

“Challenges & Opportunities in Infrastructure Investment”

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Introduction

Thanks, Scott. I’m delighted to be at this event hosted by three of my favorite institutions – CSIS, NAM and National Center for APEC. CSIS and NAM have long been partners of GE and we were delighted to see Scott and Linda respectively join their superb teams. And NCAPEC is an institution near and dear to my heart, having just left its board after four years. The Center does superb work representing US companies in the APEC process.

And so weighty is today’s topic – “The Challenges and Opportunities of Infrastructure Investment” – that it is only appropriate that you have three institutions of such reknown take it on!

Seriously, this is a big topic – one that’s attracted a lot of thought and discourse, particularly since the global financial crisis, as countries have looked to infrastructure as a source of jobs and a driver of competitiveness. By my count, in the last year alone, you’ve had at least half of the G20 heads of state and three Nobel prize winners address this topic in some form, not to mention dozens of esteemed economists, development theorists, and journalists.

And today you guys ... get me. Congratulations!

So rather than prognosticate, what I thought I’d try to do this morning is simply put some facts and observations on the table that hopefully will help us get our heads around this topic and inform the discussion that will follow.

I would really like to make just three points this morning:

- First, whether you're in the infrastructure business or not, this topic matters – and it matters a lot – because it has a critical impact on the economic and political health of a country.
- Second, today's discussion couldn't be more timely because – for a variety of reasons that I'll discuss – there's a paradigm shift underway globally in thinking about infrastructure ... how it will be built and how it will be financed.
- Lastly, this is a topic that by necessity brings together industry and government – so good government policy has a critical role to play. So I'll share a few thoughts about what I think those policy priorities should be.

Infrastructure Matters

So let's start with the first point – whether you're in the infrastructure business or not, the question of how the world is going to meet its infrastructure needs is of enormous importance.

It is important, first and foremost, because of the clear correlation between infrastructure and economic growth and well-being.

Now I can bore you with statistics from umpteen studies, all of which tell you that the best thing a country can do to sustain long-term economic growth is invest in infrastructure. For example:

1. The recent World Bank report estimating that an additional 1% of world GDP spent on infrastructure would increase global GDP by 2% and GDP in developing countries by almost 7%.
2. Or the McKinsey study concluding that an additional 1% in GDP spent on infrastructure would translate into an additional 3.4 million jobs in India, 1.5 million in the United States, and 700,000 in Indonesia.

But, frankly, these statistics and studies are incredibly dry. So I've been looking for few examples that hit a little closer to home:

- Air traffic delays in the United States have increased almost 50% in the past 20 years – from an average of 41 minutes in 1990, to almost an hour today – with an economic cost of \$100 for every person in the United States.
- Power outages in the US – which are often attributable to an overtaxed and outdated grid – result in the average American losing power for more than 214 minutes a year, with an economic cost of \$265 per person.
- Traffic congestion – the product of overtaxed highways and road infrastructure – resulted in US drivers spending 5.5 billion hours sitting in traffic last year – which translates into over \$800 per person in lost time and wasted fuel.

These three alone add up to a total cost of \$350 billion to the US economy – or roughly the combined revenues of IBM, Ford and Cargill combined

And that's just in the United States. Globally, the economic costs of weak infrastructure are far greater. To take just one sector – energy – the International Energy Agency has estimated that 1.3 billion people around the world – including 7 out of 10 people in Sub-Saharan Africa – lack access to electricity. The economic costs are almost beyond calculation – in terms of businesses never built, investments never made, children who die because clinics lack the power to refrigerate medicines, sterilize instruments or run basic tests.

So infrastructure matters because it is key to economic well-being and economic growth.

As a closely related matter, I'd submit infrastructure matters because – as we've seen so powerfully in the Middle East in the past few years – weak infrastructure creates conditions of social disharmony and political volatility.

A number of recent studies have shown that investment in infrastructure tends to lower income inequality. Just earlier this year, the IMF put out an interesting

study in which they ran regression analyses looking specifically at the ASEAN-5 countries and found that better infrastructure – both in quality and quantity – can have a significant effect in improving income distribution

So the topic of infrastructure matters because it is key to economic growth, because it impacts social stability, and lastly because we're talking about a heck of a lot of money.

McKinsey estimates that approximately \$57 trillion in infrastructure investment will be required between now and 2030 – simply to keep up with projected global GDP growth. To put this numbers in perspective, that is:

- Ten times Japan's GDP last year
- Approximately 150 times the aggregate cost of the US interstate highway system from its inception
- Or approximately \$10,000 for every person on the planet.

So this is a subject that matters, simply because we're going to have to put a substantial share of resources into infrastructure if the global economy is going to continue to function.

And no region in the world is probably going to need to invest more than the APEC region. The Asian Development Bank estimates that approximately one-third to one-half of this demand will arise from countries in the Asia Pacific region. Or, again, to make this more concrete in just one sector:

- Take aviation in China. China's goal is to build 70 new airports and add 1000 aircraft within the next three years. That's the equivalent of adding all the commercial and reliever airports in California and the fleet of American Airlines and US Airways combined. In three years.

Which is why you see big infrastructure companies like GE as focused as we are today on APEC and the Asia Pacific region. Today, more than 60% of our revenues derive from outside the United States, and an increasing share of it comes from the APEC region.

A paradigm shift in thinking about how infrastructure is built and financed

This shift in thinking is happening in several respects.

