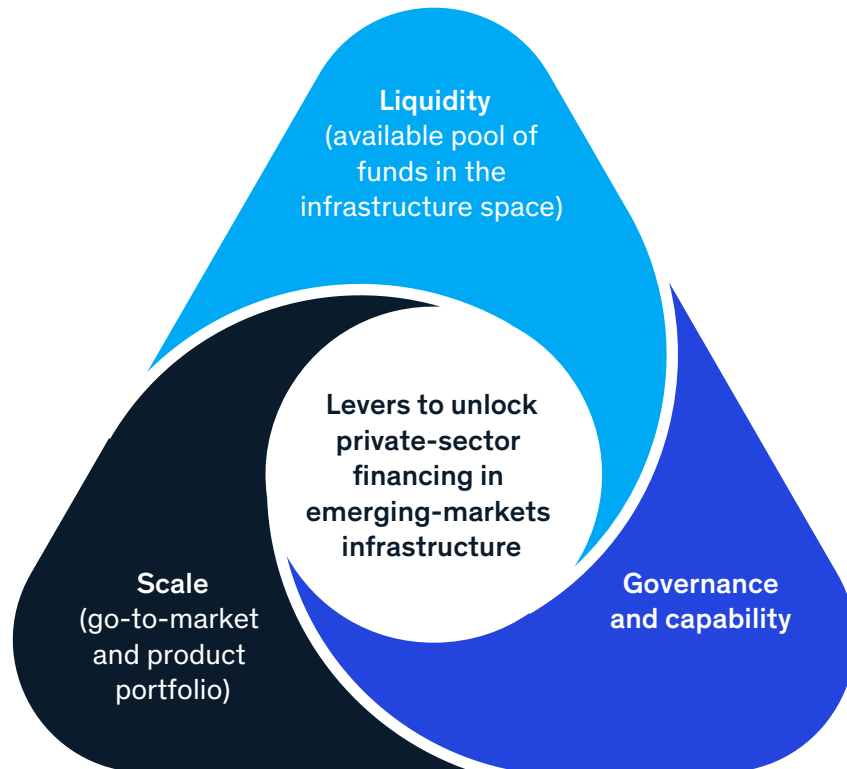
In this article we present three kinds of initiatives and innovations that governments and DFIs can consider to establish infrastructure as an investible asset class (Exhibit 1). First, they can increase availability of funds (liquidity) from both domestic

and international providers of capital. Second, they can increase the scale of investment by bundling together individual projects and providing a portfolio of products in which such providers of capital can invest. Third, they can address the governance and capability gaps that often hinder private-sector investment.

These ideas and insights are based on interviews with leaders across commercial banks, private-sector investors, infrastructure developers and operators, and policy makers in emerging markets. This article also builds on previous McKinsey research on approaches to private-sector infrastructure financing, setting out several real-world case examples of how those approaches can be tailored and applied to deliver results in emerging markets.¹

Exhibit 1

Three levers establish infrastructure as an investible asset class.



¹ Aaron Bielenberg, Mike Kerlin, Jeremy Oppenheim, and Melissa Roberts, *Financing change: How to mobilize private sector financing for sustainable infrastructure*, New Climate Economy, January 2016, newclimateeconomy.report.

The challenge and opportunity of infrastructure development in emerging economies

To put the challenge of infrastructure development in emerging economies into perspective, consider this statistic: in the African nation of Mali, a typical household uses less electricity in a year than a Londoner uses to boil a kettle each day. Across sub-Saharan Africa, nearly 600 million people lack access to electricity altogether—with the result that whole communities literally live half their lives in the dark.²

McKinsey estimates that, based on benchmark levels of spending, Africa's annual investment in power infrastructure will need to rise from \$33 billion in 2015 to around \$55 billion in 2025. Over the same period, annual investment in transport infrastructure will need to increase from \$20 billion in 2015 to around \$45 billion in 2025. Major additional investment will also be needed in water and telecoms infrastructure.³

The requirement for additional, large-scale infrastructure investment is just as acute in other developing regions and will only increase over time. The McKinsey Global Institute (MGI) forecasts that the world will need to invest an average of \$3.7 trillion in roads, railways, ports, airports, power, water, and telecoms every year through 2035 to keep pace with projected GDP growth. Emerging economies will account for nearly two-thirds of that investment need—and the financing they require could increase even further to meet the United Nations' sustainable development goals.⁴

Yet many developing countries have significant gaps between their current spending commitments and estimated need. New analysis by MGI shows that some of the biggest spending gaps are in Indonesia and Mexico, while Brazil, India, Saudi Arabia, and South Africa also face significant gaps (Exhibit 2). On the other hand, China has invested

sufficiently to exceed its forecast infrastructure requirement and will arguably need to spend less as a share of GDP than it has in the past.

