

Setting the goalposts: A review of infrastructure fund benchmarks

Infrastructure research note

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- There are a number of challenges with benchmarking alternative investments in comparison with traditional asset class benchmarking.
- Furthermore, unlisted infrastructure as an asset class is still developing in terms of performance data availability and investor expectations.
- Consequently, investors have had to adopt a range of less-than-perfect benchmarks.
- In choosing a benchmark, investors must consider their return expectations, income/capital return preferences, real versus nominal return focus, and investment horizon. They must then weigh these against the characteristics of available benchmarks.
- Applied appropriately, ‘single-asset class + margin,’ ‘CPI + margin’ and absolute return benchmarks are the best alternatives among current benchmark options.
- However, as the asset class develops, we expect ‘blended-asset class + margin’ benchmarks and relative performance measures to become more prevalent.

Introduction

Performance benchmarking may not be a topic that gets investors’ pulses racing. Nevertheless, it is an issue which investors need to consider seriously, particularly in less established asset classes such as unlisted infrastructure.

Relative to traditional asset classes such as equities and fixed income, performance benchmarking in unlisted infrastructure is a more difficult proposition. Some of the issues with benchmarking unlisted infrastructure investments include:

- The length, or track record, of performance data is limited for the asset class. Australian unlisted infrastructure data is available for a maximum of 15 years, compared to over 100 years for Australian equities and fixed income.
- The breadth, or cross-section, of performance data is similarly limited. There are only a handful of unlisted funds for which performance data is publicly available. This makes it difficult to construct benchmarks which reflect a particular manager’s style bias.
- Unlike broad equity and fixed income indices, which are investible or replicable, it is generally not possible to replicate an unlisted infrastructure index by investing in the constituent infrastructure assets or funds.
- Because of the difficulty in identifying a ‘beta’ return, identifying ‘alpha’ return, or the return attributable to active management in any precise sense, is impossible.

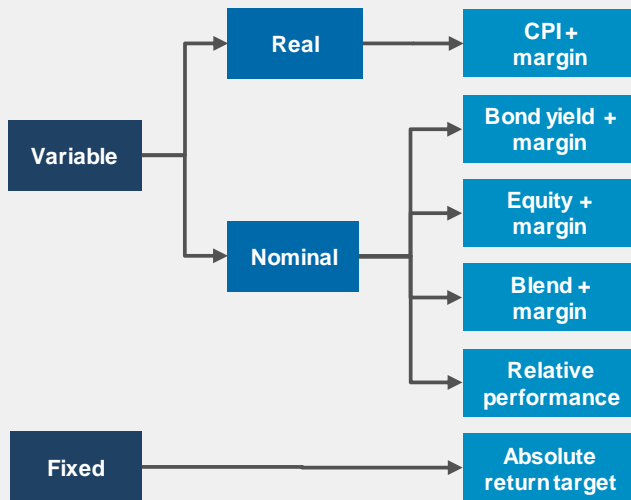
Investors in unlisted infrastructure, therefore, have had to make do with benchmarks that do not meet all the criteria that a robust traditional asset class benchmark would (such as investability, allowing alpha return attribution, etc).

Complicating this situation somewhat, unlisted infrastructure is still developing in terms of investor return expectations and objectives. The diverse range of benchmark options available is testament to this. We review these briefly in the next section.

Overview of benchmarks

A number of theoretical benchmarks for unlisted infrastructure funds exist. These range from fixed, absolute return targets, to peer group comparisons, to other asset class returns plus an appropriate margin. These are presented in Figure 1 below.

Figure 1:
Unlisted infrastructure versus equity/fixed income blend



Source: CFS GAM Research

When determining a benchmark, a number of decisions need to be made, including:

- Selecting the type of benchmark (e.g. CPI + margin, absolute return target, etc)
- For benchmarks with a margin component, specifying an appropriate level for this
- For absolute return benchmarks, determining the target return level
- For relative return comparisons against other funds/managers, identifying an appropriate peer group
- For blended benchmarks (such as an equity/fixed income blend), determining the appropriate split between base series
- The time horizon over which performance is measured.

The margin component of a given benchmark may have a positive or negative value, depending on the underlying base series, as well as the nature of the fund that is being benchmarked.

However, in order to determine an appropriate margin level, we first need to form a view of expected *total* returns. We believe a total return focus, rather than a benchmark on yield from infrastructure investments alone, is appropriate. This helps ensure the asset is managed for the long-term. For example, a manager that is incentivised to meet a given yield target in the short-term may do so by foregoing capex, which would be detrimental in the long run. We consider the level of target returns in the following section.

Deriving total return expectations

Having indicative expected total returns for infrastructure as well as other asset classes is necessary in order to quantify the margins in the theoretical benchmarks outlined above. The intended focus here is not the forecasts themselves, but rather a demonstration of how a given set of forecasts can then be incorporated into the benchmark framework described previously.

