

INFRASTRUCTURE INVESTMENT STRATEGY PAPER

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1. Introduction

1.1 This report presents an investment strategy for infrastructure investment within the lower volatility strategies allocation of the Fund.

1.2 The Pension Committee approved an allocation of 20% to 40% of the Fund to Lower Volatility Strategies in December 2010. These are strategies designed to deliver long term income streams to the Fund.

1.3 In its strategy, the Pension Committee recognised that the drivers of global growth may be outside the traditional developed world and sanctioned a more global based policy. But recognising the Fund's approach to social responsibility the Pension Committee also approved making an allocation to support local schemes that generate the type of return required of the investment allocation. This both global and local approach will be reflected in the infrastructure investment strategy.

1.4 The Pension Committee approved that the Fund should use the most cost effective and efficient methods to access the asset exposure it requires. The strategy envisaged that this would involve both the use of traditional fund manager led investments and direct involvement, which was expected to bring a substantial price advantage.

2. Infrastructure investment as an asset class

What is Infrastructure?

2.1 In the context of the Fund's investments, infrastructure is investing in those long-life assets that serve as a backbone for the provision of the essential services upon which the economic productivity of society depends. The attraction of these assets for the Fund is that they can generate long-term income streams that are likely to have a linkage with inflation.

These assets typically involve the movement of goods, the delivery of essential services, people and energy. Examples include:

Transportation assets

Trains, toll roads, bridges, tunnels, seaports and airports.

Power generation assets

Renewable energy assets (hydro, wind, solar, biomass, anaerobic digestion), gas, nuclear, coal and other power generating resources.

Regulated assets

Water treatment and distribution, electricity transmission, communications systems (towers, cable and satellite networks)

Energy assets

Oil and gas pipelines, processing plants, storage facilities and district heating systems.

Social infrastructure assets

Provision of schools, health-care facilities, hospitals

Infrastructure investment characteristics

2.2 Infrastructure investments typically include some or all of the following characteristics:

Essential services

Infrastructure assets are providing essential products or services to society and the economy

Capital intensive / High barriers to entry

It is typically difficult for competitors to enter the market. There may be high regulatory hurdles to climb, the capital costs may be significant, the asset may enjoy a privileged, advantageous location or have established economies of scale.

Underlying cash flows linked to inflation

Revenues are linked to inflation through regulatory or contract mechanisms. Or the asset occupies a market position that allows the owner to pass on price increases.

Scarcity value

The asset benefits from a monopolistic or quasi-monopolistic position or the asset may be difficult to replicate.

Long operational life

A long operational life enables the Fund to have a long term buy and hold policy mitigating reinvestment risk.

Stable predictable cash flows

Cash flows may be supported by regulatory frameworks, long term contracts, concessions or government subsidy. They may be predictable with little maintenance requirement. Others may involve availability based payment rather than usage.

Low correlation with other asset classes

The drivers of the asset cash-flows are not linked to demand or the financial markets generally.

2.3 Infrastructure assets are a varying mix of the above investment characteristics giving the investment class a wide spectrum of return profiles. At one end of the spectrum is corporate infrastructure where prices are market determined and, with limited government involvement or subsidy, returns show relatively high volatility.

2.4 At the other end of the spectrum, there are availability based assets, where the investor is paid an assured sum simply for making the asset available (e.g. public private partnerships (PPPs) providing healthcare facilities). Such investments will show the lowest volatility.

2.5 In between there are economic assets where prices are typically market determined with some element of regulation. Returns may be correlated with GDP. Also showing lower volatility there are regulated assets, such as utilities, where demand is inelastic and prices are subject to a greater level of regulation.

Accessing infrastructure investments

2.6 Like any investment project, infrastructure investment projects can be financed by any combination of debt and equity. The debt part of the financing typically pays an interest coupon while the equity holder receives the profits remaining. Cash distributions will also depend on arrangements for repaying the debt finance.

2.7 For the purpose of this infrastructure investment strategy paper, infrastructure investments are considered to be equity investments or investments structured with equity-like characteristics.

