GLOBAL LISTED INFRASTRUCTURE ORGANISATION

GLIO Journal

issue 03

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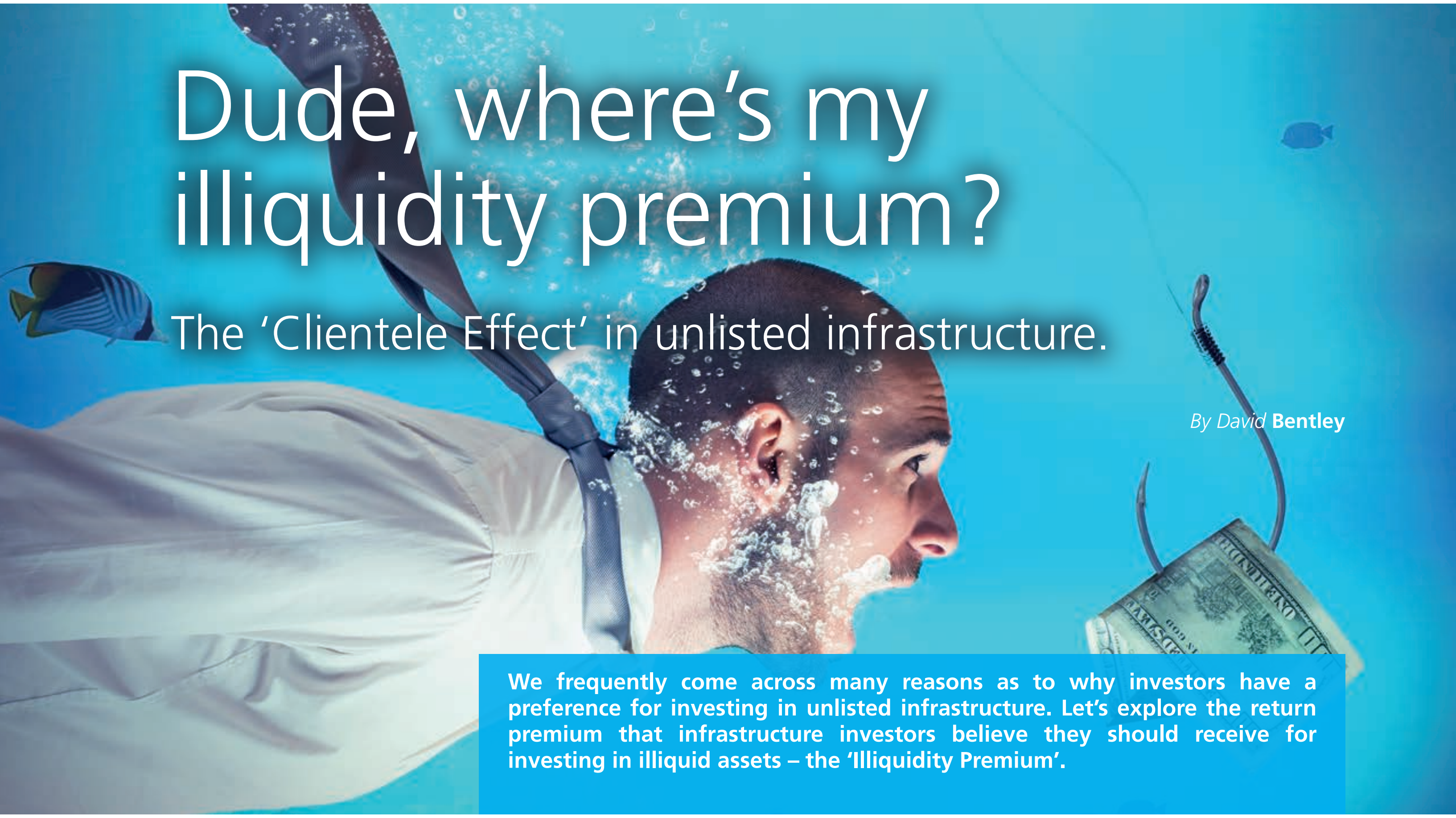


Dude, where's my illiquidity premium?

