

Capital Excellence

Selecting infrastructure projects for the next normal

Infrastructure projects can create jobs and spur economic growth—both critical as the world reckons with the fallout from COVID-19. But budgets are tight, so which projects should be prioritized?

by Aaron Bielenberg, Sarah Brody, Paul Jacobson, and Rebecka Pritchard



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Even as governments and business leaders manage the immediate health crisis and address citizens' and businesses' urgent financial needs amid the COVID-19 pandemic, they are looking for ways to stimulate economic recovery. Infrastructure is at the core of many leaders' plans. China, the European Union, Japan, and the United States have all announced stimulus programs in which infrastructure investment is a key component.¹ Investing in new infrastructure can create jobs and have a direct, positive impact on economic growth and meet critical healthcare infrastructure needs—which are particularly relevant and acute now. New and upgraded technology-enabled infrastructure can also reduce costs related to congestion and environmental damage, as well as enable the transition to more efficient, safer, and lower-carbon infrastructure solutions.

However, not all infrastructure projects can begin immediately and have an impact on jobs and the economy in the near or medium term. And to deliver services efficiently and equitably, prioritized projects should address the future needs of the population and integrate new design tools and technologies. Furthermore, money for infrastructure projects is tight, and governments face competing priorities for constrained budgets as revenues decline and scarce resources are allocated to immediate health and welfare needs.

It is critical in this moment that governments select the infrastructure projects that can both spur recovery in the near term and make the most of available funds. Specifically, governments might consider focusing on projects that are both shovel ready and shovel worthy and using public-private partnership models to attract private capital for infrastructure. What might success look like? McKinsey analysis suggests that a selection of potential priority projects in the United States alone could generate \$80 billion in investments and create more than two million new jobs.

Selecting infrastructure projects to spur economic recovery and attract private capital

By focusing on spurring the economy and making use of private capital, governments may find a few project archetypes to be most attractive.

Spurring economic recovery

Many infrastructure-stimulus programs focus on projects that may take years before their impact is felt. However, for infrastructure to spur economic recovery, construction needs to begin immediately. That means selecting infrastructure projects that are both shovel ready and shovel worthy. Road projects with existing plans or administrative projects that don't require lengthy approvals would be considered shovel ready. The shovel-worthy requirement asks whether a proposal fulfills urgent economic and social needs and favors projects that generate a large number of construction jobs, for example, or provide long-term connectivity to vulnerable populations.

Prioritizing in this way can lead to a set of projects that generally fall within one of four categories:

- **Projects that are already part of near-term capital plans, for example, those led by a department of transportation, a city buildings department, a parks department, or a water utility.** These are projects for which the need has been established and the planning completed; therefore, construction can be accelerated. A program to upgrade and expand capacity on local bridges and roads that have longstanding congestion issues and well-defined solutions is one example.
- **Projects that provide “smart” upgrades to existing assets.** These are projects where integrating new technology and design vastly improves the way the infrastructure operates and reduces costs and environmental impact. Examples could include installing energy-efficient and low-cost LED lighting,

¹ Policy responses to COVID-19, International Monetary Fund, January 8, 2021, [imf.org](https://www.imf.org); *Invesco Blog*, “Nations pledge trillions in fiscal stimulus to boost their economies,” blog entry by Kristina Hooper, June 1, 2020, [blog.invesco.us.com](https://www.invesco.us.com).

or redesigning an urban curbside and parking system to enable deliveries, rideshares, and pedestrian and bicycle use.

