Meeting the demand for listed infrastructure indexes in developed markets

Infrastructure is an asset class often seen by investors as a diversification tool that can provide a hedge to long-term liabilities by offering exposure to potentially stable returns and steady income. Developed markets listed infrastructure indexes enable investors to measure the performance of an increasingly important segment of global equity markets.

Like real estate, infrastructure assets have shown the ability to generate a steady income stream, an increasingly attractive proposition in a low interest rate environment. In addition to higher dividend yields, listed infrastructure investments may offer higher return-to-risk ratios.

With these features in mind, market participants may use infrastructure indexes as diversification tools for global investment portfolios. The FTSE Developed Core Infrastructure Index provides a means to benchmark the returns of listed companies involved in infrastructure activities in developed markets around the globe.

What is infrastructure?

In an investment context, infrastructure assets cover a wide range of sectors, including transportation, energy, utilities, communications and social infrastructure.

FTSE Russell defines core infrastructure companies as those that own, manage or operate structures or networks used for the processing or moving goods, services, information and data, people, energy and necessities from one location to another. This definition therefore includes the businesses that provide the means of processing or movement of goods or services, but not the goods or services themselves. Examples of some types of core infrastructure within some key subcategories are outlined in Figure 1.

Figure 1. Types of core infrastructure

Transportation

- Roads, bridges, tunnels
- Ports
- Airports
- Railways (including regional, commuter and light rail)
- Terminals and depots
- Inland waterways

Energy

- Electricity generation, distribution and transmission (regulated utilities)
- Water supply projects
- Pipelines

Telecommunications

- **Fixed line** (i.e. coaxial, copper, fiber optic or otherwise) telephone and data networks
- **Transmission lines or towers** (or, who lease them to others)
- **Wireless transmission towers** (or, who lease them to others)
- **Transmission satellites** (or, who lease them to others)

Source: FTSE Russell.

Global infrastructure spending on the rise

Global spending on infrastructure is projected to rise over the coming decades.[1] In a 2016 study,[2] consultant McKinsey estimated that global economies need to invest US$3.3 trillion in infrastructure annually between 2016 and 2030 to keep pace with desired economic growth rates.

The expected increase in infrastructure spending in many developed economies is based on the need to replace aging and decaying infrastructure. While the proportion of infrastructure spending that is financed by the private sector varies by country and infrastructure sector, overall the private sector's share of spending has been on the rise throughout the world. This reflects the trend during recent decades of privatizing previously public assets and continuing constraints on public finances.

Listed and unlisted infrastructure investment

In the past, many institutions have preferred to invest in infrastructure via unlisted vehicles, but this type of approach can often involve high investment minimums, extended lockout periods, and can only represent a limited portion of the infrastructure opportunity set. According to asset manager Maple-Brown Abbott,[3] a firm specializing in the global listed infrastructure sector, an investment in publicly traded infrastructure equities can offer several potential advantages relative to an unlisted fund:

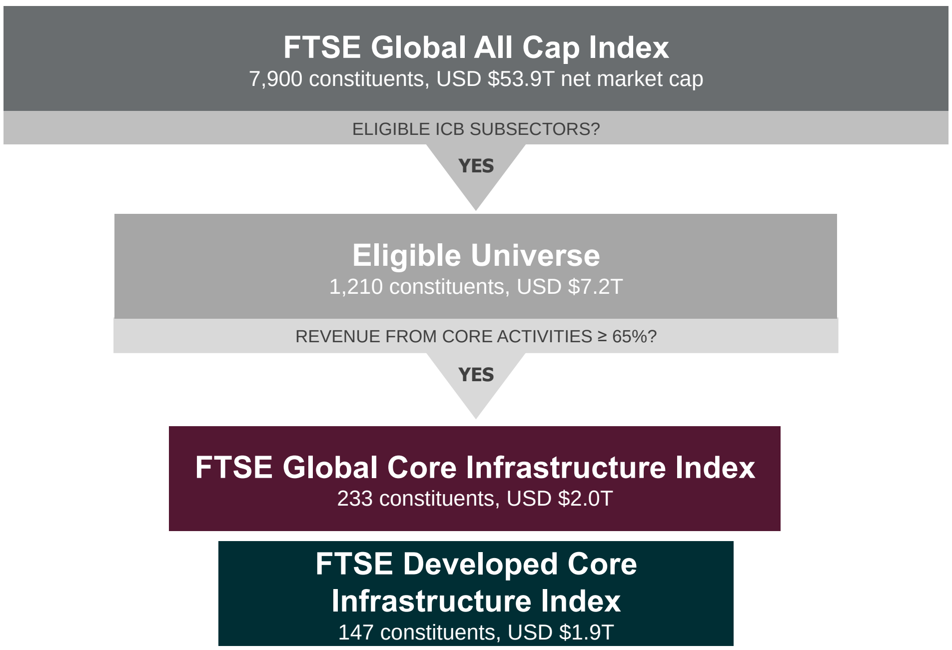
- **A larger opportunity set**—investors have greater choice in the listed infrastructure equities market
- **Greater diversification**—the listed equity market provides greater opportunities for diversification as the minimum investment amount is likely to be much lower than for an unlisted infrastructure fund
- **Transparency**—as part of regulated stock markets, listed infrastructure companies provide high levels of disclosure and information to investors
- **Daily liquidity**—investors in listed infrastructure equities can exit their positions at will, whereas investors in unlisted infrastructure funds may have to wait years to redeem their holdings
- **Lower fees**—a listed infrastructure fund typically carries substantially lower fees than an unlisted fund, which may levy a management fee and a performance fee

