



# Infrastructure - the real deal

Investment Advisory

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# Executive summary: What is infrastructure investing?

## What?

Infrastructure refers to a broad range of physical or organisational structures that are vital for economies to operate. Viewed functionally, infrastructure facilitates the production of goods and services, and also the distribution of finished products to markets, as well as basic social services such as schools and hospitals. The state of a country's infrastructure is often used as a measure of its economic development. Investing in infrastructure can be done across a number of sectors, including transportation, utilities, energy, oil and gas, and social infrastructure.

## Why now?

Ageing infrastructure and decades of under investment in the developed world have led to an increasing need for new infrastructure globally. Governments are not in a position to finance the vast number of projects required and are in search of private money that could

support future economic growth. Due to their long term nature, pension funds would be an ideal source of this money.

## Why infrastructure equity?

Infrastructure equity represents an attractive opportunity for institutional investors to access high yielding assets offering long term, secure cashflows with inflation linkage.

Due to their size the assets are likely to benefit from an illiquidity premium that forms part of the overall return. This provides an increase in expected return without necessarily increasing the risk.

Infrastructure assets play a crucial role in a country's economy, ensuring the government's involvement and investment in success of a project. It leads to a number of opportunities enjoying the benefits of government guarantees, ultimately further reducing risk.

Making an equity investment makes an investor an asset owner and provides greatest control over the assets. Various asset management initiatives are used by fund managers to add value to the assets themselves and their operating companies. This is an additional source of return that comes with an equity investment.

## Why not?

While we believe the investment case for infrastructure equity to be compelling, there are a number of risks investors should be aware of. Due to the assets' size, each individual asset's performance has a larger bearing on the overall portfolio resulting in proportionally higher operational and development risks compared to other asset classes.

Reliance on government support or the current political climate can also be viewed as a significant concentration of risk.



# Executive summary: Six key fund attributes

## How?

We believe the choice of the manager and fund to be of paramount importance in this asset class.

The six key attributes we are looking for include:

### Fund structure with long life and investors driven by similar objectives

Historically infrastructure equity has been accessed via private equity style funds with relatively short lives of 7 to 10 years. Given pension schemes' long term nature, it makes sense to look for investment opportunities that provide access to long term secure income. This could be done via open ended fund structures that don't have a target to dispose of all assets by a certain deadline.

### Focus on contracted assets

Given the propensity of political regimes and their priorities to change, we prefer funds that have a low reliance on current regulation and tariffs and instead focus on long term contracts with legal obligations.

### Diversification across sectors and asset types

Given the long term nature of the investment and illiquidity, diversification of assets across sectors and asset types should give investors additional comfort around sustainability of returns.

### Minimal competition for assets

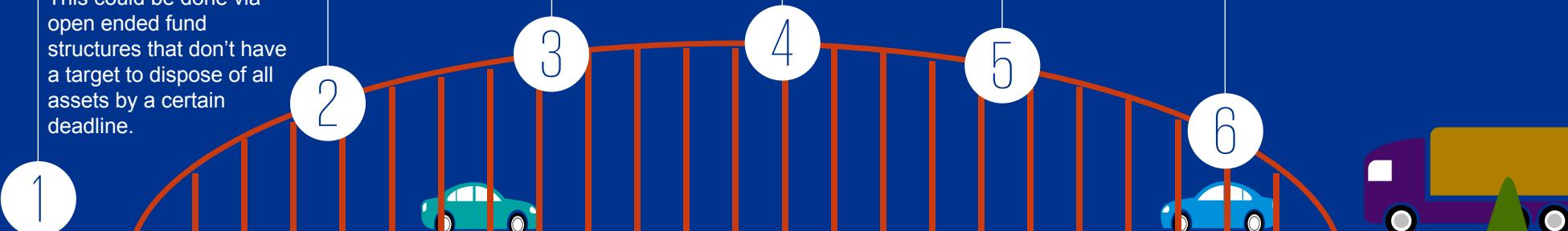
Higher competition for assets reduces the yield available to investors, making niche or complex deals more attractive.

### High inflation linkage

UK pension schemes often look for inflation linked cashflows that mirror their liability inflation exposure and protect them from rising inflation.

### Limited leverage

Payments to debtholders can eat away at the asset income stream and limit the equity investors' control.



# What do we mean by infrastructure?

Infrastructure has only recently become “mainstream” for the majority of institutional investors. In the UK as well as globally, key infrastructure was typically government owned and maintained. Today, many infrastructure based industries have been privatised, albeit with a small amount of remaining government participation/regulation. This shifted the risk from the government to the private sector creating the opportunity for institutional investments in long term, relatively secure, cashflow generating assets.

In this paper, we will be talking about investing in the equity portion of the asset, not the debt. This means investing in an infrastructure project such that the investor receives a greater share of the potential upside and also benefits from the control of the asset cashflows.