- **Projects that are modular, replicable, and distributed in nature.** These projects are most effective when they can be delivered quickly and efficiently as part of a large, at-scale program to spur economic development. The model hinges on design having been completed and on limited need for site-specific design. An energy-retrofit program applying proven, replicable energy-efficiency technologies to hundreds of buildings could meet the requirements, while reducing energy consumption and cost for thousands of people.
- **Projects that meet immediate health and safety needs.** The COVID-19 pandemic has highlighted the significant gaps in our healthcare infrastructure, from too few ICU beds and vaccination sites to deficiencies in the cold-storage supply chain. While building and expanding hospitals, particularly in rural and underserved communities, can be a medium-term infrastructure objective, many of the immediate needs can fortunately be met through rapid conversions and modular construction. Converting stadiums and gymnasiums to sterile vaccination centers and increasing cold-storage supply-chain units and vehicles can happen quickly, and such projects offer many of the positive job- and economic-growth benefits of core infrastructure while also addressing today's most urgent needs.

Attracting private capital

Given limited budgets and stimulus funding, governments may consider prioritizing some infrastructure projects that can be delivered in a way to attract private capital. In 2020, the top ten investing firms, globally, raised—but did not deploy—\$84 billion in infrastructure capital.² Much of this is earmarked for long-term infrastructure projects, with investors still looking for both

brownfield and greenfield infrastructure investment despite coronavirus-related impacts to traffic. Governments therefore may choose to encourage the deployment of private and stimulus capital in helping fill urgent infrastructure needs.

Governments can use concessions and create new operational and maintenance structures to transfer the operation and management of some infrastructure to the private sector—as well as the obligation to pay for improvements. Private-sector involvement can also allow governments to launch more infrastructure work sooner, and for less money up front, by bundling infrastructure upgrade projects (such as for bridges, local roads, and culverts) into large construction programs for private companies to complete. And availability-payment structures can spread payments over a period of 15 to 20 years, in contrast to traditional arrangements where all payments come due during construction. Transferring risk to the private sector can create benefits when done through clear and efficient procurements that articulate the infrastructure-service and social benefits and commit the partner to delivering in a way that is aligned with equity and sustainability considerations.

Five project archetypes

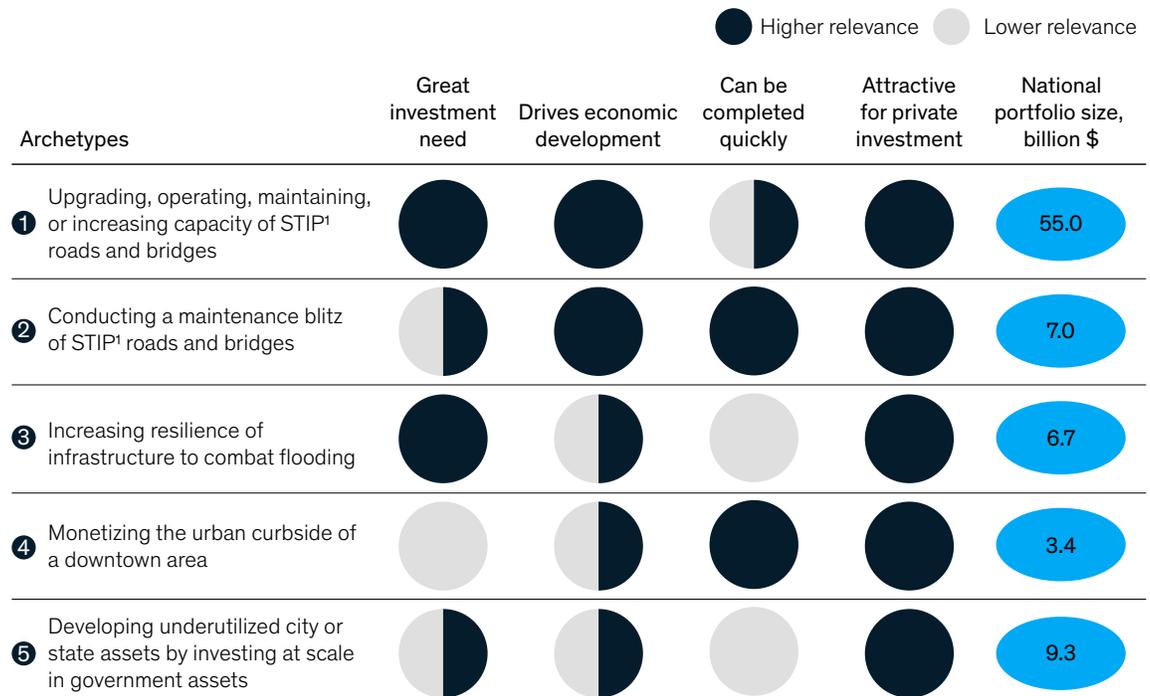
Five project archetypes meet all of these criteria—projects that are shovel ready, shovel worthy, and can attract private capital. This is, by no means, an exhaustive list—but rather, these are examples of the types of projects that may warrant government and investor consideration (Exhibit 1).

