

# Building exposure to infrastructure – a story of undeployed funds

By Fraser HUGHES & David BENTLEY

While listed infrastructure is a fundamental part of any broader diversified infrastructure allocation, listed infrastructure can also act as a great place to park undeployed capital intent on direct, or unlisted exposure.

The latest Preqin figures estimate that \$173bn of dry powder, or undeployed capital is waiting on the sidelines to invest in unlisted infrastructure. Exacerbating this capital backlog is scarcity of core infrastructure assets in the direct market and high multiples. Investors have a number of options where to ‘park’ undeployed capital until their commitments are called. These include cash, plus a variety of alternative return-seeking liquid assets.

## A background investment

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 is more likely to be a measurement and reporting issue 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 ten years. This trend shows no sign of abating with 71% of public pension funds believed 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. So again, there is that figure of \$173bn of dry powder in existing infrastructure funds. This does not include the capital which has been earmarked for infrastructure investment, but it is the capital yet to be committed to funds.

Not unsurprisingly, given the strong flow of investment, a recent survey undertaken by Preqin found that 59% of unlisted infrastructure fund managers see high valuations as the major challenge to capital deployment, while 52% of managers >

## Listed infrastructure provides investors with an alternative investment opportunity which could provide a significantly better fit to their desired unlisted infrastructure exposure than the alternative places to park capital which expose the institution to drawdown risks.

Figure 1. Expected future unlisted infrastructure returns

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: GLIO/ATLAS calculations

Figure 2. Summary of portfolio returns, volatility, drawdown, correlation & beta

As at 31 December, 2018 (USD Unhedged)	Returns 3-year	5 year	10 year	From 1Jan 2007	Other Volatility <sup>2</sup>	Draw-down <sup>3</sup>	Correlation <sup>4</sup>	Beta <sup>5</sup>
FTSE DC Infra1	9.4%	7.0%	9.7%	6.9%	10.8%	33.7%	77.3%	53.6%
100% Equities	6.3%	4.6%	9.7%	4.1%	15.5%	54.0%	100.0%	100.0%
50/50 portfolio	4.6%	3.0%	6.2%	4.0%	9.2%	31.2%	96.1%	57.1%
33/33/33 portfolio	4.3%	2.9%	6.2%	3.9%	8.1%	28.8%	97.5%	50.4%
100% Hedge Funds <sup>5</sup>	3.6%	2.7%	6.0%	3.7%	6.1%	24.1%	91.1%	38.2%

1. FTSE DC Infrastructure is the FTSE Developed Core Infrastructure Index.
2. Volatility is measured over the period 01 January, 2007 to 31 December, 2018.
3. Drawdowns represent the maximum drawdown since 01 January, 2007.
4. Correlation and beta are both measured against the MSCI World Index from 01 January, 2007 to 31 December, 2018
5. Barclays Hedge Fund Index

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

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. Surely something has got to give?

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 be deployed (assuming the asset manager displays a level of discipline, in terms of both pricing and infrastructure asset type). In the period during which allocated capital is not invested (directly, or through managers) in the desired in-

rastructure assets, it will be invested elsewhere in an institution's liquid assets portfolio, most likely in a combination of equities, cash and bonds.

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

### Parking capital

It may be hard to accurately determine exactly where capital is invested while it is awaiting deployment in an unlisted infrastructure allocation, given pension funds mostly manage their portfolio exposures as a whole. However, it would be fair to assume 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 investment criteria would be to balance return-seeking attributes while having some downside protection.

