PRIVATE FINANCING OF INFRASTRUCTURE
SERVING THE PUBLIC INTEREST AS WELL AS PROFITS

When it comes to financing long-term infrastructure projects, the private sector has a role to play. AECOM's **Shamit Gaiger** and **Samara Barend** argue that private investors need to show how they will serve the public interest — not just with policymakers, but also with taxpayers and those who stand to benefit from the infrastructure.

To help the world rebuild from the coronavirus pandemic, government stimulus funding is likely to come with incentives to encourage private financing of infrastructure and partnerships. The private sector has an important role to play in the recovery, but to unlock private investment we must first address the waning appetite for public-private partnerships prior to the crisis.

On the public side, poorly designed projects that proved expensive to maintain attracted criticism and rightly so. But industry, too, had become wary of involvement in large projects due to the amount of investment involved and the accompanying risk. Dialogue between project promoters and industry trying to find a way forward is taking place, but outcomes aren't guaranteed.

To find a way forward, this article argues that public- and private-sector interests need to come together. If objectives and outcomes are aligned, both parties can convince the public — as they need to — of the value to their communities of privately financed projects. The way public and private sectors have cooperated to deal with the coronavirus pandemic should hopefully mean both sectors have a better appreciation of each other's interests, which is a good start.

Paying for infrastructure

Private financing of public infrastructure is a well established concept. A stele from Eretria tells of a contract established in 300 BC between the city and a foreign contractor, Chairephanes, to drain lake Ptekhae. [1] The contractor covered all expenses and paid a lump sum to the city in exchange for the exclusive rights to exploit the reclaimed land for 10 years.

Since this first known example of a public-private partnership, private financing has evolved into an innovative project delivery method that is often faster, cheaper and better than traditional design-bid-build delivery.

By spreading the cost of infrastructure over the lifetime of an asset, it's often faster to assemble funds to start construction. It's also a way to access the skills, discipline and expertise of the private sector, with benefits in terms of cost efficiencies, innovation and efficient risk-management. →

In well-designed private financing arrangements, accountability is built-in: payment contingent on performance tends to reduce cost overruns and schedule delays, particularly if there are fines or penalties involved. Multi-year contracts can encourage construction quality when the private sector is responsible for well-defined maintenance obligations many years down the road. The same cannot be said for most purely public-funded projects. These benefits should outweigh the higher borrowing costs for the private sector, particularly today when interest rates are low for everyone. At AECOM, we've been involved in over 600 private financing initiatives, including the largest PPP undertaken in the U.S., New York's LaGuardia airport redevelopment. From our perspective, it shouldn't matter whether the financing is public or private in origin. What matters is getting the conditions right so that the project serves the public interest.

Conditions for success

Below we share insights on how to unlock private investment in infrastructure in a way that delivers value for money to taxpayers, communities and shareholders, based on our experience over the past 30 years working on projects in Asia, the Middle East, Europe and the Americas.

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1/ CLARITY OF PURPOSE

There is increasing need to be clear on the specific circumstances where private financing works best. This is important not just for the immediate needs of infrastructure, but also for the duration of the financing agreement.

In our experience, private financing is most useful when it comes to complex, long-term projects that require expertise that the public sector doesn't have in-house. Infrastructure is being redefined by new technologies such as artificial intelligence, 5G networks, the Internet of Things — areas where the public sector may lack experience. Green infrastructure projects, particularly those involving the decarbonization of the economy, are also good candidates for private sector financing. For projects where infrastructure functionality is likely to change over time, private finance arrangements must have significant flexibility built into the contract. In Europe, this hasn't always been the case.

LaGuardia Airport, New York, U.S.

2/ ALIGNING PUBLIC AND PRIVATE OBJECTIVES

The public and private sectors can have different motivations when it comes to infrastructure projects. Generally speaking, the former is focused on enabling public benefits such as the provision of goods and services such as water, transport, education, or minimizing harms — whether they are environmental, disease-related or crime-linked — as well as unlocking economic growth and jobs. For the private sector, funding decisions must include an assessment of the anticipated financial returns of a project, balanced against the estimated risks, the company's financing capacity and overall strategy.

In reality, however, public and private interests can align. As the coronavirus crisis has shown, delivering tangible socioeconomic benefits is in everyone's interest and there needs to be a balance of expected returns from the investment and an appropriate balance of risks and benefits.

This means that the private sector needs to consider from the outset how their involvement can be beneficial to the people the infrastructure they are investing in is intended to serve. Leading businesses are addressing the most challenging problems of our times, from climate change to chronic disease, social exclusion, and material poverty. By aligning public and private resources and objectives, private financing has a better chance of being accepted by taxpayers and government.

A first step could be to review private financing contracts to ensure they have enough flexibility. Private companies do want to lock in returns — but if they are allowed to earn a little more upfront they should be willing to consider a little more flexibility long term. If the short-term return on investment is clear, flexibility in contracts is something both parties could benefit from. →

3/ UNDERSTANDING RISK

Once objectives are aligned, a common understanding of risk is crucial. Although private financing costs more than direct public funding, it is financially worthwhile because risk is transferred to investors — at least that's the idea.

