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THOUGHT LEADERSHIP: DEFENSIVE EQUITIES – WHEN DEFENCE IS THE BEST OFFENCE

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INTRODUCTION

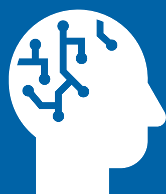
In uncertain times, investors looking for shelter may consider an allocation to defensive equities to shore up their portfolio. Listed infrastructure, listed property and low volatility strategies are all different ways to invest in defensive equities, all of which tend to provide investors with an income yield too.

Investors can use any of these defensive equities as the low risk barbell in a barbell approach to equity exposure or, for smaller investors who lack the scale to acquire private market real assets, as a substitute for real assets. For bullish investors, defensive equities can facilitate an exposure above strategic weights with a smaller increase in overall risk. And for investors who are more bearish, defensive equities enable a reduction in overall risk with no change to the strategic asset allocation. Finally, investing in defensive equities can provide investors additional dividend income.

While investing in listed property is common (mostly through listed companies Real Estate Investment Trusts (REITs)), allocations to listed infrastructure and low volatility equities are less so. Yet we find there can be significant return and diversification benefits in widening the lens on defensive equity exposures. Listed property and listed infrastructure provide a liquid proxy for real assets, while low volatility strategies tilt toward stocks based on historical price behaviour, to generate a similar factor exposure.

This article considers the long-term risk and return profile for each of these three defensive equity thematics, including how each held up during the COVID-19 crisis as well as the investment outlook. We find that whilst passive listed property and low volatility funds have historically performed well, core infrastructure has delivered superior risk-adjusted returns. But given the less than perfect correlation between different listed asset classes, we believe there is room for all three sectors in a multi-asset class portfolio.

However, we caution investors that there is a wide range of returns across products within each thematic. Within listed infrastructure, investors should narrow their focus on the companies that are 'core' infrastructure. Using a broader definition will decrease the defensiveness and therefore the appeal. Further, we consider the same will hold true for listed property, with better risk adjusted returns to be achieved by narrowing in on higher quality and more 'core' exposures; a passive approach gives risk adjusted returns inferior to listed infrastructure and low volatility strategies even with the higher income yield.



INVESTMENT CHARACTERISTICS

What are defensive equities?

We consider three types of defensive equities in this article – listed infrastructure, listed property and low volatility strategies. Both listed infrastructure and listed property hold similar underlying assets to their unlisted counterparts. While in the short-term, listed funds cannot match the low risk profile of unlisted real assets, as they are continually priced in liquid markets rather than being valued every three or six months, returns do start to converge over the medium term. So, for investors who can look through the higher volatility, listed real assets can provide a reasonable proxy for unlisted assets but with much greater liquidity.

Low volatility funds are typically 'smart beta' or factor harvesting strategies. They are composed of stocks that historically have displayed lower price volatility and tend to be overweight to defensive sectors such as consumer staples, utilities and telecommunications, all of which have similar characteristics to listed infrastructure. They provide an accessible way to include defensive, liquid assets in a portfolio, and are relatively low cost.

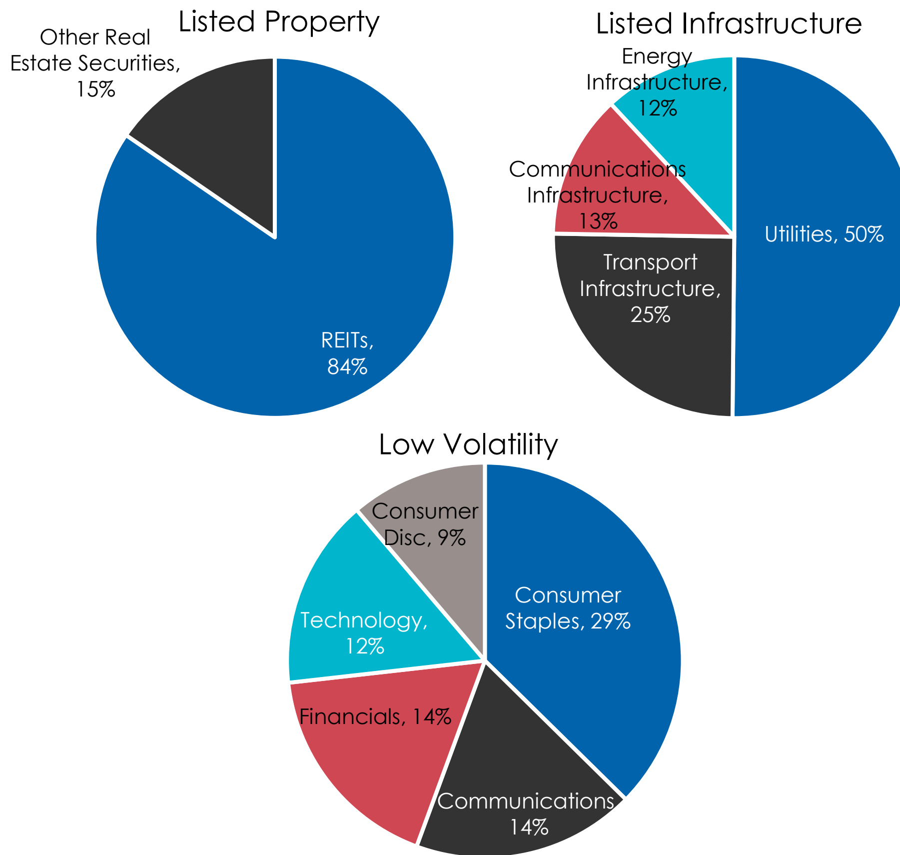
Table 1 below provides a sector overview of each of these investment types while Chart 1 over the page shows the breakdown by industry sector.