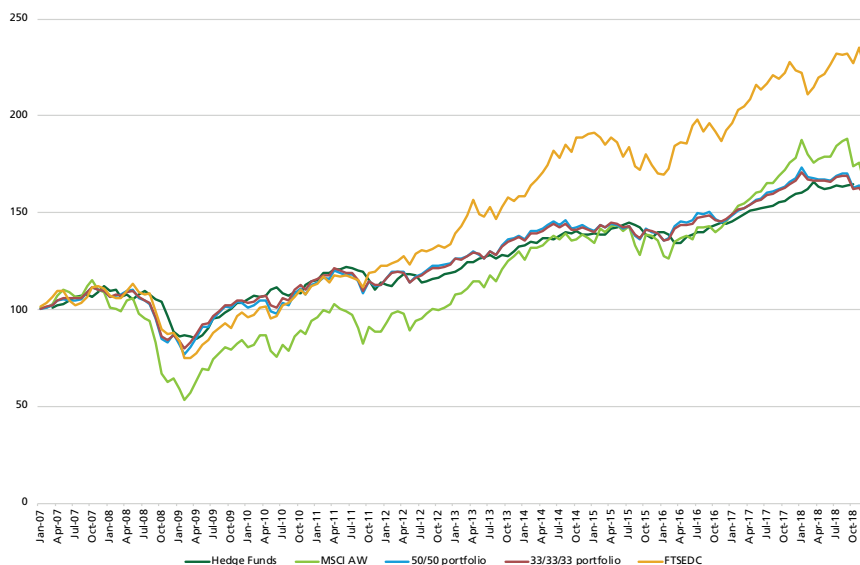
### Parking in cash – implications

The assumption (for argument's sake) that institutions invest undeployed capital into cash comes with its own implications. Although this tactic would have no drawdown risk, it is likely to act as a material drag on returns. It then goes without saying that this cash drag should be taken into account when evaluating the prospective return expectations for the infrastructure asset class. In a world where asset prices are already elevated and expected returns low, this would not be likely to result in favorable return expectations.

Figure 1. shows the impact on investment returns from the cash drag over a ten-year investment period. We have compared three different levels of existing capital deployment and a range of potential future investment returns from future unlisted infrastructure investments. We have also assumed that an institution can deploy 15% of their total infrastructure allocation per year until it reaches its full allocation. The rationale for this estimation is that, on average, a pension fund may be able to deploy 20% of its total allocation but will get 5% cash returned each year (at least) through dividends and asset sales from older, or more mature funds.

For example, if a fund is currently 50% deployed (relative to target weight) in unlisted infrastructure, deploys 15% of its infrastructure allocation each year

Figure 3.: Long-term (12 years) portfolio returns vs. listed infrastructure



*Either these undeployed funds are held in cash, in which case that cash drag should be accounted for in evaluating prospective returns for its unlisted infrastructure allocation, and/or they are invested in the equity markets which expose the institution to drawdown risks.*

**Q4 2018 declines**

FTSE DC	MSCI World	Hedge Funds	50/50 Portfolio	33/33/33 Portfolio
-4.1%	-13.4%	-6.2%	-6.2%	-6.2%

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

(i.e. takes 3.5 more years to get to full allocation) and the fund 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 ten years. If the fund only earns 8% on future infrastructure investments, its actual return is only 7.1% over ten years, less than the common infrastructure hurdle rate of CPI+5%.

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

**Parking elsewhere**

Given the issues associated with holding cash, we have reviewed four return-seeking portfolio options, compared these portfolios to a listed infrastructure performance benchmark. The portfolios are comprised of:

- 100% equities
- 50%/50% bonds and equities (50/50 portfolio)
- 33%/33%/33% bonds, equities and hedge funds (33/33/33 portfolio)

- 100% hedge funds – often seen as a defensive but return-seeking asset class.

One interesting simple observation from Figure 3. is that equities, hedge funds, a 50/50 portfolio and a 33/33/33 portfolio all have remarkably similar returns over time. We also note that despite being materially more defensive than general equities, listed infrastructure has outperformed equities over short, medium and long time periods.

Finally, we observed that in the final quarter of 2018, listed infrastructure displayed significantly better resilience than hedge funds, or the alternative portfolios discussed above. This re-emphasizes the defensive nature of listed infrastructure even against asset classes traditionally considered to be defensive/countercyclical.