Realistically however, risk cannot fully be transferred to the private sector. A case in point is rail infrastructure, where there would be an outcry if government allowed services that people rely on to shut down. Both parties should be transparent about this and price it into the contract. In structuring privately financed infrastructure schemes, risks should be allocated appropriately between the various parties according to who is best able to manage them. This party should also be best able to assess and price the risk. Incentives for the proper management of risk — including keeping to budget, delivering on time, and ongoing performance — should be included from the outset.

From the private sector perspective, the capacity and willingness of the industry supply chain to accept risk must also be considered. The collapse of facilities management and construction services company Carillion should serve as a lesson. Cost overruns on three public sector construction contracts were among the UK company's biggest problems, with some blaming risky contracts for the company's demise. [2]

> **THE PRIVATE SECTOR NEEDS TO STEP UP WHEN IT COMES TO PROMOTING THE BENEFITS OF THE INFRASTRUCTURE THEY DELIVER.**

4/ WINNING PUBLIC OPINION

Long term, if private financing is going to be successful and a viable option for delivering projects, public opinion will need to be supportive. To address critics who claim PPP/PFIs enrich investors at taxpayers' expense, the onus is on the public sector to ensure that contracts are well designed and in public interest.

At the same time, the private sector needs to step up when it comes to promoting the benefits of the infrastructure they deliver. If people's wants and needs are met, they are less likely to complain about so-called profiteering.

Benefits must be communicated from the outset of discussions, and engagement should be ongoing through the lifetime of the project. This is the responsibility of both sides, although private businesses can do more in this area. The onus post coronavirus will be on private firms to show how they are contributing to the nation's prosperity through the infrastructure projects they deliver.

Communication should be focused on the needs of the end user. Often infrastructure providers promote the latest technological solutions or innovations rather than the impacts on people's lives, such as the number of jobs created or environments improved.

Measuring social benefits would also help. A more robust and standardized framework, method, and set of indicators for capturing and quantifying the full range of infrastructure project benefits — social as well as economic — could improve the cost-benefit assessment of privately financed projects. →

CLEAR ACCOUNTABILITY AND A REALISTIC ALLOCATION OF RISK IS VITAL TO WIN PRIVATE SECTOR APPROVAL, WHOSE INTERESTS MUST BE ALIGNED WITH PUBLIC SECTOR NEEDS.

Unlocking private financing

Infrastructure investment is going to play an important part in the economic recovery, but the public sector cannot do it alone. Given the costs of dealing with the coronavirus pandemic, some projects simply won't happen without private financing.

To unlock private capital for infrastructure projects, the conditions need to be right on both sides. Clear accountability and a realistic allocation of risk is vital to win private sector approval, whose interests must be aligned with public sector needs.

At the same time, the users of infrastructure — who ultimately are the people who pay for it — should be carefully considered. The private sector needs to work with the public sector and communities, building an understanding of the purpose, aligning objectives and delivering tangible material benefits to society and communities. Because of the politically sensitive nature of such investments, the benefits need to be properly assessed and communicated. Only then will we see a viable and positive future for private financing.

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HYDERABAD METRO RAIL PROJECT

WORLD'S LARGEST ELEVATED METRO UNDER PPP MODE

The Hyderabad Metro Rail Project is the largest of its kind in the world built under a Public Private Partnership (PPP) framework. The network is about 69 kilometres long, comprising 58 stations and 3 interchange stations. Project cost is estimated to be INR 16,375 crore ($US 3.3 billion), comprising INR 11,478 crore ($US 2.3 billion) in loans and INR 3,439 crore ($US 0.7 billion) in equity. The government of the state of Telangana provided land for commercial development.

The project had strong support from the beginning. The client, HMRL (Hyderabad Metro Rail Limited) wanted the project to succeed, and the concessionaire, LTMRHL (L&T Metro Rail Hyderabad Ltd.), created a robust project monitoring framework. Factors that ensured the project's success included stakeholder consultation, the ability of the concessionaire to access funds, competitive and transparent procurement, a strong consortium, and appropriate risk allocation.

As the concessionaire's engineer, AECOM contributed in several different ways. We devised a modular standardised station and structural design that allowed use of precast elements, saving time and cost. Design and quality control efforts were greatly reduced on account of this standardisation, as will maintenance costs be in future.

We optimized land requirements to minimize acquisitions and demolitions. This saved the client costs and was key in winning public support. The team faced several challenges, including traversing narrow lanes with reduced right of way. To remedy this, we used the latest construction methods, such as the balanced cantilever method, to drastically reduce the station's structural footprint.

The stations were designed as hubs of public life and nuclei for urban development, with multiple access points connecting adjoining properties at the concourse level and retail areas. The stations have a modern look and comfort amenities that have proved strong as a retail draw.

The Hyderabad Metro has proved a critical success, both with the public and through the hundreds of national and international awards it has won. WL