Table 1: Defensive Equities Sector Overview

	LISTED PROPERTY	LISTED INFRASTRUCTURE	MINIMUM VOLATILITY INDEX
Size (developed markets capitalisation)	USD $2.2 trillion 3.3% of the MSCI World Index market capitalisation.	USD $2.6 trillion 3.9% of the MSCI World Index market capitalisation.	USD $25.9 trillion 38.9% of the MSCI World Index market capitalisation.
Dividend Yield	3.2%	3.0%	2.1%
Inflation linkages	Moderate to strong	Strong	Moderate
Largest exposures	Residential, Retail, Industrial property	Utilities, Transport & Communications Infrastructure	Consumer Staples, Financials, Comms & IT companies
Average contract or concession life	3 to 7 years	5 to 15 years	N/A
Leverage	High 9.4x debt to EBITDA	High 6.4x debt to EBITDA	Moderate 3.8x debt to EBITDA

Source: Bloomberg, Whitehelm Capital

Chart 1: Defensive Equities – Breakdown by Industry Sector



Dividend Yield

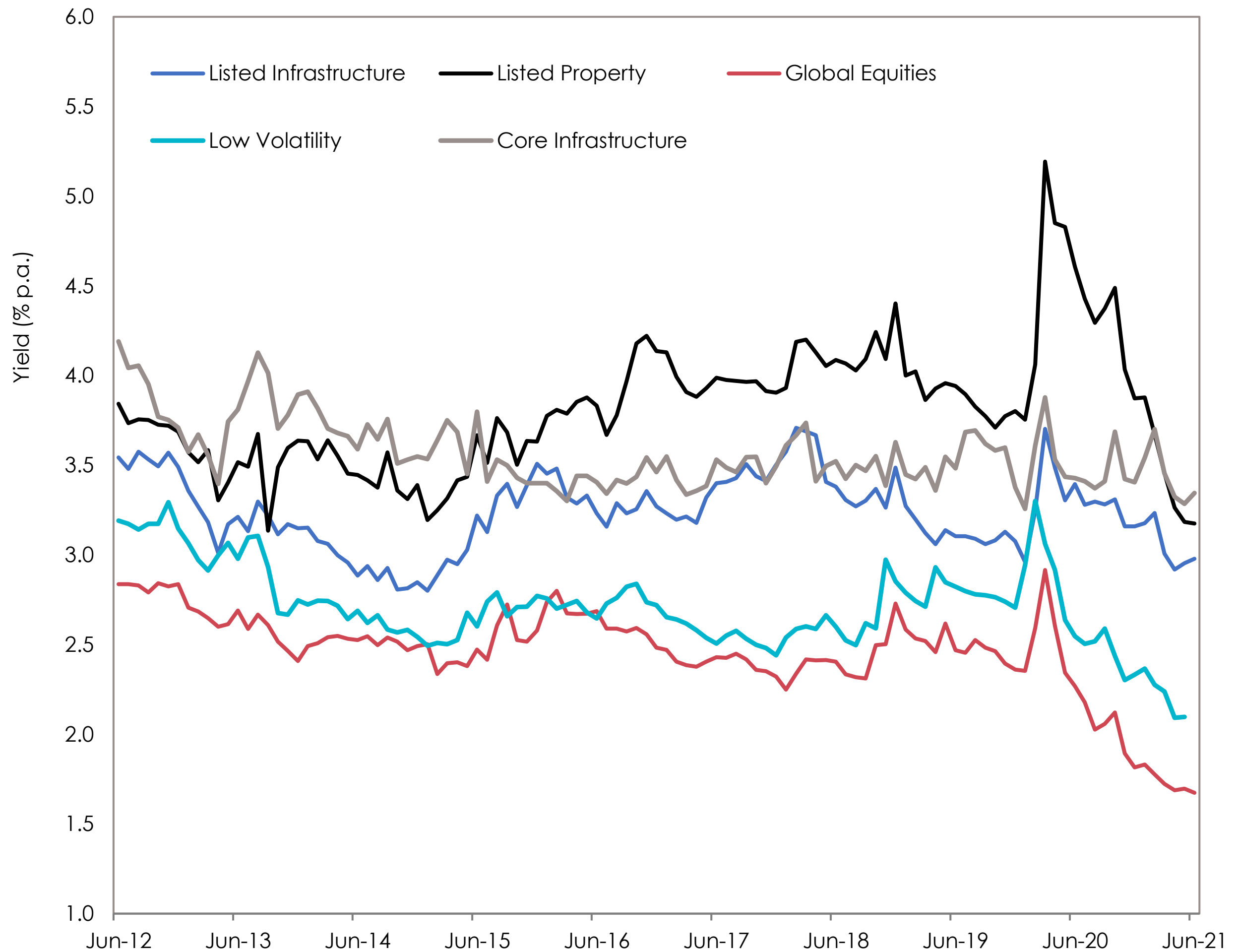
Listed property and listed core infrastructure have provided a higher dividend yield compared to other defensive asset classes. Many listed property companies are required to pay most or all of their income in distribution to their shareholders, and thus have a higher payout ratio. Table 2 below provides a comparison of the characteristics of each of our three defensive equity types while Chart 2 compares the dividend yield over time. Each of these includes 'core infrastructure', a subset of listed infrastructure we define in Box 1.