2.8 Debt issued by infrastructure investment projects is considered separately by the Fund as part of its bond and other credit investments strategy.

2.9 Infrastructure investments may be accessed through a number of routes:

a) *Unlisted closed ended funds*

Closed ended funds are co-mingled funds in a private equity model where a manager assembles a pool of investment capital to be deployed and returned after a period, typically between 10 and 15 years for an infrastructure fund.

The fee structure is typical of the private equity industry with a management fee of 1% to 1.5% per year of assets under management and a share of the profits (15% to 20% usually after attaining a certain hurdle return).

The advantages of this approach are that it accesses the expertise of an experienced asset manager with little in-house management burden. The Fund is invested in a diversified pool of assets.

The disadvantages of this approach apart from cost are that the investor has no control, it does not know what assets the manager will acquire, gearing will typically be permitted within certain limits, and there is a forced exit at the end of the fund's life.

As infrastructure assets are assets generating long-term income streams, a fixed life fund may be seen as incompatible. However, this structure does allow a number of specialist managers to add value to infrastructure assets over and above their steady-state discounted cash-flow valuation. This is achieved by, for example, merging two regional distribution systems or pipelines or building out/assembling a portfolio of renewable energy assets. The combination is worth more than the sum

of the parts and justifies the higher fees that such managers seek for a more active involvement.

b) Unlisted open ended funds

Open ended funds are co-mingled funds run by a manager where new investments and redemptions are accommodated at any time.

Fee structures are typically 1% to 1.5% per year of assets under management with or without a performance bonus, although there is industry pressure to reduce these fees. Compared with closed ended funds, the investment strategy is more typically buy and hold, so there is less focus on adding value over and above the running cash yield. The management fee can then take a significant portion of the running yield.

The advantage of open-ended funds as compared to closed-ended fund is that the incoming investor can see what assets it is buying into.

Open-ended are more liquid than closed-ended funds, in that the investor can decide to redeem its investment. However, significant redemptions by major investors can lead to funds being locked up while the manager organises the sale of assets to meet redemptions. The investor has no control over this process and can suffer if the manager is forced to dispose of the most saleable assets to meet redemptions.

c) Co-investments

Co-investments are investments sought by managers of funds to invest alongside the funds above. These are typically with no fee and no profit share. Managers of funds seek such investment to help finance acquisitions that might otherwise be too large for the fund that they are managing or as a way of averaging down fees for major investors in the fund.

d) Listed companies

These are publically listed companies that are invested in infrastructure assets, such as regulated utilities or other portfolios of infrastructure assets (e.g. wind farms).

Fee structures are less easy to understand in listed companies. For listed companies with portfolios of assets typically sponsored by an asset manager, fees are as high if not higher than unlisted funds above. For operating businesses, such as regulated utilities, management fees may be less but balanced against the cost of maintaining a public listing and dealing with a large diverse shareholder base.

Listed infrastructure companies trade at a discount or premium to their net asset values which brings an added level of volatility and means that returns may be more correlated with the results of equity investment generally.

e) Direct investment

Direct investment is where the Fund owns or controls the infrastructure asset directly, either on its own or in conjunction with a number of other investors (an investment consortium or club).

With direct investment, the Fund must put in place appropriate corporate governance arrangements to manage its holding and represent its interests. This can be the appointment of an external asset manager or the use of non-executive directors that represent the Fund's interests on the Board. Direct ownership generally has a significant cost advantage over co-mingled fund routes.

With direct investment, the Fund retains control over where it invests and for how long. The Fund decides if it wishes to put any leverage in place. Direct investment allows the Fund to take a long-term view of its investment, for example, enabling it to support the long term capital investment needs of companies that it has invested in.