Although governments in many emerging economies have made considerable progress in recent decades to increase infrastructure investment, they increasingly face budgetary constraints in sustaining that investment from public sources. Overall levels of public-sector debt in emerging economies stand at record levels, and many countries have seen budget deficits increase in recent years.⁵ That makes it imperative that governments unlock greater private-sector infrastructure investment and financing, both foreign and domestic. Looking ahead, that imperative will become all the more urgent as governments seek to meet the needs of a growing population in many developing countries and address critical infrastructure gaps to enable broader economic development.

Interventions to increase the available pool of funds in the infrastructure space

There are important opportunities to increase the available pool of funds (liquidity) in the infrastructure space by altering the risk–return characteristics of investments.

One such opportunity is for governments to partially mitigate private-sector risk by providing a liquidity backstop through guarantees. To achieve this in a sustainable manner, governments can develop long-term infrastructure plans in which delivered assets are used as collateral to guarantee the private financing of new infrastructure.⁶ An example comes from Peru, where the Banco de la Nación de Peru created a trust division in 2000 to provide collateral and support to infrastructure investors and developers. To date, the Banco de la Nación has acted as a

² Chironga, Desvaux, and Leke, *Africa's business revolution: How to succeed in the world's next big growth market*.

³ Ibid.

⁴ *Bridging infrastructure gaps: Has the world made progress?* McKinsey Global Institute, October 2017, McKinsey.com.

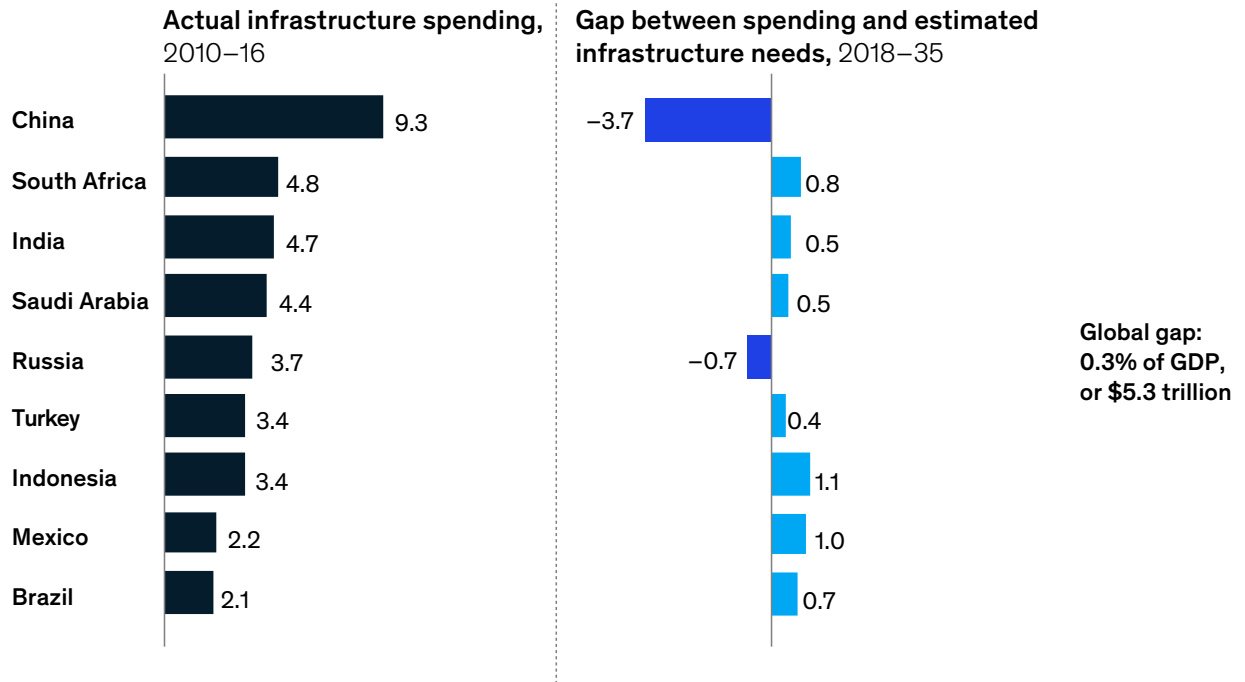
⁵ IMF DataMapper, International Monetary Fund, imf.org.

