

Report of the Section 151 Officer

Pension Fund Committee - 14 July 2016

INVESTING IN INFRASTRUCTURE – AN UPDATE

Purpose: The report presents an update on the infrastructure investment manager appointment approved by the pension fund committee on 3rd December 2014.

Report Author: Jeffrey Dong

Finance Officer: Jeffrey Dong

Legal Officer: Stephanie Williams

Access to Services Officer: N/A

FOR INFORMATION

1 Introduction

1.1 The pension fund committee approved the appointment of Hastings Infrastructure on Dec 3rd 2014 to manage its allocation to infrastructure approved the previous December 2013 (report at Appendix A) following a full OJEU tender process undertaken by JLT consultants on a collaborative basis with Devon and Dorset pension funds.

2 Update

2.1 At appointment, Hastings have indicated a 4 year cycle to fully invest the fund, however to date no investments have been made by the fund. The fund was unsuccessful in an auction for a power generating hub in the Nordics in December 2015.

2.2 At this time, the parent company of Hastings, who are Westpac (An Australian bank) announced it was selling Hastings to a third party, which eventually fell through. This uncertainty on ownership impacted on further fund raising and resulted in some staff departures.

2.3 In May 2016 a group of limited partners, including City & County of Swansea Pension Fund wrote to Hastings and the Westpac seeking reassurance about the stability of the business and the investment pipeline and the prospects for new investors. The group formally asked for the fund to defer investments until such time that ownership and direction for the fund was determined

2.4 In June 2016, Hastings announced a number of new senior director appointments and a new investment management structure to take the fund forward.

2.5 The City &County of Swansea Pension Fund is contractually committed to its investments within the Hastings Infrastructure Income Fund. It would take a

resolution of 2/3 of the limited partners to dissolve the fund. The group of limited partners is seeking to meet with the Board of Hastings to determine when/how capital is going to be committed to new investment going forwards.

3 Way Forward

The City & County of Swansea continues to work with the other limited partners in determining a successful outcome.

Report of the Pension Fund Investment Sub Group

Pension Fund Committee Dec 5th 2013

INVESTING IN INFRASTRUCTURE – A RECOMMENDED STRATEGY

Purpose:	To consider a recommended strategy for investing in infrastructure for the City & County of Swansea Pension Fund
Policy Framework:	City & County of Swansea Pension Fund Statement of Investment Principles
Reason for Decision:	To consider infrastructure as a diversifying, return generating asset class for the Pension Fund
Consultation:	Legal, Finance and Access to Services.
Recommendation(s):	It is recommended that: <ol style="list-style-type: none"> 1) That the Committee considers the investment and funding strategy as set out in paragraphs 2.3, 3.1 and 4.1 for investing in infrastructure. 2) That a further report be made to Committee detailing the precise selection criteria and approval mechanisms for any single investment and the criteria that will be applied including:- <ul style="list-style-type: none"> • Perceived risk and mitigation • Potential and expected returns on investments and the timing of those returns • Ability and mechanism for Capital realisation of invested sums • Withdrawal mechanisms • Local impact of any investments
Report Author:	Jeffrey Dong
Finance Officer:	Mike Hawes
Legal Officer:	Nigel Havard
Access to Services Officer:	Sherrill Hopkins

- 1 Introduction**
 - 1.1 The Pension Fund Committee previously received a report outlining the advantages of investing in infrastructure as a diversifying return yielding investment for the pension fund. The report is attached at Appendix 2.
- 2 Implementation Strategy- Core Component**
 - 2.1 In assessing the investment dynamics offered by the asset class and how it can best fit into the current investment portfolio, the Investment Sub Group have met and appraised a number of managers and investors in the asset

class to evaluate the opportunities and different styles of investment available.

2.2 In evaluating the investment characteristics of the asset class, the main drivers for investment are :

- Long dependable income streams (often index linked)
- Real returns
- Real assets
- Non correlation with other asset classes
- Diversification

2.3 To best deliver the above in line with acceptable and complementary risk return profiles, it is recommended that a Globally Diversified (incl. UK) Core infrastructure asset class portfolio be implemented targeting returns in the range 9%-12%. The allocation to the same would be 2% of total assets. The investment would be made in line with procurement best practice.

3 Implementation Strategy- Discretionary UK Investment

3.1 To complement this Global Core component of infrastructure, it is recommended that up to 2% of total assets be invested in discretionary UK centric infrastructure funds which in addition to providing the investment returns sought by the Pension Fund will contribute to economic growth in the UK. The investments would be made in line with procurement best practice.