3. The Fund's existing infrastructure portfolio

The Fund's experience to date

3.1 The Investment Panel allocated 6% of the Fund to infrastructure investment in 2011. This has been deployed in creating a portfolio of closed end infrastructure funds as well as some opportunistic direct investments in renewable energy assets:

	Investment Value (31.12.14) £m	Return since inception	
		Absolute % p.a.	Benchmark % p.a.
Fund investments			
Arclight V	33.96	6.50%	
Arclight VI			
CD US Solar Fund	16.77	23.46%	
CD Clean Energy and Infrastructure	31.55	3.97%	
EQT	13.45	-23.46%	
Global Infrastructure Partners	15.15	24.13%	
Highstar	29.29	-1.83%	
Icon LP	7.75	35.29%	
Icon II	21.38	-6.98%	
ISQ	2.68		
	<hr/> 171.99		
Direct investments			
CD Red Rose	85.25	28.27%	
CD Red Rose 2 (Methane Power)	8.34	10.12%	
CD Cape Byron	67.00	10.26%	
	<hr/> 160.59		
Total	<hr/> 332.58	21.71%	8.00%
Percentage of Fund	6.05%		

NB: in addition the Fund has uncalled fund investment commitments of £239m but it is anticipated that significant sums will be returned from existing funds as these calls are received over the next five years.

3.2 The portfolio of closed end fund investments has been built out with the assistance of the consultancy arm of Russell Investments. It represents a diversified portfolio of funds. It is spread across industry sectors, across deal sizes and across the UK, Europe and the USA. One common feature of the funds selected is that they are typically run by small experienced specialist independent teams that know their industry sector well and have managed funds through the ups and downs of economic cycles.

3.3 Some open-ended funds were considered as part of the fund selection process, but none were retained because of disappointing performance relative to cost and legacy issues of investments in the portfolio.

3.4 The portfolio has recorded a 21.7% per year gross return from inception. Net return is estimated to be around 16% per year. While this is relatively early in the life cycle of the investment, this is well ahead of the 8% per year benchmark return.

3.5 Some funds are recording losses (notably EQT), but this is a timing effect at this stage. EQT was the last fund to be invested in. The first part of the investment period involves the drawdown of fees on commitments to cover manager expenses while the initial investments are completed. These losses are recovered later as investments are made and start to accrue valuation gains.

3.6 To date the Fund has not invested through the co-investment route, but it has a number of protocols in place with managers which should generate co-investment opportunities in the future (three co-investment opportunities are under discussion at the time of writing).

3.7 The direct investments were acquired opportunistically from receivers of over-gearred investment vehicles. Red Rose is a diversified portfolio of landfill gas sites generating electricity across the UK and USA with some long term take-off contracts and some market price risk. With a strong management team and in-house engineering resource, the financial results have been very positive. Its distribution yield is currently 14.4% per year and the Fund expects to have received 58% of its original investment back in the four years ending December 2015.

3.8 Cape Byron comprises two biomass power stations in Australia burning sugar cane waste and timber to generate electricity. The investment case assumes a net internal rates of return of 12.5% per year. Cash distributions are expected to begin in 2016.

3.9 Red Rose and Cape Byron are managed by the clean energy team of the Fund's private equity manager Capital Dynamics in bespoke fund structures individually negotiated and designed for a long term hold.

Eurostar

3.10 Between December 2014 and February 2015, the Fund worked on a bid for the 40% stake in Eurostar that was being sold by HM Government. Eurostar represents an economic infrastructure investment operating without state support but occupying a quasi-monopoly position in running trains between the UK and the rest of Europe. It is profitable and offers the prospect of growing profits as the network is increased. Under the shareholders' agreement at least half the net profits are to be distributed as dividends.

3.11 The Fund managed a full transaction team comprising a corporate finance partners, accountants, specialist transport consultancies, actuaries, insurance experts and lawyers.

3.12 The Fund was unfortunately out-bid for Eurostar with the winning bidder accepting an estimated IRR of around 13% compared with 14% per year used in the Fund's valuation. The Fund would have been unable to match the winning bid as the valuation exceeded 10% of the value of the Fund (before any syndication).

3.13 The feedback from HM Government's advisers was that the Fund's bid was considered to be very credible and of high quality. The experience has shown that the Fund can successfully manage complex transaction teams.