Table 2: Defensive Equities – Characteristics Comparison

	CORE INFRA	LISTED INFRA	LISTED PROPERTY	MINIMUM VOLATILITY	GLOBAL EQUITIES
Dividend Yield	3.3%	3.0%	3.2%	2.1%	2.1%
Dividend Payout Ratio	78%	100%	202%	54%	73%
Debt/Equity	143%	190%	88%	100%	158%
Debt/EBITDA	6.7	6.4	10.1	3.8	4.1
Return on Invested Capital	6.1%	3.0%	1.4%	7.5%	5.6%

Source: Bloomberg, Whitehelm Capital

Chart 2: Dividend Yield History



Source: Bloomberg, Whitehelm Capital

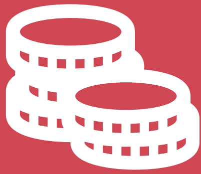
Box 1: What is 'Core' Infrastructure?

Core infrastructure is a subset of listed infrastructure that excludes quasi-infrastructure stocks, including those that are more exposed to recessions and volatile energy prices.

For example, the poles and wires of the electricity grid are a core infrastructure asset, with fully regulated inflation-linked revenues. However, a power plant is not core infrastructure if the power is sold in an open market. Other infrastructure-like assets that are excluded include data centres, logistics and warehouse facilities and renewable energy development.

Not all definitions of 'infrastructure' are the same. But applying a strict definition focuses on the favourable characteristics of the asset class, that is, lower correlation to global equity markets, greater drawdown protection and higher yield.

There is a similar dynamic for listed property. Some listed property funds are more defensive and conservative than the benchmark indices and so would similarly enhance the risk return profile of the asset class.



RISK CHARACTERISTICS

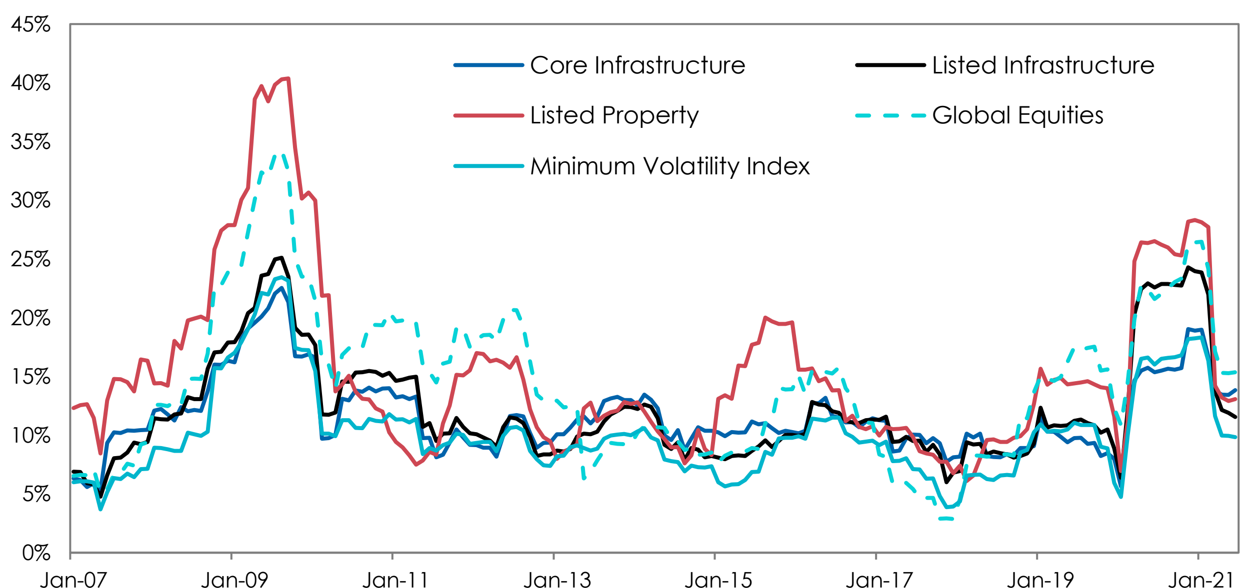
For an allocation to defensive equity to be worthwhile, it should provide both downside protection and diversification from global equities. This will enhance the total portfolio outcomes for the investor. Otherwise, the allocation may be more cheaply substituted for by just holding a little more cash. For this reason, an understanding of risk - and the drivers of this risk - is important.

Risk Measures

We start by looking at price volatility, that is, how much the price jumps around day to day and month to month. As a strategy focused on reducing volatility, it is not surprising that the minimum volatility index has shown lower levels of volatility than other defensive equities over time. Core infrastructure has provided a similarly low level of volatility but combined this with better overall performance.

The rolling 12 months annualised standard deviation in Chart 3 also shows listed property has been more volatile than listed infrastructure, particularly during periods of dramatic economic shocks such as the global financial crisis of 2008-09 (GFC) and the COVID-19 pandemic.

Chart 3: Rolling 12 Month Standard Deviation of Returns



Source: Bloomberg, Whitehelm Capital

Downside Protection

Total volatility can provide a good overview, but it's the downward volatility that matters. We find that over the last decade, the listed infrastructure index, and particularly core infrastructure, has demonstrated strong downside protection in comparison to global equities.

Maximum drawdown captures the peak to trough decline during a particular investment period. As expected, the GFC and the COVID-19 crash of 2020 caused the greatest drawdowns for all equity classes during the period under consideration. While core infrastructure suffered negative returns during these economic downturns, the magnitude was much smaller, and the recovery time was quicker compared to the other asset classes in question.

