CenterSquare
INVESTMENT MANAGEMENT

White Paper

Executive Summary

While the nation is focused on the choice between Hillary Clinton and Donald Trump, the need for investment in U.S. infrastructure - energy, electricity, transportation, and telecom - continues to grow. Both candidates have proposed plans to direct public funding and structure incentives for private funding to significantly increase investment in infrastructure. However, the political challenge of a tax and spend infrastructure bill means that the capital required to modernize our infrastructure will have to come instead from the private sector. Listed infrastructure companies will be conduits for a component of this spending, driving accretive investment and shareholder value growth potential. Investing in listed infrastructure equities allows access to this opportunity with liquidity, diversification, and global exposure. Regardless of the outcome of the election, America's infrastructure boom is coming, and with it, a significant opportunity for private capital to pursue attractive risk-adjusted returns backed by unprecedented demand.

America's Quiet Infrastructure Boom

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What's the one thing that Hillary Clinton and Donald Trump have in common? Infrastructure. It's not tough to make the case for it. U.S. roads, pipelines and transmission lines are badly in need of repair, replacement and expansion. The U.S. infrastructure investment need from 2016 through 2025 is expected to be $3.3 trillion, a figure that rises to $10.8 trillion between now and 2040[1]. This kind of underinvestment has real costs to consumers and the economy. Consumers suffer from delays and higher fuel costs due to highway congestion, higher utility bills, long delays at airports and higher car maintenance costs. Businesses suffer from inefficient supply chains, brown outs and black outs, delays in transiting urban areas and higher energy costs. It is estimated that insufficient or substandard infrastructure directly and indirectly will cost the U.S. economy $4 trillion in lost GDP between 2016 and 2025, and $14 trillion by 2040[1].

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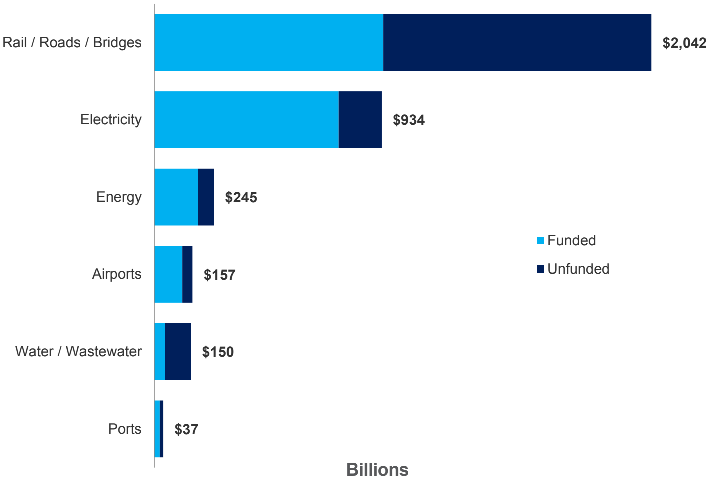
[1] *American Society of Civil Engineers, "Failure to Act: Closing the Infrastructure Gap", 2016.*

Figure 1 - Infrastructure Needs
2016-2025



Source: ASCE, 2016

How is each candidate planning to address the infrastructure issue? Surprisingly, the two plans look roughly similar. The centerpiece of Hillary Clinton's plan is $250 billion in direct public investment in five areas – highways, public transit, telecom, airports and energy.

Incented by attractive return potential and backed by common sense regulation, private companies are addressing some of the biggest infrastructure challenges today.

She'd also allocate $25 billion to an infrastructure bank which could attract another $225 billion in private capital through loan guarantees and direct loans, bringing the total investment from her plan close to $500 billion[2]. Based on recent comments, Trump supports direct public investment of over $500 billion financed with public debt. Trump would also like to see an infrastructure fund or a bank established to attract private capital but the details are not yet available. However, even if the new president is able to get everything he or she asks for in an infrastructure bill, we would still fall $900 billion short of the $1.4 trillion in funding that is required[3].

