

Agenda Item No.4 (c)

**DERBYSHIRE COUNTY COUNCIL
PENSIONS AND INVESTMENTS COMMITTEE**

11 September 2018

Report of the Director of Finance & ICT

**ASSET LIABILITY MODELLING REVIEW AND REVISED INVESTMENT
STRATEGY STATEMENT**

1 Purpose of the Report

To note the results of an Asset Liability Modelling Review carried out by Hymans Robertson and to seek approval for Derbyshire Pension Fund's revised Investment Strategy Statement, including a new Strategic Asset Allocation Benchmark.

2 Information and Analysis

(i) Asset Liability Modelling Review

Derbyshire Pension Fund's ("the Fund") Actuary, Hymans Robertson, was commissioned to carry out an Asset Liability Modelling Review ("the Review") following an improvement in the Pension Fund's funding level.

At the last formal actuarial valuation at the end of March 2016, the funding level, which is the value of the assets held by the Fund expressed as a proportion of its liabilities, was 86.7% with assets of £3,672m and estimated past service liabilities of £4,236m. This was an improvement on the funding level of 82.5% at the formal valuation at the end of March 2013.

The Actuary carried out an interim funding update at 31st December 2017 using the membership data from the March 2016 formal valuation but updating the financial assumptions contained in that valuation to reflect market conditions at December 2017. The updated funding level of 92.8% benefited from the very strong market returns between the March 2016 valuation and December 2017, with assets of £4,835m and estimated past service liabilities of £5,210m.

Based on the performance of the assets in the Fund since the December 2017 update and the largely unchanged yields in long dated UK sovereign bonds (bond yields feed into the calculation of the Fund's liabilities), the current

funding level is estimated to be very similar to the December 2017 level. The next formal actuarial valuation, including updated membership information, will be carried out at March 2019, with the preliminary results of that valuation due in the autumn of 2019. Given the improvement in the funding level and the volatility that can be experienced in funding levels due to the link to prevailing market conditions, it was considered prudent to commission an Asset Liability Modelling Review ahead of the next formal valuation.

The objective of the Review was to consider the potential impact on the Fund's long-term funding position of several alternative Strategic Asset Allocation Benchmarks ("SAAB"). The majority of the SAABs modelled are designed to "lock-in" some of the recent improvement in the Pension Fund's funding position, and to lower the Fund's exposure to investment risk. A benchmark with a higher allocation to risk assets has also been modelled for completeness.

The SAABs modelled by Hymans Robertson are set out overleaf.

Asset Class	Higher Risk	Current	Modest Risk Reduction	Lower Risk (1) Diversifying	Lower Risk (1) Bonds	Lower Risk (2) Diversifying	Lower Risk (2) Bonds
UK Equities	29%	25%	18%	20%	20%	15%	15%
Overseas Equities	35%	30%	30%	25%	25%	21%	21%
Emerging Market Equities	4%	3%	5%	5%	3%	2%	2%
Private Equity	4%	4%	4%	4%	4%	4%	4%
Total Growth Assets	72%	62%	57%	52%	52%	42%	42%
Property	9%	9%	9%	12%	9%	12%	9%
Infrastructure	5%	5%	8%	7%	5%	7%	5%
Multi-Asset Credit	4%	4%	6%	9%	4%	9%	4%
Total Income Assets	18%	18%	23%	28%	18%	28%	18%
Gilts	2.5%	5.5%	6%	5.5%	8.5%	8.5%	11.5%
Index-Linked	3.5%	6.5%	6%	6.5%	9.5%	9.5%	12.5%
UK Non-Government	2%	6%	6%	6%	10%	10%	14%
Cash	2%	2%	2%	2%	2%	2%	2%
Total Protection Assets	10%	20%	20%	20%	30%	30%	40%
Total Assets	100%	100%	100%	100%	100%	100%	100%

