



# Essential assets: The case for listed infrastructure

Investors' search for diversification and inflation protection has put a spotlight on infrastructure, made brighter by massive public investment programs and the accelerating transition to a digitized, decarbonized economy.

by Ben Morton

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## KEY TAKEAWAYS

### **A growing asset class with a compelling track record**

Infrastructure's regulated, concession-based or contracted revenues and its inflation sensitivities have historically resulted in competitive returns, low volatility and strong performance in periods of higher-than-expected inflation.

### **A diverse universe supported by structural growth trends**

Infrastructure companies are leading the charge in clean energy, supply chain modernization and the digital economy, creating potential long-term opportunities for growth.

### **A liquid complement to private assets**

A listed infrastructure allocation can provide access to diverse assets that may not be readily available through private investments, while also offering liquidity to aid in managing and rebalancing portfolios.

# A growing asset class with a compelling track record

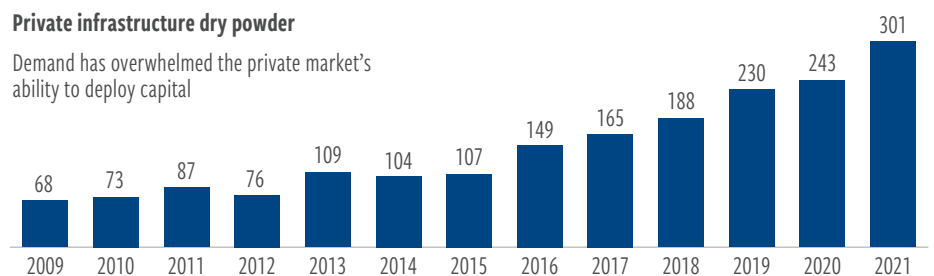
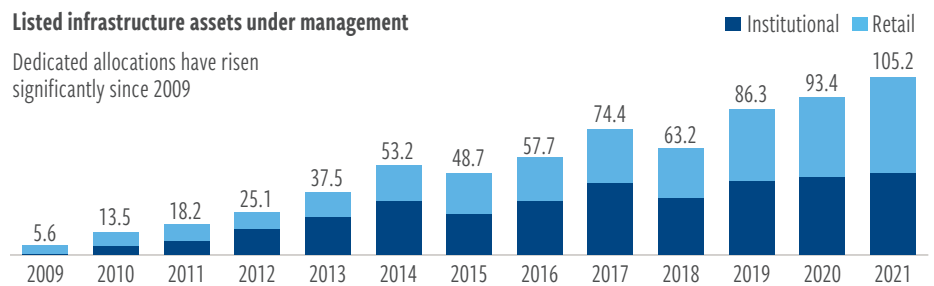
Demand for infrastructure investments, both listed and private, is at its highest level on record. Assets in dedicated listed infrastructure products have reached \$105 billion globally, while managers of private infrastructure funds are raising capital faster than they can deploy it. In fact, private managers are now sitting on more than \$300 billion in dry powder—cash on the sidelines, looking for suitable investments (Exhibit 1).

While historic public infrastructure spending programs have raised the public profile of infrastructure as an asset class, we see several fundamental factors driving demand for listed infrastructure allocations, including:

- **Appetite for infrastructure’s attractive historical investment attributes**, including the potential for strong total returns, reduced volatility and inflation protection
- **Access to critical forces driving economic change**, including infrastructure modernization, digital transformation of economies, decarbonization, and investments in improving supply chain logistics
- **Acceptance that listed infrastructure may be an effective complement to private infrastructure investments**, offering diversified exposure with access to assets and industries that may be less available to private investors

EXHIBIT 1

**Infrastructure demand is at an all-time high**  
US\$ billions



At September 30, 2021. Source: eVestment, Preqin.  
Dry powder is the amount of capital that has been committed to a private equity fund minus the amount that has been called by the general partner for investment. There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend will begin. See endnotes for additional disclosures.

## A historically attractive return profile

Listed infrastructure has little overlap with broad equity allocations, accounting for just 3.4% of the MSCI World Index, and provides access to subsectors and investment themes that are typically under-represented in broad equity market allocations.