Downside capture measures the percentage of the decline in the MSCI World Index that was participated in. The low volatility index performed well on this measure through COVID-19 but less so through the GFC. Both listed infrastructure and listed core infrastructure also have downside capture ratios less than one and provided stronger protection in falling equity markets than the listed property index.

Table 3: Drawdown Analysis

		CORE INFRA	LISTED INFRA	LISTED PROPERTY	MINIMUM VOLATILITY	GLOBAL EQUITIES
2006-2020	Maximum Drawdown (%)	-35.9%	-43.4%	-65.5%	-41%	-53.6%
	Max DD Length (in Months)	19	35	49	47	50
	Downside capture ratio	69%	66%	114%	68%	-
Since 2020	Maximum Drawdown (%)	-17.0%	-23.8%	-28.3%	-17.1%	-20.9%
	Max DD Length (in Months)	12	13	16	9	5
	Downside capture ratio	98%	95%	123%	87%	-

Source: Bloomberg, Whitehelm Capital

Diversification

Defensive strategies like listed property and listed infrastructure can reduce overall portfolio risk if they are sufficiently diversified from global equities. Otherwise, they will simply add more equity beta to the portfolio. Both listed infrastructure and listed property have historically shown less than perfect correlations to global equities, and the low volatility strategy has a higher correlation with global equities, as shown in Table 4. Hence, the benefits of diversification can be better optimised by including infrastructure assets with a range of defensive assets in a portfolio.

Table 4: Correlation Analysis (Since 2006)

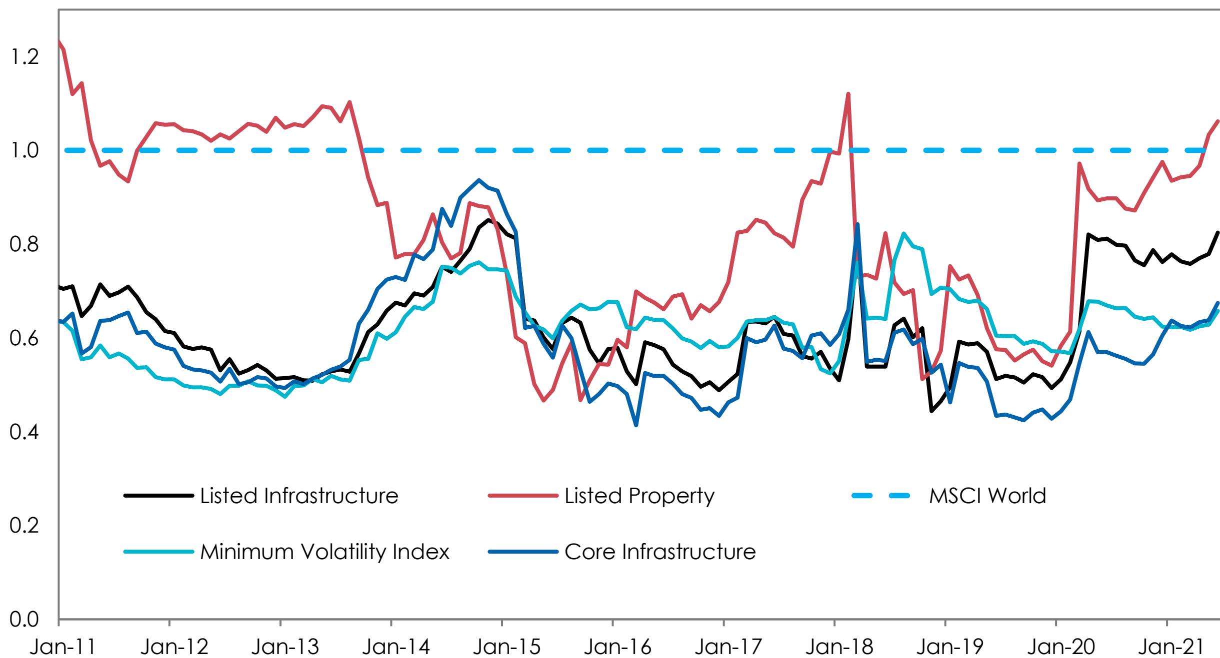
	GLOBAL EQUITIES	MINIMUM VOLATILITY	LISTED PROPERTY	LISTED INFRA	CORE INFRA
Core Infrastructure	0.80	0.89	0.64	0.92	1.00
Listed Infrastructure	0.84	0.92	0.69	1.00	
Listed Property	0.67	0.72	1.00		
Minimum Volatility	0.91	1.00			
Global Equities	1.00				

Source: Bloomberg, Whitehelm Capital

Equity Market Beta

Beta represents the volatility or reactivity of an investment to movements in equity markets. A beta of more than one means that if the market moves up or down 1%, the investment will move by more than 1%, whereas a beta of less than one means an investment is less volatile or sensitive to the market. For investors seeking defensive returns, a beta less than one is highly desirable.

Chart 4: Rolling 24 Month Beta to MSCI World Index



Source: Bloomberg, Whitehelm Capital

As shown in Chart 4, all defensive asset classes have generally maintained a beta of less than one, with some exception from the listed property index. Core infrastructure assets have had lower betas to global equities compared with other defensive assets, as they are less moved by changes in market sentiment, providing insulation from cyclical volatility. When listed property has exhibited a beta higher than one, it is often when house prices have increased at a faster rate than the equities market.