- **Upgrading, operating, maintaining, or increasing capacity of State Transportation Improvement Program (STIP) roads and bridges.** To address congestion and boost traffic on a specific road, for example, governments can establish a concession

² Data is from paid data source Preqin, preqin.com.

Exhibit 1

These five project archetypes meet public needs, can quickly drive economic development, and could attract private investment, to varying degrees.



¹Statewide Transportation Improvement Program.

Note: These figures are based on specific projects that are available in prioritized states and extrapolated based on miles of roads, GDP or population growth, state of environmental infrastructure across cities, and other factors.

Source: Emsi, Q2 2020 Data set for United States

contract where a private firm adds a managed lane and smart technology to that road. STIP upgrades are planned, priority projects and are likely to be completed more quickly than new ones.

- **Conducting a maintenance blitz of STIP roads and bridges.** Maintenance projects often have systems in place that can allow for quick turnarounds. Many state governments also prioritize maintenance projects, which can quickly provide economic stimulus.
- **Increasing resilience of infrastructure to combat flooding.** The implementation of replicable green infrastructure can address flood management and wastewater issues. This could include, for example, a citywide program to install landscaping and culvert solutions and convert flood plains to public parks to manage

runoff. Resiliency efforts are a necessary upgrade that can keep environmental disasters from compounding economic ones.

- **Monetizing the urban curbside of a downtown area.** Privatizing parking and creating commercial and rideshare zones can provide significant value to governments and citizens by reducing congestion and facilitating new uses of urban roads.
- **Developing underutilized city or state assets by investing at scale in government assets.** Governments might consider developing vacant land into affordable housing as part of a transit-oriented project. This archetype creates and maintains a source of governmental revenue from something that would otherwise be vacant.

If applied across the United States, these five nonexhaustive archetypes could generate \$80 billion in investment and create up to two million jobs. In turn, the investment in these projects could create \$70 billion to \$215 billion in GDP impact in the United States (Exhibit 2).

While each government will have a specific set of infrastructure project priorities, this framework can be applied anywhere in the world. The opportunity for investment and the jobs created can be

sized specifically to that country, city, or regional jurisdiction.