Although there is not a common definition of what an infrastructure asset is, generally the assets are required for economic, industrial and social development. They can exist across a wide range of industries and in different forms.

Key attributes that make infrastructure investing attractive include:

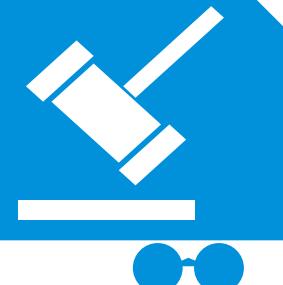
Long, stable and predictable inflation linked cashflows which can help investors meet future cashflow needs



Stable, inelastic demand and resilience to economic downturns, due to the essential nature of many infrastructure assets



Often monopolistic market that requires significant regulatory oversight



# What do we mean by infrastructure?

There are two main categories of infrastructure: economic and social.

## Economic infrastructure can be broken down into three main types:



**Throughput** – derive income per usage unit and prices are determined by the operator/owner, e.g. a toll road



**Regulated** – derive income from users, but prices determined by regulatory body, e.g. energy and utilities



**Contracted** – operated via a contract between the operator and an entity, usually government or private body, e.g. telecommunication assets

## Social



Social infrastructure includes assets such as hospitals, prisons and schools.

## Infrastructure assets are typically classified as either brownfield or greenfield:

Brownfield assets are already in operation and delivering a return. These assets have established demand and are revenue producing, which means the cashflows can be modelled with greater confidence.

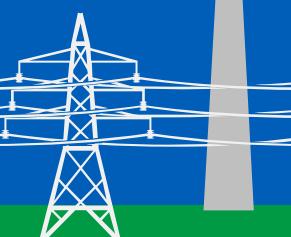
Greenfield assets involve new construction. These come with a number of additional risks due to the need for site development and construction, and uncertain demand.

# Why invest in infrastructure?

**Characteristics of infrastructure investing fit in well with our portfolio construction philosophy:**

Shape of outcomes	Liquidity	Diversification	Inflation linkage
<p>For a few years now the KPMG Investment Advisory team has been looking for ways for our clients to invest in assets that deliver a required level of return in a more reliable or “robust” way. To achieve this, we advise clients to invest in contractual assets, characterised by returns driven by income payments rather than less certain capital appreciation.</p> <p>Infrastructure provides long term contractual cashflows that are tied to a particular asset. Some managers in this space focus on assets with government contracts. This means the cashflows are long term, predictable and – being quasi government backed – secure. For funds that do not assume any residual value, 100% of the return comes from income, making them a particularly good fit for pension scheme portfolios designed to help match the liability cashflow profile.</p>	<p>Given the size and importance of the assets in question, infrastructure can be highly illiquid. We view pension schemes as well positioned to accept this illiquidity and benefit from the additional premium, especially if a scheme’s objective is based on ongoing long term management (self-sufficiency) rather than an ultimate buy out. An illiquidity premium allows schemes to increase their portfolio’s efficiency, as return is enhanced without increased long term volatility.</p>	<p>The nature of the assets means that infrastructure equity exhibits genuinely low correlation to other asset classes. This is because each asset’s performance is driven by differing factors. The secure nature of payments and economic importance of the assets means that payments might be expected to continue even in an economic downturn. This is invariably not the case for more traditional “growth” assets.</p>	<p>Infrastructure assets often exhibit returns that are linked to inflation, either due to the contractual terms or the regulations that allow prices for infrastructure services to rise with inflation. For a pension scheme, cost effective inflation linkage is an attractive attribute that is provided by a limited number of asset classes in the market.</p>

