First State Investments

For professional clients only

December 2018

ANATOMY OF DEFENSIVE RETURNS

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RISK FACTORS

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- **Single sector risk:** Investing in a single sector may be riskier than investing in a number of different sectors. Investing in a larger number of sectors helps spread risk.
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For a full description of the terms of investment and the risks please see the Prospectus and Key Investor Information Document for each Fund.

If you are in any doubt as to the suitability of our funds for your investment needs, please seek investment advice.

The anatomy of defensive returns

Listed infrastructure has offered investors attractive risk-adjusted returns and lower correlations to traditional asset classes. This outcome has been achieved by delivering steady outperformance during periods of equity market weakness.

This paper analyses the performance of our listed infrastructure Fund[1] in falling global equity markets. It concludes that the underlying characteristics of listed infrastructure, combined with active management, enabled the Fund to preserve capital in falling markets on most occasions. For long-term investors, this consistent pattern of capturing most of the upside but less of the downside has the potential to accumulate into material outperformance.

Fund holdings in most infrastructure sectors outperformed during falling equity markets. Utilities and mobile towers proved particularly resilient. Pipelines, railroads and ports were less defensive than utilities, but held up better than global equities due to robust business models and strong market positions.

Looking ahead, most listed infrastructure companies are in good shape, with prudent levels of debt and conservative dividend payout ratios. Valuations are reasonable. These metrics suggest that the sector remains well placed to continue to hold up during potential future periods of equity market weakness, although of course this cannot be guaranteed.

Cumulative Performance (% in GBP) to 31 November 2018

Period	1 month	3 months	6 monhts	1 year	3 years	5 years	10 years	Since Inception
First State Global Listed Infrastructure Fund	1.7%	1.6%	5.1%	2.4%	51.2%	80.8%	238.6%	177.0%
FTSE Global Core Infrastructure 50/50*	3.1%	2.5%	7.6%	4.3%	52.2%	78.7%	185.1%	125.2%

Annual Performance (% in GBP) to 30 November 2018

Period	12 mths to 30/11/18	12 mths to 30/11/17	12 mths to 30/11/16	12 mths to 30/11/15	12 mths to 30/11/14
First State Global Listed Infrastructure Fund	**2.4%**	**11.4%**	**32.5%**	**1.1%**	**18.3%**
Fund benchmark*	4.3%	13.7%	28.4%	-2.3%	20.2%
MSCI World Net Total Return Index	6.2%	14.1%	24.3%	3.3%	13.9%

These figures refer to the past. Past performance is not a reliable indicator of future results. For investors based in countries with currencies other than the share class currency, the return may increase or decrease as a result of currency fluctuations.

Fund performance is for the total portfolio, net of fees in GBP, based on end of day market valuations and midday cash flow assumptions. Index returns are net of tax. Cumulative and annualised periods are to 30 Nov 18. Performance figures have been calculated since the launch date. Performance data is calculated on a net basis by deducting fees incurred at fund level (e.g. the management and administration fee) and other costs charged to the fund (e.g. transaction and custody costs), save that it does not take account of initial charges or switching fees (if any). Income reinvested is included on a net of tax basis. Source: Fund - Eagle Enterprise Systems LLC. Benchmark - Factset. Index – Lipper. *The Fund's benchmark has been the FTSE Global Core Infrastructure 50/50 Index (Net TR, GBP) since 1 April 2015. Prior to that date it was the UBS Global Infrastructure & Utilities 50/50 Index (Net TR, GBP)

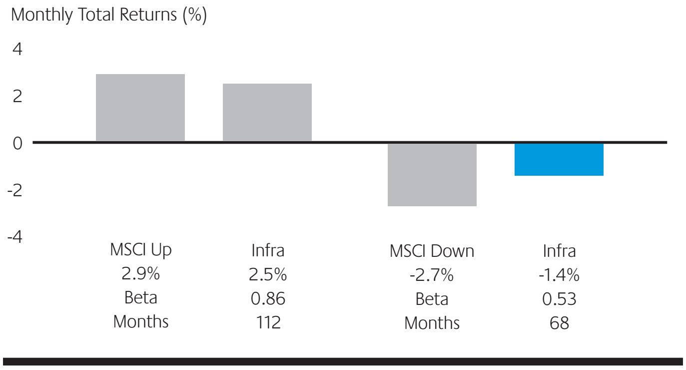
[1] First State Global Listed Infrastructure Fund. Fund performance is for the total portfolio in GBP, net of fees assuming an OCF of 0.80% pa, based on end of day market valuations and midday cash flow assumptions.