Performance data over the past 15 years (since index inception in 2006; Exhibit 2) indicates that listed infrastructure offers the potential for:

- **Competitive performance** relative to global equities, with total returns averaging 7.8% per year
- **Lower volatility**, supported by the relatively predictable cash flows of infrastructure businesses
- **Improved risk-adjusted returns**, as measured by a higher Sharpe ratio
- **Resilience in down markets**, with infrastructure historically experiencing 64% of the market's decline, on average, in periods when global equities retreat

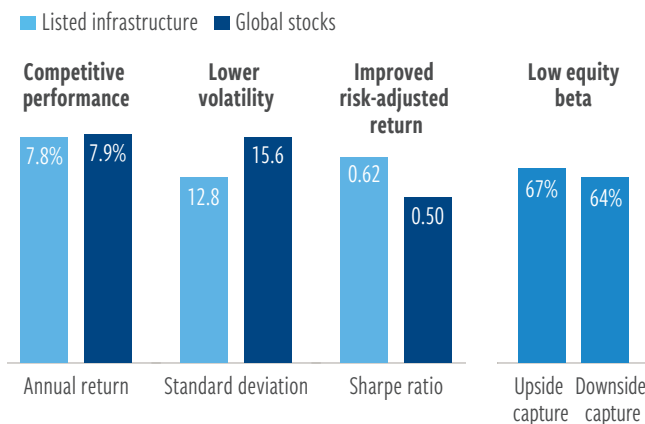
## Infrastructure outperformed in 8 of last 10 market declines

In the 2020 downturn, infrastructure didn't exhibit its typical defensive behavior, as social distancing policies had an outsized effect on passenger transportation subsectors. Historically, however, this was an outlier: infrastructure's resilience has resulted in favorable relative performance in most market declines (Exhibit 3).

EXHIBIT 2

### A favorable return profile

Performance statistics, 2006–2021



At September 30, 2021. Source: Cohen & Steers.

EXHIBIT 3

### History of resilience in down markets

Global market declines >5%

Date range	Listed infrastructure	Global equities	Relative return
02/23/07–03/05/07	-4.9%	-5.9%	<b>1.0%</b>
10/11/07–01/22/08	-9.1%	-16.7%	<b>7.6%</b>
09/14/08–03/09/09	-38.0%	-45.8%	<b>7.8%</b>
05/03/10–05/25/10	-11.7%	-12.5%	<b>0.8%</b>
07/26/11–08/08/11	-12.7%	-15.5%	<b>2.8%</b>
05/21/13–06/20/13	-9.8%	-6.2%	<b>-3.6%</b>
05/19/15–02/11/16	-12.1%	-17.6%	<b>5.5%</b>
01/26/18–02/08/18	-7.3%	-9.0%	<b>1.8%</b>
09/27/18–12/24/18	-4.2%	-17.4%	<b>13.2%</b>
02/19/20–03/23/20	-36.9%	-33.7%	<b>-3.2%</b>

At September 30, 2021. Source: FTSE, MSCI, Cohen & Steers.

**Past performance is no guarantee of future results.** Sharpe ratio is a measure of risk-adjusted return, calculated by subtracting the risk-free rate from a return and dividing that result by the standard deviation.; the higher the Sharpe ratio, the higher the risk-adjusted return. Upside capture represents the average performance relative to the broad global stock market in months of positive returns. Downside capture represents the average performance relative to the broad global stock market in months of negative returns. Exhibit 3 periods selected based on declines of 5% or more in the MSCI World Index (net). An investor cannot invest directly in an index and index performance does not reflect the deduction of any fees, expenses or taxes. Index comparisons have limitations as volatility and other characteristics may differ from a particular investment. The information above does not reflect information about any fund or account managed or serviced by Cohen & Steers, and there is no guarantee investors will experience the type of performance reflected above. See endnotes for index definitions and additional disclosures.