**Overall, infrastructure provides investors with long term, inflation linked and secure cashflows.**



# Case study: Where do I park my plane?

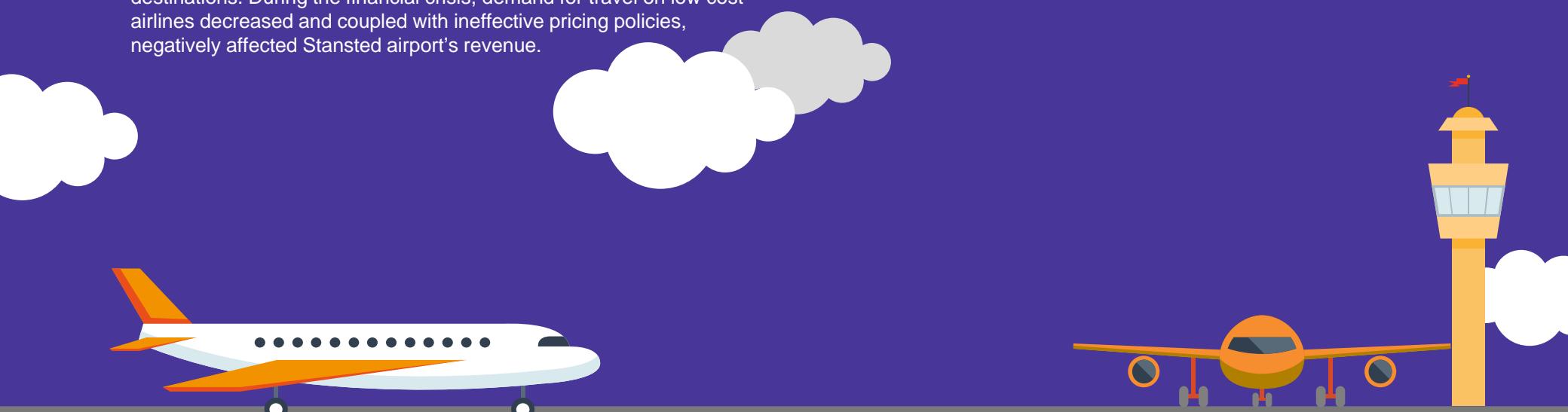
With infrastructure, an important attribute to understand is that, although the assets may be of the same category, such as an airport, the underlying drivers for the cashflows can differ greatly – affecting the risk/return profile of the investment. Even within a single portfolio, each underlying asset is unique.

A good example would be to compare London's Heathrow and Stansted airports. In this sector the cashflow comes mainly by way of payments from carriers for landing slots, retail sales in the terminals and car parking. Heathrow airport survived the financial crisis pretty much unscathed, since demand was so great across its wide range of destinations. On the flip side, Stansted airport was home to a number of low cost carriers flying mainly holiday makers to a more narrow range of destinations. During the financial crisis, demand for travel on low cost airlines decreased and coupled with ineffective pricing policies, negatively affected Stansted airport's revenue.

While Heathrow offered stable cashflow and resilience to economic conditions, Stansted was more vulnerable. At the same time, Stansted presented multiple opportunities for value creation, such as potential to expand its range of routes and increase revenues from retail and car parking.

In infrastructure terms, both Heathrow and Stansted would be considered core assets, due to high barriers to entry, relatively inelastic demand, long life, and high economic utility, but the two assets would represent different levels of risk, with Stansted requiring capital expenditure and arguably more diverse manager skills.

These differentiators make the due diligence process key to determining how an asset will fit within a portfolio.



# How to access infrastructure?

## Listed infrastructure

Listed infrastructure funds allow quick and easy access for investors, but tend to be highly correlated with the wider equity markets, increasing the portfolio volatility and reducing the diversification benefits.

## Direct investment

Purchasing assets directly can be attractive for very large schemes with extensive previous experience in these markets, as it allows for full control over capital and assets. For most investors direct investments may be less attractive because of the impact of due diligence costs and the reduced diversification.

## Co-investment or club deals

If there is a preference for direct control over the asset, co-investing alongside other investors can be beneficial as it shares the initial financial and governance burden.

## Purchase secondary interests in closed end funds

Investors can get decent deals on funds that are close to the end of their lives but have assets that need longer time frames to be able to deliver the returns originally expected. Setting the price and ensuring the quality of the assets often requires even higher manager expertise and generally would represent a higher risk profile.

## Pooled funds

For many pension schemes, a pooled fund would be an appropriate way to invest in infrastructure as a low governance solution. Generally, this would be in the form of closed-ended limited partnerships, however, our preferred route would be open-ended vehicles. Key benefits of open-ended infrastructure funds include:

- **Early access** to predictable cashflows, mitigating the J-curve and diversifying across vintages.
- **Longer term investment horizon**, which matches the life of the underlying assets – providing 20 to 30 years of future cashflows, a more useful match for pension scheme liabilities.

A drawback to having an open-ended fund holding highly illiquid assets is the risk of being a forced seller in case of redemptions from the fund. This risk can be managed by having investors whose objectives are aligned with the long term nature of the assets and an active network of potential investors in case of redemptions from existing investors.

## Leveraged or unlevered equity?

Unleveraged ownership would mean 100% of the cashflow generated by an asset is received by the investors. This reduces volatility and provides a relatively low risk equity investment in a bond like asset.

Leveraged ownership would mean mixing equity ownership with debt. This can be an efficient way to enhance returns, however, it does come with some risks:

- In a rising interest rate environment, debt becomes more expensive and reduces net cashflows for equity investors.
- If the asset does not make sufficient cashflow to meet debt payments, cashflows to equity investors can reduce to zero or become negative.

**The vehicle used to access infrastructure is as important, if not more important, than the underlying assets as the vehicle choice plays a key role in shaping the risk/return profile.**



# What are the main risks?

## Large sunk costs

Accessing infrastructure opportunities can be costly due to the vast amount of due diligence required. Assets that do not pass the due diligence process incur high sunk costs reducing the net return to investors.

