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Alternative funding models for infrastructure projects of the future

COVID-19 has reinforced the need for new ways to fund projects. Approaches taken on urban transportation projects shed light on a potential path forward.



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The gap between what countries are spending on infrastructure and what is needed—both to facilitate growth in expanding economies and to replace existing aging infrastructure—was already substantial even before the COVID-19 pandemic: A 2017 McKinsey Global Institute report put this figure at \$5.5 trillion between now and 2035.

And now, transport agencies around the world face a dramatic fall in the revenues they need to support current operations—let alone investments in future infrastructure needs. Consequently, once the crisis eases, we expect the fundamental question of how to fund these necessary infrastructure projects may become even more pressing.

Governments have traditionally funded major projects in two ways: allocating taxpayer money or procuring projects where the costs would be recouped by charging end users (for example, toll roads). However, the impact of COVID-19 may mean that these approaches will no longer be enough—indeed, they may no longer even be viable. On one hand, increasing government budgets to fund infrastructure projects may not be politically or economically feasible; on the other, end-user charges simply aren't sufficient to fund many proposals.

To deliver projects and help bridge the infrastructure gap, governments will need to find funding sources outside of this paradigm. Approaches already taken on urban-transportation projects around the world provide insights into the benefits and challenges of some alternative funding models.

Capture higher land values

Transportation infrastructure, especially railways, can transform a location's relationship with its wider geography and, in turn, its economic possibilities. Broadly speaking, the most promising alternative funding models rely on monetizing some of the positive externalities such major projects have been shown to generate—in particular, higher local property values.

While previous assumptions regarding the appetite for physical presence (and hence transportation) may be challenged in the fallout from the COVID-19 pandemic, the insights such funding models provide are likely to remain valuable. For example, if the location of the physical workplace became more fluid for the foreseeable future, residential areas located at greater distances from the traditional urban centers of work may become more appealing. This could, in turn, increase demand for—and value linked to—reliable, longer-distance transportation infrastructure to serve those locations.

Governments have successfully captured increases in land value as an alternative funding method using a few methods.

Developer contributions

Property developers may fund an infrastructure project because they expect the project to boost the commercial value of their own property. One approach to obtaining financing from private developers is to make their right to develop a property dependent on their financial contribution to local infrastructure projects. Local UK authorities often use this approach, as statutory planning powers allow them to set such conditions.

Given the critical importance of linking developments to transportation infrastructure, authorities may also be able to negotiate more wide-ranging commercial agreements between developers and procurement authorities. For example, London obtained part of the funding for its Crossrail project through commercial agreements with developers, through which financial contributions were obtained and two Crossrail stations constructed.

In cases, where authorities obtain funding from commercial developers, they may need to provide assurances that the project will integrate with the developer's commercial objectives. Ultimately, this additional layer of accountability can have wider benefits for the public. Similarly, contractual frameworks can mitigate risks to the private sector if, say, a major project were to be delayed or cancelled.

Tax increment financing (TIF)

TIF—which involves using public tax money to subsidize projects—presupposes that the growth associated with successful projects will boost local property values, which in turn can boost property-tax receipts. US authorities have used variants of TIF to fund infrastructure for decades; in recent years, other countries have also begun deploying this model. For example, London funded the Northern Line Extension to its underground metro system through a combination of TIF and developer contributions. Within a designated, adjacent enterprise zone, property tax receipts above a baseline amount are allocated to fund the project, thereby capturing part of the value arising as a result of the infrastructure.

While tax policy can be politically sensitive, the TIF model's use in diverse political contexts suggests that this funding model may be used more widely in the future.

Land development managed by the infrastructure provider

The Hong Kong Mass Transit Railway (MTR) system is a commonly cited example of successfully capturing land value. MTR functions as both a transportation provider and a developer—in partnership with other private developers—of the property it holds in and around the railway system.

MTR's approach is challenging to implement, however, as property-development expertise and a long period of time are required to realize returns, along with robust market demand. In addition, the authority or private entity responsible for the project needs to acquire enough property at prices that are low enough so that marginal profits are sufficient to fund the associated infrastructure. But in certain circumstances, this approach can lead to the development of infrastructure that is largely self-funding in the long term.

Development rights auction

While an MTR-style approach won't work in every situation, it may still be possible to unlock some of the advantages that large-scale development opportunities can provide through other means.

For example, Transport for London (TfL), an arm of the Greater London governing body, has commissioned extensive research in recent years into the Development Rights Auction Model (DRAM).

When a host of private landowners hold parcels of property that would have development potential if combined, DRAM allows for some of the benefits of an MTR-like approach to be realized. The procuring authority arranges an auction of this aggregated property for third-party developers with a minimum reserve auction price, which should broadly reflect the value of the property in the absence of the infrastructure development. The proceeds of the sale above the reserve price are then distributed among the selling property owners and the project fund. An eminent-domain or compulsory-purchase process could then be used to acquire property whose owners did not participate in the auction, or alternatively impose levies on development which benefitted from the project but whose owners refused to participate in the auction.

Other ways to unlock and maximize value

Beyond capturing land value, other ways to commercialize aspects of infrastructure projects—such as using existing transport corridors (for example, road and rail infrastructure) to lay cabling for commercial broadband—can generate additional revenue. This approach is likely to become a greater focus as working patterns shift in response to COVID-19. Transport operators have also raised ancillary revenues through offering advertising space in stations and on trains; commercial property space, such as under railway arches; and alternative transportation services, such as bike-share programs.

Apart from economic viability, the utilization of alternative funding sources will often depend on the legal, regulatory, and contractual regimes applying to the project in question. Some restrictions will always be required: where

funding is raised through finding additional uses for critical infrastructure, such as transportation corridors, safety must always be paramount.

That said, to maximize the potential additional value, the regulations and contracts under which infrastructure projects are delivered and operated can and should be crafted with careful consideration of future needs. In keeping with the ethos of successful public–private partnerships, parties can establish how they will share additional revenue raised from new opportunities at the outset of projects. Setting such guidelines and agreeing ahead of time on ways to protect all parties' interests can encourage innovation and the exploration of creative approaches to raising additional revenue.

At the same time, unlocking the opportunities that alternative funding models present requires

dialogue with—and sensitivity to the concerns of—a variety of local stakeholders, including residents, businesses, and investors. As such, alternative funding can underpin a wider political narrative, one that emphasizes the myriad benefits of investment in infrastructure projects.

The extent to which COVID-19 will affect the nature of the world's infrastructure needs is yet unknown. However, the fundamental need to deliver that infrastructure will remain, and with it the importance of exploring, adopting, and implementing creative ways for public- and private-sector participants to partner, collaborate, and collectively make the best use of their respective resources to bridge the infrastructure gap.

Voices highlights a range of perspectives by infrastructure and capital project leaders from across geographies and value chains. McKinsey & Company does not endorse the organizations who contribute to Voices or their views.

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