Source: Hymans Robertson Report

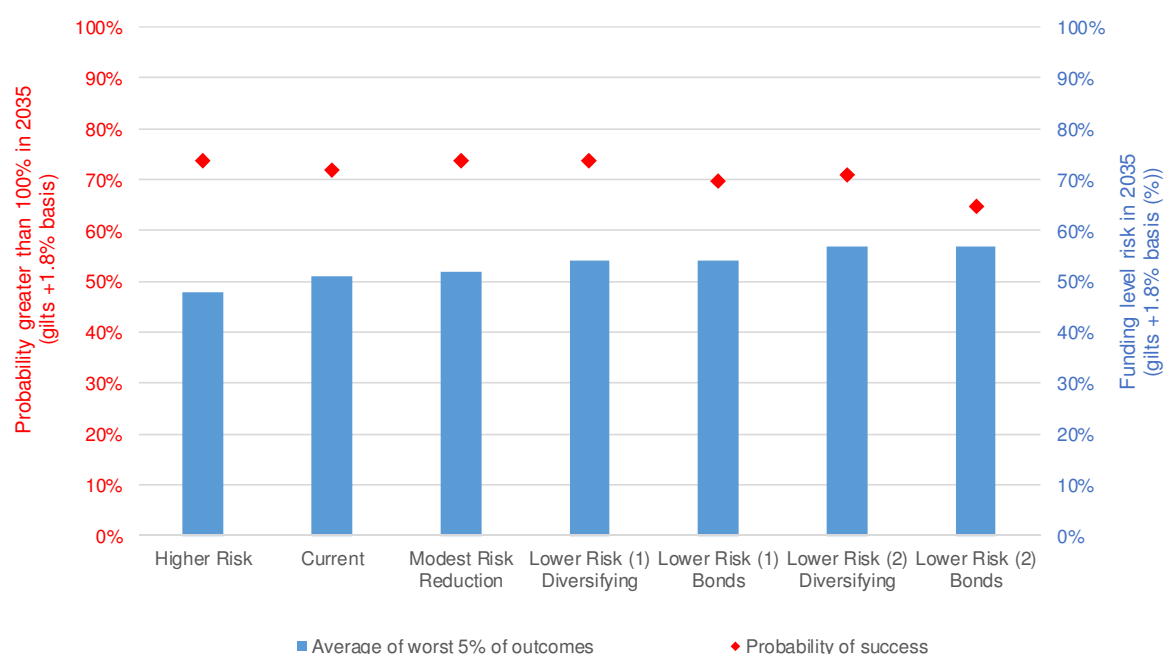
A summary of the forecast long-term Asset Class returns used by Hymans Robertson is set out at Appendix 1.

Hymans Robertson allocate assets into the following three categories:

- Growth Assets: largely equities plus other volatile higher return assets such as private equity
- Income Assets: assets which are designed to deliver an excess return but with more stable return patterns than Growth Assets because income represents a large proportion of the total return of these assets
- Protection Assets: lower risk government or investment grade bonds, together with cash

The Review assumes no change to the current contributions levels.

The results of the Review are shown below:



The results for each potential SAAB show two projected outcomes:

- The probability of success (based on 5,000 simulations for that SAAB) of achieving a 100% funding level by 2035; and
- The average funding level of the worst 5% of outcomes.

The results show that a modest diversification (5% - 10%) from Growth Assets into Income Assets achieves a slightly higher chance of success of achieving a 100% funding level by 2035 than the Fund's current SAAB, whilst also offering slightly better downside protection. A 10% - 20% switch from Growth Assets into Protection Assets reduces the chance of success of achieving a 100% funding level by 2035 but offers better downside protection.

(ii) Strategic Asset Allocation Benchmark

A summary of the Fund's current SAAB, together with that recommended going forward is shown below.

