



Dorset County Pension Fund

Infrastructure concept report



Contents

1	Introduction.....	1
2	The infrastructure concept	2
2.1	The rationale for infrastructure	2
3	The role of infrastructure within the Fund	4
3.1	Why invest in infrastructure?	4
3.2	Income requirements.....	5
4	Characteristics of infrastructure	6
4.1	Considerations when investing in infrastructure	6
4.2	Sub-sectors	10
5	How to access infrastructure funds	5
6	Conclusion	8
6.1	Next steps.....	8
7	Infrastructure glossary.....	9

Guy Hopgood

Analyst

The St Botolph Building, 138 Houndsditch,
London, EC3A 7AW

Phone: +44 207 895 7716

Email: guy_hopgood@jltgroup.com

John Finch

Director

7 Charlotte Street, Manchester, M1 4DZ

Phone: +44 161 253 1168

Email: john_finch@jltgroup.com

1 Introduction

This report has been provided for the Dorset County Pension Fund ('the Fund') by JLT Employee Benefits ('JLT') following the review of alternative assets and investment strategy review in 2013 which resulted in the agreement that an investment in infrastructure should be made, targeting 4% of the Fund's overall portfolio. The purpose of this report is to provide the rationale for including infrastructure within the Fund's investments, and characteristics of the various options available within the infrastructure universe.

We believe that infrastructure assets are a genuine alternative to global equities and diversified growth funds ('DGFs') as part of a pension scheme's growth strategy, and should be embraced in a disciplined framework to form a core part of a pension scheme's overall investment strategy. The diversification and stable, index-linked cashflows that are available from infrastructure investments have attracted inflows from institutional investors. The return profile is also particularly attractive to those defined benefit pension schemes which have/are expected to become cashflow negative in the near future, such as many of the Local Government Pension Schemes ('LGPS') – although the Fund is currently cashflow positive.

The Fund does not currently invest in infrastructure and so an allocation would diversify its growth assets from current holdings in UK and overseas equity funds, DGFs, as well as fund of hedge funds and property.

We would also refer you to our glossary of terms that are specific to infrastructure investing in section 7.

Next steps

Infrastructure will form a key part of the Fund's revised investment strategy. Following this report, we recommend that the next steps taken are to:

- Identify any further training requirements to ensure that members and officers are comfortable with investing in infrastructure as an asset class;
- Decide upon the criteria for any manager search(es);
- Consult with other LGPS regarding any potential collaboration;
- Undertake any manager search(es);
- Update the Fund's statement of investment principles ('SIP') to reflect any changes in investment strategy, including the production of a Section 36 letter of formal investment advice.

Within this report we do not provide wider advice on the overall asset allocation or on the Scheme's other assets, as these were provided in the 2013 investment strategy review.

2 The infrastructure concept

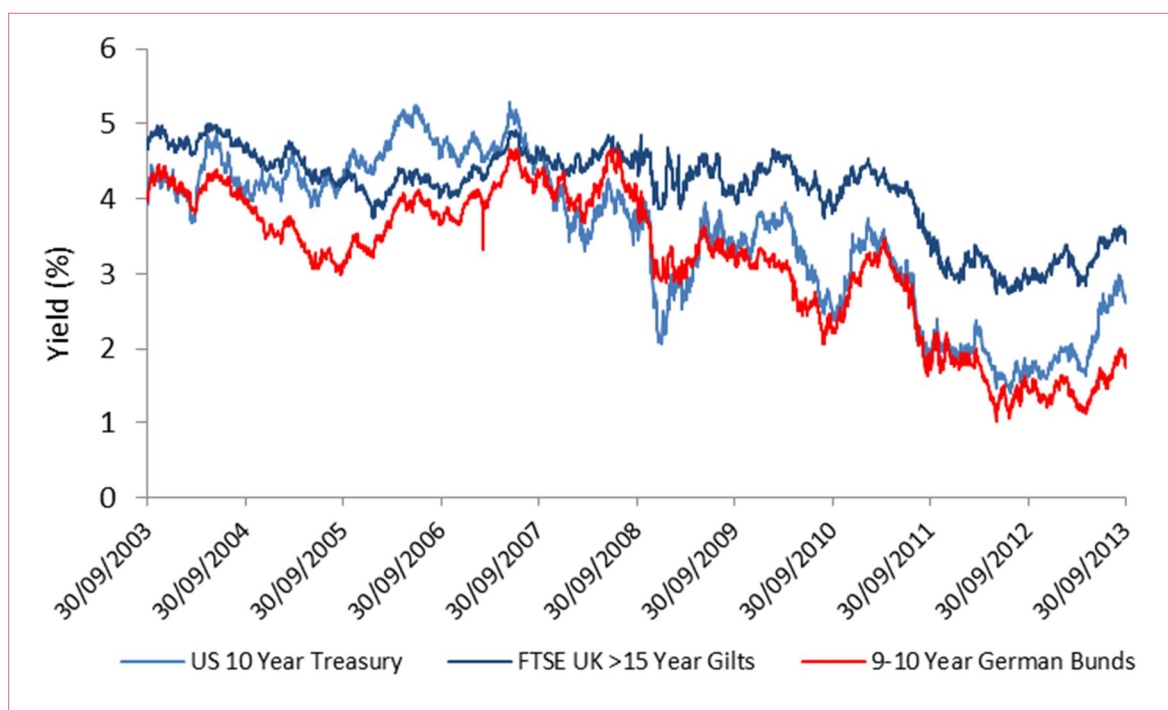
2.1 The rationale for infrastructure

What is infrastructure?

As an asset class infrastructure has a very broad remit and can encompass anything from an individual hospital or prison, all the way through to a wind turbine, oil pipeline or water company. As diverse as these assets may seem, they do in fact have some features in common, which is how we define infrastructure. We believe that infrastructure assets are assets which are essential within the global environment, operating within regulated sectors, and providing monopolistic-like opportunities to allow long-term operating contracts with secure revenue streams.

Infrastructure has come to the forefront of private investments in recent times for a variety of different reasons. With the increasing population worldwide, and the rise in those moving out of poverty and into the middle classes, there has become a much greater need for infrastructure on a global basis to further facilitate growth. The UK Government's National Infrastructure Plan, November 2011, highlights over 500 projects 'in pipeline' that will require investments of more than £200bn by 2020. Despite this, there has been a significant shortfall in the funding as a result of the 2008 financial crisis, and governments worldwide cutting back on expenditure. As a result, the private sector has taken up some of this shortfall, whilst also benefitting from the investments that they are making.

Another side effect of the financial crisis in 2008 has been the flight to safety of many investors. This severely reduced the yields of government bonds around the world, as can be seen in the graph below.