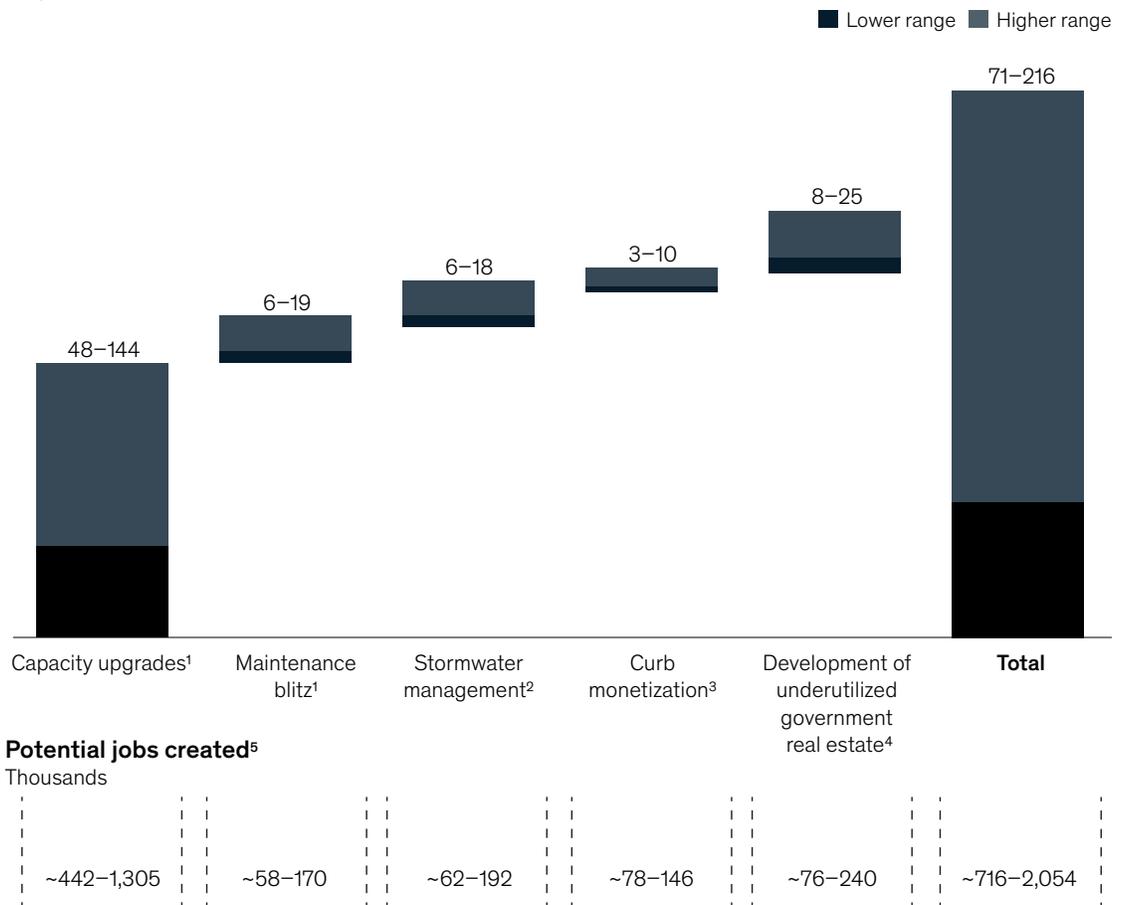
Making it happen

In addition to building a portfolio of shovel-ready and shovel-worthy projects and considering new funding and partnership models, governments could consider accelerating procurement (to create jobs in the near term) and launching programs at scale (to take advantage of

Exhibit 2

The five archetypes could potentially bring significant near-term economic benefits and deliver up to approximately two million jobs nationwide.

Additional GDP stimulus by 2040 if ~\$80 billion is invested in prioritized archetypes
Billion, \$



¹ Based on highway, street, and bridge construction industry.

² Based on water and sewer line and related structures construction industry.

³ Based on parking lots and garages industry.

⁴ Based on commercial and institutional building industry.

⁵ Range based on difference between including induced value and jobs which are the result of spending from wages of workers.

Source: Emsi Q2 2020 data set for United States

efficiencies in procurement and delivery). They can also integrate technology at every stage of the process to ensure both the infrastructure design and the process for implementation are as efficient and future-proofed as possible.

To contribute to economic recovery, infrastructure investors have actions to consider beyond working to develop innovative engagement and funding models. For example, they will need to identify which investable opportunities support economic development and address public-sector needs. They can take risks on early-stage development by investing in design and feasibility studies for projects that support economic recovery and develop unsolicited proposals even before a

request, knowing that their limited investment may ultimately be a public good. And they can engage with public-sector entities to build support for the project and establish the value private investment could bring—and build coalitions with technology providers, labor unions, communities, and citizens in a constructive way.

Governments across the globe face the threat of a deep recession. Infrastructure investments won't be enough on their own, but they can go a long way to creating jobs and contributing to GDP—if approached thoughtfully.

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