[1] http://www.pwc.com/gx/en/capital-projects-infrastructure/publications/cpi-outlook/assets/cpi-outlook-to-2025.pdf
[2] "Bridging Global Infrastructure Gaps", McKinsey, June 2016.
[3] See "The role of infrastructure in a portfolio", Maple-Brown Abbott, September 2016.

FTSE Developed Core Infrastructure Index

The FTSE Developed Core Infrastructure Index provides a comprehensive benchmark to measure the performance of listed infrastructure equities for global developed markets.[4] As shown in Figure 2, the construction process starts with the broad FTSE Global All Cap Index, and then narrows down the universe to only include eligible ICB subsectors. To then become eligible for the infrastructure index, companies must derive at least 65% of their revenues from core infrastructure activities, as defined in Figure 1. Companies from core infrastructure sectors are included at their investable market capitalization.

Figure 2. FTSE Developed Core Infrastructure Index construction process



Source: FTSE Russell as of September 28, 2018.

The methodology used to construct the FTSE Developed Core Infrastructure Index is robust and transparent, resulting in an index that effectively captures the infrastructure asset class. In fact, when Maple-Brown Abbott assigned “infrastructure purity” scores to several major global infrastructure indexes, the FTSE index scored highest in its ability to exhibit what they believe to be the key infrastructure characteristics.[5]

This gives market participants an industry-defined interpretation of infrastructure and is used both as a benchmark for the listed developed markets infrastructure sector and as the underlying performance target of several index-tracking financial products.

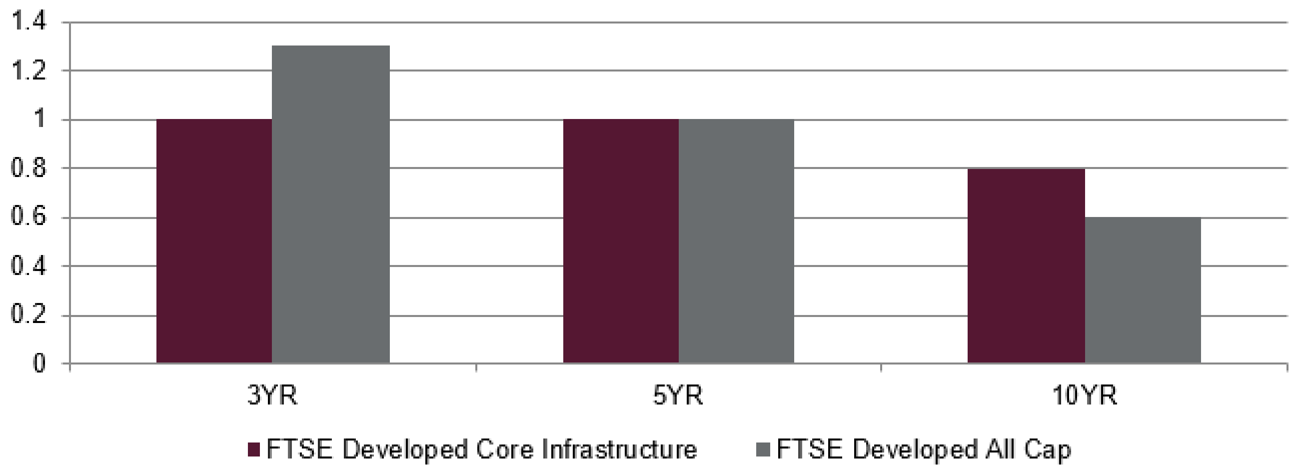
Developed markets infrastructure: Risk and return

Annualized return-to-risk ratios of the FTSE Developed Core Infrastructure Index over the 3-, 5- and 10-year periods ending September 2018 are shown in Figure 3, along with the broader FTSE Developed All Cap Index.

[4] For additional information on the FTSE Infrastructure Index Series methodology, please refer to the construction and methodology document at http://www.ftse.com/products/indices/infra

[5] See “The role of infrastructure in a portfolio”, Maple-Brown Abbott, September 2016. The study focused on the FTSE Global Core Infrastructure 50/50 Index, a capped version of the FTSE Global Core Infrastructure Index from which the FTSE Developed Core Infrastructure Index is derived.