Source: Bloomberg, JLT Employee Benefits

With yields at near historic lows, pension schemes and other investors around the world have turned to alternative assets to meet the yield requirements of their portfolio. Yield and stable cashflows are two of the characteristics which make infrastructure such an attractive investment opportunity to pension schemes.

As well as the search for yield that investors have been undertaking, there is the need to hedge liabilities against the possibility of future inflation rises. Whilst this can be done through index-linked bonds, the market for these is very small relative to the inflation-linked part of the UK pension schemes' liabilities. As of 14 October 2013, the UK Index-linked bond market was £377bn¹. This is significantly greater than in 1981, when the market was only £1bn. JLT estimates that anywhere from 70-80% of the liabilities of a typical UK final salary pension scheme are linked to inflation. As at 30 September 2013 the Pension Protection Fund ('PPF') estimated that the liabilities on eligible pension schemes were £1,234bn².

If we assume the percentage above, that would mean between £860-£990bn of liabilities are inflation-linked, approximately three times the size of the UK index-linked gilt market. Even on a prudent basis, this would effectively still be double. The figure is also only the index-linked liabilities of schemes which are eligible for entry to the PPF, so does not include any LGPS data.

The demand for these assets, can be seen with the recent issuance of UK Index-linked gilts which was more than twice oversubscribed, drives up the price – and further depresses the gilt yield. Of all of the index-linked bond issuers, the UK is the largest, with only Sweden competing, although its issuance is around ten times smaller. There is also a corporate index-linked bond market; however, this is still very small with about 70 UK companies having c. £35bn – i.e. still not enough to meet up the shortfall.

As such, we believe that pension schemes need to look elsewhere for index-linked cashflows, and infrastructure fits into this category.

¹ Data from UK Debt Management Office website, www.dmo.gov.uk. On a nominal basis, the size of the market on non-inflation adjusted basis is £310bn.

² Pension Protection Fund, PPF 7800 Index, 30 September 2013

3 The role of infrastructure within the Fund

3.1 Why invest in infrastructure?

There are a number of different reasons why infrastructure assets should be included within a schemes investment portfolio, the main ones include:

Inflation hedge

Any increase in prices within an economy are directly priced into the income of an infrastructure project due to the contracts underpinning the cashflows. This will offer protection against possible future increases in inflation.

Cashflows

These are usually predictable due to the monopolistic nature of the infrastructure assets. Large portions of the cashflows are agreed by the contract. High barriers to entry also help maintain stable cashflows over the length of the investment which assists a pension scheme investor with its cashflow management.

Diversification

Infrastructure assets will provide the predictable cashflows and returns through all market cycles, which is more important with ever increasing market volatility. The assets and returns also have low correlations with global equity markets.

Liability matching tool

The consistent and high cashflows make infrastructure ideal for matching the long-term inflation linked liabilities of a scheme.

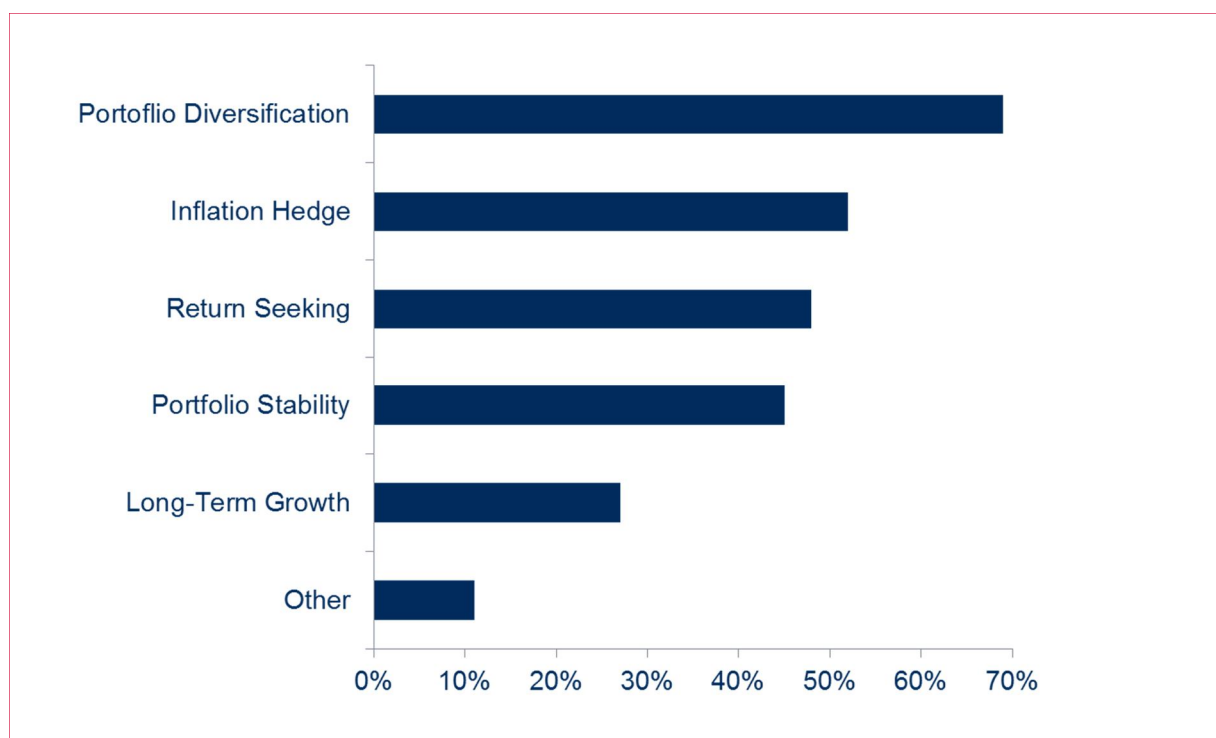
Social responsibility

As infrastructure assets are for use by the public, and provide vital services within a community, some investors believe they qualify as socially responsible investments ('SRI').

Illiquidity premium

Due to the long-term nature of infrastructure assets, pension schemes are able to benefit from the lack of liquidity in this market. This goes hand-in-hand with the long term nature of pension scheme liabilities, particularly in the case of LGPS which remain open to new members and future accrual.

The chart on the following page highlights the reasons why investors have chosen to invest in infrastructure assets as part of their portfolio, as identified in a recent survey conducted by Preqin (a private markets research organisation). As the graph overleaf shows, over half the investors surveyed indicated that they invest in infrastructure for portfolio diversification benefits, as well as for its inflation-hedging characteristics.