The 'Clientele Effect' in unlisted infrastructure.

By David **Bentley**

We frequently come across many reasons as to why investors have a preference for investing in unlisted infrastructure. Let's explore the return premium that infrastructure investors believe they should receive for investing in illiquid assets – the 'Illiquidity Premium'.

Executive Summary

Although investors should in theory be rewarded for taking illiquidity risk in the form of an illiquidity premium, the nature of the infrastructure investor universe, combined with relatively limited asset availability means that such a return premium is unlikely to be achieved. This hypothesis is supported by analysis of historic returns, which are consistent between liquid and illiquid infrastructure, and also by proxies for expected future returns, namely the transaction and trading multiples of infrastructure assets.

In an article published in March 2016 by Towers Watson entitled "*Understanding and measuring the illiquidity risk premium*", they state: "Not every investor has the benefit of a long time horizon, but many of Willis Towers Watson's institutional investment clients do. Due to their liability structures, a significant number of pension funds, most sovereign wealth funds/endowments and some insurance companies, have the ability to 'lock up' their capital over the long-term to some degree. This represents an important source of competitive advantage, with these investors able to harvest the higher returns on offer from illiquid assets."

While there is good theory supporting the fact that investors should be paid an excess return for taking on liquidity risk, and there is evidence from certain asset classes that such a return premium is achievable, the unlisted infrastructure market may have underlying characteristics which make this premium far more difficult to achieve.

In the following article, I will contend that in the case of private market infrastructure, a combination of investor preferences which favor (rather than avoid) illiquidity coupled with a relatively limited opportunity set, leads to a market in which the illiquidity premium has all but evaporated.

If we look first at the theory of the illiquidity premium, the case that there *should* be a premium has been well made by numerous authors over time. Illiquidity is a risk and thus investors should demand a higher return for assuming that risk.

What is Illiquidity Worth to You?

A major challenge highlighted in the literature is in determining the required return for taking on that risk[1]. We know that different investors will price illiquidity risk differently depending upon their specific need for liquidity. Towers Watson argues that if the market price is set by investors who require a higher risk premium for investing in illiquid assets, those who require a lower illiquidity premium may be able to capture some arbitrage between the available investment return and their required return.

This is likely to be the case in a broad and well balanced market, but here's the rub: if

1 Ang, Papanikolaou and Westerfield (2014) Portfolio Choice with Illiquid Assets a market is dominated by investors which require a low risk premium for taking on illiquidity risk and it is those investors who are setting the marginal price for a scarce number of assets, then the illiquidity risk price (and therefore returns) will be low. In other words, the illiquidity premium will be set at (not above) the level required by the marginal buyer, and if the marginal buyer has a low or even zero requirement for an illiquidity premium – that's where the illiquidity returns will be.

The illiquidity premium will be set at (and not above) the level required by the marginal buyer.

This is nicely summarized in a paper entitled "*Liquidity Premium in the Eye of the Beholder: An Analysis of the Clientele Effect in the Corporate Bond Market*"[2] which looks at the effect whereby multiple investors with similar preferences dominate a particular market. In this paper, Huang et al note that: "When illiquid securities predominantly attract investors with low liquidity preference, the liquidity premium on these securities may be attenuated."

In other words, the Clientele Effect, which we see particularly strongly in unlisted infrastructure due to the consistency of investor preferences in that market, may be responsible for the significant reduction or elimination of the illiquidity premium.

Schroders also notes in its article entitled "*The Illiquidity Conundrum: Does the Illiquidity Premium Really Exist*" that most large pension and sovereign wealth funds place a relatively lower value on liquidity at the institutional level. Furthermore, these firms can generally meet their liquidity requirements through existing investments in liquid assets.

We also know from our discussions with institutions, that most of these firms have minimal or no liquidity requirements for their infrastructure allocations. Indeed, many of these investors specify that the infrastructure allocation must be deployed in private market assets only – in effect stating a preference for illiquid assets. In practise, therefore, a very large number of unlisted infrastructure investors see illiquid assets as more attractive than their liquid equivalents.