⁶ Reliance on private financing should only be considered for projects where the private investor can demonstrate ability to deliver infrastructure at the same or lower cost than the public sector.

Exhibit 2

A sizeable infrastructure investment gap still exists.

Economic infrastructure, % of GDP



Source: GWI; IHS Global Insight; International Transport Forum, National Bureau of Statistics; McKinsey Global Institute analysis

fiduciary to more than 60 infrastructure projects, including road infrastructure, irrigation, water, and sanitation. As a result, the number of people with access to treated sewage doubled between 2000 and 2015.⁷

Other countries have used the income and assets of state-owned enterprises (SOEs) as the basis of such guarantees or collateral. Governments can also allocate a proportion of the assets of sovereign-wealth funds and investment companies to support guarantees; often these are based on natural resource wealth.

Governments can also foster the development of secondary markets that enhance liquidity by allowing infrastructure investments to be recycled; the funds released can be redeployed to other infrastructure investments. Governments can issue long-term fixed bonds in the secondary market to boost activity and to set a long-term yield curve that allows infrastructure borrowers to price their bonds effectively.

Finally, there are several specific steps that governments and regulators could take to generate liquidity by directing domestic pools

⁷ Banco de la Nación de Peru; World Health Organization/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, washdata.org.

of capital into infrastructure. Those include the following:

- Instituting favorable regulatory investment limits pertaining to infrastructure-related sectors—which could help ensure that domestic pension funds and insurance companies participate in long-term infrastructure investments.
- Optimizing capital risk weights associated with infrastructure financing to incentivize domestic investors, as well as local banks, to finance infrastructure projects. (Capital risk weights prescribe the minimum amount of equity capital that lenders need to maintain for every dollar of lending provided.) Such optimization can be achieved by prescribing different risk weights for each infrastructure asset class, depending on its historical nonperforming loan ratio—rather than applying a single risk weight broadly to all project financing.
- Offering favorable tax treatment for infrastructure investments.

India's use of tax-free infrastructure bonds is one example of unlocking domestic investment in infrastructure. The National Highway Authority of India issues tax-exempt bonds to attract domestic investment, the proceeds of which are used to finance road projects across the country. The Highway Authority takes a similar approach to attracting foreign investment: it issues "Masala bonds," rupee-denominated bonds that enable capital raising in global markets.⁸

Ensuring scale through a compelling go-to-market and 'product portfolio' approach for investors

In addition to the interventions set out above, our analysis of case studies across the world finds that a portfolio approach to offering infrastructure-investment "products" that meet the risk–return

targets of potential investors can be quite successful. Case studies show this works well when governments adopt an active go-to-market strategy to bring those products to the attention of investors. The portfolio approach to infrastructure financing can be adopted at different levels of devolution—whether at federal, provincial, state, district, or municipal level.

The portfolio approach represents an important innovation over traditional investment-attraction approaches. The investible financial instruments it creates derive their cash flows from multiple infrastructure projects—potentially from several different asset classes—rather than a single infrastructure project. Governments taking a portfolio approach create a menu of tradeable instruments to attract different sets of investors. For example, they go beyond simply offering units in an infrastructure fund that may be attractive for financial investors. Instead, they offer variant products, such as a controlling equity stake in infrastructure platforms, which may be more attractive to strategic investors.

A portfolio approach offers several benefits to governments. For one thing, it enables investments from a broader group of investors, thereby opening up access to a larger pool of capital. Moreover, it allows financing of commercially unviable infrastructure projects by bundling them with commercially viable projects. (Very often these commercially unviable infrastructure projects belong to critical sectors that generate positive socioeconomic impact, such as wastewater-treatment plants.) This approach also facilitates financing of greenfield projects by bundling them with brownfield projects. It allows for centralization of infrastructure planning, which in turn leads to optimal prioritization of projects.