### Beneficial inflation characteristics

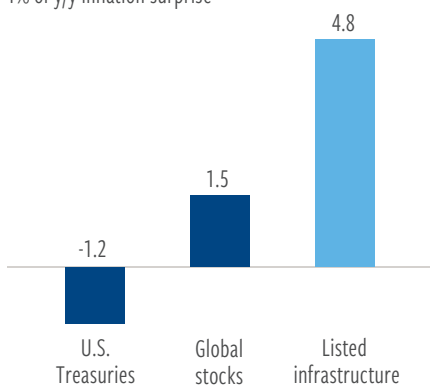
Infrastructure has historically delivered strong relative returns during periods of higher-than-expected inflation, compared with modest or negative relative performance for stocks and bonds (Exhibit 4). This positive sensitivity has resulted from inflation-linked pricing mechanisms in many infrastructure revenue models, which provide for contractual adjustments to user fees. These adjustments may be based on fixed increases approximating inflation or on variable increases linked to consumer or producer price changes (see inset table). Furthermore, certain subsectors—particularly in transportation infrastructure—may benefit from rising throughput in a strengthening economy.

EXHIBIT 4

#### Strong relative returns in inflationary periods

Inflation beta, June 1991–September 2021

Listed infrastructure has outperformed its long-term average by 4.8% for every 1% of y/y inflation surprise



Revenue model	Subsectors (Index weight)	Inflation linkage
<b>Regulated</b>	Electric (40%) Gas distribution (7%) Water (4%)	Inflation factored in when determining consumer rates and included in utility project costs that can affect a utility’s rate base
<b>Concession-based</b>	Airports (8%) Toll roads (8%)	Local government agreements allow service rate increases based on fixed amounts above the inflation rate
<b>Contracted: GDP sensitive</b>	Midstream (11%) Freight rails (6%) Marine ports (3%)	Contracted rates typically include escalators if inflation exceeds a specified level; economically sensitive volumes can indirectly offset inflation
<b>Contracted: other</b>	Communications (12%)	Most service contracts include fixed revenue escalators (often 3–4% per year) to offset inflation impact

At September 30, 2021. Source: Bloomberg, Refinitiv, U.S. Bureau of Labor Statistics, Cohen & Steers proprietary analysis.

**Past performance is no guarantee of future results.** Inflation beta is the linear regression beta of 1-year real returns to the difference between the y/y realized inflation rate (U.S. CPI) and lagged 1-year-ahead expected inflation (median inflation expectation from Univ. of Michigan Survey of 1-year-ahead inflation expectations), including the level of the lagged expected inflation rate. The information presented above does not reflect the performance of any fund or other account managed or serviced by Cohen & Steers, and there is no guarantee investors will experience the type of performance reflected above. There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend will begin. The mention of specific sectors is not a recommendation or solicitation to buy, sell or hold any particular security and should not be relied upon as investment advice. See endnotes for index associations, definitions and additional disclosures.

### Interest-rate reactions historically followed by strong relative returns

Rising interest rates can pose a near-term risk to infrastructure performance, as sharp increases in Treasury yields may cause an initial negative reaction. However, following rate-driven pullbacks, infrastructure has historically outperformed global equities over the ensuing 3-, 6- and 12-month periods, as the benefits of stronger economic growth and inflation were eventually reflected in revenues.<sup>(1)</sup>

(1) Based on the 12 largest one-month increases in the 10-year Treasury yield from January 2000 to September 2021. See endnotes for index associations, definitions and additional disclosures.

## Providing essential services

The return profile noted above is the result of fundamental characteristics of infrastructure businesses:

<b>Long-lived real assets</b>	Infrastructure companies own physical assets with useful lives typically greater than 20 years.
<b>High barriers to entry</b>	Competition is often limited by strict zoning restrictions, large capital requirements and, in some cases, exclusivity rights, which make it difficult or prohibitive for new entrants.
<b>Stable cash flows</b>	Infrastructure businesses typically operate in regulated industries, potentially enhancing the predictability of cash flows and lowering financial risk.
<b>Inelastic demand</b>	The essential nature of infrastructure means demand tends to be relatively resilient in economic downturns (though this varies by sector).