**Drawdown and risk analysis**

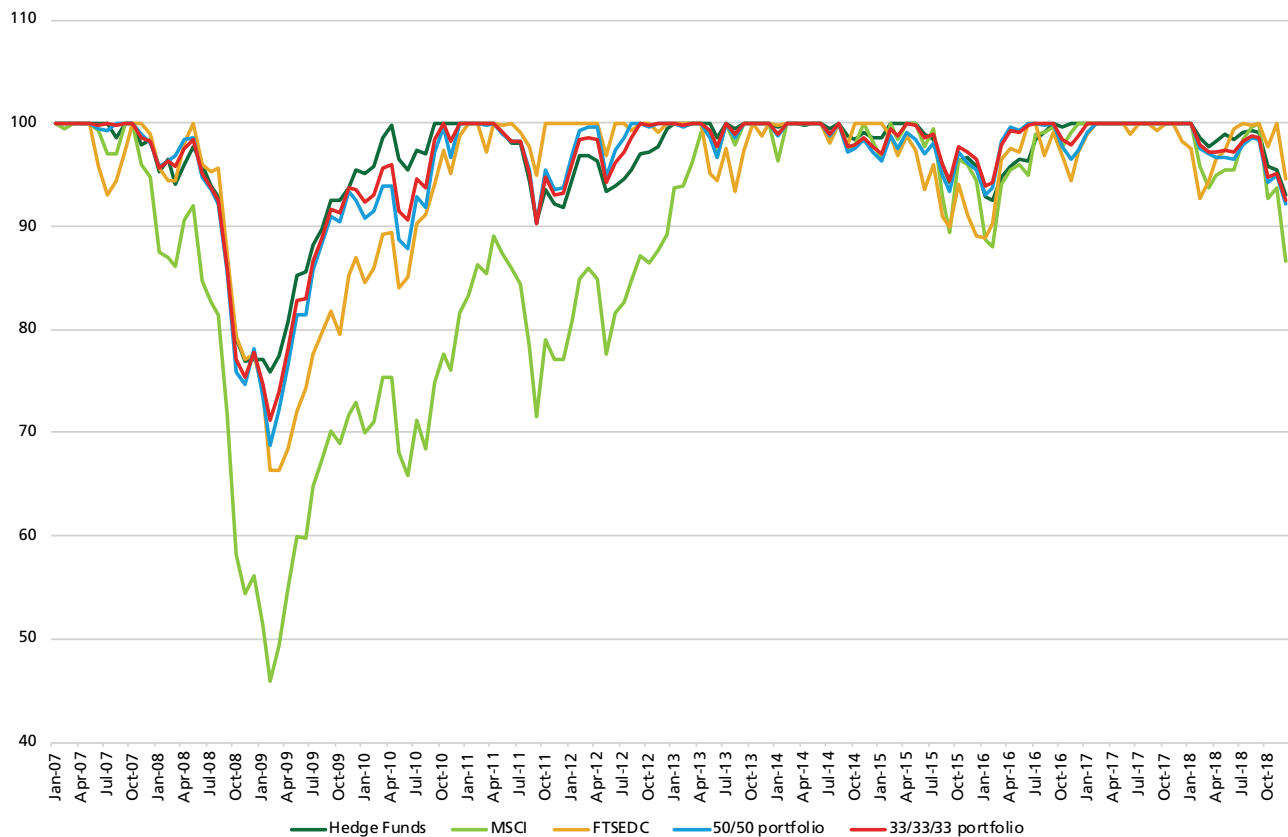
One often-quoted concern with listed infrastructure is that it has a high correlation with listed equities. However, correlation is simply a measure of the consistency of directionality of short-term measurements, rather than a true measure of diversification or risk management. The

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correlation of listed infrastructure to equities is approximately 77% over a ten-year period and may be higher during periods of short-term market volatility, but this is significantly lower than 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 capital loss (and speed of recovery) are a significantly more useful measure of >

Figure 4: Portfolio drawdowns vs. listed infrastructure



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

short to medium-term risk. We can see in Figure 4. 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 – approximately three years from peak to recovery. In contrast, the listed equity market showed a 54% drawdown at its peak and experienced a materially slower recovery, taking almost six years to recover its losses.

In ATLAS Infrastructure’s paper entitled “Implications of Dry Powder for Listed Infrastructure”<sup>1</sup>, they 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 and may help to explain

the particularly strong performance of listed infrastructure through the most recent pull-back.

ATLAS found that listed infrastructure had achieved comparable and often superior returns to general equities with materially lower downside risk. Furthermore, it has shown a very similar risk profile to 50/50 equities and bonds portfolio while delivering 300bps p.a. in excess returns. In either case, it provides a significantly better risk/return outcome.