Figure 3. Annualized Return/Risk Ratio



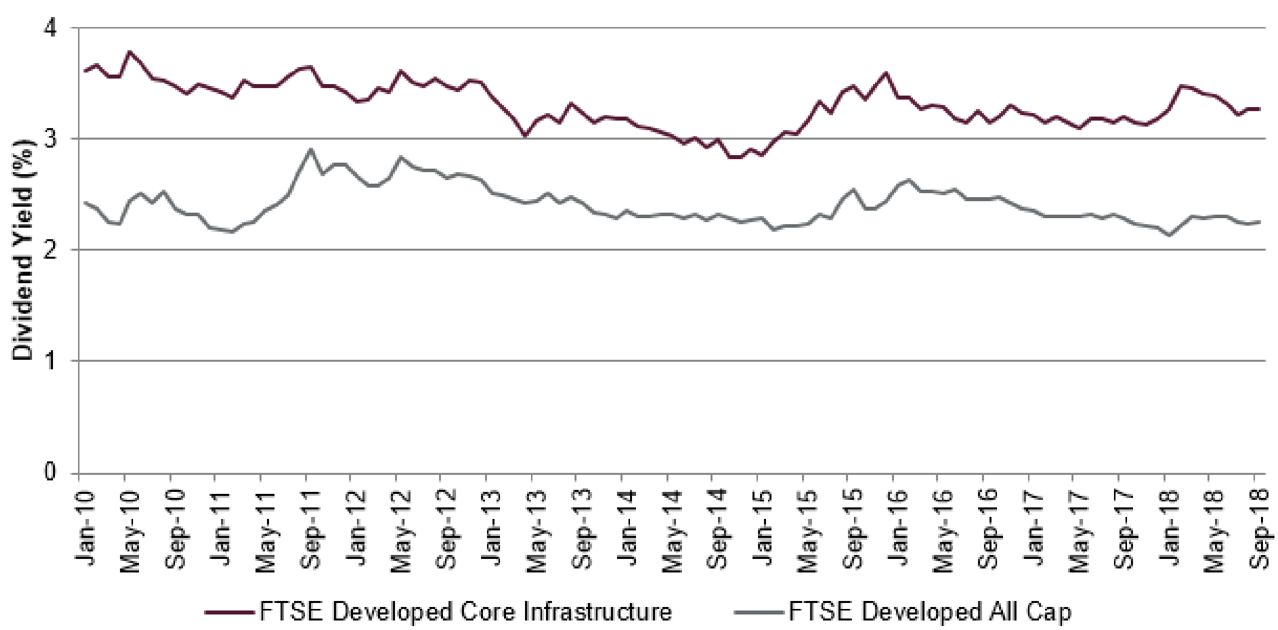
Source: FTSE Russell, data as of September 28, 2018. Past performance is no guarantee of future results. Returns shown prior to April 2011 reflect hypothetical historical performance. Please see the end for important legal disclosures. See index factsheets on ftserussell.com for updated data.

For the 3-year period, the FTSE Developed Core Infrastructure Index return-to-risk ratio was below that of the FTSE Developed All Cap Index, and equal for the 5-year period. For the 10-year period the return-to-risk ratio of the global infrastructure index posted relatively higher, with a ratio of 0.8 compared with 0.6 for the broader index.

Potential for higher dividend yields

Over the time period of January 2010 to September 2018, higher income from infrastructure assets was reflected in the dividend yield of the FTSE Developed Core Infrastructure Index relative to the FTSE Developed All Cap Index. On average, the developed infrastructure index was 90 bps in excess of the broader index over this time period, demonstrating a consistently higher yield.

Figure 4. Historical Dividend Yields



Source: FTSE Russell, data as of September 28, 2018. Past performance is no guarantee of future results. Dividend yields shown prior to April 2011reflect hypothetical historical performance. Please see the end for important legal disclosures. See index factsheets on ftserussell.com for updated data.

Meeting a growing need

In an environment of low interest rates, infrastructure is generating interest from a wide variety of investors. Listed infrastructure equities offer exposure to the foundation of the global economy, including transportation, energy, telecommunications and related sectors.

To meet this growing demand, the FTSE Developed Core Infrastructure Index offers a benchmark to effectively measure the performance of listed developed markets core infrastructure equities.

For more information about our indexes, please visit ftserussell.com.

About FTSE Russell

FTSE Russell is a leading global index provider creating and managing a wide range of indexes, data and analytic solutions to meet client needs across asset classes, style and strategies. Covering 98% of the investable market, FTSE Russell indexes offer a true picture of global markets, combined with the specialist knowledge gained from developing local benchmarks around the world.

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