Asset Class	Current	Modest Risk Reduction	Change
UK Equities	25.0%	16.0%	(9.0%)
North American Equities	12.0%	12.0%	-
European Equities	9.0%	8.0%	(1.0%)
Japanese Equities	5.0%	5.0%	-
Asia Pacific ex-Japan Equities	4.0%	4.0%	-
Global Sustainable Equities	-	3.0%	+3.0%
Emerging Market Equities	3.0%	5.0%	+2.0%
Private Equity	4.0%	4.0%	
Total Growth Assets	62.0%	57.0%	(5.0%)
Property	9.0%	9.0%	-
Infrastructure	5.0%	8.0%	+3.0%
Multi-Asset Credit	4.0%	6.0%	+2.0%
Total Income Assets	18.0%	23.0%	+5.0%
Gilts	5.5%	6.0%	+0.5%
Index-Linked	6.5%	6.0%	(0.5%)
UK Non-Government	6.0%	6.0%	-
Cash	2.0%	2.0%	-
Total Protection Assets	20.0%	20.0%	-
Total Assets	100%	100%	-

The proposed SAAB is based on the Modest Risk Reduction case set out in the Hymans Robertson Review, and assumes a 5% switch out of Growth Assets into Income Assets. The modelling projects that the Fund's probability of being fully funded by 2035 under the Modest Risk Reduction case increases from 72% to 74% compared to the current SAAB, and the funding level in respect of the worst 5% of outcomes, increases from 51% to 52%.

The regional equity split proposed is modestly different to the regional split modelled by Hymans Robertson and has been developed following discussions with the Fund's Adviser. Confirmation has been obtained from the Actuary that the proposed 16% UK Equities/32% Overseas Equities (ex-Emerging Market Equities) regional split would be expected to deliver the same modelling result as the 18% UK Equities/30% Overseas Equities (ex-Emerging Market Equities) split.

The Lower Risk Diversifying case, involving a 10% switch out of Growth Assets into Income Assets, has been discounted at this stage despite

appearing to offer slightly better downside risk protection than the Modest Risk Reduction case and a similar probability of being fully funded by 2035. This is due to concerns around the practicality of deploying large additional amounts of money into Property and to the relatively immaturity of the Multi-Asset Credit asset class.

Growth Assets

The proposed SAAB reduces the Fund's equity weighting from 58% to 53%, reflecting reductions in respect of UK (-9%) and European (-1%) Equities, partly offset by a higher allocation to Emerging Market Equities (+2%), and the introduction of a new specific allocation to Global Sustainable Equities (+3%).

While the UK remains Derbyshire Pension Fund's domestic market, it is now prudent to reduce the UK Equity weighting by 9% to 16% because:

- the Fund's current UK Equity benchmark weighting represents 43% of the Fund's Equity benchmark weighting compared to a UK weighting of 6% in the FTSE All World Index;
- the UK market has become increasingly concentrated in a limited number of sectors with a particularly large exposure to commodity stocks;
- global standards of regulation and governance have improved, supporting higher levels of overseas investment;
- the UK market is now dominated by global companies trading in US dollars, significantly reducing the historic currency hedge to the Fund's pension liabilities; and
- while the UK market has historically offered a higher dividend yield than other markets, concentration risk has increased. For example, the top five dividend payers in Q2 2018 (HSBC, Royal Dutch Shell, Rio Tinto, BP and Lloyds) accounted for 27% of all dividend payments and the commodity sectors (Mining and Oil and Gas) accounted for almost 30% of all dividend payments in the quarter representing a concentration risk in particularly volatile sectors.

The proposed 1% reduction in the allocation to European Equities better aligns the weighting to the regions' share of global GDP.

The economies which comprise the Emerging Market allocation are some of the fastest growing economies in the world, and the recommended 2% increase in the allocation to Emerging Market Equities, better aligns the Fund's equity allocation to global GDP, and those economies which should drive global growth going forward.