Source: Preqin

We believe that infrastructure should be held as part of a scheme's growth portfolio, based on its underlying characteristics, to generate a predictable yield – whilst also combining some potential for capital appreciation. Infrastructure assets also target a return in excess of that available from bonds (both government and corporate). In addition, we see infrastructure as a diversifier to the growth portfolio.

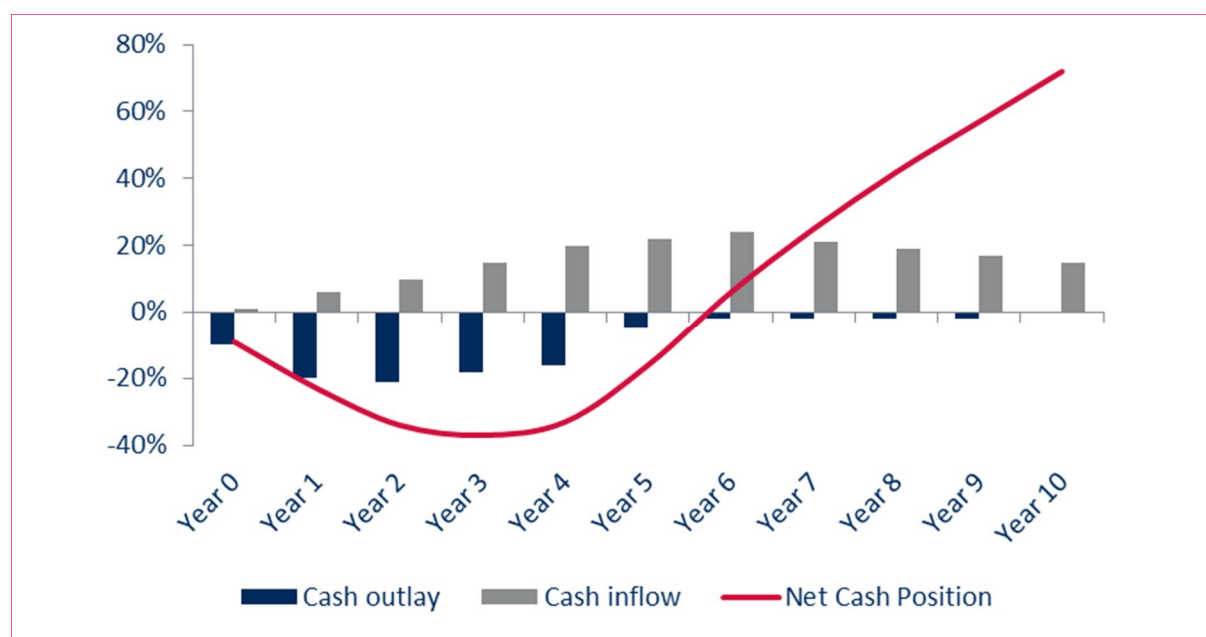
3.2 Income requirements

The need for income is an important factor within the Fund, as it is in the case of almost all pension schemes. Infrastructure provides a very good return profile based on this need, as a large portion of the return (often c.70%) comes from income, with the remainder coming from capital appreciation of the underlying assets. This stable income can then be used rather than having to make asset redemptions in order to cover fund cashflows, especially as the assets that are likely to be liquidated are equities.

The predictable, stable, cashflows generated by infrastructure assets are more often than not linked to inflation (CPI or RPI). These are an excellent hedge against potential inflation increases in the future. When looking at inflation-linked cashflows, it is important not to consider them in isolation. If the factors related to operating an asset are also tied to inflation, then the real cashflow may not in fact increase as expected.

4 Characteristics of infrastructure

When investing in infrastructure, it is important to understand exactly how committed capital will be invested, as it is not as simple as investing in a traditional equity fund. Similar to investing in private equity, the return profile will follow a j-curve, with investments being drawn down over a number of years, and the subsequent positive cashflow also taking a number of years to develop. The chart below shows an example of how the j-curve works, with the blue bars representing cashflows into the investment (i.e. out of the Fund) in a particular year and the grey bars representing cashflows out of the investment (i.e. back into the Fund) in a particular year. The red line shows the net cash position at any particular point (i.e. the sum of the total cashflows in and out of the investment over the entire period to date).



Source: JLT Employee Benefits

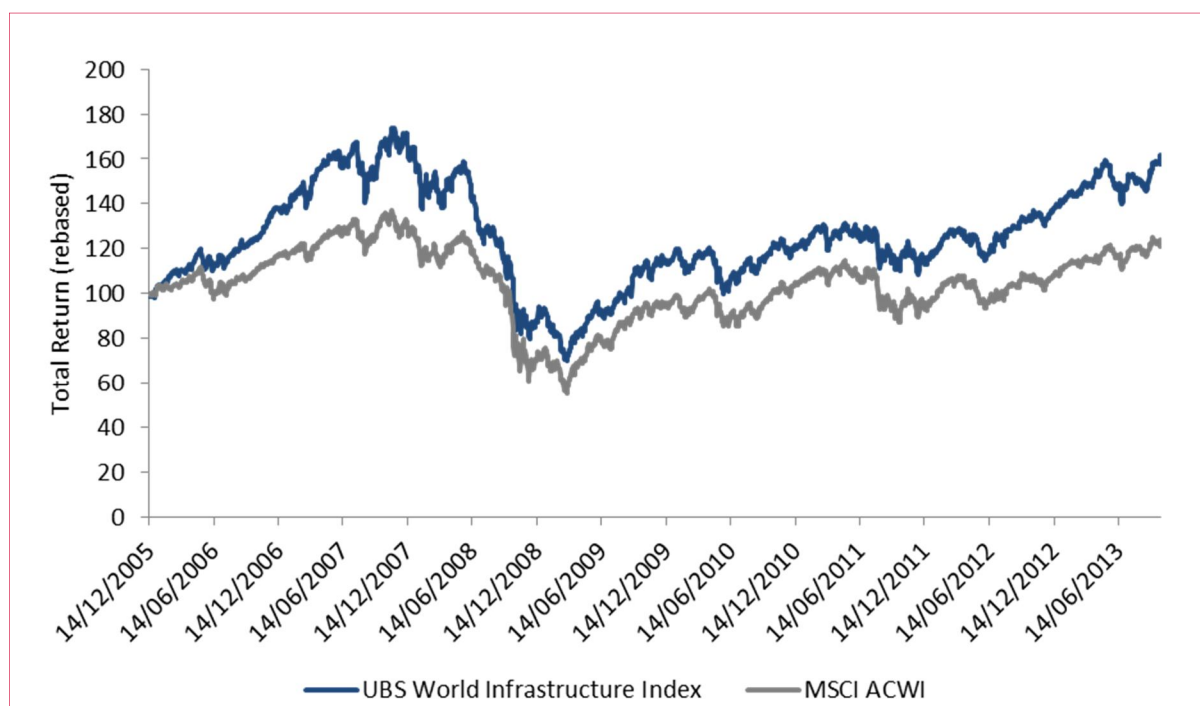
By diversifying an investment between multiple infrastructure investments via a fund, the likelihood is the drawdown period and therefore cash inflow requirements will be 'lumpy'. As such, cashflows will need to be carefully managed to minimise the need to realise assets from other parts of the Fund's investment portfolio in order to meet any cash calls from the infrastructure investments.

