

# ALTERNATIVE USES FOR UNDEPLOYED FUNDS ALLOCATED TO INFRASTRUCTURE INVESTMENT

## 1. Introduction

Institutional investors typically allocate funds to infrastructure largely on the basis of its defensive characteristics and inflation linked cash flows. Some investors also assert that unlisted infrastructure is uncorrelated to equity markets, although this may prove to be a measurement and reporting issue rather than fundamentally lower correlation through the cycle. Nonetheless, infrastructure should and does play a material part in the portfolios of many large pension and sovereign wealth funds.

Strong performance and attractive investment features have led to significant funds flowing into the asset class over the past 10 years. This trend shows no sign of abating: a recent survey by Preqin suggests that 71% of public pension funds are thought to be allocating more money to infrastructure within the next 12 months.

The combination of ever increasing allocations and fund raising combined with a limited availability of assets means that asset managers have found it increasingly difficult to deploy capital. As at October 2018, there was US\$173bn of dry powder in existing infrastructure funds. This does not include the capital which has been allocated to infrastructure but not yet deployed or committed to funds which could be at least the same quantum as existing dry powder, or even greater.

Not unsurprisingly given the strong flow of investment, Preqin's recent survey found that 59% of unlisted infrastructure fund managers see high valuations as the major challenge to capital deployment, whilst 52% of managers believe that infrastructure assets are currently overvalued. Furthermore 81% of managers are seeing more competition for assets relative to 12 months ago.

All this points to a market in which it will become increasingly difficult to deploy capital and equally difficult to acquire fairly valued assets.

Given the attributes of the unlisted infrastructure market noted above, we would expect that any current allocations to infrastructure are likely to take some time to deploy (always assuming asset managers display a level of discipline, in terms of both pricing and asset type). In the period during which this allocated capital is not invested (directly or through managers) in infrastructure assets, it will be sitting elsewhere in an institution's liquid assets portfolio, most likely in a combination of equities, cash and bonds.

We make the case in this paper that listed infrastructure provides investors with an alternative investment opportunity for undeployed capital which we believe could provide a significantly better fit to their desired unlisted infrastructure exposure than the alternatives.

## 2. What are your other options?

There are a range of options for deployment of capital which has been allocated but not yet deployed into infrastructure. We would expect that the majority of these funds would be deployed into relatively liquid asset classes given the requirement to fund medium term commitments. The options include cash, bonds, equities, hedge funds or a combination of these.

Where capital is actually invested whilst it is awaiting deployment in an unlisted infrastructure allocation may be hard to determine given pension funds mostly manage their portfolio exposures as a whole. Broadly, we would expect that the investment-in-waiting would roughly approximate the existing liquid portion of an institution's portfolio.

To the extent that an institution has explicitly considered its alternatives, we would expect that the main criteria for the investment-in-waiting would be to balance return seeking attributes whilst having some downside protection.

### Implications of retaining capital in cash

Retaining undeployed capital in cash (for argument's sake) comes with its own implications. Although this tactic eliminates drawdown risk, it would act as a material drag on returns. It then follows that this cash drag should be taken into account in evaluating the prospective return expectations for the whole allocation to the infrastructure asset class. In a world where asset prices are already elevated and expected returns reduced, this may have a meaningful impact.

The table below shows the impact on investment returns from cash drag over a 10-year investment period. We have compared three different levels of existing capital deployment and a range of potential investment returns from future unlisted infrastructure investments. We have also assumed that an institution can deploy 15% of its total infrastructure allocation per year until it reaches its full allocation, on the basis that, on average a pension fund may be able to deploy 20% of its total allocation per year but will get a minimum of 5% returned in cash each year through dividends and asset sales from older funds.

Current infra deployment:	Expected Future Unlisted Infra Investment Return				
	8%	9%	10%	11%	12%
0%	4.9%	5.5%	6.1%	6.7%	7.3%
25%	6.2%	6.9%	7.7%	8.5%	9.3%
50%	7.1%	8.0%	8.9%	9.8%	10.7%
75%	7.7%	8.7%	9.6%	10.6%	11.6%

Source: ATLAS calculations

By example, if a fund is currently 50% deployed in unlisted infrastructure, deploys 15% of its infrastructure allocation each year (i.e. takes 3.5 more years to get to full allocation) and is able to earn a 10% return on all current and future infrastructure investments (which seems generous in the current environment), then the actual return it will generate from its entire allocated exposure would only be 8.9% over 10 years. If the fund only earns 8% on future infrastructure investments, its actual return is only 7.1% over 10 years, less than the common infrastructure hurdle rate of CPI+5%.

Whilst somewhat simplistic, this calculation demonstrates fairly, clearly the implications of holding undeployed allocations purely in cash.

## Options to be analysed

Given the issues associated with holding cash, we have reviewed four return seeking portfolio options:

- 100% Equities
- 50%/50% bonds and equities (“50/50 portfolio”)
- 30%/30%/30% bonds, equities and hedge funds (“30/30/30 portfolio”)
- 100% hedge funds – often seen as a defensive but return seeking asset class.