The Fund's policy in relation to Responsible Investment is to seek to understand relevant environmental, social and governance (ESG) factors alongside conventional financial considerations as part of the process of

evaluating all investments. However, it is recognised that the practice of integrating ESG factors into the investment process is continuing to develop and is reliant on the disclosure of relevant detailed information from investee companies/vehicles. As the Fund continues to develop its approach to Responsible Investment, it is recommended that a 3% allocation is made to Global Sustainable Equities, targeting investments in global companies that are sustainable in financial, environmental, social and governance terms and, where appropriate, that are providing solutions to sustainability challenges. It is proposed that the allocation is benchmarked against the FTSE All World Index.

Income Assets

It is proposed that the allocation to Income Assets is increased from 18% to 23% comprising:

A 3% increase in the allocation to Infrastructure, taking the weighting to 8%. Infrastructure is an attractive asset class for pension funds, offering equity like returns, predictable long term cash flows which are often linked to inflation, and returns with a low correlation to other major asset classes.

A 2% increase in the allocation to Multi-Asset Credit, taking the weighting to 6%. Multi-Asset Credit includes a broad spectrum of credit and the opportunity to pick-up yield and access to recurring income streams. The Fund's investments would continue to be focussed on high levels of security, good interest rate protection through floating rate notes and a recurring cash yield (e.g. private debt, asset-backed securities and defensively positioned diversified credit funds).

Protection Assets

There is no recommended change to the overall weighting to Protection Assets at 20% in total, although there is a modest proposed change in the composition by sub-asset class to allow the weightings to be more easily tactically flexed towards the most attractive sub-asset class at any particular time.

It should be noted that the suggested changes to the SAAB are long term recommendations which may not be aligned with the quarterly tactical recommendations which are based on current market conditions.

(iii) Investment Strategy Statement

Derbyshire County Council, as the administering authority for Derbyshire Pension Fund, formulated and approved the Fund's first Investment Strategy Statement, in accordance with the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016 ("the 2016 Regulations"), in March 2017.

Under the 2016 Regulations, the Investment Strategy Statement must be reviewed, and if necessary revised, following any material change in the factors which are judged to have a bearing on the stated investment policy, and at least every three years. Given the proposed changes to the Fund's SAAB set out in this report, a revised Investment Strategy Statement has been prepared, a copy of which is set out at Appendix 2.

In addition to the change to the SAAB, the Investment Strategy Statement has been updated to reflect developments with regard to the LGPS Central Pool and to the Fund's approach towards Responsible Investment.

The links to documents within the Statement are currently to the Local Government Pension Scheme section of the Derbyshire County Council website and will be updated to include links to the new Derbyshire Pension Fund website once it has been launched.

The Investment Strategy Statement must cover:

- A requirement to use a wide variety of investments;
- The authority's assessment of the suitability of particular investments and types of investment;
- The authority's approach to risk, including how it will be measured and managed;
- The authority's approach to pooling investments, including the use of collective investment vehicles and shared services;
- The authority's policy on how social, environmental and corporate governance considerations are taken into account in the selection, non-selection, retention and realisation of investments; and
- The authority's policy on the exercise of rights (including voting rights) attached to its investments.

The Investment Strategy Statement must also set out the maximum percentage of the total value of all investments of fund money that it will invest in particular investments or classes of investment and the authority is required to consult such persons as it considers appropriate regarding the proposed contents of its investment strategy.

The Fund's independent investment adviser, Anthony Fletcher, has reviewed the revised Investment Strategy Statement and the proposed changes to the SAAB and a copy of the adviser's review is set out at Appendix 3.

(iv) Consultation

It is intended to consult with scheme employers, the local pension board and other stakeholders on the revised Investment Strategy Statement. The results of the consultation will be reported to Committee in October 2018. Approval is sought for the Director of Finance & ICT, in conjunction with the Chair of the Committee, to consider the results of the consultation in the meantime, and for the Director of Finance & ICT and the Chair to determine if any revisions to the proposed SAAB are necessary following the consultation, in able to allow for a possible adoption of the new SAAB at the beginning of Q3 2018/19.