Introduction

Listed infrastructure consists of real assets that provide essential services, often backed by contracted or regulated earnings. Stable demand and a relatively low sensitivity to the broader economic cycle tend to support infrastructure earnings at times when more cyclical businesses can struggle.

The overall beta of listed infrastructure compared to global equities has been around 0.7 over the long term. Broken down, this has translated to beta of almost 0.9 in rising markets, and under 0.6 in falling markets, as illustrated in Figure 1. In essence; delivering most of the upside in rising markets, whilst falling by significantly less than global equities during periods of decline.

Figure 1:
Global Infrastructure in MSCI World Up/Down Markets



FTSE Global Core Infrastructure 50/50 Net TR Index from Dec-05, previously Macquarie MSCI World Net TR GBP. Monthly data for 15 years to Oct-18
Source: Bloomberg and First State Investments

Although the scale of these metrics appears relatively mild, this pattern of performance, combined with active management, has over time enabled the Fund to outperform global equities by a significant margin. It has delivered cumulative outperformance vs global equities of 55.7%, net of fees, since its inception in October 2007.

Analysing the 15 discrete months when global equity markets fell the furthest, since the Fund's inception, allows a more detailed assessment of how this outcome has been delivered to investors.

The data in Figure 2 compares the performance of global equities with the returns of the Fund during those 15 months. This period encompasses a broad range of market conditions, including the 2008-9 Global Financial Crisis; Eurozone volatility in 2011; concerns about a slowing Chinese economy in 2015; and mounting trade tensions in 2017-8.

Fund performance in falling markets

Figure 2 shows the performance of the Fund during those months, ordered by the magnitude of MSCI World declines.

Figure 2:
Performance of the Fund vs MSCI World

Month	MSCI World Net Index (GBP)	First State Global Listed Infrastructure Fund, net of fees	Difference
Oct 2008	-10.6%	-8.3%	**2.3%**
Sept 2008	-9.8%	-10.4%	**-0.6%**
Feb 2009	-9.2%	-9.5%	**-0.3%**
Jan 2009	-9.0%	-8.2%	**0.8%**
June 2008	-8.6%	-10.5%	**-1.9%**
Jan 2008	-7.5%	-6.5%	**1.0%**
Aug 2011	-6.3%	-3.3%	**3.0%**
June 2010	-6.2%	-2.5%	**3.7%**
Oct 2018	-5.4%	1.6%	**7.0%**
Aug 2015	-5.3%	-3.3%	**2.0%**
June 2015	-5.2%	-7.0%	**-1.8%**
May 2010	-4.7%	-4.1%	**0.6%**
Oct 2009	-4.7%	-6.1%	**-1.4%**
Sept 2011	-4.5%	-0.6%	**3.9%**
Aug 2013	-4.1%	-4.1%	**0.0%**

Fund performance is for the total portfolio, net of fees in GBP, based on end of day market valuations and midday cash flow assumptions.
Source: Bloomberg, First State Investments