## Supply/demand dynamics

Investor demand varies across market segments. There is a supply/demand imbalance for some types of contracts and in wider brownfield assets in general. In addition to this, the recent environment where the majority of investors are looking for yield has led to increased inflows resulting in lower yields available on this type of asset. A lack of supply also means that there can be a build up of cash waiting for attractive deals.

The situation is different for greenfield assets that are not cash producing and still require development. Due to their uncertain nature, the demand has not been as strong in this part of the market. The need for new infrastructure worldwide means that governments are in need of private money, however, investor demand has been slow to pick up. Changes in tariff regimes add additional challenges for this part of the market.

## J-curve

Accessing the opportunity via private equity style closed ended funds or investment in greenfield sites will cause a "J-curve" effect. That is, for an extended period of time, the investors will be allocating capital to the opportunity with the hope that over time the investment will be repaid with profit. This J-curve effect is mitigated by investing in open-ended structures. As they have been building their portfolios over a longer time period, they offer additional time diversification, as different assets will be at various stages of their lives.

## Development risk

Investing in greenfield assets brings development risks. These include, but are not limited to, project overruns, unexpected increases in costs and reliance on contractors.

## Political/regulatory changes

For some assets the return is based on the existing tariffs/regulatory regime. Changes in the government's priorities could lead to an erosion of this return. This is particularly important for investments in emerging market infrastructure.

## Operational risk

Given the larger size of the assets, a fund would typically have a relatively low number of investments, meaning that risks associated with running each individual asset represent a larger proportion of the overall portfolio. Additionally, given the skillset required from an infrastructure manager includes a number of operational capabilities, operational due diligence may be needed before a manager is put in place.

## Long term nature of the investment

For most investors the expectation is that infrastructure will be a long term investment. This alone introduces numerous risks, such as lack of liquidity, greater influence of technological changes, uncertainty over long term governmental support, and the stability of the fund's management team.

## Leverage

Depending on the fund's nature, some of them might use leverage, meaning any cashflow produced by the asset first goes to satisfy the needs of the debtholders. In the case of badly performing funds, returns to debtholders may become a large proportion of the overall asset return.

# Why now?

### Political pressures

Ageing infrastructure and years of under-investment in the developed world have led to an increasing need for new infrastructure globally and eye-catching soundbites from populist politicians. For example, infrastructure development was a key rhetoric of Trump's campaign and in late 2016, the UK government announced its £500bn infrastructure investment pipeline. Poor or deteriorating infrastructure has a negative impact on the country's economic growth increasing the pressure on governments to maintain its quality. Extensive spending on infrastructure and increased emphasis on private fundraising would support the flow of greenfield assets to the market.

### Market conditions

For brownfield assets, market conditions remain more competitive, and niche players (or the ones specialising in smaller/medium-sized assets) are well placed to take advantage of these opportunities. Overall, the market is currently full of investors searching for higher yield in the low yield environment. Reversal of the expansionary

monetary policy could be beneficial for new opportunities in the market as investors turn to other asset classes. Investing now in an open-ended fund would allow investors to benefit from these changes.

### Variety of opportunities

While some areas of the market may appear close to saturated by investor demand, there is a large number of small to middle sized market deals at conception stage that benefit from government backing. This type of fund would be expected to generate high returns while being supported by the government covenant, which would reduce risk. Finding the right manager with the right focus is key for investors.

### Attractive long term returns

The expected returns from infrastructure equity funds differ depending on the assets the fund is focused on. The range can run from high single digits for social or core assets to high teens for emerging market infrastructure. We believe that the risk adjusted returns are relatively attractive and investors can choose the desired risk/return profile depending on their needs.

### KPMG View

- Infrastructure equity represents an attractive opportunity for institutional investors to potentially access high yielding assets offering long term, secure cashflows with inflation linkage.
- Our preferred route is to access this opportunity through open-ended vehicles with long term investment horizon. This fits into a framework of matching pension scheme liabilities with the cashflows generated from income yielding assets.
- Given the potential risks, manager skill is key. We favour funds which focus on contracted, brownfield assets with diversification across sectors and limited leverage.





The contacts at KPMG in connection with this report are:

**Stuart Pawson**

Head of Real Estate Research  
Tel: 0121 232 3502  
[stuart.pawson@kpmg.co.uk](mailto:stuart.pawson@kpmg.co.uk)

**Khristina Kushniruk**

Consultant  
Tel: 0207 694 5420  
[khristina.kushniruk@kpmg.co.uk](mailto:khristina.kushniruk@kpmg.co.uk)

**Ayo Bakare**

Assistant Consultant  
Tel: 0121 335 2780  
[ayo.bakare@kpmg.co.uk](mailto:ayo.bakare@kpmg.co.uk)



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