Table 1 shows long term average total returns for different asset classes, along with 10-year forecasts.

Table 1:

	10-year avg	15-year avg	20-year avg	10-yr fcst
Equities	7.7%	9.7%	9.6%	9.5%
Bond yield	5.6%	6.0%	6.8%	6.0%
Unlisted infra (diversified)	9.9%	12.8%	n/a	11%
CPI	3.2%	2.7%	2.7%	2.5%

Source: CFSGAM

The Australian unlisted infrastructure asset class, as represented by a sample of six unlisted funds with varying inception dates, returned an annualised 12.8% over the 15 years to September 2010.

The 12.8% represents diversified infrastructure portfolios, which have traditionally been popular. However, as the infrastructure investment market matures, product differentiation is increasing with portfolios increasingly become either core, growth, or Greenfield oriented. The different risk return profiles of these different segments, in turn, suggest that more specific benchmarks are needed. While this might seem an obvious point to make, a recent survey¹ of institutional investors in infrastructure found that 44% of investors do not have different total return targets for core versus growth/Greenfield investments.

Using the assumptions outlined above, we would suggest that typical total return targets for the various infrastructure segments would be:

- Core infrastructure should return from around 8% to over 10%.
- Growth-oriented infrastructure should return between 10% and 14%.
- Diversified infrastructure funds returning from 9% to 13%.
- Greenfield infrastructure returns being at least 14% or above.

Finally, the composition of returns will also differ by segment. Core infrastructure returns are generally more income or yield oriented, while Greenfield and high growth infrastructure investments will be skewed toward capital gains. This may also influence the choice of benchmark type.

Review of benchmarks

Armed with indicative expected returns, we now add a numerical dimension to the various theoretical benchmarks discussed earlier.

The figures are provided to allow the reader to substitute their own assumptions for any of these variables. For example, if average inflation (CPI) was expected to be 3% instead of 2.5%, then our recommended benchmark ranges could simply be increased by 0.5%.

¹ Presented by Ryan Mattox, Managing Director, North America, Institutional Real Estate, Inc., at *Institutional Investing in Infrastructure (I3)* conference, 2010

Relative performance/peer comparison

A relative performance benchmark, similar to those used in traditional asset classes such as equities and fixed income, is not currently adopted for unlisted infrastructure due to a lack of sufficient data. As the previous section highlighted, current samples are too small, and have a number of issues which may render them unsuitable as a benchmark.

Part of the advantage of this method is that it allows investors to identify the value added by active manager skill, or ‘alpha’ return. It would also allow performance to be measured over shorter intervals than other methods reviewed in this paper.

As more data becomes available, we anticipate that this form of benchmarking will become more widespread. Ideally, the sample of peer portfolios needs to be broadened and further stratified into core, growth and Greenfield-oriented portfolios to provide a like-for-like comparison for benchmarking purposes.

Real, single asset class + margin and absolute return

Table 2 sets out possible benchmarks / target return ranges for different types of infrastructure funds. The shaded cells represent combinations of benchmark types and fund strategies that we feel are a natural fit, based on investor preferences. The absolute return targets are equivalent to the total return targets established in the previous section, and the margins are derived using the assumptions set out earlier in Table 1.

Table 2:

	Core	Diversified	Growth	Greenfield
Absolute	8% to 10%	9% to 13%	10% to 14%	> 14%
Real	CPI + 5.5% to 7.5%	CPI + 6.5% to 10.5%	CPI + 7.5% to 11.5%	>CPI + 11%
Nominal: bond yield +	Bond yield + 2% to 4%	Bond yield + 3% to 7%	Bond yield + 4% to 8%	>Bond yield + 8%
Nominal: equity return +	Equity return -1.5% to 0.5%	Equity return -0.5% to +3.5%	Equity return + 0.5% to +4.5%	>Equity return + 4.5%

For example, yield-focused and risk-averse investors are more likely to invest in core or diversified infrastructure funds than growth or Greenfield funds, as the former have a relatively high income or yield total return component. Hence a ‘Bond yield + margin’ benchmark is likely to be more appropriate than an ‘Equity return + margin’ benchmark.

Likewise, investors in Greenfield-oriented funds are more likely to be seeking (i) a higher level of total returns, (ii) nominal rather than real returns, and (iii) capital-oriented returns rather than income-oriented returns. Hence, the ‘CPI + margin’ and ‘Bond yield + margin’ are not highlighted for this fund type.

In each of these cases, we would argue that measuring performance over sufficiently long term horizons (such as a minimum of 3 years rolling) is appropriate, as infrastructure returns are not likely to be correlated with measures such as CPI or the bond yield in the short term. Rather, the resultant targets should be seen as a hurdle rate.

