Infrastructure at a Crossroads

Our records indicate that this is the first time you're receiving the Weekly Brief, and I want to personally welcome you. I hope that BCG's latest knowledge and my own reflections can help you make sense of our rapidly changing reality. If you have any feedback, I'd love to hear from you.

One of the interesting benefits of the global work I do is to be able to see firsthand how infrastructure shapes economies, communities, and daily life.

But too often, what stands out isn't what's working—it's what's crumbling. The aging bridges that create bottlenecks in major cities. The extreme weather events that overwhelm drainage systems. The digital dead zones in places that should be thriving innovation hubs. The one-runway airport in an emerging market's capital that is constraining tourism and growth.

Many infrastructure systems are under strain, and the numbers are enormous. Today, there's an estimated \$15 trillion shortfall in infrastructure funding worldwide, driven by the need to replace existing systems, promote economic development, and electrify our economies. In addition, coastal and urban areas could face up to \$1 trillion in annual climate-related damages by 2050.

This is a massive governmental challenge in most parts of the world—and an opportunity for private investment, as laid out in our recent report <u>Infrastructure Strategy 2025</u>: <u>How Investors Can Gain Advantage as the Asset Class Matures.</u>

Here are some of the critical forces shaping the future of infrastructure:

Aging and Strained Physical Assets. Roads, airports, water systems, connectivity infrastructure, and transit networks in many regions are now deteriorating faster than they can be replaced. In the US alone, more than 40,000 bridges are classified as "structurally deficient," while airports in the US have more than \$50 billion in deferred maintenance. The rough ride of some high-speed trains makes walking the aisle feel like a tryout for *Ninja Warrior*.

Unsustainable Planning. Extreme weather events are increasing in frequency, but infrastructure development does not always account for long-term climate resilience. And while construction is a high carbon emitter, incorporating green design practices from the outset could reduce emissions by up to 70% in large projects.

Digital and Productivity Gaps. Digital capabilities in infrastructure are expanding, but the sector remains one of the least digitized, with chronic inefficiencies leading to productivity stagnation. Advanced project management tools and AI-powered asset monitoring could significantly reduce cost and schedule overruns.

Evolving Investment Priorities. Governments and private investors are recalibrating their focus. While public infrastructure programs continue to be rolled out, macroeconomic realities and shifting geopolitical priorities are slowing the flow of funding.

To unlock private capital, government must allow investors to earn their cost of capital—an often-overlooked factor. Regulatory clarity, subsidy structures, and well-designed risk-sharing mechanisms will be essential to attract and sustain private sector involvement, as will a reexamination of complex permitting processes.

Meanwhile, private investors are expanding their strategies. Our new report highlights the outlook for infrastructure investing in 2025 and beyond:

- **Private investment is delivering**. In the past ten years, infrastructure assets under management have more than quadrupled, to \$1.3 trillion. Although deal volume and "dry powder" fell in 2024 compared with the previous year, fundraising has grown by 14% since 2023, and 31% of limited partners plan to increase their allocation to infrastructure.
- Energy remains dominant, but digital is rising. The energy and environment sector still accounts for 50% of infrastructure assets, but digital infrastructure—fueled by AI-driven demand—is expanding rapidly.
- **New investor strategies are emerging.** General partners are introducing funds with higher risk profiles, creating opportunities for retail investors, and consolidating funds to achieve greater scale.
- Operational excellence is the new differentiator. Investors are shifting their focus from financial engineering to hands-on value creation, emphasizing operational improvements and efficiency gains in their portfolios.

The world's infrastructure challenges are immense—but so are the opportunities to transform them. Leaders who rethink delivery models, embed sustainability, and harness digital tools will shape the next generation of infrastructure.

Until next time,

Rich Lesser

Global Chair



Infrastructure Strategy 2025: How Investors Can Gain Advantage as the Asset Class Matures

As the business evolves and its mandate changes, private investment in infrastructure is showing signs of recovery from last year's downturn.

EXPLORE MARKET SHIFTS



Bridging the Gap: Leveraging the Transformative Power of Private Sector Partnerships to Build the Infrastructure of Tomorrow

Infrastructure financing has a \$15 trillion gap. Discover how private sector partnerships can bridge this gap and drive transformative change.

POWER GLOBAL GROWTH



<u>Infrastructure Consulting and</u> Strategy Services

BCG's infrastructure consulting experts help clients overcome the challenges related to planning and implementing infrastructure strategy.

DRIVE SUSTAINABLE DEVELOPMENT