3 Considerations

In preparing this report the relevance of the following factors has been considered: financial, legal and human rights, human resources, equality and diversity, health, environmental, transport, property and prevention of crime and disorder.

4 Background Papers

Files held by the Director of Finance.

5 Officer's Recommendation

That the Committee:

- (i) Notes the results of the Asset Liability Modelling Review carried out by Hymans Robertson;
- (ii) Approves the revised Investment Strategy Statement set out in this report, including the proposed changes to the Strategic Asset Allocation Benchmark, subject to the outcome of the consultation with the Fund's stakeholders; and
- (iii) Delegates the consideration of the results of the consultation, and the determination of whether any revisions to the proposed SAAB are necessary following the consultation, to the Director of Finance & ICT in conjunction with the Chair.

PETER HANDFORD

Director of Finance & ICT

Appendix 1

Hyman Robertson: Expected Rate of Returns and Volatilities 31 May 2018

	IL Gilts (Med))	Fixed Income Gilts (Med)	Corporate Bonds (Med))	UK Equity	Overseas Equity	Emerging Market Equities	Private Equity	Property	Infra Equity	MAC (sub-IG)	Cash	Inflation	17 Year Real Yield	17 Year Yield
5 Years														
16 th %'ile	(2.1%)	(2.6%)	(2.5%)	(4.0%)	(3.9%)	(6.9%)	(7.1%)	(3.3%)	(4.7%)	1.1%	(0.3%)	1.5%	(2.3%)	0.9%
50 th %'ile	0.7%	0.5%	0.9%	4.1%	4.2%	4.4%	5.0%	2.6%	4.3%	4.0%	0.9%	3.0%	(1.4%)	2.2%
84 th %'ile	3.5%	3.6%	4.0%	12.9%	12.7%	17.2%	19.0%	9.0%	14.0%	6.3%	2.1%	4.5%	(0.5%)	3.7%
10 Years														
16 th %'ile	(1.5%)	(1.0%)	(0.6%)	(1.2%)	(1.1%)	(3.0%)	(3.2%)	(1.3%)	(1.5%)	2.2%	0.1%	1.7%	(1.9%)	1.2%
50 th %'ile	0.3%	0.5%	1.1%	4.9%	5.0%	5.2%	5.8%	3.4%	5.0%	4.3%	1.5%	3.1%	(0.7%)	2.8%
84 th %'ile	2.2%	2.0%	2.8%	11.2%	11.0%	13.9%	15.8%	8.0%	12.1%	6.1%	3.2%	4.7%	0.4%	4.8%
20 Years														
16 th %'ile	(0.9%)	0.3%	0.8%	1.4%	1.5%	0.3%	0.5%	0.7%	1.2%	3.5%	0.9%	1.9%	(0.7%)	2.2%
50 th %'ile	0.6%	1.2%	2.0%	5.9%	5.9%	6.3%	7.0%	4.5%	6.2%	5.2%	2.6%	3.1%	0.8%	4.0%
84 th %'ile	2.2%	2.1%	3.2%	10.5%	10.5%	12.7%	13.8%	8.3%	11.3%	7.1%	4.6%	4.6%	2.3%	6.3%
Volatility (Disp) (1 Yr)	7%	10%	10%	16%	17%	25%	28%	14%	20%	7%	1%	1%	n/a	n/a



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Appendix 2

Investment Strategy Statement

September 2018

Introduction

This is the Investment Strategy Statement (the ISS) of Derbyshire Pension Fund (the Fund), which is administered by Derbyshire County Council. The ISS is drawn up in compliance with Regulation 7 of the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016 (the Regulations) and has been prepared following consultation with such persons as Derbyshire County Council considered appropriate.

The ISS will be reviewed following any material change in the factors which are judged to have a bearing on the stated investment policy and at least every three years as required by the Regulations.