First, infrastructure is becoming much **more global**. More global in several respects:

- There's more focus on countries that were heretofore ignored. Over the past 18 years, advanced economies have accounted for more than 70% of global infrastructure investment. Over the next 18 years, emerging and developing economies are likely to account for 40 to 50% of all infrastructure spending.
- There are more international partnerships in building infrastructure. For many years, infrastructure has been a bastion of local parochialism. Infrastructure projects not only weren't global; in many instances, they weren't even national – they were local. Today, you're increasingly seeing *global* infrastructure projects – with governments demanding globally competitive pricing and world-class technology.
- More infrastructure targeted on international connectivity. Globally, countries are recognizing that to be competitive in attracting high-end manufacturing, services and innovation, they must have the physical infrastructure to enable the country to connect into global production networks.

The second big change is happening in the area of infrastructure **financing**.

Simply stated, the global financial crisis has fundamentally affected financing for global infrastructure projects.

On the public sector side, in many developed country markets, the availability for public sector infrastructure funding is simply more constrained than it was before.

On the private sector side, we've also seen a change. European Banks that were once significant players have been forced to retreat. Basel III standards have raised the bar for all commercial banks. And long-term economic risk remains challenging.

Private equity is playing an increasingly prominent role. So too are sovereign institutions like Export Credit Agencies. But here too, you're seeing change –with ECAs from countries like China and Brazil, that a decade ago were barely present, increasingly active globally. You're also seeing non-ECA sovereign players – wealth funds, pension funds and the like. And governments are looking for new ways to leverage the financing that's available. You're seeing a new appetite for public-private partnerships, for risk-sharing.

The third big change you're seeing is **new technology**. The quintessential example of this over the past 30 years has been in communications, where wireless communications has supplanted traditional wireline.

Today, I believe you're likely to see similar technology revolutions affect the area of energy. Here at least 3 significant changes bear mentioning: (1) the abundant availability of gas, particularly from unconventional sources; (2) changes in transmission and distribution (the so-called Smart Grid); and (3) distributed power – or the creation of off-grid solutions.

So, in sum – in the increasingly global nature of infrastructure, in the financing of infrastructure, and in technology – this is a time of dramatic change.

Good Government Policy

Recognizing that infrastructure has been and will continue to be, a partnership between government and industry, what then are the most important things a government can do to attract private sector investment?

I know that this is very much one of the things that APEC has been looking at. I would advance four thoughts:

1. Clear & durable political commitment

Infrastructure projects are not only expensive, they are also long-lived – often 40 years or more. This combination of very high cost and long life means that political risk of changed government policies creates a uniquely powerful disincentive in the infrastructure space.

And so the question becomes, how do you abate political risk? Certainly you look at how you structure the deal, you look at political risk insurance. But above all, you look for a clear and durable political commitment.

Now how you *arrive* at that political commitment is beyond the scope of these remarks. But I will say that written “vision documents” which lay out and guide the government’s infrastructure strategy – whether it in the transportation, energy, healthcare, communications sectors – are very helpful in reassuring the private sector.

To take just one example from the APEC region, Indonesia’s fifteen year Masterplan for Acceleration and Expansion of Indonesia has been quite a helpful document in laying out Indonesia’s economic development strategy and informing and assuring the private sector.

2. Regulation that is transparent, reasonable and speedy

Infrastructure is a regulated business. The private sector gets and accepts that. We understand that infrastructure intersects with core governmental interests like national security and public welfare, and that accordingly its safety, security, environmental impact, and its economics are going to be regulated.

All the private sector asks is that regulation be transparent, reasonable, and speedy.

And I put a particular emphasis on that last characteristic – speed. The single biggest frustration that I hear from business people is not the existence of regulation, but the slowness of getting decisions. Slowness, at the end of the day, is a pernicious killer of infrastructure projects.

3. Good, transparent procurement processes

If there's a single area where there's a mismatch between its importance and the level of focus and resources placed on it, that issue, I would submit, is government procurement.

There may be no function more important to the economic success of an entity – be it a corporation or a developing country – than its procurement function.

Procurement is typically responsible for between 13 to 17% of the GDP of OECD countries. In the case of least developed countries and post conflict countries this can be as high as 70% of GDP.

But, whereas in private sector “sourcing” is a critical function staffed by highly-regarded seasoned professionals, in far too many governments around the world, procurement is somewhat of a backwater, staffed either by cronies or incompetents.

Procurement agencies should be treated on a par with Ministries of Finance. It requires dedicated cadre of trained professionals, technology, auditing.

4. Produce good, talented work-forces

Governments looking to strengthen their infrastructure would do well to invest in good, talented work forces.

The perception is that infrastructure doesn't require a skilled work-force. The very concept of “shovel-ready” infrastructure projects connotes that infrastructure remains the sector for the under-skilled.

Have any of you happened to peek inside a GE heavy duty gas turbine? Or MRI machine? Or locomotive. The fact is that infrastructure of today – let alone the infrastructure of technology – is high tech. It is complicated to design, to build and to operate.

And so infrastructure companies, no less than IT companies or pharmaceutical companies or service providers, depend upon a well-educated and technologically knowledgeable talent base.

Conclusion

So where does this leave all of us? Let me go back to where I began.

Economically and politically, the demands for infrastructure mean that we are entering a new “age of infrastructure.” Energy, transportation, healthcare, communications – increasingly these are not being viewed, rightly, as core human rights.

How these services are provided will likely differ substantially from before. There will be different technologies, different players, different funding. The private sector will play a bigger role than ever before, but governments will continue to play a key role and good policies – whether in regulation or procurement or trade or education – will also have a fundamental impact.