Through listed infrastructure companies, investors can gain access to a globally diversified portfolio of infrastructure assets valued at about US\$4.5 trillion, spread across the Americas, Europe and Asia Pacific. The investment universe contains a broad range of subsectors spanning four main categories:

Utilities	Communications	Transportation	Energy
Electric	Data centers	Airports	Midstream
Gas	Satellites	Marine ports	
Renewables	Towers	Railways	
Water		Toll roads	

## Active management opportunities

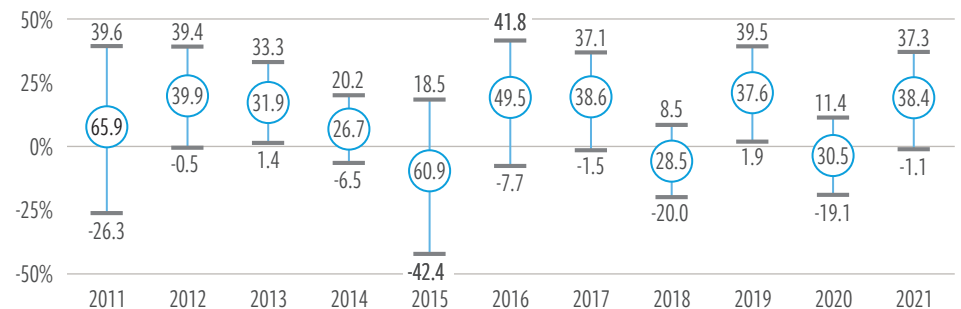
Each infrastructure subsector has distinct supply and demand drivers, resulting in a wide dispersion in returns in a given period. Since 2011, the difference between the best and worst subsector returns has been as much as 65.9 percentage points and as little as 26.7 (Exhibit 5). Differences in returns are typically even greater at the security level. This wide range in outcomes offers active listed infrastructure investment managers an opportunity to take subsector-level positions with high conviction—which may enhance the performance of portfolios.

### EXHIBIT 5

#### Subsector return dispersion indicates potential for alpha generation

The spread between the year's best- and worst-performing subsectors has averaged 41%

Top and bottom listed infrastructure sector returns by calendar year (%)



At September 30, 2021. Source: FactSet and Cohen & Steers.

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# A diverse universe supported by structural growth trends

We believe this asset class is positioned to benefit from four distinct long-term investment themes:

1. **Infrastructure modernization** in both developed and emerging economies
2. **Digital transformation** affecting nearly every industry
3. **Decarbonization** driving a global transition to renewable energy
4. **Supply chain improvements** to facilitate global movement of goods

## Infrastructure modernization and urbanization

The need for and provision of critical, essential services can create potential return-generating investment opportunities—and the necessity for infrastructure investment is both substantial and global. In developed markets, critical upgrades are urgently required to address deteriorating service quality, from dangerous lead levels in city water supplies to derailments of freight and passenger trains. Governments around the world have either proposed or enacted infrastructure investment programs approaching \$3 trillion, seeking to drive a sustainable economic recovery and reduce carbon emissions (Exhibit 6).

In the U.S., we see several potential benefits from proposed spending:

- Direct benefits for renewable energy developers and electric utilities, primarily through tax incentives
- Potential for new revenue opportunities for cell tower and data center companies due to a larger addressable market for wireless carriers
- Added boost to economic growth prospects, potentially supporting many segments of listed infrastructure (particularly railways, marine ports, toll roads and airports)