INVESTMENT PERFORMANCE

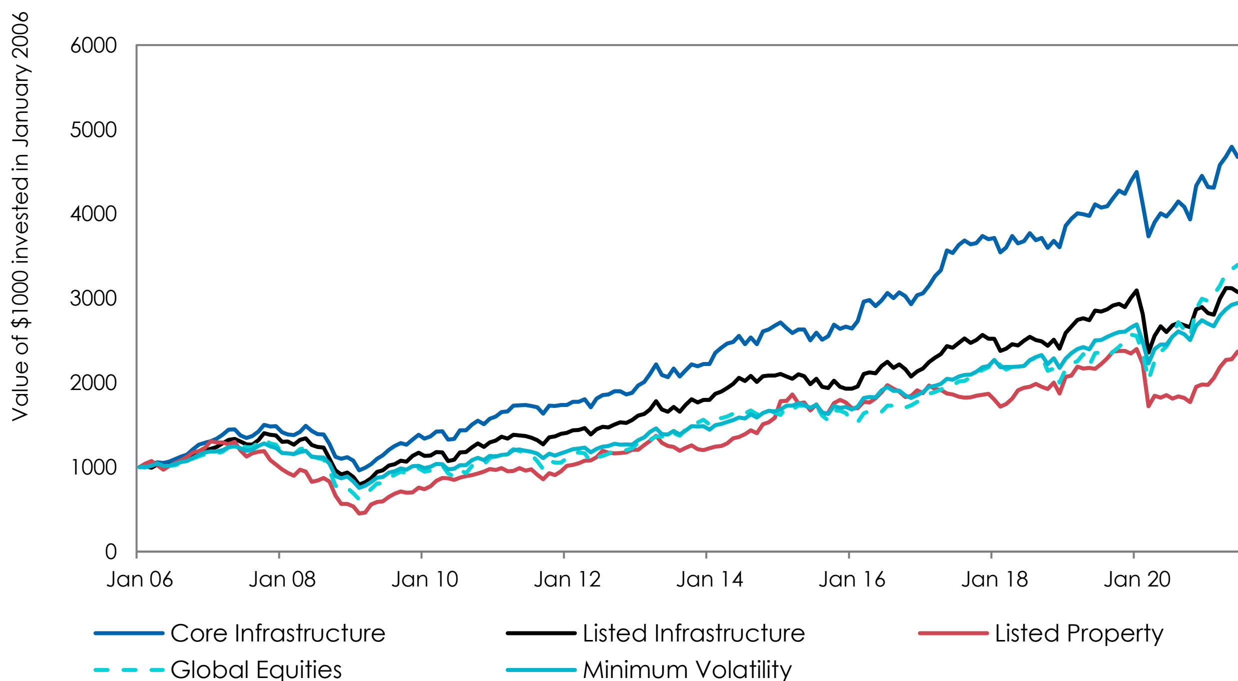
To compare long-term performance of the defensive equity types, we go back 15 years, from when reliable indices are available. Listed core infrastructure has delivered superior returns and superior risk-adjusted returns since 2006 compared to the other defensive equity classes, as shown in Table 5 and Chart 5.

Table 5: Risk Adjusted Returns since 2006

	RETURN	VOLATILITY	SHARPE RATIO
Listed Core Infrastructure	10.5%	12.1%	0.9
Listed Infrastructure	7.6%	13.0%	0.6
Listed Property	5.8%	17.6%	0.3
Minimum Volatility Index	7.3%	10.9%	0.7
Global Equities	8.3%	15.8%	0.5

Source: Bloomberg, Whitehelm Capital

Chart 5: Cumulative Performance Since 2006



Source: Bloomberg, Whitehelm Capital

Pre-COVID-19 Performance

Listed core infrastructure has consistently delivered solid returns compared to other asset classes from 2006 to 2020, even when we break this time period into three distinct buckets as shown below in Table 6.

Table 6: Annualised Gross of Fee Returns

	2006-2011	2011-2016	2016-2020
Listed Core Infrastructure	9.9%	10.6%	14.2%
Listed Infrastructure	5.7%	7.9%	12.5%
Listed Property	-0.6%	11.9%	9.0%
Minimum Volatility Index	2.4%	8.4%	12.4%
Global Equities	2.6%	6.4%	13.5%

Source: Bloomberg, Whitehelm Capital

Listed property was the best performer in the years leading up to the GFC in 2008-09. But it was also the sector most affected by the crisis, not surprising given the GFC was property induced and resulted in a drawdown of more than 65%.

Over the period to 2011, listed property failed to return to its 2006 levels. Core infrastructure during this time performed the best, as core infrastructure's non-cyclical revenue streams were largely unaffected by the GFC. Arguably, it is unfair to be comparing asset class performance for this period. Crisis periods will always have their different, specific drivers.

From 2011-2016, listed property achieved the highest returns as the housing market recovered from historical lows during the GFC. Core infrastructure continued to outperform equities, delivering consistent returns.

2016-2020 saw a rally in all listed asset sectors. Once again, core infrastructure outperformed other defensive asset classes, with other equities also providing strong returns.