The primary objective of the Fund is to ensure that over the long term the Fund will be able to meet all benefit payments as and when they fall due. These payments will be met by contributions resulting from the funding strategy or asset returns and income resulting from the investment strategy. The funding and investment strategies are, therefore, inextricably linked; the Funding Strategy Statement can be found on Derbyshire County Council's website: <https://www.derbyshire.gov.uk/site-elements/documents/pdf/working-for-us/pensions/investments/funding-strategy/funding-strategy-statement.pdf>

Fund Governance

Derbyshire County Council is an administering authority for the Local Government Pension Scheme in accordance with Local Government Pension Scheme Regulations 2013. The Pensions and Investments Committee (the Committee) is responsible for discharging Derbyshire County Council's statutory function as the administering authority for the Fund.

The Committee is responsible for determining the Fund's investment policy, monitoring performance and overall stewardship of the Fund. Members of the Committee act in a similar manner to trustees and take advice from Anthony Fletcher, the Fund's Independent Adviser and from the Director of Finance & ICT and the Fund's in-house investment managers.

A proportion of the Fund's investments are managed on an active basis by the Fund's in-house Investment Team, and by LGPS Central Limited, a company established to manage investments on behalf of nine LGPS pension funds across the Midlands. Where the appropriate skills are not available internally, or through LGPS Central Limited, external managers are used.

In 2015, Derbyshire Pension Board was established to assist the administering authority to ensure the effective and efficient governance and administration of the Local Government Pension Scheme.

Full details of the Fund's governance arrangements, including the governance arrangements for the LGPS Central Pool, are contained in the Governance Policy and Compliance Statement which is published on the County Council's website:

<https://www.derbyshire.gov.uk/site-elements/documents/pdf/working-for-us/pensions/governance/policy-statements/pensions-governance-policy-and-compliance-statement.pdf>

Investment Objectives

The Committee has agreed a long term investment strategy that aims to maximise the returns from investments within acceptable levels of risk, contributes to the Fund having sufficient assets to cover the accrued benefits, and enables employer contributions to be kept as stable as possible.

The investment strategy takes into account the following beliefs:

- A long term approach to investment will deliver better returns
- The long term nature of LGPS liabilities allows for a long term investment horizon
- Asset allocation is the most important factor in driving long term investment returns
- Liabilities influence the asset structure; funds exist to meet their obligations
- Risk premiums exist for certain investments; taking advantage of these can help to improve investment returns
- Markets can be inefficient, and mispriced for long periods of time; therefore there is a place for active and passive investment management
- Diversification across investments with low correlation improves the risk/return profile
- Secure and growing income streams underpin the ability to meet future liabilities
- Responsible investment can enhance long term investment performance
- Investment management costs should be minimized where possible but net investment returns after costs are the most important factor

Strategic Asset Allocation Benchmark

The Committee aims to balance risk and reward by apportioning the Fund's assets over a range of asset classes to achieve the Fund's goals, to manage risk and to match the investment horizons. The objective is to generate a return that is at least equal to the

discount rate used in the actuarial valuation in order to meet the Fund's liabilities. The actuarial valuation at 31 March 2016 was prepared on the basis of a discount rate of 4.0% compared with a discount rate of 4.6% for the actuarial valuation at 31 March 2013. The lower discount rate reflects lower expected investment returns going forward.

The Strategic Asset Allocation Benchmark (the Benchmark) for the Fund has been formulated in consultation with Anthony Fletcher, following an Asset Liability Modelling Review carried out by Hymans Robertson, the Fund's Actuary. The Benchmark takes into account the required level of return and an appropriate balance between generating long term investment returns and exposure to investment risk. The Benchmark includes a wide variety of asset classes, in order to diversify sources of risk and return, and equity allocations spread by geographic regions. It takes into account the future expected returns from the different asset classes, the historic levels of volatility of each asset class and the level of correlation between the asset classes.

