Global Infrastructure Hub

WORLD ECONOMIC FORUM

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The Infrastructure Arms Race:

Why is the United States losing, and what can be done about it?

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World Bank and International Monetary Fund leaders considered some weighty issues during this year's Annual Meetings in Washington, including the world's future economic outlook and how to feed a growing population.

But perhaps no topic was more important than infrastructure development, the bedrock of economic growth and productivity for developed and developing nations alike.

No amount of economic stimulus can reinvigorate struggling economies or advance stable ones without the fundamental infrastructure that enables all nations to succeed: reliable roads, airports, utilities, ports, rail systems and telecommunications. And yet, no nation has identified a bullet-proof infrastructure strategy and funding plan to fuel the investments required to support the next generation's economy.

Against that backdrop, the Global Infrastructure Hub (GI Hub), a G20 initiative, hosted a breakfast discussion in partnership with the World Economic Forum to explore the competitive infrastructure arms race and how to address these complex questions. The event featured keynote speaker Martin Klepper, Executive Director of the U.S. Department of Transportation's Build America Bureau, and the Honourable Joe Hockey, Australia's ambassador to the United States.

At this event and in discussions throughout the week with international organisations, multilateral development banks and private sector leaders, a key theme emerged: countries around the world are in a competitive sprint to establish leadership in today's expanding global economy, and the U.S. is losing the race thanks to its aging infrastructure and lack of a concrete plan for modernising its networks. People generally understand the U.S.'s need to step up the pace to modernise its infrastructure, but there's a fair amount of uncertainty about *how* to accomplish this. Below is an outline of the challenges facing the U.S. and what it can learn from other countries' efforts.

THE CHALLENGE

Thriving, efficient and reliable infrastructure is an economic necessity. Ambassador Hockey put it best when he said, "If you do not build, you do not grow." Yet globally, infrastructure spending through to 2040 is forecasted to come up $18 trillion short of the $97 trillion required to meet the world's infrastructure needs, according to the GI Hub's 2017 Global Infrastructure Outlook. While all 50 countries evaluated in our report are facing a shortfall in spending, the U.S. is the biggest culprit, with a $3.8 trillion investment deficit—90 percent of which should be earmarked toward roads, where the most critical needs lie.

Two main reasons have emerged:

1. **Politically, a lack of focused attention in the U.S. has watered down efforts to advance infrastructure development.**

   Although President Trump was elected as "the builder" and has proposed a $1 trillion investment in infrastructure, these spending plans are "sliding down the agenda," out-ranked by issues such as tax reform and healthcare.

2. **Funding questions remain unanswered.**

   It is politically untenable in the current climate to raise federal tax dollars to support investments in America's infrastructure, so President Trump's early plans involved public-private partnerships (P3s)—but now reports are raising doubts about whether the Trump Administration believes in the value of P3s. But the alternative is relying on public funds, which are severely limited. It's clear the U.S. needs to explore a variety of funding options.

GLOBAL INSIGHTS

In the global economy, it serves the U.S. well to consider the infrastructure development and funding options that have been deployed in countries like China, Australia and Canada, where federal governments have become more active as lenders and in influencing and incentivising procurement.

China

China is estimated to account for 30 percent of global infrastructure spending to 2040, a total of $26 trillion. And yet, unlike the U.S., it barely has any spending shortfall.

Key to China's success has been the China Development Bank, which invests considerably more than most federal banks—exemplifying a centralised approach to overseeing infrastructure priorities. In March, for example, the China Development Bank announced a commitment of more than $290 billion to stimulate development of roads, bridges and other resources—indicating that the Chinese government has prioritised infrastructure. The thriving economic center of Pudong, created only 20 years ago by a significant Chinese government investment in infrastructure to expand the city of Shanghai, is another example. It transformed rice fields into an economic powerhouse that today rivals Manhattan, complete with its own international airport, skyscrapers and stock exchange.

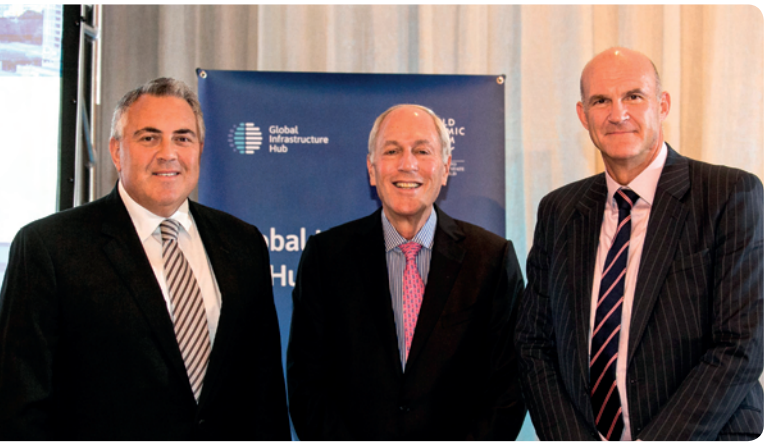
Australia

Australia has taken a different approach, incentivising state-level investment in infrastructure. The federal government set aside money for states to use for asset recycling. When states sell an asset with the goal of investing the returns into new infrastructure projects, the federal government gives them a 15 percent "bonus" to spend on infrastructure. More recently, Australia has also created a center of excellence within its cabinet ministry to look at the country's overall infrastructure strategy, and to explore new types of revenue and new lines of assets that may have gone unnoticed. For example, in a plan for Sydney's Metro West project, the land above new underground rail stations can draw retail and commercial revenue that can be invested in new infrastructure, tapping private investments instead of public resources.