3.14 The transaction also underlined the efficiency of direct investment. The Eurostar investment would have represented an investment of £530m (before syndication). The costs of managing such an investment would have been limited officer time and the employment of one or two senior executives in non-executive director roles. If a similar amount had been invested using a funds based approach, annual management fees would have been of the order of £6m per year compared with an estimated £300,000 per year to manage the direct holding.

3.15 The disadvantage of direct investment, is that the Fund needs to commit transaction fees upfront with no guarantee of success. The failed deal cost of the Eurostar bid was in the order of £1m. If following a programme of direct investment with a probability of success on each investment of say 25%, then the average cost of acquiring one Eurostar-type investment would be £4m (including 3 failed deals costing £3m). While these failed deal costs may appear a significant cost in absolute terms, eventually acquiring an investment asset that avoids annual management fees of £6m a year, makes the direct investment strategy very cost effective.

4. Planned future infrastructure portfolio and allocation

Investment strategy going forward

4.1 The Fund has successfully deployed 6% of the Fund in infrastructure assets. The Fund has sought out a diversified portfolio of income producing infrastructure assets accepting some economic risk. This has produced net returns over the first four years of investment of around 16% per year.

4.2 By comparison funds investing in PPPs with availability-based cash-flows, considered to the least volatile investments in the sector, are expected to return net inflation +4.5%. So such funds are currently returning around 5.6% per year.

4.3 In order to meet the current benchmark return of 8% per year, the Fund needs to continue to accept some economic risk in its infrastructure portfolio. By maintaining a diversified portfolio of infrastructure investments taking some economic risk, the Fund is likely to continue to generate returns that are in excess of its benchmark return.

4.4 In terms of fund versus direct investments, it is proposed that direct investment be preferred over fund investments. The experience of Red Rose, Cape Byron and Eurostar shows that the Fund has the expertise to manage the acquisition process and put in appropriate corporate governance afterwards.

4.5 However, the use of funds will need to be continued to access specialist expertise and provide geographical diversification.

4.6 In accordance with the overall Fund investment strategy, the infrastructure mandate is global. However, it is proposed that direct investments are only considered in jurisdictions where the Investment Panel is satisfied that there are transparent and reliable legal systems and markets.

4.7 It is proposed that the target of the infrastructure allocation should be a split weighted towards direct investment:

Direct investment	Two thirds
Fund- based investments	One third

Direct investment portfolio

4.8 It is proposed that the Fund should actively build a portfolio of direct investments in regulated and economic infrastructure where the investment case indicates that the asset will achieve at least the benchmark return of 8% per year even using a pessimistic set of assumptions. In the case of Eurostar, for example, the base case valuation assumed a 14% per year return while the pessimistic case was 8.5% per year.

4.9 To realise this strategy, the Fund may have to take part in competitive bids which means committing fees to a transaction team without certainty of success. It is proposed that the Investment Panel approve prospective bids in advance to committing any transaction team expenses.

4.10 It is impossible to determine in advance the maximum individual bid size that the Fund should make. Each asset is unique. For example, the Red Rose investment may appear a large concentration of risk in a single asset, but in reality it is a diversified portfolio spread across the UK and USA with exposure to contracted, regulated and market pricing regimes.

4.11 It is proposed:

- The Investment Panel approve any proposed direct investment on the basis of an investment "teaser" document prior to the Fund committing any significant resources to due diligence or launching a bid;