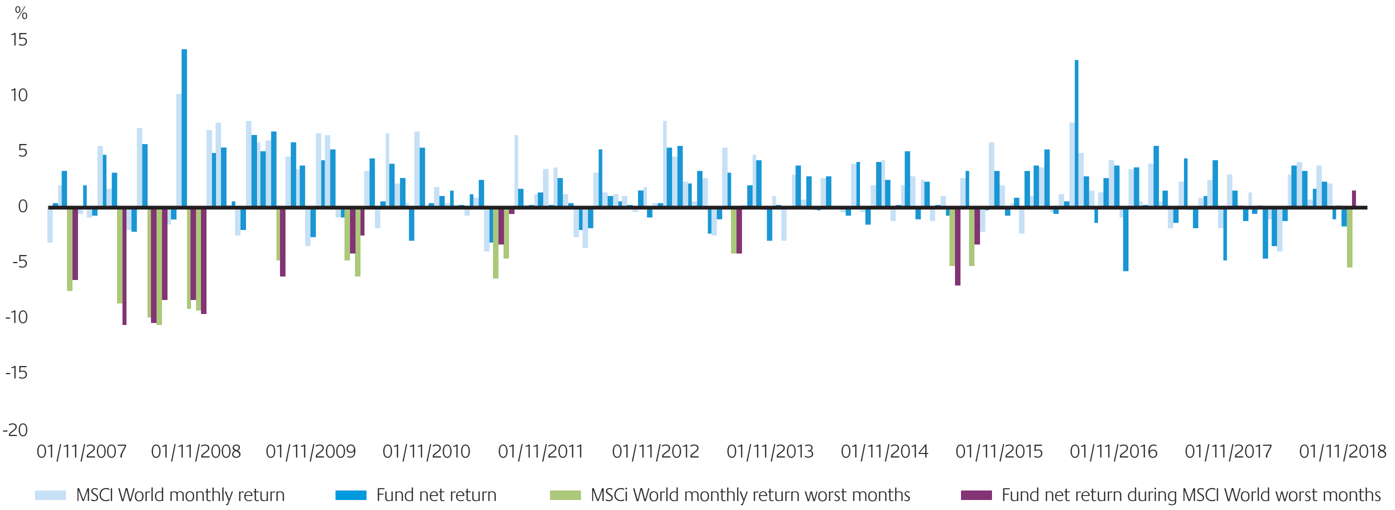
The Fund outperformed global equites on 10 of these 15 down months, resulting in outperformance, on a simple average basis, of 1.2% per month.

These details highlight three main points:

- Sometimes sell-offs can be indiscriminate. In 2008, markets were shocked by the collapse of credit markets and the risk of deep recessions around the world. The flight to safety and the need for liquidity saw equity markets tumble. Fund performance relative to the market in September 2008, for example, illustrates that few distinctions were being made between higher and lower quality stocks.
- As active stock pickers running conviction portfolios, we don't always get it right. During other months (June 2008 and February 2009) fund positioning counted against us. Our holdings in those months included companies with high quality infrastructure assets such as Transurban and Macquarie Airports. However their debt levels and payout ratios were revealed to be unsustainably high, teaching us a valuable lesson.
- Most of the time, listed infrastructure's underlying characteristics, combined with value-adding active management, enabled the Fund to preserve capital in falling markets. While this outcome is expected, it is encouraging to note the magnitude of outperformance during these periods of very worst market conditions, when investors seek a safe haven.

Figure 3 shows the dispersion of these down markets chronologically, illustrating the difficulty of predicting when they may arise, and emphasising the value of maintaining defensive exposures within a portfolio.

Figure 3: Chronological dispersion of down markets



Fund performance is for the total portfolio, net of fees in GBP, based on end of day market valuations and midday cash flow assumptions. Source: Bloomberg, First State Investments.

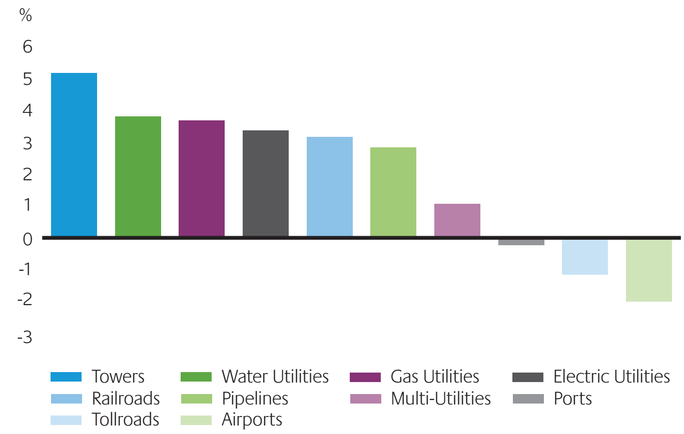
Performance in falling markets by sector

We can look in more detail at the underlying sectors delivering this outperformance by comparing the average performance of the MSCI World during these 15 months (-6.8%) with the contribution to returns of the Fund's holdings in each infrastructure sector[2], over the same time periods[3].