Table 7: Pre-COVID Risk-Adjusted Returns (2006-2020)

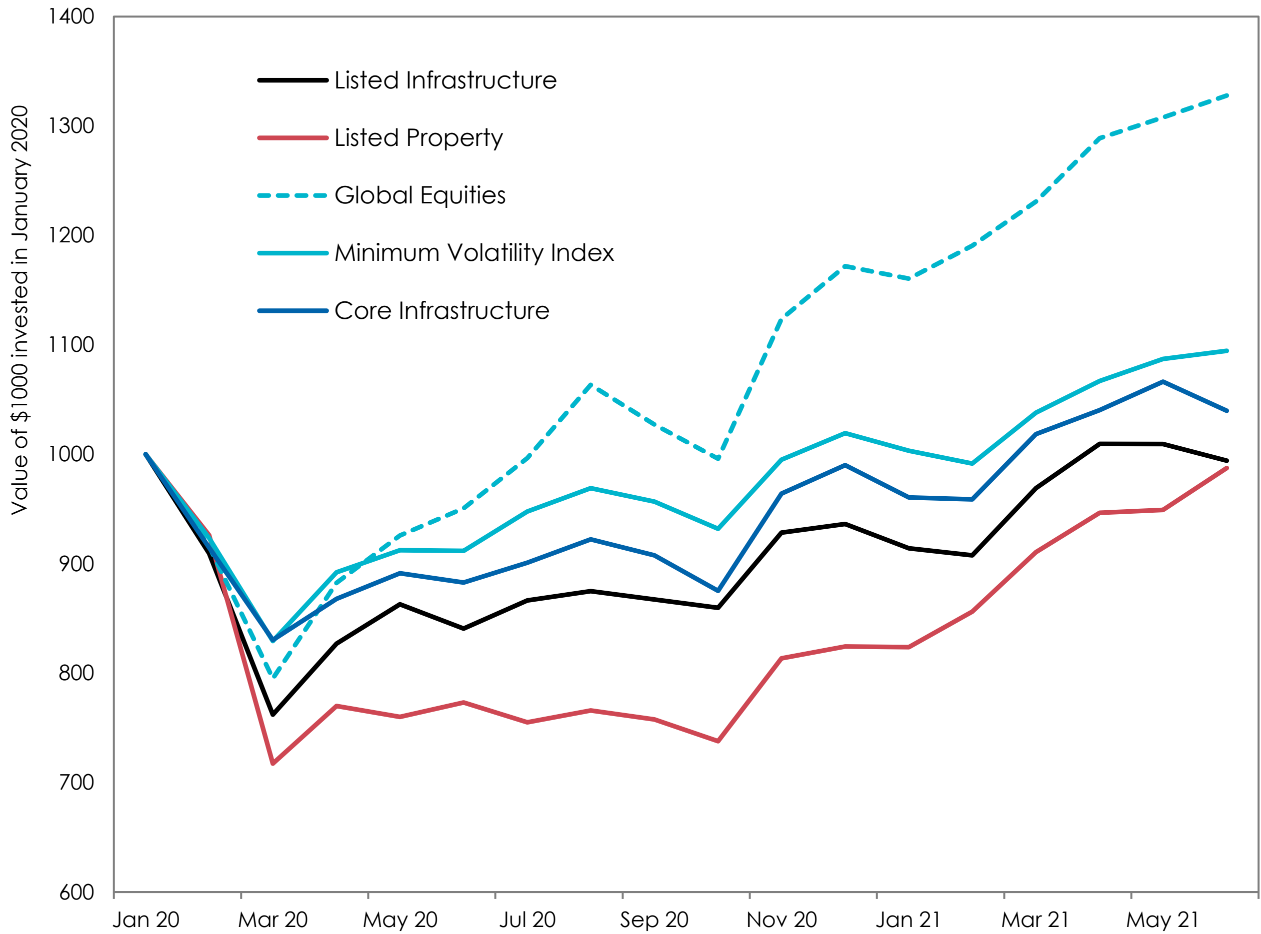
	RETURN	VOLATILITY	SHARPE RATIO
Listed Core Infrastructure	11.3%	11.5%	1.0
Listed Infrastructure	8.4%	12.0%	0.7
Listed Property	6.5%	16.7%	0.4
Minimum Volatility Index	7.3%	10.3%	0.7
Global Equities	6.9%	15.0%	0.5

Source: Bloomberg, Whitehelm Capital

Post COVID-19 Performance

The COVID-19 pandemic had a significant impact on all asset classes as illustrated in Chart 6. In the initial shock to markets in early 2020, core infrastructure was least affected by falling only 12% from 31 January 2020 to 31 March 2020. Global equities, the minimum volatility index and listed infrastructure all experienced similar falls of between 17-24%. Listed property was more affected, dropping nearly 30%, driven by lockdowns forcing the closure of retail stores and offices, and subsequent selloffs.