- The Fund is authorised to engage in competitive bidding situations with the risk of failed transaction fees being incurred;
- The Fund may purchase stakes in listed infrastructure companies on a buy and hold basis;
- Direct investments in economic and regulated infrastructure will be expected to produce a net return of at least 8% per year even applying pessimistic projection assumptions;
- The Investment Panel has discretion to determine which jurisdictions are suitable for investment;
- The Fund will seek to include a local investment element in its direct investment portfolio. If considering competing options, all other things being equal, the Fund will favour the more local option. The Fund will also consider direct investments in County of Lancashire that meet the financial return criteria but may be of a scale considered too small for investment if elsewhere;
- Investments denominated in foreign currencies will only be hedged at an investment level in exceptional circumstances to be determined by the Chief Investment Officer;
- No external gearing or leverage is to be used at an investment level. Investments themselves are likely to have some borrowings within the company;
- The Fund will ensure effective corporate governance of its investments through the use of internal or external asset managers or the appointment of Fund representatives on the board of directors;
- The Fund may take both controlling and minority stakes in companies. With significant minority stakes the Fund would expect to have appropriate non-executive board representation. The Fund will seek individuals with relevant industry knowledge and experience to represent it as non-executive directors on company boards. Where the Investment Panel approves, Fund Officers may serve as non-executive directors where they have the requisite commercial experience or are representing the Fund's interests to the company.

Fund-based infrastructure investment portfolio

4.12 It is proposed that the portfolio of infrastructure funds should focus on providing a global exposure to economic and regulated infrastructure complementing areas where the Fund has found direct investment opportunities.

4.13 The portfolio will also continue to seek out specialist expert managers in different market segments that have a history of adding value in addition to the running yield of the assets acquired.

4.14 New infrastructure fund commitments will be approved individually by the Investment Panel.

4.15 It is proposed that the portfolio concentrate on building relationships with a small number of managers with a view to obtaining co-investment rights, which average down fee costs.

4.16 Co-investment is typically offered on a project by project basis, which means individual approvals may be small and more numerous relative to the total fund commitment.

4.17 Where co-investment is obtained that no more than doubles the Fund's exposure to a particular project, then limited due diligence will be undertaken to ensure that the project fits with the risk profile and investment philosophy of the investment manager, also that the fund is performing as expected and the management structure in place is stable. If such assurance is obtained to the satisfaction of the Pensions Director, he may approve the co-investment without reference to the Investment Panel. In all other cases, the Investment Panel should approve the co-investment.

The allocation to infrastructure

4.18 This paper does not seek to propose what overall infrastructure allocation should be put in place. That is a role for the Investment Panel after reviewing the risk and return profiles of all investment classes. See Investment Panel Report earlier in the agenda pack, where the Investment Panel agreed the following

- i. the Infrastructure Investment Strategy be approved, with a target allocation of 10%-15% of the Fund.
- ii. within this range, a target weighting of Two thirds Direct investment, and One third Fund-based investment be agreed.
- iii. the Director of the Fund be authorised to approve co-investment in approved funds and in limited circumstances, as set out in the Infrastructure Investment Strategy.

4.19 But with bond coupons historically very low, the infrastructure net returns are attractive (benchmark 8% per year, actual from inception 16% including cash distributions and some inflation linkage). Investment in infrastructure is similar to investing in property. Both are real assets offering returns that are a combination of a bond-like income component and some equity capital growth.

4.20 The Fund's successful deployment of 6% of the Fund to infrastructure has produced some of the best asset class returns. The Fund has successfully created a diversified portfolio of infrastructure assets with some economic risk that are producing returns well in excess of benchmark. The Fund has also shown itself capable of managing the direct investment process successfully.

4.21 Property currently has 15% of the Fund allocated to it. This paper would propose that the Investment Panel consider increasing the allocation of the Fund to infrastructure placing it at the same level of exposure as property.

4.22 The table below sets out the target direct investments and fund portfolio values for a 6%, 10% and 15% allocation of the total Fund along with the current infrastructure portfolio:

Value of Fund		£5,600m			
Percentage allocation to infrastructure		Actual	6%	10%	15%
		£m	£m	£m	£m
Total Infrastructure Allocation		332	336	560	840
	Weighting				
Direct Investment Portfolio	66%	160	222	370	554
Fund Portfolio	33%	172	114	190	286

An allocation of 15% to infrastructure would enable the Fund to build a portfolio of direct investments with a value circa £550m. If a typical transaction size was tens of millions of pounds, this allocation would enable the Fund to build a reasonably diverse portfolio of direct investments (circa 10).