For a useful example of a portfolio approach, we return to India. The Securities and Exchange Board of India is promoting the use of

⁸ Saikat Das, "NHAI to raise Rs 10K crore via bonds, may offer 8.5–9%," *Economic Times*, November 21, 2018, economictimes.indiatimes.com; "IFC issues historic 15-year Masala bond in London," International Finance Corporation, World Bank, ifc.org.

Infrastructure Investment Trusts (InvITs), publicly listed infrastructure-investment funds that invest in portfolios of infrastructure projects. There are two public listed InvITs—Sterlite Power’s India Grid Trust and IRB Infrastructure Developers’ IRB InvIT fund. The InvITs allow individuals and firms to invest relatively small amounts of capital into infrastructure projects in return for an income proportionate to their investment.⁹

Addressing governance and capability gaps that hinder private-sector investment

To improve international investors’ confidence in emerging markets, governments might consider establishing autonomous institutions to act as an interface with the private sector. Such institutions can be designed and established in collaboration with DFIs and global partners—and can support governments in implementing global best practices in project structuring, financing, procurement, execution, and contract management.

These institutions can take several forms, including public–private partnership (PPP) units, infrastructure-delivery companies, infrastructure banks, and infrastructure funds. Through these institutions, governments can adopt a systematic approach to accelerate private-sector participation in infrastructure development. That approach can include five key steps:

1. Identifying the deals that could benefit from private-capital financing, as part of a national or sectoral portfolio of projects.
2. Building and publishing the deal pipeline to create transparency and certainty on upcoming transactions.
3. Building a robust, early perspective on the viability of all projects in the pipeline to focus resources on viable deals.

4. Providing project-development funding to selected projects, allowing expertise to be hired to structure projects in a commercially viable manner.
5. Designing and implementing a sequential stage-gated approach to manage implementation of each project—so allowing for course correction as well as relevant stakeholder alignment and action at each stage gate.

There are several compelling examples of these approaches in action. For instance, a PPP unit in the Middle East has conducted a significant portfolio-prioritization effort to identify, on a yearly basis, the five to six projects that could benefit from private financing. This approach provides investors with clear visibility on the transaction pipeline while enabling the unit to focus its resources on a limited number of high-impact transactions. Such PPP units can also be established successfully at the local-government level. For example, one such city-level PPP unit in China attracted a 31 billion renminbi investment from private investors in exchange for obtaining the right to build and operate a convention center for 20 years and to use the auxiliary commercial land. In the construction and operation stages, the private investor catalyzed the other professional developers and operators to maximize efficiency and market impact.

Finally, there is scope for governments and DFIs to collaborate to create effective investment-attraction institutions that span national borders. One such intervention, by the African Development Bank, is the creation of Africa50, an infrastructure-investment platform focusing on high-impact national and regional projects in the energy, transport, information technology, and water sectors. “Our goal is also to tap long-term savings from within and outside Africa by helping create an asset class attractive to institutional investors,”

⁹“Infrastructure Investment Trusts can be a boon for India: Here is why,” CNBC TV18, June 12, 2019, cnbctv18.com.

said CEO Alain Ebobissé. “We are doing this by increasing the number of viable, bankable private and PPP projects ... as well as by investing in later-stage private and PPP projects.” The purpose, he said, is to “contribute to the development of Africa’s infrastructure as quickly and broadly as possible.”¹⁰

power and water, connect cities and markets, and strengthen digital connectivity. Governments will not be able to foot the full bill themselves. But with innovative thinking and bold action, they can unlock a new wave of financing and partnership from private investors and developers. DFIs, too, have a critical role to play in this revolution in private-sector infrastructure financing. Its impact, both on people’s lives and on national economies, could be transformational.

Massive new investment is required in infrastructure across the developing world—to provide essential

¹⁰ Africa50, africa50.com; “Raising Africa,” Paul Jarvis interview with Africa50 CEO Alain Ebobissé, June 1, 2017, partnershipsbulletin.com.

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