A hidden roadblock in public-infrastructure projects

Misplaced assumptions that governments always enjoy a cost-of-capital advantage over private players can kill projects on the drawing board. Reexamining the economics could move more deals ahead.

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The world needs more infrastructure than governments can deliver. Long-term projections call for an estimated $57 trillion globally to build new and refurbish existing infrastructure between 2013 and 2030,[1] an amount that governments at any level are unlikely to fund. Yet private investors and companies too frequently fail to fill the gap—even when their coffers are full. As a result, we've seen specific projects not getting done—including efforts to privatize an interstate highway in the United States, build an airport in Southern Europe, develop a hospital in Scandinavia, and fund airport services in South America.

There are many reasons why such projects falter, but these four shared at least one: they all failed to attract suitable private-sector investors. Why? As we've heard from clients and learned from companies' informal decline-to-bid remarks, the returns from such projects are often too low relative to their cost of capital.

But if the assumptions about those projects' cost of capital are wrong, valuable deals may be abandoned at the drawing board for the wrong reasons. We often find this to be the case. Government managers at all levels often assume their own cost of capital to be much lower than that of the private sector, effectively lowering a project's expected returns. For example, if a bridge project is designed using assumptions of low government costs of capital, the toll on a bridge

might only need to be $1—whereas private investors might need the toll to be $2 to cover their cost of capital—even when taking into account greater operating efficiencies that would lower private-sector costs.

The result is that many projects are never started. In fact, as long as returns from government infrastructure projects are structured around assumptions of a government's cost of capital, a lot of engineering and construction firms (and their capital partners in bidding consortia) tell us they just won't bid on them. It's also often one of the reasons stand-alone private-equity funds that invest in infrastructure don't invest in classic public–private partnerships.

A more thorough evaluation of the economics—especially around assumptions about lower government cost of capital—could move more infrastructure deals forward. With regard to both debt and equity, such assumptions are often misplaced—and often overlook the potential savings that private companies might offer to the often overstretched public purse.

Government capital can cost as much or more than corporate capital

Just as with any organization, a government's cost of capital includes both its cost of debt—borrowing money through bonds, for example—and its cost of equity, or funds from nondebt sources, such as the public treasury.

On the debt side, governments are limited by how much they can raise without precipitating a credit downgrade—which would increase their cost of debt or shut off their access to it entirely. A downgrade that still leaves a country's credit with an investment-grade rating may not be an utter disaster,[2] but a downgrade to lower levels can have a significant impact. In fact, the cost of a single sovereign-credit downgrade can raise the cost of borrowing for a country—as well as for its corporate borrowers—by an average of 0.5 to 1.5 percent because of the effect that a sovereign-rating downgrade has on local corporate borrowing.[3] Moreover, Standard & Poor's credit-rating formula for US local governments, for instance, places 10 percent of its overall weighting on indebtedness levels, so a jump in local or state government debt can greatly influence a downgrade.[4] Recently, countries such as Greece, Italy, Portugal, and Spain have seen increases to their interest rates attributed primarily to debt overloads. And many others around the world are grappling with high debt-to-GDP levels that may already be constraining their capacity for additional low-cost debt.

There are limits to the public treasury on the equity side too. Raising taxes or fees can be politically unpopular. Expanding the tax base—the number of taxpayers—is often a practical challenge in both developing and developed economies. And raising taxes to fund infrastructure can at least appear to run counter to efforts to attract companies with more attractive tax packages. Eleven US state governments each gave away more than $1 billion in commercial tax incentives in 2014 alone. EU countries gave away more than €23 trillion in tax incentives between 2009 and 2011, nearly 40 percent of total noncrisis private-sector support.