4.1 Considerations when investing in infrastructure

Listed vs. unlisted

There are two main ways with which exposure to infrastructure can be gained; through either the listed or unlisted approach. The first fundamental decision that must be made is whether to invest via a listed or unlisted product. A listed product typically invests in the publically traded shares of infrastructure companies. This is an option which provides the most liquidity; however, listed infrastructure investments do typically have very high correlations with equity markets.

The graph overleaf shows the returns of the UBS World Infrastructure Index, just one of a number of such listed infrastructure indices, against the MSCI All Countries World Index, with both being rebased on 14 December 2005.



Source: Bloomberg, JLT Employee Benefits

Although the UBS World Infrastructure Index has outperformed the MSCI ACWI over this period, there has been a correlation between the two indices of 0.85, so it does not really achieve one of the main aims of the infrastructure investment – to diversify the portfolio away from equities. As such, we believe that the best way to gain exposure to infrastructure assets is through private markets, where we believe there is also an additional benefit from the illiquidity premium.

Equity vs. debt

Once the decision on whether to invest in a listed or unlisted product has been made, the next decision is whether to invest in equity or debt (if the unlisted approach is taken).

The reasons for investing in infrastructure equity have been set out in section 3 of this report and, whilst similar, there are a few different arguments for investing in infrastructure debt.

Debt is similar to equity in that the assets typically have a long life, which supports the long term nature of the Fund with its long term liabilities. The capital market dislocation of 2008 and the drying-up of bank funding for infrastructure debt vehicles has resulted in an increased risk adjusted return available to investors. As well as these factors, which are analogous with the equity, there is also the stability of ratings, with infrastructure debt typically having a strong historical rating from the rating agencies. Historical records show that along with the low record of default, there have also been high recovery rates – a beneficial combination for investors.

Infrastructure debt is typically a better match to the liabilities of a pension scheme, based on the contractually fixed return that is guaranteed. It is therefore a lower risk investment for the lender. However, unlike infrastructure equity, there is not the same opportunity for capital appreciation. Given the return characteristics of infrastructure debt, we believe that this would be a better match for the stabilising part of the portfolio as opposed to the illiquid growth portfolio.

Core, value-add or opportunistic

Within the infrastructure equity asset class, we believe that opportunities can be grouped into three distinct categories, each of which has its own distinguishing characteristics.

	Core	Value-add/core plus	Opportunistic
Expected net IRR	6-8%	10-12%	15%+
Characteristics	High yield with strong inflation protection, limited use of leverage and lower potential for capital gains	Medium yield with some inflation linkage, relatively higher levels of leverage and some potential for capital gains	Low yield with little inflation linkage. Much higher volatility but targeting significantly higher returns from capital appreciation

As has been mentioned in section 3, one of the reasons we believe there is a natural affinity between defined benefit pension schemes and infrastructure assets is that such schemes are the long term investors who are able to 'lock-up' assets in order to benefit from the illiquidity premium. Given the long life nature of LGPS scheme liabilities, having a small proportion of assets locked up for a 15-20 year period is not an issue, and they are then able to benefit from the risk return profile of the investments.

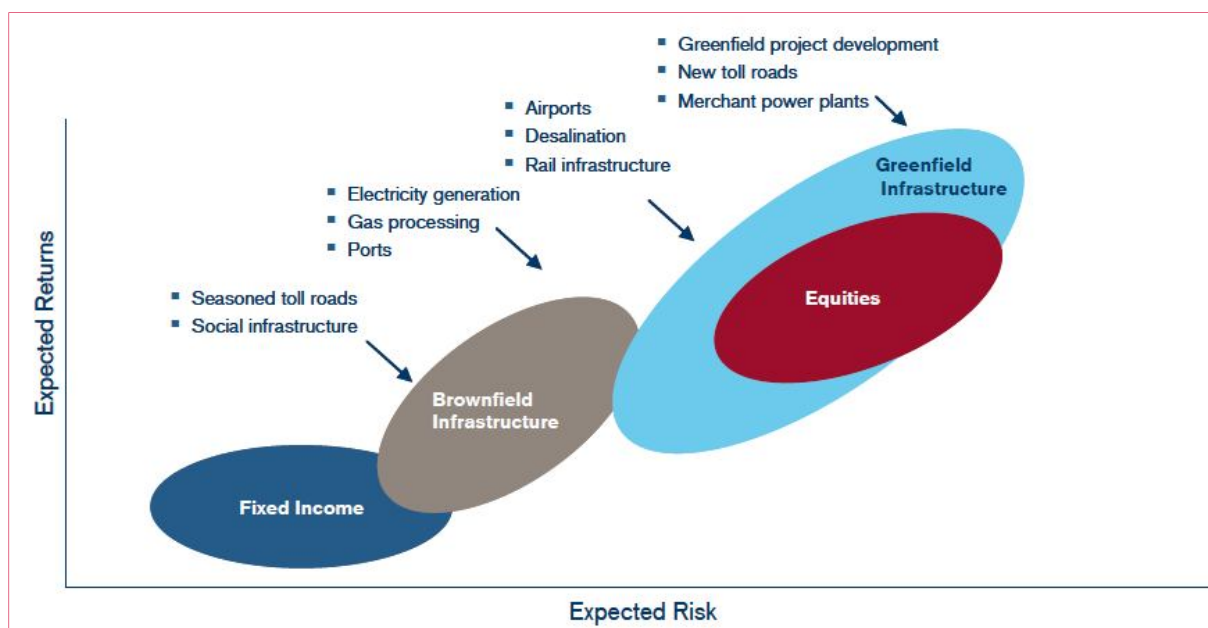
UK vs. global

There are some very important considerations that need to be taken into account when looking at the geographical remit to invest in infrastructure. Whilst we believe that a global opportunity set is the best way to approach the infrastructure investment issue, there are a number of reasons why managers focus on UK, US, European and Australian assets. The main reason is the regulation in these developed regions is significantly stricter than would be found in the developing countries – allowing more accurate assumption to be made, and less risk to be taken. We do, however, believe that there are opportunities outside of Europe and North America, and as such, a global mandate would be the best way to capture all of the possible opportunities.