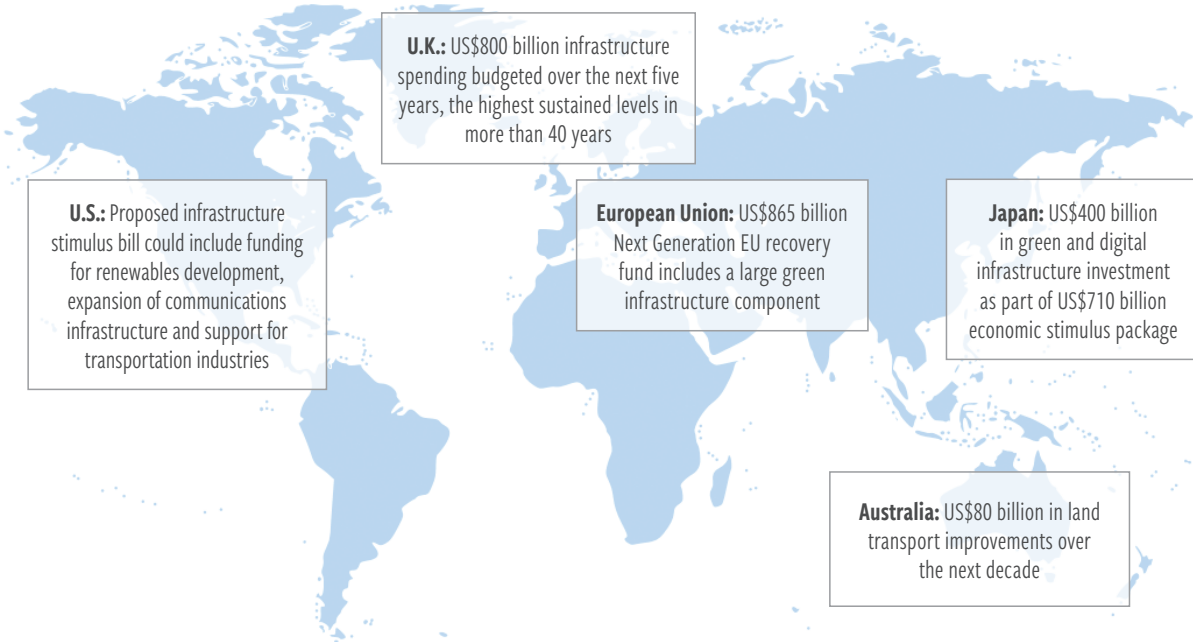
Meanwhile, emerging economies frequently need critical investment to support demographically fueled economic growth, expand urban capacity and meet the demand for higher standards of living. The U.N. projects that the world's population will expand by roughly 10% this decade and by more than 25% by 2050, driving the need for additional infrastructure.<sup>(1)</sup>

(1) Source: World Population Prospects 2019, United Nations Department of Economic and Social Affairs.

EXHIBIT 6

**Global infrastructure spending fervor**

Spending programs supporting growth strengthen an already attractive environment for infrastructure businesses



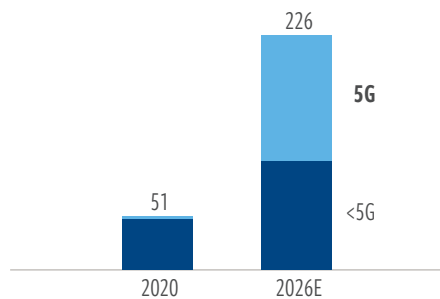
At September 30, 2021. Source: Cohen & Steers.

EXHIBIT 7

**Mobile data expected to quadruple**

Growing data intensity will require major investments in wireless networks and data centers

Global mobile data traffic, 2020–2026E (exabytes per month)



At September 30, 2021. Source Ericsson Mobility Report. There is no guarantee that any market forecast or investment objective set forth in this presentation will be realized. See endnotes for additional disclosures.

**Digital transformation**

Virtually every industry is moving to build out digital platforms, and 5G wireless technology is poised to transform every corner of the economy over the next decade. We expect wireless network deployment to grow at an accelerating pace as cloud computing, artificial intelligence and the internet of things (machine-to-machine communications) proliferate.

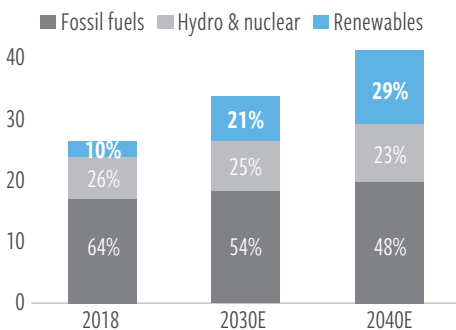
The rapid expansion in data usage in the late-4G environment, coupled with the expected urgent demands of the approaching 5G era, will likely require massive investments to expand communications infrastructure capacity over the next decade. Industry estimates show potential for a fourfold increase in global mobile data traffic by 2026, with 5G networks expected to carry more than half of all traffic (Exhibit 7). This growth will likely support demand for cell tower and data center services and assets for years to come.

