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Infrastructure Investing 101

BY JOE BOUSHELLE, MANAGING DIRECTOR, RESEARCH

Stories about collapsing bridges, crumbling dams and lead in children's drinking water have put U.S. infrastructure on the front pages of major newspapers and spurred political debate in Washington DC. According to the last two report cards from the American Society of Civil Engineers, U.S. infrastructure barely earned a passing grade and scored a D+[1]. This year's report suggested the U.S. needs to spend over $2 trillion over the next 10 years improving physical infrastructure. To meet those needs, the report recommends a combination of public and private investment. President Trump has pushed for a $1 trillion infrastructure bill that depends on private investment.

The President's Bill

President Trump's infrastructure spending bill would certainly create investment opportunities for investors, but Trump's initiatives do not need to pass to make infrastructure an attractive investment. Infrastructure is a global asset class and public-private partnerships have been used by developed and even developing countries to fund infrastructure needs. McKinsey research suggests the global need for new infrastructure will be $57 trillion over the next 15 years[2]. In the United States public-private partnerships are being pushed through at the local and state level and many do not depend on approval from Washington DC. Additionally, public-private partnerships make up only a small part of the global infrastructure market.

Infrastructure could be a possible investment solution for clients looking for stable cash flows, diversified returns and some inflation protection. However, it is important to understand the nuances and risks to understand how they fit in a diversified portfolio.

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What is Infrastructure Investing?
Infrastructure has several characteristics that could make it attractive in a diversified portfolio, especially for clients with longer-lived obligations. Infrastructure tends to have the following characteristics:

1. Long-lived assets, usually with economic lives of over 30 years and in many cases 50 or more years.
2. These assets tend to serve essential roles in communities and industries and can often have monopolistic characteristics. As a result, these assets can be subject to regulatory oversight.
3. Relatively stable cash flows as infrastructure assets often benefit from either inelastic demand or long-term contracts.
4. These assets tend to have high barriers to entries, either because of capital intensive construction or government regulations.

The long-lived nature and relatively stable cash flow generation are the characteristics that have made infrastructure attractive to investors with long-term obligations or long-term investment horizons, such as pension plans and sovereign wealth funds. From a portfolio standpoint, these assets could provide diversification from traditional assets, while generating enhanced cash yields and some inflation protection. Where the underlying cash flows are inelastic, infrastructure could also be defensive during economic recessions.

Main areas of infrastructure investing including energy and power, transportation, government services, water and agriculture. Energy and power can include subsectors such as electric and gas utilities, energy infrastructure for the transportation and processing of natural gas, crude oil and renewable energy. Transportation assets can include roads and tollways, ports, rail and airports. Water assets can include water utilities, waste water treatment plants and desalination facilities.

The following chart highlights different infrastructure sectors and broad return characteristics:

Sector	Expected Volatility	Estimated Current Annual Yield	Expected Annual Returns from Capital Appreciation	Total Expected Annual Returns
Private Public Partnerships (PPPs)	Low	4-5%	1-3%	5-8%
Contracted power generation	Low	5-8%	1-2%	6-10%
Regulated utilities	Low-Medium	4-7%	3-4%	8-10%
Toll Roads	Low-Medium	4-6%	4-6%	8-12%
Airports	Medium	5-7%	5-8%	10-15%
Seaports	Medium	5-7%	6-9%	11-16%
Freight Rail	Medium-High	6-8%	6-8%	12-16%
Telecommunications	High	5-9%	7-9%	12-18%
Merchant power generation	High	0-4%	10-16%	16-20%
Midstream Energy	High	5-9%	10-14%	15-23%

For informational purposes only. Actual yields or returns could be lower or higher.

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Infrastructure Risk Spectrum

We look at infrastructure assets across a risk spectrum similar to real estate. The term “core” is used by infrastructure managers and can mean a couple of different things. Most of the time, core refers to the critical nature of the assets. However, when looking through the infrastructure risk-return spectrum core can also mean mature assets, with little or no construction needs and little room for operational improvements. The chart below highlights the infrastructure risk spectrum:

	Core	Core Plus	Value-Add	Opportunistic
Target Returns **(Gross Annualized)**	**5-9%**	**8-12%**	**11-15%**	**15%+**
Characteristics	• Mature Operating Business • Little or no room for operational improvements or construction needs • Indefinite hold period	• Mature assets with limited construction risk • Room for operational improvements or opportunities to reposition as core • More variable revenue streams which could include greater economic sensitivity or regulartory risks	• Brownfield construction projects • Can include carve-outs, platform rollups or asset restructurings which are more operationally intensive than core or core plus	• Greenfield development projects • Significant repositioning of assets • Higher risk locations, such as emerging markets • Returns will depend on management execuvtion and market environment

For informational purposes only. Actual returns could be lower or higher.

Source: The Carlyle Group

Publicly-traded infrastructure tends to focus on the core and core plus end of the risk spectrum, but with the added benefit of improved liquidity, with greater price volatility and short-terms correlations to public securities.

Where to Invest in Infrastructure Today

Infrastructure investing is not without risks. Low interest rates have pushed up the values of core assets as investors reach for yield. If yields remain low, core asset valuations should continue to benefit. However, the long duration of contracts can leave them exposed to price adjustments in a rising interest rate environment. The combination of lower current yields, limited upside price appreciation and the potential for asset price depreciation limit the excitement for core infrastructure.

Moving out on the risk spectrum increases the execution risks but also increases return expectations. We feel that given these return expectations investors could be adequately compensated for taking that risk. This is also the area of the risk spectrum that should benefit from the global demand for infrastructure projects.

Almost all infrastructure projects, even those that are not public-private partnerships, are subject to political risks. Governments can fail or revoke project approvals or change subsidy structures. They have also been known to take over assets or change pricing schemes. Therefore, it is important to develop a diversified portfolio and limit exposure to countries without well-defined rules of law.

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Hartland can help develop a broad portfolio to take advantage of the benefits of infrastructure while focusing on minimizing the potential risks.

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[1] https://www.infrastructurereportcard.org/

[2] http://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/new-horizons-for-infrastructure-investing

MARKET BENCHMARK RETURNS

July 31, 2017		1M	3M	12M	YTD
US Large Cap	S&P 500	2.1%	4.1%	16.0%	11.6%
US Small Cap	Russell 2000	0.7%	2.1%	18.5%	5.8%
Developed Intl	MSCI EAFE	2.9%	6.5%	17.8%	17.1%
Emerging Intl	MSCI Em Mkt	6.0%	6.5%	24.8%	25.5%
Real Estate	NAREIT	1.2%	3.1%	-1.2%	6.7%
Core Fixed	BarCap Agg	0.4%	1.1%	-0.5%	2.7%
Short Fixed	BarCap 1-3Yr	0.3%	0.4%	0.6%	1.0%
Long Fixed	BarCap 10+Yr	0.3%	3.1%	-3.3%	6.3%
Corp Debt	BarCap Corp	0.7%	2.1%	1.3%	4.4%

Source: Bloomberg

The performance data shown represent past performance. Past performance is not indicative of future results. Current performance data may be lower or higher than the performance data presented.