ATLAS also noted that listed infrastructure has delivered very similar long-term returns to unlisted infrastructure, using the Preqin index. This is mirrored by GLIO research.

While this article makes the case for a broadly diversified listed infrastructure portfolio using the FTSE Developed Core Infrastructure index, we believe that active stock selection offered by the specialist global listed infrastructure managers will also be a significant contributor to excess returns in the asset class.

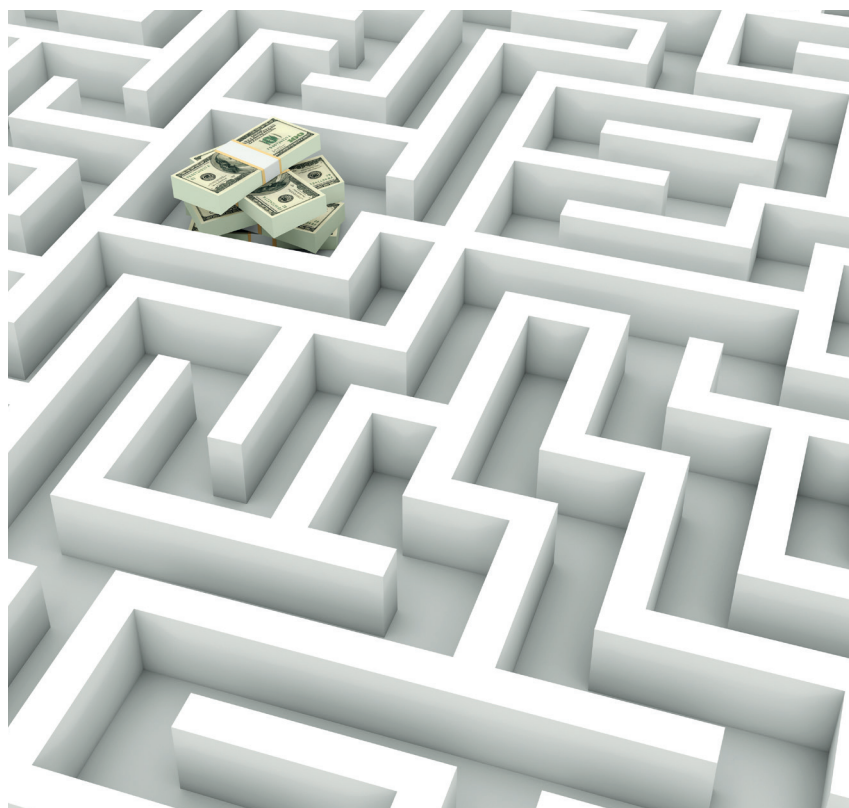
### The fallacy of the discrete, ring-fenced funding source

In discussions with investors, some have mentioned that using listed infrastructure as a funding source for an unlisted infrastructure commitment may imply that should the listed infrastructure market lose ground, 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, but face the consequences described earlier.

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 would have very similar drawdown characteristics to listed infrastructure while offering, in aggregate, substantially lower returns (plus offering no, or very little infrastructure underlying exposure).

In practice, holding undeployed alloca-

1. The paper is available at: [www.atlasinfrastructure.com](http://www.atlasinfrastructure.com)



tions 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, which is 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.


### Concluding remarks

We believe that 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 be accounted for in evaluating prospective returns for its unlisted infrastructure allocation, and/or they are invested in the equity markets which ex-

pose the institution to drawdown risks. This article provides evidence that listed infrastructure can provide superior long-term risk/return characteristics relative to a variety of alternatives.

Ultimately, a well-defined listed infrastructure market is made up of a large number of high-quality infrastructure assets, covering regulated utilities, energy transportation, transportation and communication infrastructure. Most institutions would gladly include these assets within their direct infrastructure portfolios if they were available in unlisted form. Accordingly, we firmly believe that listed infrastructure has demonstrated desirable investment characteristics over many years and can and should play a valuable long-term strategic and tactical role within an institution's broader infrastructure allocation.

Nonetheless, for those institutions that are intent on establishing a long-term presence in unlisted infrastructure, the listed infrastructure market still provides one of the best alternative options for that capital prior to deployment. 



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