3.2 Opportunities to invest in traditional infrastructure on a local basis are rare, however there are some smaller scale projects which could provide the returns the fund is seeking whilst benefitting the local economy. An example of a UK centric infrastructure investment opportunity is presented at Appendix 3.

4 Strategy Funding

4.1 In order to fund the above strategy, it is recommended that:

1. the cash component managed by Legal & General be realised
2. the Global Tactical Asset Allocation portfolio Global Ascent managed by Blackrock be fully redeemed.

5 Legal Implications

5.1 When appropriate, the Head of Legal Services & Procurement will be consulted on the appropriate procurement methodology

6 Financial Implications

6.1 The investment recommended above is fully funded from the realisation of other assets in the portfolio.

7 Equality Impact Assessment Implications

7.1 None

Appendix 2

Report of the Pension Fund Investment Sub Group

Pension Fund Committee June 27th 2013

INVESTING IN INFRASTRUCTURE – AN ASSET CLASS OVERVIEW

Purpose: The report presents an overview of the investment opportunities presented by infrastructure

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Finance Officer: Jeffrey Dong

Legal Officer: Tracey Meredith

Access to Services Officer:

FOR INFORMATION

1 Introduction

- 1.1 Infrastructure is basic physical and organisational structures needed for the operation of a society or enterprise or the services and facilities necessary for an economy to function. It can be generally defined as the set of interconnected structural elements that provide framework supporting an entire structure of development. It is an important term for judging a country or region's development.
- 1.2 The term typically refers to the technical structures that support a society, such as roads, bridges, water supply, sewers, electrical grids, telecommunications, and so forth, and can be defined as "the physical components of interrelated systems providing commodities and services essential to enable, sustain, or enhance societal living conditions."
- 1.3 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; for example, roads enable the transport of raw materials to a factory.
- 1.4 Infrastructure is still a relatively new asset class with many investors drawn to it through its perceived attractive characteristics such as low correlation to broader economic cycles, strong capital preservation, attractive risk-adjusted

returns including a significant yield component and inflation protection. However for many early investors, the asset class has not delivered the promised consistent and non-cyclical returns. This outcome is often the result of suboptimal portfolio construction not suited to the asset class and specifically of over concentrating allocations across various relevant risk dimensions in infrastructure such as number of assets, sector, region and/or stage. This paper will argue that the specific nature of infrastructure returns, namely a non-standard return distribution characterized by a fat left tail and a high proportion of non-systematic risk requires a conscious and systematic approach to portfolio construction. It will specifically focus on the importance portfolio construction plays in achieving the investor objective in infrastructure of consistent total returns and recurring yield with little sensitivity to the economic cycle.

- 1.5 Understanding the underlying risk characteristics of infrastructure investments and appropriate diversification across different sets of risks is central to this approach. In private markets however, this approach is far from straight forward to implement. It requires not only a deep understanding of the risks inherent in different infrastructure assets but also the ability of investment managers to originate a sufficient number of actionable quality investment opportunities in order to build a portfolio in a reasonable amount of time and independent of the market cycle. For instance, one of the implications of the significant tail risk exposure of returns in core, brown field infrastructure assets is that an investor should add a proportion of projects with greenfield exposure to his portfolio. Similarly, in order to be able to access the market during times of capital constraint and avoid vintage year concentration, an investor should have the ability to add secondary investments to their portfolio.
- 1.6 Separately, for many investors, inflation protection is one of the key attractions of investing in infrastructure. However, inflation linkage is not always explicit in infrastructure assets. In order to achieve the desired real asset characteristics of an infrastructure portfolio, it is therefore necessary to carefully analyze how inflation will affect a specific investment. Understanding the impact of different drivers of inflation sensitivity such as regulated tariffs, contractual indexation, pricing power and replacement value considerations will determine how immediately an infrastructure portfolio will react to changes in inflation and consequently the inflation protection it offers. Further, it is also necessary to carefully consider the embedded inflation assumptions built into the valuation of infrastructure assets and compare them to prevailing and expected future inflation rates in the market in order to avoid overpaying for inflation protection through aggressive assumptions embedded in the investment case.