Brownfield vs. greenfield

Infrastructure investments can be considered to be either brownfield or greenfield investments; Brownfield is defined as previously developed infrastructure projects and typically invests in fully operational assets where there is a track record of operation and a yield is earned immediately. One specific risk with a brownfield investment is whether there are any disposal costs to consider at the end of the useful life of the asset. These assets typically have a moderate level of return but with lower risk. Greenfield investments involve investing at the development stage of a project. This can therefore include both planning and construction risk, and a yield is not earned until post commissioning of the asset(s). The return is expected to be higher than brownfield investment but there is greater risk, as well as a period of time where there is no yield from the asset.

The chart below looks at a number of different sub sectors within the infrastructure asset class, and also shows the two stages (brownfield and greenfield) on an expected risk vs. expected return basis. The chart also includes where classic fixed income and equity asset classes would fit into the graph, to allow a full comparison between the asset classes.



Source: Credit Suisse Asset Management, for illustrative purposes only

Also note that assets within the same sector can behave differently depending on for example, the contracts, and therefore move further along the risk spectrum.

Vintage year exposure

The time frame of when money will actually be invested is a very important factor to consider when reviewing infrastructure investments, similar to private equity. The reason for this is that the deals that would have been available in 2007-2008 are very different to those that are available today. There will be inherent 'vintage year' diversification within any investment into a closed ended infrastructure fund based upon the length of the investment period to final close.

In order to further diversify the vintage years that investors are exposed to, there are a number of options that could be considered. The first option would be to have an allocation to a secondaries fund (or a fund which considers secondaries as part of its investment strategy), as a vehicle such as this would take vintage years into account to ensure a diversified portfolio.

The second option to be considered when looking to diversify the vintage year of the underlying assets is to consider investing in a fund of funds product. These types of funds typically look at primary and secondary investments in other funds, so any investment would be spread throughout a much greater number of infrastructure assets which have been invested over many different vintages. The downside with an investment in a fund-of-fund investment is the added layer of fees, which should be considered alongside the potential benefits and the expected net return.

4.2 Sub-sectors

The table below looks at the various sub-sectors that are within the infrastructure sector. We have looked at a number of characteristics within each of the sub-sectors in order to compare the similarities and differences between them. A description of each of the sub-sectors, and the types of investment within each is considered after the table.

	Capital intensive	High barriers to entry	No demand risks	Regulated	GDP correlated	Monopolistic	Direct inflation linkage	Long term offtake contracts
Water and wastewater infrastructure	✓	✓	✓	✓	✗	✓	✓	✗
Gas and electricity transmission	✓	✓	✓	✓	✗	✓	✓	✗
Toll roads	✓	✓	✓/✗	✗	✓	✗	✗	✗
Airports	✓	✓	✗	✓	✓	✗	✗	✗
Oil/gas/chemical storage	✓	✓	✓	✓	✗	✗	✗	✓
Car parks	✓	✓	✗	✓/✗	✓	✗	✗	✗
Ports	✓	✓	✗	✗	✓	✗	✗	✗
Rail	✓	✓	✓/✗	✓/✗	✗	✗	✗	✗
Telecommunications	✓	✓	✓/✗	✓/✗	✗	✓/✗	✗	✗
Renewables	✓	✓	✓/✗	✓/✗	✗	✗	✓	✗
Social infrastructure	✓	✓	✓	✓/✗	✗	✗	✗	✓

Source: First State, JLT Employee Benefits

Water and wastewater infrastructure

The provision and management of water and wastewater facilities are typically highly regulated. As such, these assets offer visible and stable assets, and are operated on a monopolistic basis with very high barriers to entry. The cashflow profiles of these assets are usually linked to inflation, and they typically have capital investment programmes that are taking place on a long term basis.

Gas and electricity transmission

Typically, these assets have been operated and provided by the state; however, more recently there has been an increase in supply from the private sector. One such example of this is the increase in Master Limited Partnership investment opportunities in North America. The benefit of investments such as these is that they typically have stable operating cashflows, and low correlation to both equities and commodities.

Toll roads

When it comes to the operation of toll roads, there are a number of different structures which can be used. These include:

- Pay for use – each driver pays a toll for use of road;
- Shadow toll – government contribution for each driver who uses toll a road;
- Availability payments – government contributions, but no traffic risk.

A toll road investment normally involves taking a stake in the toll road operating company, which then owns, operates and maintains the asset. The benefits of a toll road investment in the long-term include inflation linked cashflows with limited operational risk. Typically, a manager would prefer to receive availability payments, as this transfers the traffic risk onto the government, providing a more visible cashflow profile of the asset.

Airports

Similar to toll roads, an investment in an airport would typically be made through the operating company which owns, operates and maintains the assets according to the terms of a government lease. Unlike toll roads they have a more diversified income stream with income from air travel as well as retail and property. This reduces the volatility of the asset, though airports are still highly correlated with GDP and passenger growth/capacity.

Oil/gas/chemical Storage

An investment in oil, gas or chemical storage would typically comprise of owning the physical assets such as pipelines, storage tanks, or the vaporisers required for safe storage of liquefied natural gas. Revenues within this sector are normally generated from long-term capacity utilisation agreements, and can be heavily regulated if the chemical or commodity is viewed as strategically important within the region the infrastructure is required.

Investments within this sector can provide long-term inflation linked cashflows with the opportunity of capital growth.

Car parks

Within car parks, there are two very different sectors; on street and off street. On street parking is typically a very labour intensive operation, with low margins, whereas off street parking is capital intensive and often requires the ownership of the physical infrastructure on an outright basis (or long-term concession contract), dependent on the geographic location.

Similar to the cashflow profile of airports, car parks are highly correlated to GDP, but they also offer strong inflation linked cashflows.

Ports

An investment in a port typically involves taking a stake in the physical assets that are required for the handling of cargo to and from commercial vessels. The revenue of ports is often supported by transport and export companies taking out long term leases of berths and container facilities within the port. Ports also offer the prospect of capital growth and income diversification from developing land surrounding the port facilities.

The monopolistic nature of ports means they offer an attractive investment opportunity in certain circumstances, and there is also portfolio diversification from unique, long term cash flows whilst remaining correlated to GDP.

Rail

Rail investments are a very popular investment for infrastructure managers, and they usually comprise investments in the physical assets on which the rolling stock is run, both passenger and freight services. Revenue from rail services is often supported by rail companies entering into long term agreements for use. Due to the very high barriers to entry, and regulation within the rail sector, the assets are typically monopolistic in nature, although face tough substitution competition from other forms of transport.