## 3. Performance analysis – listed Infra vs. alternatives

### Summary of return and risk metrics

As at 31 Oct 2018 (USD Unhedged)	Returns				Other			
	3-year	5-year	10-year	From 1 Jan 2007	Volatility <sup>1</sup>	Draw-down <sup>2</sup>	Correl- ation <sup>3</sup>	Beta <sup>3</sup>
FTSE DC Infrastructure <sup>1</sup>	8.1%	7.5%	9.7%	7.2%	10.7%	33.7%	76.9	53.1
100% Equities	7.9%	6.8%	10.0%	4.8%	15.5%	54.0%	100.0	100.0
50/50 portfolio	4.8%	3.7%	6.8%	4.2%	9.2%	31.2%	96.1	57.1
30/30/30 portfolio	4.7%	3.7%	6.5%	4.2%	8.1%	28.8%	97.5	50.7
100% Hedge Funds <sup>4</sup>	4.4%	3.7%	6.0%	4.0%	6.5%	24.1%	91.1	38.2

1. FTSE DC Infrastructure is the FTSE Developed Core Infrastructure Index

2. Volatility is measured over the period 1 January 2007 to 31 October 2018

3. Drawdowns represent the maximum drawdown since 1 January 2007

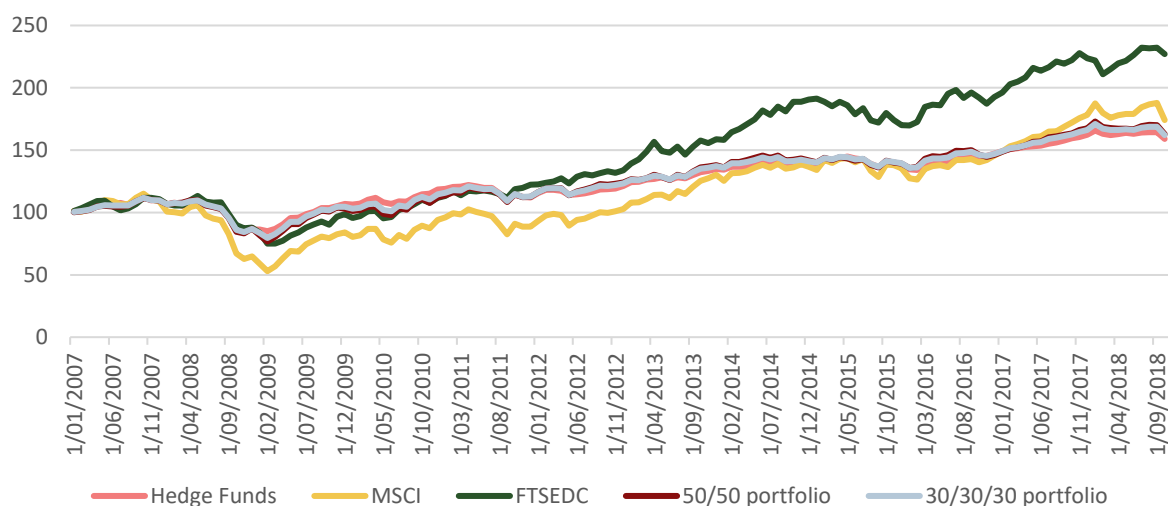
4. Correlation and beta are both measured against the MSCI World Index from 1 January 2007 to 31 October 2018

5. Barclays Hedge Fund Index

Source: Factset, Barclays website ([www.barclayhedge.com](http://www.barclayhedge.com)), ATLAS calculations

### Total long-term returns

#### Returns from 1 January 2007 to 31 October 2018



Source: Factset, ATLAS calculations. Hedge Funds is the Barclays Hedge Fund Index, MSCI is the MSCI World Index, FTSEDC is the FTSE Developed Core Infrastructure Index

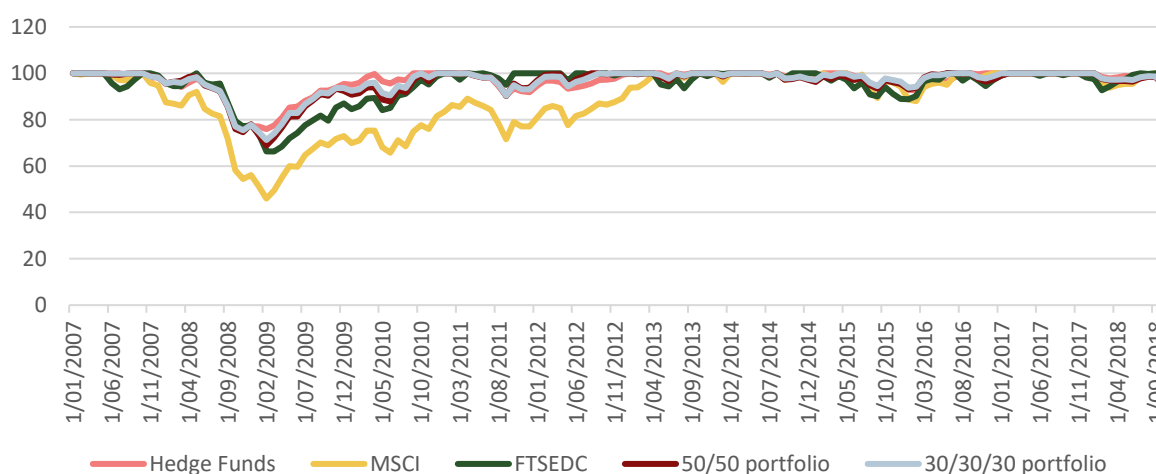
One interesting observation from the above chart is that hedge funds, a 50/50 portfolio and a 30/30/30 portfolio have remarkably similar return profile over time.