Revenues: The revenues generated by many infrastructure assets are contractually linked to a specific inflation measure. For instance, regulated monopolies like networks, toll road concessions or renewable feed in tariffs have explicit inflation linkage built into the remuneration formula in many countries (e.g. UK, France, Spain, Italy, Latin America). This offers the most direct and immediate inflation linkage as revenues will automatically rise in line with the specific indexation formula. On the other hand, there are infrastructure assets which are regulated on a nominal rate of return basis

(e.g. US utilities). These assets still exhibit inflation linkage in the medium term as allowed rates of returns will be adjusted to reflect changes in inflation but the adjustment may take time so returns in the short term can be negatively affected by an unexpected rise in inflation. There are also assets that earn fixed tariffs or have contracts with a defined price and/or revenue escalation which exposes them negatively to an unanticipated rise in inflation. For less regulated assets, the analysis of the impact of inflation on their revenues requires a fundamental assessment of their ability to pass on price increases to their customers. Given the high entry barriers and the low price elasticity of demand typically associated with infrastructure assets, many in fact have considerable pricing power and hence the ability to protect their returns in periods of rising inflation. However, this requires a fundamental analysis and assessment of the specific asset and is subject to errors. Operating costs: Infrastructure companies tend to have high operating margins. This reduces the effect of rising costs on the cash flows generated by the business. In addition, contracts often allow passing on rising input cost to the off-takers which further substantially reduces their exposure to unanticipated cost inflation.

2 Investing in infrastructure

2.1 Infrastructure assets historically include ; toll roads, ports, airports, sewage works, solar farms, wind farms, hydro electric facilities, schools, hospitals, prisons, social housing

2.2 Although, the assets themselves appear disparate, what they all share (in varying degrees of strength of covenant) are projected income streams guaranteed by contract or variable by usage. For example a sewage work will have a contract for payment in terms of tonnage of sewage processed which is going to be pretty constant and non cyclical whereas useage for a trade port is much more variable dependant on the economic cycle and the income stream is not so dependable.

2.3 Expected Investment returns –investment returns are expected in the range between 8-9% to 20-23% dependant on level of risk and where in the investment cycle the investment is entered into, i.e. is the investment a mature facility which is already established with a recognised cashflow or is the development a Greenfield investment which is not yet out of the ground. The former returns are more ‘Bond like’ in characteristic whilst the latter investments are more like ‘private equity’ in character.

2.4 Wherever on the spectrum of investment return, the proposed investment is made, it is essential that there is a robust investment case with achievable risk adjusted returns for the Pension Fund before any investment is made.

3 Investment Risk

3.1 Event risks are another central risk for infrastructure assets given the potential for significant losses with limited ability to compensate for them through out-sized returns. For instance, an important set of event risks in infrastructure are political or regulatory changes. Perhaps the most recent example of note is the retroactive change related to the solar feed-in tariff in Spain in 2010. Another example are the increasingly strict power plant emission standards being introduced by the US Environmental Protection Agency which will likely require new pollution controls to be installed by

existing generators where it is not clear if they will be able to pass through these incremental costs. While not completely impossible to predict or anticipate, the timing or scale of impact of political and regulatory changes remain significant unknowns for the investor. With respect to the impact of political and regulatory risks on infrastructure investments, there are three main points to consider: 1) these risks are less correlated across countries/regions than the economic cycle, suggesting greater benefits of diversification in infrastructure given the idiosyncratic nature of these risks, 2) the main difference with infrastructure businesses versus other regulated industries (e.g. banking, pharmaceutical) is that infrastructure assets cannot be easily moved to avoid regulation as is the case with some other businesses (e.g. financial services businesses such as hedge funds), and 3) the consequences of an adverse change are more severe in infrastructure as infrastructure assets require large upfront capital expenditure that requires long payback periods and is immobile post investment. In economic terms, this capital expenditure is considered a sunk cost. Again the specific nature of event risks on infrastructure assets has to be addressed on the portfolio level as it is a risk that cannot be mitigated on the asset level.