Trophy Returns

Another element the private market is those investors (often sovereign wealth funds or SOE asset owners) who appear to have a desire to own the infrastructure for strategic purposes and who therefore have a cost of capital which is approaching zero. These investors are only likely to compete for specific trophy assets but nonetheless, they may be a factor in putting downward pressure on overall returns in the sector.

Exacerbating the Clientele Effect in unlisted infrastructure is the fact that the unlisted market has a material shortfall of available core infrastructure assets relative to current available capital, and potential future capital inflows. The Preqin annual investor survey shows the current situation very clearly: Preqin estimates that $150bn of capital, or 'dry powder', is searching for infrastructure asset exposure (see Figure 1). To compound the issue, many investors are looking to increase their long-term target allocations to infrastructure, increasing pressure on the market. This imbalance pushes the assets towards those investors with the lowest cost of capital – which tend to be the firms which see illiquidity as somewhat of a benefit rather than a risk. >

Perceived reasons for investing directly into infrastructure:

Control.

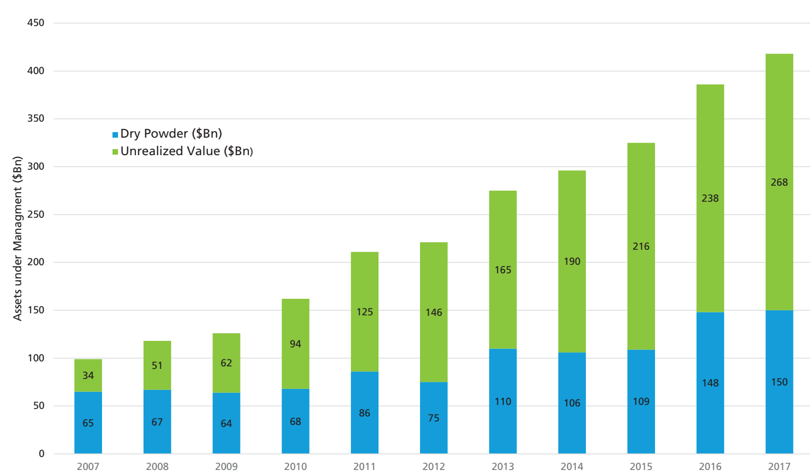
Ability to add value through operational and financial improvements.

Direct ownership of very specific assets.

Lack of correlation (because of differences in valuation methodology) with other markets/asset classes.

The Clientele Effect may be responsible for the significant reduction or elimination of the illiquidity premium.

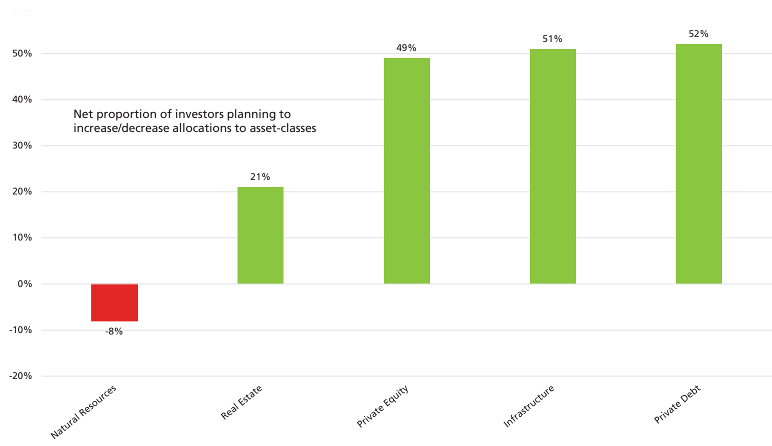
Figure 1: Unlisted Infrastructure Assets under Management, December 2007 to June 2017