EXHIBIT 8

**The accelerating transition to renewable energy**

Significant growth opportunities exist for electric utilities and renewable energy developers

**Global power generation by energy source, 2018–2040E (terawatt-hours, 000s)**



At September 30, 2021. Source: International Energy Agency, Cohen & Steers analysis.

Data quoted represents past performance, which is no guarantee of future results. There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend might begin. Data based on IEA's World Energy Outlook 2019. See endnotes for additional disclosures.

**Decarbonization**

Renewable energy has strong political and regulatory backing, while declining production costs for solar and wind have allowed these technologies to become cost-competitive with coal, gas and nuclear generation. Though experts disagree on the timing and scale of the transition away from carbon-based fuel sources, we believe increased reliance on green power is a potentially game-changing growth opportunity for utilities, pure-play owners of solar and wind assets, and owners of transmission businesses.

Wind, solar and biomass's current share of global power generation is only slightly more than 10% today, but it is expected to rise to 29% by 2040 under current policies (Exhibit 8). The International Energy Agency estimates that figure could reach 49% by 2040 if additional sustainable policies are adopted. Increased government support could improve potential returns for developers and investors while likely accelerating the pace of the transition.

**Supply chain improvements**

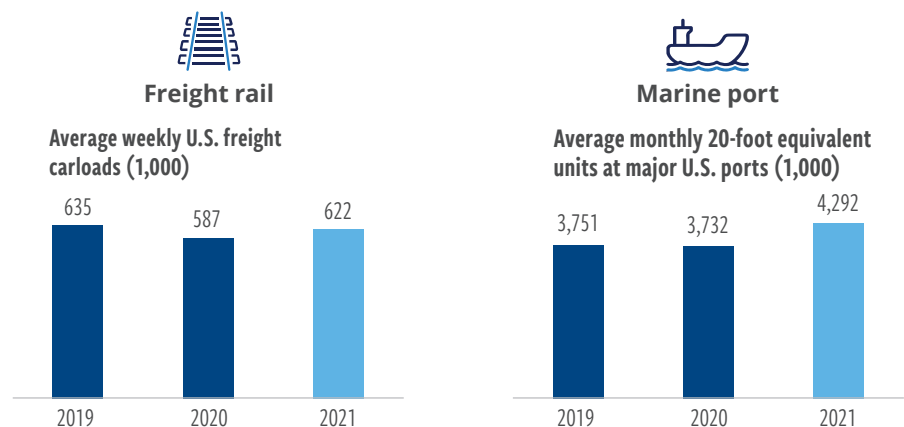
The pandemic has exposed major deficiencies in the global supply chain, which have caused shortages of vital products ranging from semiconductor chips and medical supplies to everyday household items. Long delays in delivery times and soaring shipping costs have underscored the need for supply chain redundancies.

In our view, demand for such redundancies should fuel growth for infrastructure subsectors that facilitate global trade, notably freight railroads and marine ports. Volumes in these subsectors have substantially rebounded from 2020 levels and are now approaching 2019 (i.e., pre-pandemic) levels, driven by restocking and e-commerce trends as well as strategic onshoring of industrial activity (Exhibit 9). In addition, improving operational efficiencies and higher capital returns are likely providing tailwinds for freight rail companies.

EXHIBIT 9

**Strategic onshoring may spur growth for transportation**

Activity in key supply chain subsectors has rebounded from early pandemic levels



At September 30, 2021. Marine ports data as of June 30, 2021. Source: Wells Fargo. U.S. Bureau of Transportation Statistics, Cohen & Steers analysis. Past performance is no guarantee of future results. There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend might begin. The mention of specific sectors is not a recommendation or solicitation to buy, sell or hold any particular security and should not be relied upon as investment advice. See endnotes for additional disclosures.

# A liquid complement to private infrastructure

Listed infrastructure is a compelling way to invest in a rapidly growing sector of the global economy, combining attributes of private infrastructure investments with additional potential benefits.



## Liquidity and daily pricing

Private investment lock-up periods can exceed 10 years. By contrast, listed infrastructure securities trade on public markets in real time. This allows managers to potentially capitalize on dislocations that may occur in listed values, as well as to efficiently manage allocation changes.