## Drawdown and risk analysis

One oft-quoted concern with listed infrastructure is that it has a high correlation with listed equities. However, correlation is simply a measure of the consistency of directionality measured over short time periods. The correlation of listed infrastructure to equities is c.77% over a 10-year period, and may be higher during periods of market volatility, but this is very significantly below the correlation of a 50/50 equities and bonds portfolio, which demonstrates a correlation of 96% over the same period.

Instead, we would suggest that drawdowns are a significantly more useful measure of short to medium term risk. We can see in the chart below that over the financial crisis listed infrastructure experienced a very similar drawdown profile to a 50/50 bonds/equities portfolio and to the hedge fund index. Furthermore, the listed infrastructure index and the 50/50 portfolio recovered their value at almost the same pace. In contrast, the listed equity market showed a 65% drawdown at its peak and experienced a materially slower recovery, taking almost 6 years to recover its losses.

### Drawdowns



Source: Factset, ATLAS calculations. Hedge Funds is the Barclays Hedge Fund Index, MSCI is the MSCI World Index, FTSEDC is the FTSE Developed Core Infrastructure Index

In our paper entitled “Implications of Dry Powder for Listed Infrastructure” we make the case that the listed infrastructure market should be even more resilient in the current environment given the significant volume of dry powder currently sitting in unlisted infrastructure funds, which may provide support for asset prices in a material market correction. This support was not a feature of the market in the 2008/09 period.

## Summary

In the table at the start of this section we find that listed infrastructure has achieved comparable and often superior returns to equities with materially lower downside risk. Furthermore, it has shown a very similar risk profile to an equally weighted portfolio of equities and bonds whilst delivering 300bps p.a. in excess returns relative to such a portfolio.

Our financial modelling of the listed infrastructure universe leads us to believe that many stocks in listed infrastructure will be able to sustain similar investment returns over the coming 10-year period as they have achieved historically, although on the same basis at least as many will materially underperform this return. Whilst this paper makes the case for the listed sector in the round, we continue to believe that active stock selection will also be a significant contributor to returns in the sector.

## 4. The Fallacy of the Discrete, Ring-Fenced Funding Source

In our discussion with investors, they have noted that using listed infrastructure as a funding source for an unlisted commitment may imply that, should the listed infrastructure market fall, they may be left with insufficient capital to fund their unlisted commitments.

The only answer to this concern is to hold all unallocated commitments in cash, or other very low risk/ low return assets, with the consequences described in section 2. In reality, the unspent commitment is unlikely to have been held in cash and instead is more likely to have been invested in a mix of equities, cash and bonds. As we demonstrated above, this mix would have very similar drawdown characteristics to listed infrastructure whilst offering, in aggregate, substantially lower returns.

In practice, holding undeployed allocations in cash, or across a general portfolio, undermines the intent of a given portfolio allocation to infrastructure and weakens the risk return profile of that portfolio.

One potential option to overcome the issue of undeployed allocations may be for institutions to include a listed infrastructure component in the infrastructure team's benchmark, equivalent to any undeployed allocation. The infrastructure team would then be held accountable for the entire infrastructure allocation and be able to make more conscious decisions as to the deployment of that capital.

## 5. Conclusion

Many of the arguments against using listed infrastructure as a holding vehicle for undeployed unlisted infrastructure allocations amount to little more than a case of wanting to have one's cake and eat it too.

Either these undeployed funds are held in cash, in which case that cash drag should to be taken into account in evaluating prospective infrastructure returns, and/or they are invested in the equity markets which expose the institution to drawdown risks. This paper provides evidence that listed infrastructure can provide superior long-term risk/return characteristics relative to these alternatives.

The listed infrastructure market contains a large number of high quality infrastructure assets that most institutions would gladly include within their direct infrastructure portfolios if they were available in unlisted form. We believe that listed infrastructure has demonstrated desirable investment characteristics over many years and, accordingly, it can and should play a valuable long term strategic and tactical role within an institution's broader infrastructure portfolio.

Nonetheless, for those institutions which are primarily or solely focussed on establishing a long-term presence in unlisted infrastructure, the listed infrastructure market still provides one of the best alternative uses for that capital prior to deployment.

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