Source: Preqin Annual Survey, 2018

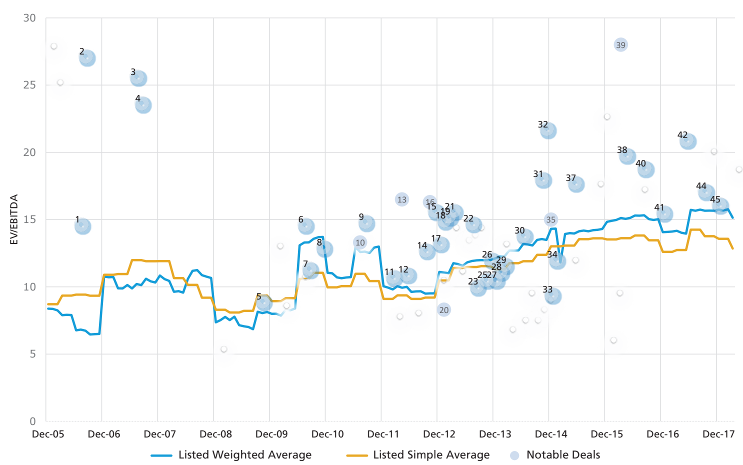
2 *Huang, Jing-Zhi and Sun, Zhenzhen and Yao, Tong and Yu, Tong, Liquidity Premium in the Eye of the Beholder: An Analysis of the Clientele Effect in the Corporate Bond Market (September 2014). Asian Finance Association (AsFA) 2013 Conference. Available at: SSRN: https://ssrn.com/abstract=2269894 or http://dx.doi.org/10.2139/ssrn.2269894*

Figure 2: Institutional Investors Plans for Allocation in the Longer Term



Source: Preqin Interviews, December 2017

Figure 3: GLIO Global Airports (EV/EBITDA Multiples)



Source: GLIO, Inframation

Another slightly less scientific statistic, but one that is nonetheless instructive, is that a search on Preqin of private and public sector pension funds, and sovereign wealth funds, reveals 924 investors with a stated an interest in unlisted infrastructure, compared to only 164 investors with a stated interest in listed infrastructure. In this search there was an overlap of 132 investors who had an interest in both listed and unlisted infrastructure, a relatively small number out of a total of 957 unique investors. We recognize that this is a crude statistic, but the scale of the difference in investor preferences highlights the strong predisposition of investors to unlisted infrastructure.

In summary, we know that many unlisted infrastructure investors are indifferent (at best) to illiquidity risk and, when combined with the supply/demand attributes of the unlisted infrastructure market, we would expect to see limited or no illiquidity premium available in the unlisted infrastructure market.

There is scant evidence of an illiquidity premium being earned by unlisted infrastructure investors.

The hypothesis is consistent and defendable in theory, but does the data support this story?

To evaluate this, we examine below evidence on historical returns as well as prospective investment returns in the listed and unlisted infrastructure market.

GLIO regularly publishes information comparing the performance of listed and unlisted infrastructure over time. If we look at longer-term returns to September 2017 (the date of the most recent update to the Preqin unlisted infrastructure index) we can see that the investment performance for both forms of infrastructure have been very consistent over most timeframes. In fact, monthly averages total returns are very similar: unlisted averaging +90bps per month, whereas listed infrastructure averages +93bps per month. There is scant evidence of an illiquidity premium being earned by unlisted infrastructure investors.

The next useful data point is to look at the expected returns for infrastructure assets in the listed and unlisted markets. It is relatively difficult, however, to establish consistent and reliable data on the return expectations of investors.

One approximation of forward-looking returns is to compare the valuations (as determined by EV/EBITDA multiples) of assets in the public market to those in the private market. We can see from our analysis that in most sectors and in most geographies the prices paid in the unlisted sector are in line or above those in publicly traded securities. Global airports transactions over the course of the past 12 years offers good example of this phenomenon, with the vast majority of private transactions (blue dots in Figure 3.) taking place above the average multiples in the listed airports (orange line) infrastructure sub-sector.