For example, the Fund's tower holdings – the most defensive infrastructure sector over the sample period as a whole – contributed -1.6% to returns on average during those 15 months; beating global equities' equivalent average return during those months by +5.2%.

Figure 4 shows listed infrastructure sector performance, relative to global equities, during severe market downturns (ordered by most defensive sector to least defensive).

Figure 4: Outperformance vs MSCI World during the 15 worst down months 2007 - 2018



Source: Bloomberg, First State Investments

Underlying drivers of performance

The most defensive sector during these 15 specific months was mobile towers. Structural growth drivers have insulated these stocks from the ebbs and flows of the broader global economy. The proliferation of smart phones over the past decade has dramatically increased the usage of mobile data, in turn driving demand for mobile tower services. Planning restrictions on tower sites represent effective barriers to entry. Long-term contracts tend to provide for annual price escalators of around 3%, and help to minimise technology risk.

Utilities also held up well. American and British water utilities, which dominate the listed water sector, operate within highly mature markets. They are typically allowed to earn a small premium to their underlying cost of capital, resulting in minimal volatility in each company's returns throughout the regulatory period.

Gas and electricity utilities delivered significant outperformance. These stocks have very predictable patterns of steady demand underpinning their business models. Transmission and distribution networks tend to be monopoly suppliers of electricity and gas. Pricing is usually set by formal regulation of returns on equity, giving very clear visibility over future earnings streams.

The multi-utilities sector includes companies with power generation segments as well as electricity transmission, gas production/storage and retailing activities. Power generation markets are less regulated and more competitive, which can result in a higher variation of return outcomes, relatively volatile earnings profiles, and potential vulnerability to weaker demand in power markets.

North American energy pipelines have faced headwinds in recent years. Volatile energy prices, combined with slower than expected regulatory approval for several substantial projects, have raised concerns about balance sheet stability. However as this analysis illustrates, the sector has provided effective defensive exposure during sharp market downturns. Pipeline tariffs tend to keep pace with inflation over time, while volumes are supported by long-term, take-or-pay contracts.

Railroads, toll roads, ports and airports are hard assets[4] with high barriers to entry and demand profiles that make their customers relatively insensitive to price increases.

[2] Satellites have been excluded due to the small sample size. The Fund's position during these periods was always less than 4% of the portfolio, typically in just one stock.

[3] The contribution to return of each sector has been divided by the average portfolio weight of each sector to obtain a proxy comparison to global equities (and assumes a constant sector weight throughout the month).

[4] A hard asset is a tangible or physical item or object of worth that is owned by an individual or a corporation. It is listed on the balance sheet as an asset and can be used by analysts to calculate a company's value.

North American freight rail companies are unique and valuable franchises. Their wholly-owned track networks are high quality infrastructure assets which can never be replicated. They typically operate under duopoly market conditions, with significant numbers of captive customers such as grain, chemical and auto producers giving them strong pricing power over long haul routes. Improving operating efficiency provides further scope to grow earnings. Trucks represent competition over shorter distances, and volumes are linked relatively closely to economic growth. Japanese passenger rail companies are highly cash generative, stable businesses which operate some of the world's busiest high speed rail lines.

Marine ports have historically delivered strong volume growth, reflecting the globalisation of trade. Volumes today are directly linked to global GDP growth rates; with port operators typically demonstrating high operating leverage. Significant trade routes include the import of bulk commodities to Asia and the subsequent export of containerised finished goods. Consolidation in the shipping industry has tilted the balance of power away from port operators to a certain extent.

Toll road revenues tend to be robust, with consistently high operating margins of between 60% and 80%, and the potential to match GDP growth over the long-term. Concessions are typically set over long time frames, with price increases often linked to inflation and negotiated compensation for additional capital expenditure.

Airports tend to operate under long-term leases and are subject to some form of regulation. Driven by globalisation, increased wealth and declining real airfares, passenger volumes have historically grown at multiples of GDP. Revenue from privately owned airports is typically well diversified with income from aeronautical, retailing and property services.