Chart 6: Cumulative Performance Since January 2020

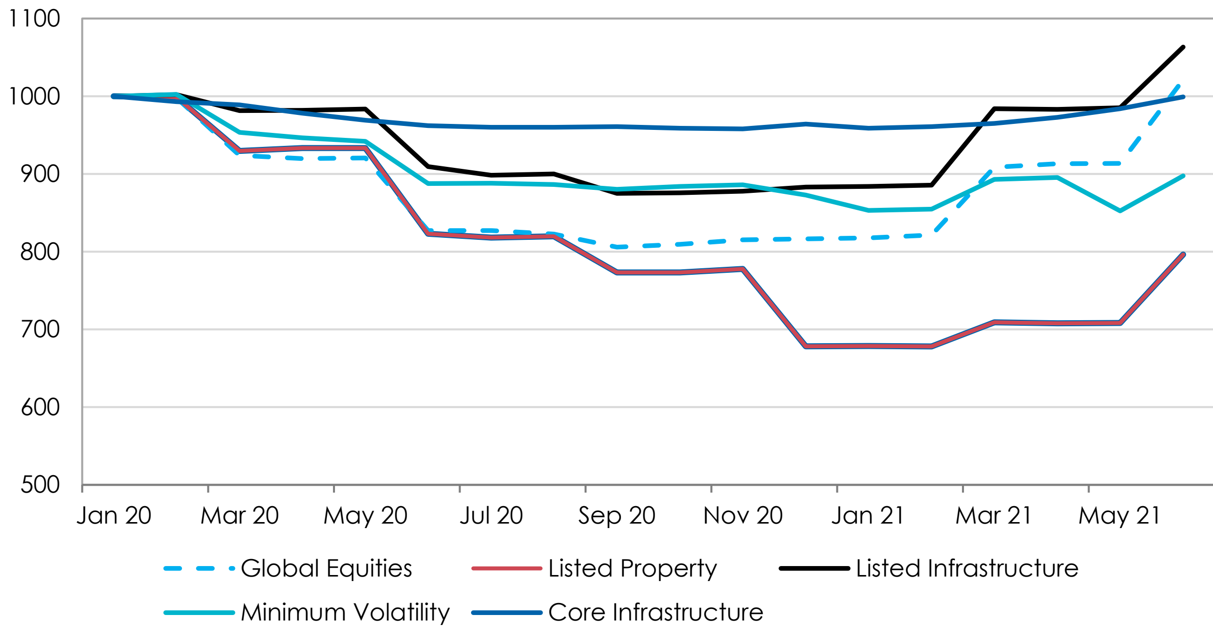


Source: Bloomberg, Whitehelm Capital

What is most striking about Chart 6 is not the initial drawdowns, but the subsequent increase in the value of global equities indices, measured here by the MSCI World Index. Despite the worldwide pandemic shuttering economies, unprecedented global fiscal and monetary easing has driven stock markets higher, led to a large extent by the US market and the megacap tech stocks in particular, leading to stretched valuation multiples.

In Chart 7, we look at the earnings of the companies in each sector, measured by EBITDA (earnings before interest, tax, depreciation and amortisation). The comparison of earnings during COVID-19 clearly demonstrates the defensive qualities of core infrastructure. Core infrastructure was the most protected, with EBITDA only falling 4% from peak to trough since January 2020. Earnings for listed property had the greatest decline, with EBITDA falling 32% from peak to trough, driven by rental income from commercial properties declining. More broadly, the MSCI World Index companies also experienced a significant fall of 19%.

Chart 7: EBITDA Since January 2020 (Trailing 12 Months)

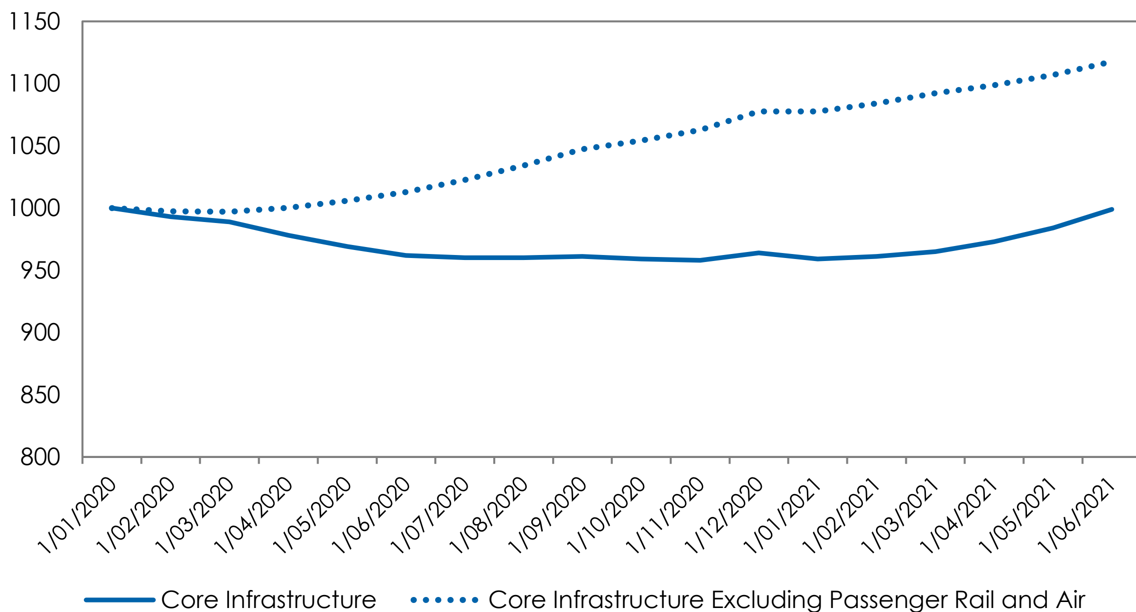


Source: Bloomberg, Whitehelm Capital

Box 2: Transport Infrastructure - Passenger Rail and Airport Stocks During COVID-19

The COVID-19 pandemic had a unique and significant impact on passenger rail and passenger air transport assets. Border closures and travel restrictions have resulted in the near complete loss of earnings since early 2020. Making up a small but material portion of the core infrastructure portfolio, airports and passenger rail stocks have been the largest contributors to recent reduced performance and increased volatility. If we consider the core infrastructure portfolio without airport and passenger rail holdings, earnings actually grew by 12% from 2020 to June 2021.