Some of this premium may be accounted for by an assumption that unlisted managers can add value that listed company management teams cannot. However, even allowing for this manager skill (and noting that at least part of those excess returns may be captured by higher unlisted manager fees), the forward-looking

Time Horizon	Preqin	GLIO	DJBGI	FTSE Core
Average Monthly (184 months)	+90bps	+93bps	+93bps	-NA-
60 months	+10.0%	+8.3%	+6.2%	+7.9%
90 Months	+9.4%	+10.6%	+10.2%	+9.7%
120 Months	+7.8%	+6.7%	+6.7%	+7.0%
150 Months	+10.4%	+8.8%	+8.8%	-NA-
180 Months	+11.7%	+12.1%	+12.1%	-NA-

Source: Preqin, GLIO; data as at June 29, 2018

returns in the unlisted sector currently appear to be very similar those available in the listed market, with no certain evidence that assets are available more cheaply in the private market.

A final data point is the recent push by a number of managers into 'Super-Core' funds with targeted returns in the 7-8% range. This range is indistinguishable from the expected returns we see for the highest quality infrastructure assets in the listed market and shows no evidence of an illiquidity premium compared to the listed market. It can also be argued that these investments, undertaken through a fund structure, are even less liquid than owning and managing the assets directly.

A Premium Ignored

In conclusion, we see that while there is reasonable theoretical evidence that investors should demand a premium for illiquid investment positions, the current preference of many infrastructure investors seems to ignore this. Subsequently, under current market conditions, particularly then taking into consideration the increased competition for private infrastructure deals, it seems unlikely that unlisted infrastructure investors will be able to take on board any excess returns for illiquidity.

There are many very good reasons for investing in unlisted infrastructure, but the illiquidity premium is, unfortunately, not one.

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David Bentley is a founding Partner of ATLAS, based in the London office. He has over 17 years' experience in the infrastructure sector. Prior to developing the ATLAS business, Bentley worked with Rod Chisholm (co-founder) at RARE Infrastructure for over two years. He previously worked at the Future Fund (Australian Government Sovereign Wealth Fund) as an Investment Manager in its Infrastructure team where he was responsible for overseeing the fund's listed infrastructure strategy.
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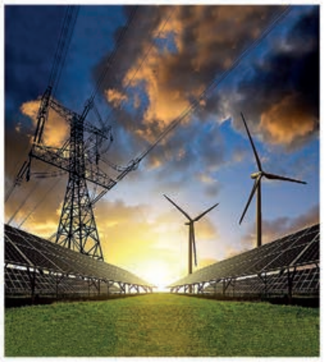
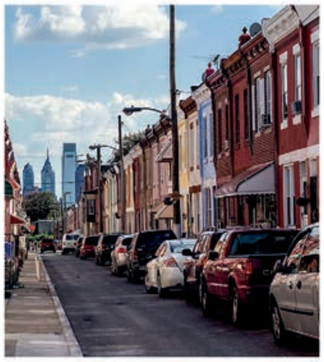