## Diversification

Private funds often invest in just a handful of assets concentrated within a few geographies and/or subsectors. Listed investments offer greater diversification—even at the security level. For example, utilities often own dozens or more assets, which may be spread across multiple geographies.



## Corporate governance

Listed companies are subject to oversight by regulatory agencies, which require strict standards of corporate governance, financial reporting and information disclosure. In the U.S., the Securities and Exchange Commission requires quarterly statements as well as detailed supplementals. The adoption of best practices in corporate governance can align managers' interests with those of shareholders.



## A large opportunity set

The number and variety of infrastructure assets available for private investment are fairly low at any point in time. According to Preqin, the average private fund, for instance, holds around eight investments, versus more than 60 in a listed infrastructure strategy. Moreover, some subsectors (notably airports, railroads and digital infrastructure) aren't typically available to private buyers. A listed infrastructure portfolio can offer exposure across a wide range of sectors, geographic regions and market capitalizations.

# A potentially attractive entry point for allocations

As awareness of listed infrastructure's potential benefits has grown, so too have allocations from both institutional and retail investors. Further, while infrastructure has long appealed to those seeking diversification and stable income, the asset class's positive inflation characteristics are now providing an additional incentive amid \$31 trillion in global monetary and fiscal stimulus enacted since the Covid outbreak in early 2020.

Given rising inflation risks, uncertain return prospects in fixed income, and growing concentration in equity markets, we believe this is an attractive opportunity to allocate to global listed infrastructure.

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## Reasons to consider listed infrastructure:

### A differentiated performance profile

- History of strong relative performance in inflationary periods
- Potential to improve long-term risk-adjusted returns and reduce downside risk during market declines
- Potential for 3–4% dividend yield and 4–6% long-term cash flow growth<sup>(1)</sup>

### Compelling investment themes

- Historical underinvestment in infrastructure has led to critical deterioration in service quality, requiring both public and private capital investment to modernize assets
- Digital transformation affecting nearly every industry, driving long-term growth for cell towers and data centers
- Utilities and renewables developers positioned to benefit from growing support and competitive costs for clean energy investments
- Transportation sectors such as freight rails and marine ports essential to solving the world's evolving supply chain needs

### An attractive complement to private infrastructure

- Ease of implementation at a time of record dry powder in private infrastructure funds
- Opportunities for global diversification within an infrastructure allocation
- Benefits of liquidity and the oversight of public markets

(1) Based on the current dividend yield of the FTSE Global Core Infrastructure Index and Cohen & Steers proprietary estimate of long-term cash flow growth as of September 30, 2021.

## About the author

**Benjamin Morton**, Executive Vice President, is Head of Global Infrastructure and a senior portfolio manager for Cohen & Steers' infrastructure portfolios, including those focused on master limited partnerships. He has 21 years of infrastructure-related investment experience. Prior to joining Cohen & Steers in 2003, Mr. Morton worked at Salomon Smith Barney as a research associate for three years, covering the utilities and pipelines sectors. He also worked at New York Mercantile Exchange as a research analyst. Mr. Morton holds a BA from the University of Rochester and an MES from Yale University. He is based in New York.



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## Index definitions / important disclosures

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**Global listed infrastructure:** FTSE Developed Core Infrastructure 50/50 Index, a market-capitalization-weighted index of infrastructure and infrastructure-related securities in worldwide developed markets; constituent weights are adjusted semi-annually according to three broad industry sectors: 50% utilities, 30% transportation, and a 20% mix of other sectors, including pipelines, satellites, and telecommunication towers. Exhibit 4: 50/50 Blend of Datastream World Pipelines and Datastream World Gas, Water and Multi-Utilities through July 2008; Dow Jones Brookfield Global Infrastructure Index thereafter. The Dow Jones Brookfield Global Infrastructure Index is a float-adjusted market-capitalization-weighted index that measures performance of globally domiciled companies that derive more than 70% of their cash flows from infrastructure lines of business.

**Global equities:** MSCI World Index, a free-float-adjusted index that measures the performance of large- and mid-capitalization companies representing developed-market countries and is net of dividend withholding taxes.

**U.S. Treasuries:** ICE BofA U.S. 7-10 Year Treasury Index is composed of U.S. Treasury Notes with a 7-10-year maturity.

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