3.2 Asset specific risks in infrastructure can range from environmental risk to operational risk to demand risk. For instance, in relation to environmental risks, while insurance coverage can protect against some of the impact related to large events such as hurricanes or earthquakes, assets are often still left partially exposed. Less severe environmental conditions can also lead to more severe impacts on renewable energy investments. In particular, solar and wind investments are generally completely exposed to the amount of solar/wind resources. In relation to the operational risk of infrastructure investments (e.g. a mechanical problem in a production plant), these risks can have a significant impact to equity holders unless appropriate insurance or “pass through” contracts have been negotiated. However these operational asset risks tend to have a very low correlation to each other on a portfolio level. For instance, solar and wind hours have very little correlation to each other and further across different geographies, whilst mechanical problems at a water company do not impact the likelihood of unexpected repairs at an airport. Demand risks are often seen as a feature of transportation infrastructure. For example, there are two common structures for toll road concessions – availability based concessions and demand based concessions. Availability-based concessions provide for payments based strictly on whether or not the road is available for use, whereas demand-based concessions provide for owners to receive their return based on the actual usage of the road. As such, demand risk will likely cause little impact to an availability-based toll road but have a significant effect on a road operating under a demand based concession with the consequence that an investment in a demand-based toll road will typically provide a higher return to compensate the investor for the systematic or market risk that he faces. While asset risks are diversifiable risks, as the name implies, they are not specific to the infrastructure asset class. However the often higher leverage in infrastructure can result in more significant impacts for equity holders.

3.3 While infrastructure returns are typically less correlated to the economic cycle than other asset classes, there still remain elements of correlation to

the economic cycle. The impact of the economic cycle on infrastructure assets is not so much derived from changes in cash flows of the assets (as these usually have an element of contractual obligation) but rather from the impact of cyclical changes in required discount rates on asset values. In infrastructure this is namely the change in the real rates in the economy. Investors will demand (and typically receive) a return from the market in exchange for taking this risk but it is, by definition, a non diversifiable risk faced by all investors although investors in infrastructure will benefit from being less correlated to changes in growth compared to other asset classes. A specific challenge private market investors face in this respect, is that their ability to deploy capital in the infrastructure market is inversely correlated with movements in discount rates. Global M&A volume in utilities (the largest segment in infrastructure) was particularly high in a period of low credit spreads (used as a proxy of discount rates) which implies that a lot of equity was invested in periods of high valuations while M&A volumes are much lower in the current period of high credit spreads. As most private infrastructure investors have started allocating to the asset class in recent years, they have directly or indirectly deployed most of their capital in periods of high valuations while they are lacking exposure to the years where discount rates were at much more attractive levels (albeit risks may be higher too).

4 Political Considerations

- 4.1 There has been a lot of debate at Westminster and in Cardiff of the role Pension Funds can play in investing in local infrastructure. By its nature the type of infrastructure being proposed is at the early developmental stage which carries all the developmental, construction risk associated with immature projects.
- 4.2 Local, regional infrastructure investment can be accommodated within a more balanced diversified portfolio to mitigate some of the risks identified above, although a robust investment case must be demonstrated.

5 Legal Implications

- 5.1 There are no legal implications

6 Financial Implications

- 6.1 There are no financial implications

7 Equality Impact Assessment Implications

- 7.1 None

8 Conclusion

- 8.1 Infrastructure is a sound investment asset class for an LGPS Pension Fund. To develop further models for consideration, formal considerations are required in respect of:

1. Level of investment risk
2. Return profile sought
3. Local/regional infrastructure investing

Case Study – UK Infrastructure

Opportunity to co-invest alongside UK Government owned Green Investment Bank (“GIB”) who have seeded an initial £50m.

- Target capitalisation of £110m with a hard cap of £200m
- Projects comprise long term contracts delivering stable, predictable yields generated from environmentally sustainable infrastructure with 20 year + life
- Returns supported by long term, inflation linked government related subsidies
- Simple technologies within a diversified investment portfolio
- Ungeared/limited gearing in assets

UK Green Investment Bank (“GIB”) has been established with a mission to accelerate investment in the UK’s transition to a green economy

It is targeting investment in the following target sectors:

Offshore wind

Waste (recycling and EFW)

Green deal (domestic energy efficiency)

Non-domestic energy efficiency

Allocated £3.8 billion of tax payers money over 3 years from April 2012 to invest in these sectors

Project 1- Non Domestic Energy Efficiency

One of the projects in the above fund seeks to install highly efficient biomass boilers in non domestic situations e.g, commercial premises, government buildings, schools at no capital outlay to the user.

The user (e.g. a school) would pay a fixed rate for the life of the contract for the biomass fuel (wood pellets, a by product of the logging industry) which is typically 25-30% less than traditional fuels and the company would generate subsidy for this usage from the Government providing a return to the investor.

- The User (e.g school) will receive a fuel cost saving
- The pension fund receives a return
- The environment is benefitting from 97% fuel efficiency of the biomass boiler.