Telecommunications

An investment in telecommunications would involve purchasing the physical assets such as underground cables or wireless towers. The cashflow profile is typically not linked to inflation, and the investment relies more on capital growth for returns. This capital growth is achieved as a result of the business proving it is able to generate stable revenues and risk management.

There is the risk within the telecommunications sector that other infrastructure assets do not normally face in their expected life, of becoming obsolete as technology advances and as innovation occurs within the sector.

Renewables

Given the tariffs that have been available to those who invest, this has been a relatively high growth area for investment managers in the last few years. The pre-defined tariffs and regulations within industries such as wind and solar energy allow managers to obtain visibility of their cashflows into the future, which are also linked to inflation. Typically, these types of assets are also uncorrelated with economic cycles.

As well as solar and wind power, we have also seen interest around biomass, geothermal and hydroelectric energy. Investments such as these fit very well alongside ESG and SRI policies.

Social infrastructure

Social infrastructure includes the construction and operation of hospitals, schools and prisons, as well as social housing. Historically, these typically used to be provided by the public sector, but are now increasingly being provided in partnership with the private sector. These assets tend to be more longer term in nature than other infrastructure assets, and typically have a lower return profile – although do typically come with lower risk.

Social housing

Social housing is essentially the provision of affordable accommodation to people on low incomes. In the UK there are approximately 1,700 housing associations covering around 2.5 million homes. However, a social housing study conducted by Barclays in Q3 2012 estimates that there is unsatisfied demand for a further 1.8 million homes.

When referring to social housing, it is important to know exactly what it is we are referring to, as social housing could fit in different parts of a portfolio based on the way exposure is gained. There are three primary ways that exposure is gained, including the following;

- Index-linked social housing bonds;
- Development partnership;
- Sale and leaseback agreement.

Index-linked social housing bonds are typically bonds issued by the housing associations in order to build, develop or maintain their social housing projects. As such, we would suggest these are categorised within a bond portfolio. That being said, these bonds are not readily bought or sold and, given liquidity constraints in the market, there are few managers who have launched funds investing in a diversified portfolio of index-linked social housing bonds.

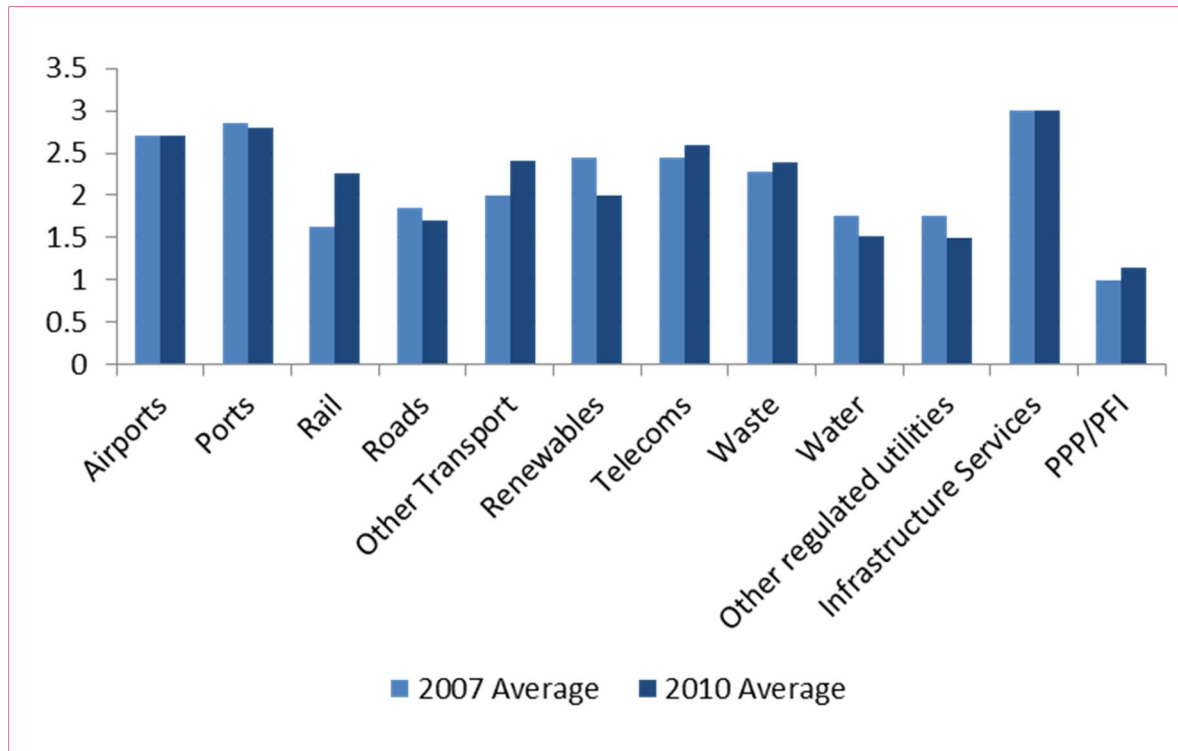
A development partnership is a direct investment via a special purpose vehicle in a housing association that is usually fully leveraged. These funds would typically be used to build new homes, and as such there are significant risks that need to be taken into account such as construction risk and other risks surrounding the development phases of the project. These do, however, offer investors greater potential returns, but we believe these would not fit in a core infrastructure portfolio and are rather more like private equity investments in nature.

A sale and leaseback approach to investing in social housing would involve purchasing the existing assets of the housing association and then renting them back to the association over the long term. We believe that an investment such as this would fit within the property portfolio of the Fund, given the opportunities' characteristics.

Whilst there are many ways to invest in social housing, and the index-linked properties that they have, we do not believe that any are suitable for a discrete allocation within an infrastructure portfolio, and as such we will not look into social housing any further throughout the report. That said, we are aware of some funds that do include the option to invest in social housing alongside more traditional infrastructure, in recognition of the diversification of inflation-linked income sources.

Relative sub-sector returns

The internal rate of return ('IRR') expectations from a survey by Deloitte for the different sub-sectors can be found in the graph below. These are not absolute IRR expectations, and are scales from zero to three, with 3.0 being high and 0.0 low. As such, they may not tie-in with the IRR expectations within the table on page 6. This is one attempt at a direct comparison between the expectations for the returns of the different sub-sectors.



Source: Deloitte, The fork in the road ahead: An in-depth analysis of the current infrastructure funds market, 2011

5 How to access infrastructure funds

There are two common vehicle structures that can be used when a manager is purchasing infrastructure assets; an open ended vehicle and a closed ended vehicle. Each have slightly different characteristics, with benefits and costs to each.