Ports, toll roads and airports were the only infrastructure sectors that did not outperform global equities during these months. The nature of their businesses gives them some sensitivity to economic growth rates. However, these sectors have delivered strong gains during rising markets.

Consistent outperformance through time

Splitting the data into three distinct periods (2007-early 2009; late 2009-2011 and 2013-2018) results in the same pattern, as illustrated in Figures 5-7. This highlights the broad consistency of these defensive characteristics, regardless of the underlying triggers of equity market weakness.

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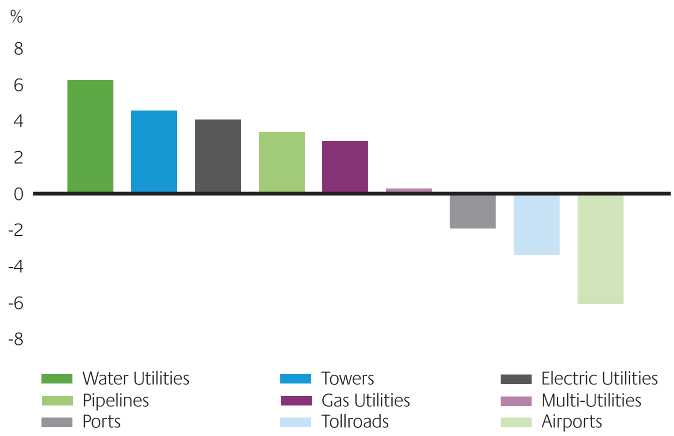
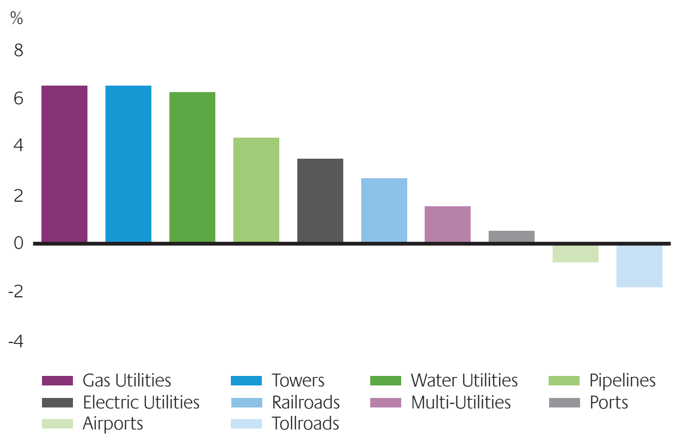
Figure 5: Outperformance vs MSCI World during 2007 – Feb 2009 down months[5]



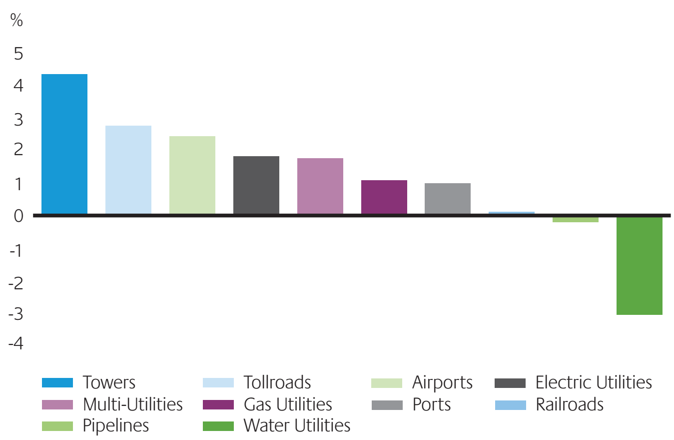
Source: Bloomberg, First State Investments