Canada

The U.S.'s northern neighbour is developing a new strategy that also seeks to drive private-sector investments. Recently launched, the Canadian Infrastructure Bank is a centralised federal resource offering $35 billion to developers of infrastructure projects, with strings attached: it will *only* lend to projects that are revenue-generating, which may translate into "user-pays" models. Canadians generally don't like to pay tolls on their roads, but this system aims to slowly change that through a centralised government effort.

I call this a "mindset shift" because it requires thinking about roads as a service rather than a product. That may seem like a tall order, but when you consider that the most effective U.S. examples of infrastructure—energy and telecommunications—both use a similar user-pays model, the Canadians' approach starts to make sense. When users are asked to pay each time they use a service, they think more carefully about how and when they use it—leading to more efficient use of infrastructure.



The Honourable Joe Hockey, Australian Ambassador to the USA; Martin Klepper, Executive Director, Build America Bureau; Chris Heathcote, CEO, Global Infrastructure Hub

THE PATH FORWARD FOR THE UNITED STATES

The U.S. can start to dig itself out of its "last place" status by taking three key steps:

1. **Encourage revenue-generating P3s through user-pays models.**

   Roads are the most critical piece of infrastructure requiring attention in the U.S. If the U.S. can mirror Canada's approach by linking highway tolls with traffic trends, for example, it can encourage people to travel in off-peak periods, spreading out congestion and ultimately achieving more efficient use of the asset. This approach benefits consumers, while also enabling the tolls to fuel development of more infrastructure that is used in more efficient ways.

2. **Expand the concept of the federal Build America Bureau, a centralised financing and expertise resource, by creating additional centers of excellence at the state level.**

   Within the U.S. Department of Transportation, the Build America Bureau was established just over a year ago as the largest infrastructure bank in North America. It helps both public and private organisations identify development financing sources and get approved for credit in a one-stop shop. At the GI Hub's Washington breakfast, the Bureau's Executive Director spoke about the entity's early successes, including approving a P3 for a bridge replacement program in Pennsylvania that is replacing 558 aging bridges in just three years, using pre-fabricated components, and maintaining the bridges for decades. But a question was raised in the audience: how can we provide *more state- and local-level guidance,* particularly as states are focused on upcoming budget deadlines? With such variance in needs from state to state, clearly there's a role for state-level centers of excellence to complement the federal bureau.

3. **Create a long-term infrastructure plan—independent from the political process—to guide future progress.**

   In Australia, a 15-year infrastructure plan was developed by an independent body and contains 78 specific recommendations for projects to prioritise and funding pathways—and this plan is the guiding resource that prioritises infrastructure at the federal level, regardless of which party wins the next election. It's a way of determining, independently, where infrastructure dollars most make sense, based on today's needs and the industries the government believes will most drive growth into the future.

   In the U.S., a nation that was once a center of manufacturing and coal mining, the Rust Belt's transformation needs to be considered. Where and in what industries is the U.S.'s best potential for growth for the future? What infrastructure is needed to enable that growth? What is the most effective means for doing that? Documenting a long-term infrastructure plan based on these answers is vital for the U.S. to maintain its competitiveness.

Creating the right infrastructure model for the U.S. is not a simple task, nor will rapid solutions be possible. But stalling in search of the perfect approach is not a viable option. No single nation has solved all its infrastructure challenges. With the U.S. currently coming in dead last, demonstrating the biggest gap between future infrastructure need and projected spend, it's time for immediate action to reverse its failing trajectory. As the world's biggest economy, the U.S. *can* be a leader—if it wants to be.

About Global Infrastructure Hub

Launched in 2014 by the G20, the Global Infrastructure Hub is the only organisation dedicated solely to infrastructure in both developed and emerging markets. The global challenge remains acute given population growth, increasing urbanisation, and the need to replace rapidly ageing infrastructure. We are helping governments unlock trillions of dollars in private investment to fund much needed public infrastructure, creating productive economies and more liveable cities.

We work with both public and private sectors to facilitate knowledge sharing, highlight reform opportunities, support the adoption of leading practices and help to build the global pipeline of quality, bankable infrastructure projects. We are independent, with the agility of a start-up and the credibility of an international organisation, providing all our tools and services on an open and free to access platform.

Visit **www.gihub.org** to find out more.

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