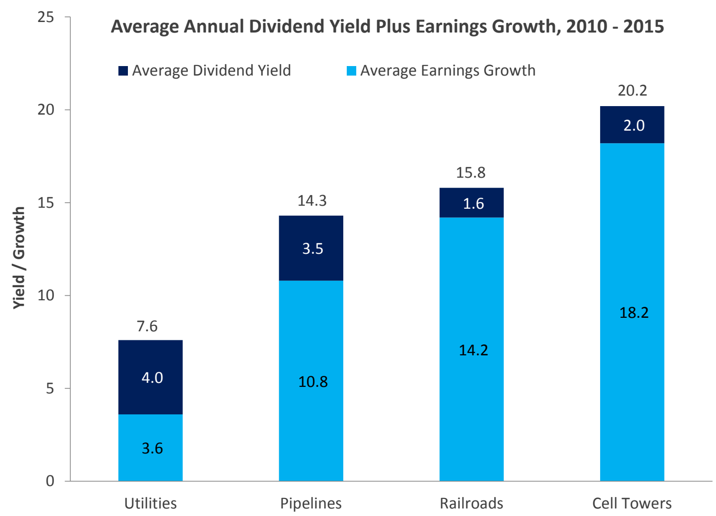
With that type of shortfall, where is the capital going to come from? In our view, a large share will have to come from the private sector, which is likely to translate into a multi-year growth cycle for listed infrastructure. Over the last five years, listed infrastructure companies in North America have spent over $850 billion on energy, electricity, rail transportation and telecom infrastructure[4] leading to significant revenue and EBITDA growth (see chart to the right). Incented by attractive return potential and backed by common sense regulation, publicly listed infrastructure companies are addressing some of the biggest infrastructure challenges today.

Railroads are working hard on resolving supply chain congestion through Chicago and making investments in intermodal which takes trucks off the highways and relieves congestion. Telecom carriers are investing in a switch from existing to faster 5G networks. Midstream energy companies are building new pipelines to bring cheap natural gas to underserved markets and debottleneck parts of the nation's pipeline infrastructure. Utilities have invested around $50 billion in the last 5 years to upgrade aging electric transmission lines and transformers[5]. But, as every infrastructure report card suggests, there is so much more to be done. And it's this enormous need for further investment which is going to drive private and public investment growth well into the future.

The estimated $1.4 trillion infrastructure spending deficit over ten years for highways, power grids, pipelines, waterways and airports will require significant investment by both the private and public sectors. According to the Congressional Budget Office, private companies account for nearly 50% of all infrastructure spending (excluding social infrastructure like schools)[6]. Private spending makes up 90% of the infrastructure spend in areas like energy and telecom[7]. We estimate the energy, power/electricity and rail/transportation sectors will account for $400 billion of the $1.4 trillion funding gap over the next ten years[8].

In power/electricity transmission, private company capital spending was around $70 billion in 2015, having grown at a healthy 7% CAGR since 2001[9]. Over the next 10 years, total U.S. electric infrastructure investment is expected to be almost $1 trillion, of which $177 billion remains unfunded[1]. The recent shift to natural

Figure 2 - Growth in Listed Infrastructure 2010-2015



Source: Bloomberg, FTSE. Data represents all North American companies in the FTSE Global Core Infrastructure 50/50 Index as of December 31, 2015.

[2] *Hillary Clinton website, "Hillary Clinton's Infrastructure Plan: Building Tomorrow's Economy Today".*
[3] *American Society of Civil Engineers, as of May 2016.*
[4] *Bloomberg; Company Reports; American Society of Civil Engineers, "2013 Report card for America's Infrastructure".*
[5] *American Society of Civil Engineers, "2013 Report card for America's Infrastructure, Energy".*

[6] *As of 2008.*
[7] *Congressional Budget Office Study, 2008.*
[8] *Bloomberg, CenterSquare Investment Management estimate.*
[9] *Bloomberg; American Society of Civil Engineers, "2013 Report card for America's Infrastructure, Energy".*