Moreover, when a government's cost of equity is added to its cost of debt, its overall cost of capital rises. And just as with private companies, its cost of equity is a function of the expected level of return—or level of benefits, in the government's case—that capital could receive from alternative investments with similar levels of risk. If public funds are redirected from another public goal—like education, defense, or scientific research—then the true cost of equity of public funds (measured by the economic return achievable in those other areas) can be quite high. For instance, if a particular IT system implementation is expected to

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produce a 10 percent economic return over ten years, and the government seeks to redirect a portion of those funds to an infrastructure investment, the public equivalent of a cost of equity on that capital is at least 10 percent, since that reflects the alternative investment opportunity.[5]

To be sure, estimating the public cost of equity is challenging, since it could vary by geography, by time period, by social priorities. In addition, comparing the benefits from infrastructure projects, including user fees and related economic benefits, with those of social services, such as care for the elderly, invites a difficult assessment. But since the benefits of infrastructure projects are primarily economic, it is possible to approximate the government cost of equity from alternative economic investments, such as education or basic research. When a cost of equity at that level is added to the cost of debt, a government's cost of capital is often not as low, relative to the private sector, as many public managers typically surmise.

Cost of capital isn't the whole story

To weigh the potential advantages and disadvantages of public and private capital, public-infrastructure owners—which include, for example, ministries of finance, housing and development authorities, port authorities, municipal water-treatment companies, and transportation authorities that they work with—should develop a holistic picture of the advantages and disadvantages of each, taking into account both the differences in their cost of capital and other factors.

In particular, the impact of project-delivery effectiveness, such as minimizing budget overruns and missed deadlines, can often affect project cost more than the underlying cost of capital. From that perspective, involving private capital offers public-infrastructure owners potential advantages. For example, the private sector, on average, has a track record of completing projects more quickly—and projects can be designed so that companies bear the risk of cost and time overruns, which is an incentive to keep costs down.[6] Where the cost of private capital is higher, faster execution can offset those costs.

Private-sector involvement also poses possible disadvantages. For example, contracts may require amending or renegotiating in the event of significant overruns, especially when design specifications or project conditions change. Misaligned incentives, such as a lack of penalties for a construction company that runs over schedule, can lead to major project breakdowns. A lack of clarity around construction roles, responsibility for completing approvals, securing financing, or linking with other infrastructure initiatives can also result in significant delays. And the government's ability to redesign or cancel a project is greatly reduced once it has contracted with a private company. Moreover, private investors have a responsibility to their limited partners and shareholders to maximize their own return on projects. Public-procurement offices could find themselves overpaying for a project if they do not compare competing offers.

There is no single financing solution for the gap between the $57 trillion of infrastructure the world needs and what governments can deliver. But public-sector managers should recognize that a government's cost of capital doesn't automatically give it an advantage over private funders. A closer look at the funding details could bring in private investors to deliver more, better public-infrastructure projects.

[1] For the full McKinsey Global Institute report, see *Infrastructure productivity: How to save $1 trillion a year*, January 2013, on mckinsey.com.

[2] Tom Lauricella, "Lessons of lower ratings," *Wall Street Journal*, July 30, 2011, wsj.com.

[3] Heitor Almeida et al., *The Real Effects of Credit Ratings: The Sovereign Ceiling Channel*, September 15, 2014, ssrn.com.

[4] *U.S. Local Governments: Methodology and Assumptions*, Standard & Poor's, RatingsDirect on the Global Credit Portal, March 6, 2014, standardandpoors.com.

[5] According to McKinsey analysis, the typical cost of equity for a private-infrastructure developer is often 3 to 6 percent higher in developing countries than for otherwise comparable deals in countries in the Organisation for Economic Co-operation and Development.

[6] *Case Studies of Transportation Public–Private Partnerships in the United States*, Federal Highway Administration, prepared by AECOM Consult for the US Department of Transportation, July 7, 2007, fhwa.dot.gov; Robert Puentes and Patrick Sabol, *Private Capital, Public Good: Drivers of Successful Infrastructure Public–Private Partnerships*, Brookings Institute, December 2014, brookings.edu.

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