Figure 6: Outperformance vs MSCI World during Oct 2009 – 2011 down months



Source: Bloomberg, First State Investments

Figure 7: Outperformance vs MSCI World during 2013-2018 down months



Source: Bloomberg, First State Investments

[5] Freight rail sector excluded this period due to sub-1% portfolio weighting

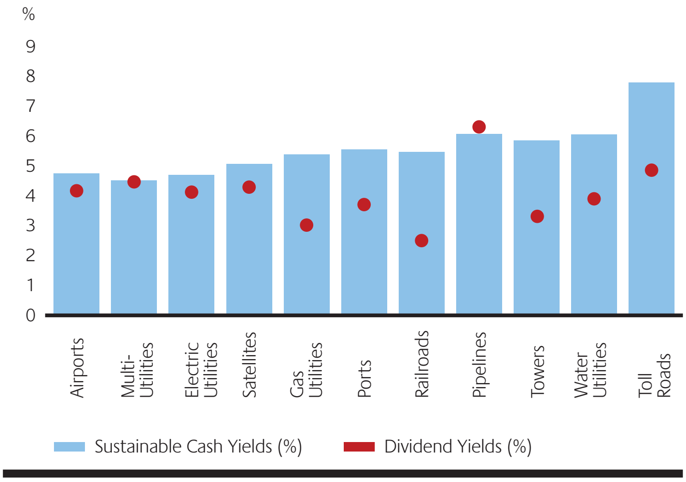
Looking ahead

Global listed infrastructure looks well positioned to continue to hold up in falling markets. The asset class consists of stable, long life assets, and continues to deliver a reliable yield of between 3% and 4% per annum although of course this cannot be guaranteed. Listed infrastructure companies are in sound financial positions. Dividend payout ratios overall are prudent at around 70% and borrowing levels are reasonable, with average net debt/EBITDA* ratios of between 3x and 5x. Debt refinancing at low interest rates has enabled infrastructure operators to reduce rates, lengthen maturities, spread refinancing risks, and diversify funding sources.

Several infrastructure sectors are benefitting from structural growth drivers such as urbanisation (Tollroads) and the increasing mobility of communication (Towers). The US continues to consolidate its position as the world's largest hydrocarbon producer, to the benefit of the pipeline sector.

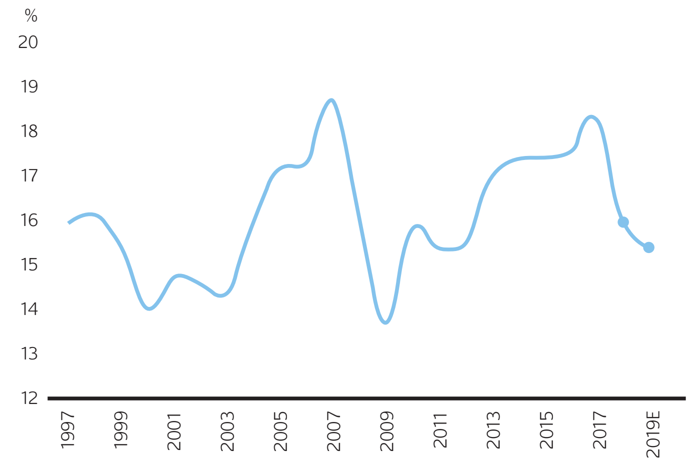
The cash yields of most infrastructure sectors are higher than dividend yields (see Chart 7) implying ample scope for payout ratios to be raised. This is especially the case for freight rail, toll roads and mobile towers. Current valuation metrics are also likely to be supportive, as shown in Chart 8.

Figure 8: Infrastructure Yields by Sector



Source: First State Investments

Figure 9: Global Infrastructure **Price/Earnings x**



Source: Bloomberg, First State Investments
Simple average of 250 stocks in universe

We believe that toll roads and pipeline operators represent exceptional value today. Tollroads are the Fund's largest sector overweight, owing to the appeal of their stable cash flows, high operating margins and effective barriers to entry. Energy pipelines are the portfolio's second largest sector overweight. Investor concerns about earnings growth presented the Fund with opportunities to build positions in several companies with unique and long life energy infrastructure networks, at appealing valuation multiples.

Although this is offset to a certain extent by some stocks (notably in the airports and utilities sectors) that look expensive on fundamental measures, we believe that current valuation levels overall are attractive compared to long term averages. These robust metrics are likely to support listed infrastructure's ability to deliver similar patterns of performance during periods of equity market weakness in the future.