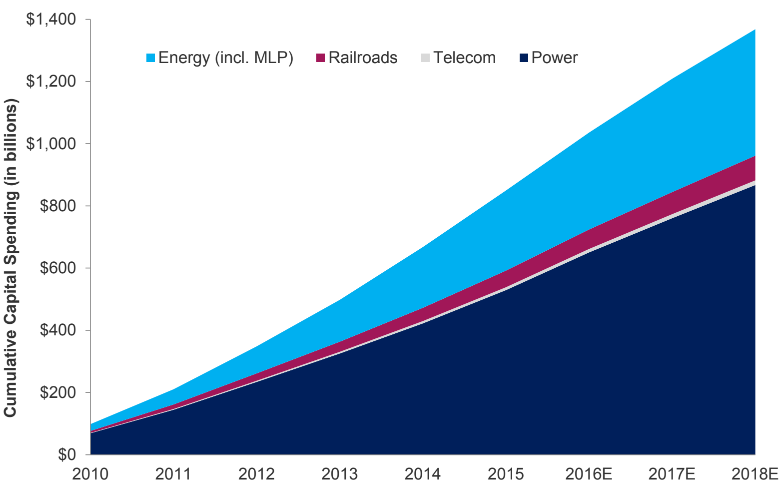
gas for power generation, continued deployment of renewables, and power plant retirements all necessitate additional spending. The growth rate in distribution and transmission spending will have to increase to close the gap and meet the needs of replacement, refurbishment and expansion. These investments should generate stable, predictable returns based on allowed rates of return established by state public service commissions. In addition, recent events in Flint, Michigan and San Bruno, California have heightened public awareness and scrutiny of these funding gaps. This should put upward pressure on capital investments over the coming years.

In energy, infrastructure spending by publicly listed infrastructure companies to move oil and gas increased by 60% between 2010 and 2013[10]. We estimate listed energy infrastructure companies will spend $145 billion over the next 3 years on new crude oil and natural gas pipeline infrastructure in North America[1]. Additionally, this figure does not include replacement and upgrading of legacy U.S. pipelines, which, on average, are more than 50 years old[1]. The Quadrennial Energy Review (QER) estimates the total cost of replacing bare steel and cast iron pipes in gas systems at an additional $270 billion[11].

Whatever the outcome in November, the infrastructure needs of the U.S. will present a political challenge to the Democrats and Republicans and an investment opportunity for those that are able to seize it.

In rails, listed companies like Union Pacific and CSX have spent $500 billion over the last 30 years maintaining and modernizing the railroad network, but more must be done to handle long-term growth in intermodal, chemicals and energy traffic[12]. Much like the utilities, the rails have been very effective at translating the capital spent on their networks into higher sales, earnings and cash flow. Over the last 10 years, infrastructure spending has allowed the U.S. railroads to carry more freight, improved service, taken thousands of trucks off U.S. highways and helped reduce highway congestion without spending a single taxpayer dollar.

Figure 3 - Private Infrastructure Spending by Sector, 2010-2018E



Source: Bloomberg estimates, as of September 15, 2016.

Each presidential candidate is offering a plan for infrastructure spending, but the ability to enact these programs is far from clear. For the moment, Congressional ability to finance these initiatives appears limited, and states and municipalities are even less well-equipped to do so. Private companies must continue to step in to provide cash in areas like energy, power, telecom and transportation. For consumers, that will likely mean lower fuel bills in winter, less congested highways, faster download speeds and higher economic growth. For investors, the additional spending on new and existing infrastructure offers structural growth and the potential for attractive risk-adjusted returns. Whatever the outcome in November, the infrastructure needs of the U.S. will present a political challenge to the Democrats and Republicans and an investment opportunity for those that are able to seize it.

[10] *Bloomberg; IHS Global "Oil & Natural Gas Transportation and Storage Infrastructure: Status, Trends & Economic Benefits", December 2013.*

[11] *As of April 2015.*

[12] *Bloomberg; American Society of Civil Engineers, "2013 Report card for America's Infrastructure, Rail".*

Disclosures

Disclosures Continued

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Firm

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