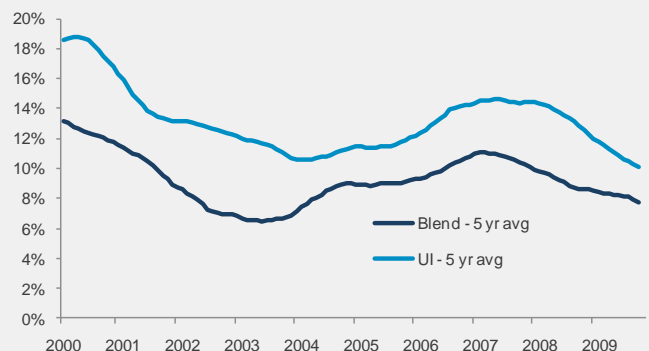
Consider a pension fund with long-term inflation-linked liabilities which is invested in core infrastructure assets. The fund may choose to use a CPI + margin benchmark despite the lack of a short-term correlation between the benchmark and its underlying investments because it is focused on long-term, real returns.

Blend + margin

An alternative to selecting just one asset class as the basis for a benchmark is blending different ones. For example, infrastructure and other alternative investments are often described as having characteristics of both equity and debt. Intuitively, therefore, a benchmark consisting of both asset classes should be superior in terms of long-term correlation. We note, however, that any correlation in this case cannot be interpreted as causation, as there are different underlying drivers between equity, fixed income and infrastructure returns.

Indeed, our analysis reveals that a blend of equity and fixed income returns, measured over a sufficiently long time horizon tracks unlisted infrastructure performance quite well. Figure 2 shows the 5-year average annual return of a 60/40 equity/fixed income blend, versus unlisted infrastructure measured on the same basis². The average margin over this period was nearly 400 basis points in favour of infrastructure.

Figure 2:
Unlisted infrastructure versus equity/fixed income blend



Source: Mercer, Bloomberg and CFS Research

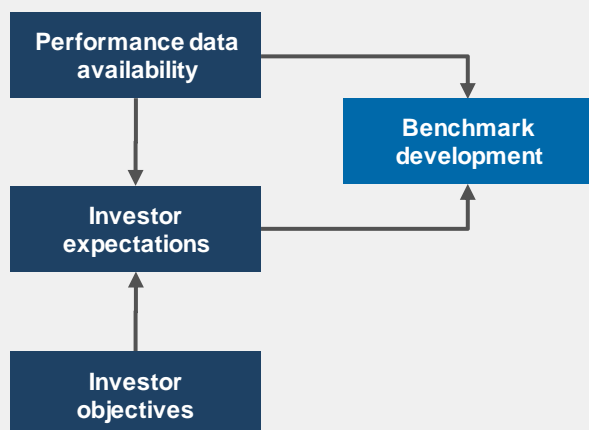
Importantly, this correlation (0.86 using a 5-year window) is not as evident over shorter time periods, such as annual measurement periods (0.46). This is because valuation lags tend to exist over short periods. These may be due to the appraisal-based valuation schedule, the lagged impact of regulatory resets (which typically occur annually or even less frequently) on regulated assets, or both.

² Calculated as the average annual return on monthly rests for 5 years (60 monthly observations)

Summary

Unlisted infrastructure as an asset class continues to develop in terms of performance data availability and investor expectations. As Figure 4 depicts, this has impacted the development of infrastructure benchmarks, and investors have had to adopt a wide range of less-than-perfect benchmarks.

Figure 4:
Benchmark development factors



Source: CFS GAM Research

As this paper highlights, selecting an appropriate benchmark is not a straightforward exercise. The task for investors is to:

- develop robust expectations of returns for *their* investment/intended investment (these include the level of returns, as well as the drivers of these returns)
- consider these against their own investment objectives and needs (in terms of level of total returns, income/capital return composition, real versus nominal return focus, and investment horizon)
- select the most appropriate benchmark based on the above factors as well as current benchmark availability

The most common benchmarks in current use are the ‘CPI + margin,’ Absolute return target, and ‘single asset class + margin’ varieties. Our view is that these remain the most appropriate alternatives available, as long as they are selected or specified in line with the underlying characteristics of the infrastructure investment being benchmarked (as highlighted in Table 2).

A point worth highlighting is that certain benchmarks have worked well because economic conditions over the past 15 years have been relatively benign. For example, ‘CPI + margin’ has never really been tested as an infrastructure benchmark in a high and volatile inflation environment similar to that of the 1970s and 1980s. With a more uncertain inflation environment looming – with both deflation and double digit inflation touted as possible scenarios – this could have an impact on benchmark performance.

Finally, we see peer comparison and ‘blended asset classes + margin’ benchmarking becoming more popular as more data becomes available. We would welcome the development of broader peer-group or asset-level benchmarks – and, indeed, see this as being a question of ‘when’, rather than ‘if.’ However, the fundamental considerations for investors, as discussed in this paper will remain the same.

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