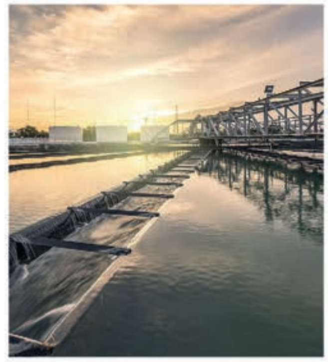



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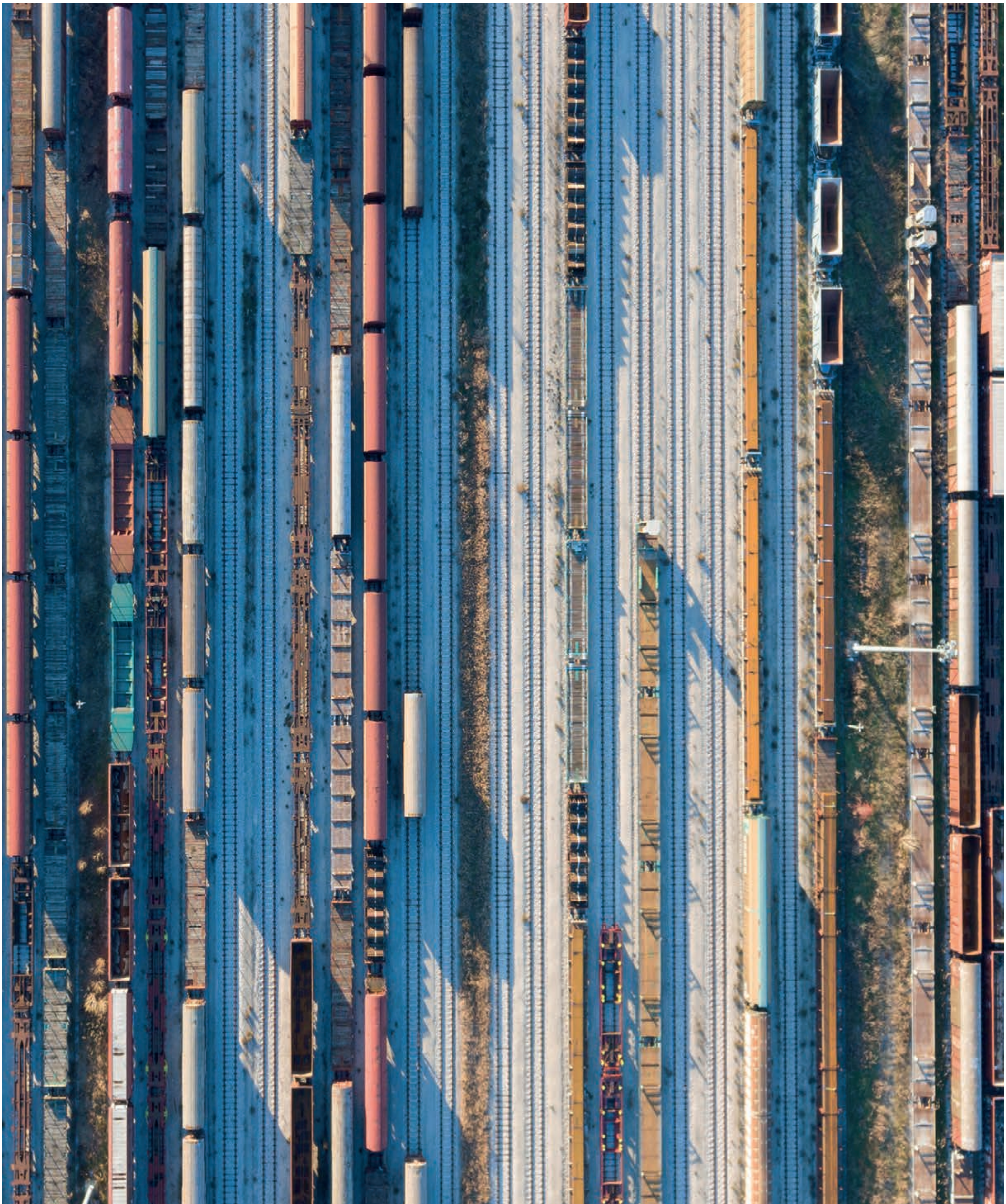
The asset class offers investors global diversification across mission-critical economic sectors including utilities, energy distribution, transportation, and communications infrastructure. It has provided attractive net total returns, and offers transparency, liquidity, underpinned by stable cashflows. Development of the asset class is essential to meet the demands of an environmentally-aware global economy of the future.

"Maple-Brown Abbott decided to join GLIO in H1 2018 after seeing the impressive progress the organisation has made over the past 18 months. We believe the $85bn AUM already invested in the asset class will continue to grow strongly over the next ten years. It is extremely important to build an influential industry platform to represent the $2tn asset class – this will be beneficial for the listed corporates and asset managers alike."

Andrew Maple-Brown, Head of Global Listed Infrastructure, Maple-Brown Abbott



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