Chart 8: EBITDA Since January 2020 (Trailing 12 Months)



Recovery from COVID-19

Since the initial shock of the COVID-19 pandemic, each sub-sector has recovered at different speeds. Listed infrastructure's stable revenues led to resilient earnings, and global equities index earnings have just recovered above pre-COVID earnings. Earnings for listed property and the minimum volatility index have failed to reach pre-COVID levels, with property rental yields still being affected by business closures from COVID-19 shutdowns.

Despite earnings barely being above where they were nearly two years ago, global equities have seen the greatest price recovery trading at more than 20% of pre-COVID prices. This has been led by the 'FAAMG' US technology stocks, which now make up 14% of the MSCI World Index. Government stimulus measures and improved market sentiment has increased prices of equities much more rapidly compared to earnings recovery. A similar story has occurred with listed property, with prices close to pre-COVID levels despite significantly lower earnings.

Listed infrastructure has seen a smaller price recovery compared to its earnings. Infrastructure stocks have not participated in the recent share market rally that equities and other high beta assets have experienced. This gap between price and earnings means that infrastructure stocks are trading on attractive valuation multiples.

Table 8: Earnings and Returns Since January 2020

	CUMULATIVE RETURN	EBITDA GROWTH
Listed Core Infrastructure	6.6%	0%
Listed Infrastructure	2.2%	6.3%
Listed Property	0.6%	-20.4%
Minimum Volatility Index	7.2%	-0.3%
Global Equities	20.3%	2.1%

Source:Bloomberg, Whitehelm Capital

Rallies in prices of equities coupled with only modest earnings recovery has expanded multiple-based valuations for global equities and listed property. Listed infrastructure, and particularly core infrastructure, is currently trading at lower P/E and EV/EBITDA multiples compared to other equities, meaning infrastructure stocks are cheaper to purchase relative to earnings.

This gap in valuation indicates that the market has already priced in significant future earnings growth for global equities, restricting the potential for further increases in price. Infrastructure, on the other hand, has not expanded its valuation in the same way, leaving room for upside growth potential if valuations converge to historical levels

Table 9: Trailing Valuation Multiples

	P/E	EV/EBITDA	DIV. YIELD	ROIC	P/B
Listed Core Infrastructure	19.4	16.9	3.4%	7.1%	2.7
Listed Infrastructure	27.3	19.2	3.0%	5.8%	3.0
Listed Property	34.9	25.8	3.2%	1.0%	1.8
Minimum Volatility Index	29.5	18.8	2.4%	7.5%	4.3
Global Equities	32.5	20.6	2.1%	12.4%	3.9

Source: Bloomberg, Whitehelm Capital

CONCLUSION

Listed infrastructure, listed property and low volatility funds are all defensive assets. They offer stable cash flows and are a diversifier from global equities. All three asset classes have different risk and return profiles, so allocation to these assets should be made as separate decisions.

When investing in infrastructure, investors should seek out 'core infrastructure' that provides the strongest defensive characteristics, including inflation-linked revenues, long concessions and minimal exposure to energy or commodity prices. These characteristics have delivered a lower beta to global equities compared to other defensive asset classes, lower volatility over the long-term and stronger downside protection in periods such as the GFC and the COVID-19 crash. This has also protected earnings during a variety of economic scenarios.

Although not examined explicitly in this paper, we consider that the same will hold true for listed property, with better risk adjusted returns to be achieved by narrowing in on higher quality and more 'core' exposures. Otherwise, a passive approach gives risk adjusted returns inferior to listed infrastructure and low volatility strategies even with the higher income yield

Low volatility strategies have provided similar risk characteristics to core infrastructure assets. However, over the last 15 years, the low volatility index has a higher correlation to global equities and investors in listed core infrastructure have enjoyed higher absolute and risk adjusted returns.

With a rally in equity prices since COVID-19 expanding the gap in valuation between infrastructure and other assets, core infrastructure presents an opportunity to purchase a defensive asset class at a cheap price relative to earnings. With the added benefit of liquidity, listed core infrastructure provides an accessible substitute for real assets for an investor that is not suited to holding private infrastructure assets.

Given the less than perfect correlation between listed core infrastructure, listed property and low volatility indexes, there is certainly room for all three asset classes in a diversified portfolio.

Note on data sources

Index data is sourced from Bloomberg and is as at June 2021. All performance is measured in USD unhedged terms, and is gross of fees.

For listed property performance we have used the FTSE EPRA/NAREIT Developed Listed Real Estate Index, and for characteristics data, the iShares Global REIT ETF (REET US) has been used as proxy.

For listed infrastructure, we have used the FTSE Developed Core Infrastructure (50/50) Net Tax Index. For dividend data prior to 2015, where characteristic data for this index is not available, we have used the FTSE Developed Core Infrastructure Index.

For the low volatility strategy, we have used the MSCI World Minimum Volatility (USD) Index. In instances where holdings, financial and characteristics data is unavailable through this Index, supplementary data has been sourced through the iShares MSCI Global Min Vol Factor ETF.

For global equities, we use the MSCI World Total Return Index, with holdings data proxied by the iShares MSCI World ETF.

For core listed infrastructure we use the performance of Whitehelm Listed Core Infrastructure Fund, gross of fees, from May 2016 (inception). Prior to 2016, we use the Whitehelm Capital customised core infrastructure universe. Back tested returns for this universe were calculated on an equal weighted basis, assuming monthly rebalancing, mirroring the Fund strategy. The simulation was produced using S&P ClariFI software, with a point-in-time database to avoid look-ahead bias.

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