Closed-ended vs. open-ended

Whereas a closed ended vehicle has a set lifetime (typically c. 15 years for infrastructure), an open ended fund has no set lifetime and offers periodic windows where investors are able to invest or redeem units, subject to the liquidity of the fund. This is the primary advantage of the open ended structure, as investors are able to redeem their money far more regularly than possible with a closed ended structure. By not having a set lifetime, the manager is then also able to decide when to purchase and sell assets, rather than being forced to sell at the end of the fund's life under the closed ended structure. This can be a benefit in the instances where the vehicle holds an asset which is appreciating and providing a stable inflation linked cashflow that the Fund may wish to remain invested in. An open ended structure also allows for the investor to see cashflows from a much earlier time, as they are investing in a vehicle that already has money invested in a visible portfolio, minimising the drawdown on the j-curve.

However, there are also many advantages to the illiquid, fixed lifetime structure that is offered within a closed ended vehicle. As liquidity is less of an issue, the manager is able to invest in opportunities which are generally more high risk and, as a result, higher returns as investors are unable to redeem their investments on a monthly basis. This allows the manager to focus on investing to maximise returns for the investor, rather than ensuring there is sufficient liquidity within the fund to allow investors to redeem contributions.

When the costs and benefits of each are weighed up against one another, there is an argument for investing in both the closed ended and open ended structures. However, over time, the closed ended structure has become the primary strategy that investment managers have preferred when setting up infrastructure funds, as they are generally 'cleaner' and simpler to manage.

LP structure

The traditional ownership structure of an infrastructure vehicle is via a limited partnership agreement ('LPA'). The limited partner investor is typically protected by law from losing anything but the original capital invested, and the general partner ('GP') retaining the liability of the overall fund and its underlying assets which it manages.

We believe that the LPA is the best vehicle to invest in infrastructure though, as it removes any of the liabilities from the investor.

Leverage

One factor that needs to be considered when making an investment in infrastructure is leverage. Inherently within the underlying infrastructure transactions there is leverage, but this would be on a deal-by-deal basis rather than the fund as a whole being leveraged. Given the demand for infrastructure assets, the only way to be able to compete is by including leverage on deals for the assets that are purchased as these are the most capitally efficient structures.

We accept that leverage is a vital component within the infrastructure asset class, but believe it is only appropriate for individual deals as opposed to being utilised at the fund level.

Fees

Given the structure of infrastructure funds, there is also a difference in the way that fees are applied when compared to a more traditional equity fund. Typically, an infrastructure fund will charge a management fee on all committed capital, including that which is undrawn. There is typically a performance fee, which is usually based upon the net asset value ('NAV') of the fund, but which is also subject to a hurdle rate and a high watermark, with some form of catch-up. What this essentially means is that a performance fee will be calculated using the NAV – assuming that a certain return is being generated (the hurdle). This hurdle would typically be different based on whether the fund was core, value add/core plus or opportunistic, so as to not just incentivise the manager to go into the riskiest assets to maximise their profit.

A high watermark is in place to ensure that the manager is not rewarded for good performance unless the fund is above a critical NAV that has been previously reached - i.e. if the fund was to fall in value by 30%, the manager would not receive any performance related fee until the previous value of the fund is reached. This is again to incentivise the manager to achieve predictable, long-term growth.

The catch-up rate refers to the way in which the fees are proportioned beyond the hurdle rate. This can vary, but if the catch-up rate was 50% to both the investor and the manager, then for profits above the hurdle rate the investor and the manager would split, 50/50, the profits above the hurdle rate, until they have reached a pre-agreed upon profit split or carry.

Risks associated with fee structure

The inherent risk involved with such fee structures, where the manager remuneration is based on the NAV of the fund, is that the fund manager will wish to ensure they are above the preferred return, as this will make their 'carry' available to them, and therefore when approaching the performance hurdle the potential incentives mean that their actions may not be completely aligned with those of investors. However, high watermark, escrow and claw-back arrangements ensure that risk is maintained at a sensible level, as losses would be detrimental, not only to the investor but also to the GP, as some of their profit share could be withdrawn. Overall, we believe that there are sufficient incentives in place within the typical infrastructure vehicle fee structure to mitigate against misaligned risk taking.

Another risk within infrastructure funds is disposal risk. If the fund was hovering just below the hurdle rate, there is the risk that the manager may dispose of an asset in order to boost return and their profit share as a result. Within a closed ended fund there is also the possibility that the manager will behave differently as he knows that he will definitely have to dispose of the asset at the end of the infrastructure vehicle's life.

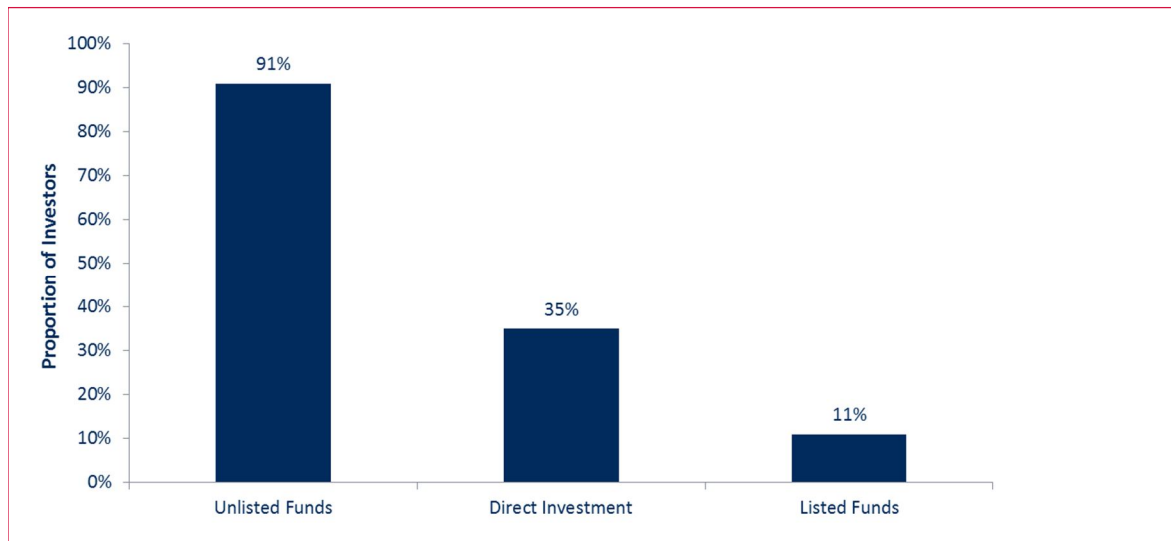
NAPF's Pension Infrastructure Platform

The Pensions Infrastructure Platform ('PIP') has been in the pipeline for sometime, and deadlines have been passing with no further information being released. From our conversations with fund managers, we believe that the PIP will face a strong headwind from its launch, based solely on the mandate that it has set itself. The PIP has a target size of £2bn, and is expected to invest solely in core UK infrastructure assets, which are mature to avoid construction risk. It is also expected to operate at low levels of leverage, with no more than 50% on a deal by deal basis. These are the assets that are typically very highly contested for, within the infrastructure market due to their low risk and stable return characteristics.

