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America's Infrastructure: A Critical Juncture

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One of the most important priorities facing the United States is the need to address imminent challenges related to infrastructure. Decades of underfunding and limited investment have rendered America's diverse systems of transportation, energy, water, logistics, and communication inadequate for sustaining economic growth and serving a quickly expanding population. Infrastructure is vital as the most basic and essential foundation in the workings of U.S. society. But more, infrastructure lies at the core of one of the most urgent aspects of the nation's well-being—its national competitiveness. Therefore, it is crucial that a new investment approach toward infrastructure be established in order to build the infrastructure systems that are necessary for continued national production, economic capacity, and the future prosperity of the American people.

The engines driving America's economic future will be its metropolitan economies. To fulfill that role, cities must undertake massive infrastructure expansions and modernization. A metropolis-oriented nation, the United States needs smart urban infrastructure to sustain its competitiveness on a global scale. Achieving this—especially in a rapidly evolving and increasingly advanced global economy—requires infrastructure that will foster the growth of firms in the new economy. That means broadening the definition of infrastructure beyond traditional categories to include modernized systems and logistics—the infrastructure of information, such as data centers, media networks, and communications systems that connect the productive capacities of society and mobilize the physical inputs to the economy. This should be a critical factor in driving priorities in infrastructure planning and investment.

Technology plays a significant role in the development of more modernized infrastructure by creating an opportunity to upgrade systems to new levels of interactivity, price-driven choices, and efficiency. The nation's infrastructure model should not be based simply on building more of the same facilities, adding more volume, capacity, or size. Rather, it should focus on creating improved, technology-imbedded systems that allow for speed, responsiveness, and information-based decision making, leading to enhanced productivity.

The application of technology also makes possible a new generation of basic infrastructure that changes the way it can be used for public benefit. For example, technology applied to the installation of smart electrical grids transforms the relationship between electrical power generators/distributors and consumers into an interactive, price-driven process of choices. Technology applied to the logistical chain alters the movement of cargo from seaports via rail and air systems to consumers. Only infrastructure built to these levels of sophistication will be capable of advancing the nation's economic competitiveness.



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In addition, modernized infrastructure is a critical element in the development of alternative energy systems and global climate change strategies. The fact that so much of the volume of carbon emissions is generated by the built environment—particularly from cities globally—and that cities are embarking on massive infrastructure upgrades, presents an opportunity to coordinate strategies with a view toward environmental improvements.

Underfinancing

Despite the heightened need to expand, update, and rebuild existing infrastructure networks and implement a new and more innovative infrastructure model for keeping the United States competitive in an increasingly modernized world economy, government spending toward infrastructure remains a relatively low priority, with other national concerns taking precedence. Debts burdening federal, state, and local governments, coupled with restricted public budgets, hinder the ability to initiate needed upgrades, implement new projects, or develop a national infrastructure strategy. As a result, U.S. infrastructure programs have not kept pace with growth.

Infrastructure financing has been especially difficult in recent years due to liquidity problems at the municipal level, brought on by declining economic conditions. Specifically, reduced growth and a sharp drop in the development of new housing have led to considerably smaller revenue streams—a difficult situation for municipalities located in growth-dominated markets that traditionally have depended on new connection fees to fund infrastructure projects.

Although traditional lower-yielding municipal debt structures have been good for public infrastructure, long-term tax-exempt debt remains a less appealing option to a much larger global pool of investors as compared with long-duration taxable vehicles, which offer greater returns on investment. A looming ceiling of tax-exempt investor interest in long-term municipal debt markets is a significant factor that will limit cities' ability to raise needed capital through debt financing. In order for U.S. municipalities to access the amount of money needed to fund the development of future infrastructure, new capital structures must be created that can draw in new pools of financing, especially from global pension funds and private investors.

Solutions for New Infrastructure Investment

Attracting infrastructure investment now and into the future will require new financing strategies that create attractive return opportunities for investors. In this model, pension fund and private sector capital will increasingly have to play a larger role, including in innovative applications of debt and equity to public projects. Higher-yielding municipal debt strips for pension funds and new roles for private equity can drive major infrastructure projects by closing funding gaps or shifting risk, thus engaging market-appropriate public/private sector collaborations in solving the nation's infrastructure challenges.

As a practical matter, dwindling budgets ensure that the public sector cannot lead all major infrastructure investment. Innovative meshing of traditional public debt with pension and private capital is the only viable approach. Private capital may also take the form of debt vehicles as opposed to public/private equity investments. The public sector has traditionally led and must generally set priorities and plan large projects. However, private entities have the experience, scale, and capital to initiate ideas, propose plans, and organize collective efforts. The sharing of roles is inescapable because of the need for public land, approvals, and authorities usually associated with large-scale infrastructure projects.

The unique U.S. municipal debt market must evolve in order to guarantee that a sufficient amount of capital flows into the long-term municipal bonds that fund infrastructure improvements and keep critical new projects moving forward. The infrastructure municipal market has outgrown its pool of traditional buyers: there simply are not enough retail and institutional buyers of long-duration tax-exempt paper to meet the coming volume of infrastructure bond issuances. Spurring activity and demand in this market will involve changing more than just the yield paid. Indeed, the financial structure of these vehicles must become more palatable to new and very deep sources of capital such as non-tax-paying pension funds. Developing investment instruments that match the investment criteria of these natural long-term investment partners will open the market to new and more sophisticated solutions that can bridge the needs of the buyer and the issuer as well as the community.

In addition to new supplies of capital, particularly from pension funds, funding long-term investments in this sector will hinge on the increased use of structured financing instruments for tax-exempt issuers, such as mezzanine debt to fill the gaps being created by drastically reduced access to grants and credit enhancement insurance. This is a pricing and structural shift that will become very apparent when markets normalize and the economic recovery becomes real.

An argument can be made that municipalities and other public entities will need to be more aggressive in how they manage future infrastructure projects compared with those in the past. Cities with professional teams that can



appropriately and quickly communicate to their residents design solutions for these complex projects will have a real competitive advantage when the market eventually turns. The alternative to perpetually delaying expensive but critical investments would be the most costly to the nation's urban job centers because developing economies most likely would leapfrog our competitiveness with their own state-of-the-art infrastructure investments.

Establishing a more sustainable financing platform for long-term infrastructure investment will be equally important once the economy makes the transition to recovery mode, because financing for municipal programs will become increasingly more expensive with added competition for capital. In order to ensure the continued success of these new capital structures, pension funds and cities will need investment alternatives that give them incentives to work together—two natural partners with similar fiduciary duties.

The quality of life in cities would improve if the physical support system of modern urban infrastructure fueled the expansion of firms in the new urban economy. That would generate job growth with attendant increases in incomes and opportunities and would provide public resources for attractive urban amenities.

To advance this future infrastructure-dependent model and enable greater economic competitiveness, public and private leaders must commit to creating viable infrastructure financing solutions that are innovative, yet realistic in how they attract investment and solidify private and public sector relationships. That will enable the next generation of U.S. infrastructure to be innovative.

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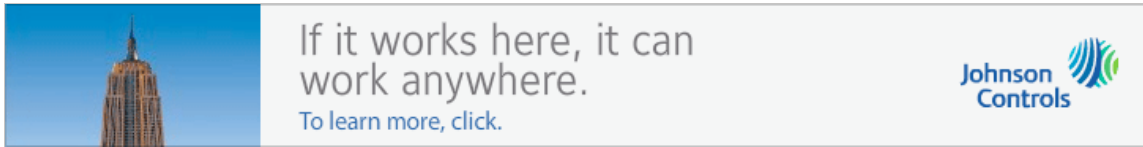
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