The NAPF's PIP may be eligible to tender for the Fund's mandate should it feel that it is in a position to satisfy the criteria set out by the Committee, but we do not believe that the Fund should delay an investment to allow time for the PIP to develop.

Current preferred route to market

The graph below, taken from a recent survey conducted by Preqin, shows the preferred route to market of investors searching for new infrastructure investments in the second half of 2013 and the first half of 2014. This too shows that the majority of investors will be looking to invest in the asset class via unlisted funds.



Source: Preqin

Given the lower correlation with equity markets and the illiquidity premium on offer, we believe that investors are making the correct decision in wishing to invest in infrastructure assets via an unlisted fund.

6 Conclusion

From the analysis in the report, we are of the conclusion that a discrete investment in infrastructure equity would be a beneficial investment for the Fund, as it would diversify the growth portfolio whilst also generating income which is index-linked.

The next stage, therefore, is to agree on the exact nature of the infrastructure investment(s)

6.1 Next steps

Infrastructure forms a key part of the Fund's revised investment strategy. Following this report, we recommend that the next steps to take are:

- Identify any further training requirements to ensure that officers and members are comfortable with investing in infrastructure as an asset class;
- Decide upon the criteria for any manager search(es);
- Consult with other LGPS regarding any potential collaboration;
- Undertake any manager search(es);
- Update the Fund's statement of investment principles ('SIP') to reflect any changes in investment strategy, including the production of a Section 36 letter of formal investment advice.

7 Infrastructure glossary

Brownfield

Brownfield investment involves an existing asset or structure that requires improvements, repairs, or expansion. The infrastructure asset or structure is usually operational and may already be generating income.

Carried interest

A share in the profits of an infrastructure fund. Typically, a fund must return the capital given to it by limited partners plus any preferential rate of return before the general partner can share in the profits of the fund. The general partner will then typically receive a 15 to 20% carried interest. Also known as 'carry'.

Catch-up

A specific clause in the agreement between the general partner and the limited partners of an infrastructure fund relating to the remuneration of the general partner. Once the limited partners have received a certain portion of their expected return, the general partner can typically receive the majority of profits until the previously agreed-upon profit split is reached.

Deal flow

A measure of the number of potential investments that a fund reviews in any given period.

Drawdown

The general partner will call upon investors to provide monies for investment in underlying companies. Each of a series of requests for investment capital from the limited partner to the general partner is referred to as a 'drawdown'.

Due diligence

The investigatory process performed by investors to assess the viability of a potential investment and the accuracy of the information provided by the target company.

General partner (GP)

A class of partner in a limited partnership agreement. The general partner retains liability for the actions of the partnership. The GP is the fund manager while the limited partners (LPs) are the institutional and high net worth investors in the partnership. The GP earns a management fee and a percentage of profits (see carried interest).

Greenfield

Greenfield investment involves an asset or structure that needs to be agreed and constructed. Investors fund the construction of the infrastructure asset and potentially, the ongoing maintenance when it is operational.

Internal rate of return (IRR)

This is a measure of the performance of an infrastructure investment based on the initial investment costs and the investment proceeds over the period of investment. The internal rate of return for a fund is based on the cashflows into and out of the fund, as experienced by an investor.

J-Curve

The curve realised by plotting the cashflows generated by an infrastructure fund against time (from inception to termination). It is so-called because initial cashflows are negative and over time these 'below the line' investments are (hopefully!) equalled and exceeded by the returning cash flow distribution from the infrastructure commitments to the limited partners. Once these are net positive they are referred to as 'above the line'.

Leverage

This term refers to the use of debt to acquire assets, build operations and increase revenues. By using debt, a company is attempting to achieve results faster than if it only used the cash available from pre-leverage operations. The risk is that the increase in assets and revenues does not generate sufficient net income and cashflow to pay the interest costs of the debt.

Limited partnership

A legal entity composed of a general partner and various limited partners. The general partner manages the investments and is liable for the actions of the partnership while the limited partners are generally protected from legal actions and any losses beyond their original investment. The general partner receives a management fee and a percentage of profits (see carried interest), while the limited partners receive income, capital gains and tax benefits.

Limited partner (LP)

An investor in a limited partnership. The general partner is liable for the actions of the partnership while the limited partners are generally protected from legal actions and any losses beyond their original investment. The limited partner receives income, capital gains and tax benefits.

PPP/PFI

Public Private Partnerships ('PPPs') are contractual agreements between public bodies, local authorities or central government, and private companies to deliver a public, social or economic infrastructure project. private finance initiatives ('PFI') are a form of PPP developed by the UK government.

Secondary market

A market for the sale of partnership interests in infrastructure funds. Sometimes limited partners choose to sell their interest in a partnership, typically to raise cash or because they cannot meet their obligation to invest more capital. Certain investment companies specialise in buying these partnership interests, often at a discount.

Vintage year

This refers to the year in which the infrastructure fund was raised.

This report may not be further copied or distributed without the prior permission of JLT Employee Benefits. This analysis has been based on information supplied by our data provider Thomson Reuters and by investment managers. While every reasonable effort is made to ensure the accuracy of the data JLT Employee Benefits cannot retain responsibility for any errors or omissions in the data supplied. It is important to understand that this is a snapshot, based on market conditions and gives an indication of how we view the entire investment landscape at the time of writing. Not only can these views change quickly at times, but they are, necessarily, generic in nature. As such, these views do not constitute advice as individual client circumstances have not been taken into account. Please also note that comparative historical investment performance is not necessarily a guide to future performance and the value of investments and the income from them may fall as well as rise. Changes in rates of exchange may also cause the value of investments to go up or down. Details of our assumptions and calculation methods are available on request.



JLT Employee Benefits

The St Botolph Building, 138 Houndsditch,
London EC3A 7AW
Tel: +44 (0)20 7528 4000
Fax: +44 (0)20 7528 4500

JLT Employee Benefits. A trading name of JLT Benefit Solutions Limited.
Authorised and regulated by the Financial Conduct Authority. A member of the Jardine Lloyd Thompson Group.
Registered Office: The St Botolph Building, 138 Houndsditch, London EC3A 7AW.
Registered in England No. 02240496. VAT No. 244 2321 96.