The Fund's asset classes are allocated into three categories:

- Growth Assets: largely equities, plus other volatile higher return assets such as private equity
- Income Assets: assets which are designed to deliver an excess return, but with more stable return patterns than Growth Assets because income represents a large proportion of the total return of these assets
- Protection Assets: lower risk government or investment grade bonds, together with cash

The asset allocation of the Fund is reviewed on a quarterly basis, and tactical positions around the Benchmark are agreed by the Committee following advice from the Fund's in-house investment managers and the Fund's Independent Adviser.

The Benchmark and the permitted ranges for tactical allocations are set out in the following table:

Asset Category	Asset Allocation	Permitted Range	
Growth Assets	57.0%	+/- 8%	
Total Equities	53.0%	+/- 8%	
UK Equities	16.0%	+/- 4%	FTSE All Share
-Overseas Equities	38.0%	+/- 6%	
-North America	12.0%	+/- 4%	FTSE World N America
-Europe	8.0%	+/- 3%	FTSE AW Developed Europe Ex-UK Net
-Japan	5.0%	+/- 2%	FTSE World Japan
-Pacific ex-Japan	4.0%	+/- 2%	FTSE All World Asia-Pacific ex Japan
-Emerging Markets	5.0%	+/- 2%	FTSE Emerging Markets
-Global Sustainable	3.0%	+/- 2%	FTSE All World
Private Equity	4.0%	+/- 2%	FTSE All Share + 1%
Income Assets	23.0%	+/- 6%	
Property	9.0%	+/- 3%	IPD UK Quarterly Property Index
Infrastructure	8.0%	+/- 3%	LIBOR 3m + 2%
Multi-Asset Credit	6.0%	+/- 2%	LIBOR 3m + 3%
Protection Assets	20.0%	+/- 5%	
Fixed Income	6.0%	+/- 2%	FTSE UK Gov Fixed All Stocks
Index Linked Bonds	6.0%	+/- 2%	FTSE UK I-L All Stocks
Non-Government Bonds	6.0%	+/- 2%	BAML £ Corp Bonds
Cash	2.0%	0 - 8%	Sterling 7 Day LIBID
Total	100.0%		

Asset Classes

All financial instruments are open to consideration by the Committee. The Fund currently invests in quoted and unquoted securities of UK and overseas markets, including equities, government and non-government bonds, multi-asset credit, property, infrastructure and cash, either directly or via pooled vehicles. Derivatives are used to hedge the currency exposure of the overseas government bond holdings. The use of derivatives may be extended further in the future for the purpose of efficient portfolio management or to hedge other specific risks. The introduction of any new financial instrument/asset class or any extended use of derivatives will only be considered by the Committee following the receipt of appropriate training and advice from suitably qualified persons.

Equities

Equities are classed as growth assets with the potential to provide returns in excess of inflation from growth in both capital values and income. Reinvested income accounts for a large proportion of long term equity returns. As equity returns are linked to company revenues and profits, investing in equities increases exposure to volatility. Investors expect to be compensated for that volatility by higher returns.

Over the last 50 years, in the UK, equities have provided a real return (after inflation) of 5.6% pa, compared with a real return of 3.1% pa from long dated government bonds and 1.2% pa from cash. Over the last 20 years, the respective real returns were 3.2% pa, 3.6% pa and 0.3% pa. In the US, the real returns over the last 50 years were 5.6% pa from equities, 3.6% pa from 20yr government bonds and 0.7% pa from cash. US respective real over 20 years were 5.0% pa, 4.5% pa and -0.26% pa.¹ Despite the increasing correlation between the majority of developed equity markets, investing in different geographic regions still provides portfolio diversification and investing in emerging markets generally provides access to higher economic growth rates and exposure to different economic drivers of return.

Bonds

Bonds offer predictable streams of income and predictable returns if held to maturity. They are held as stabilising assets to reduce volatility and to provide diversification. As pension funds mature they can be used to provide liquidity and to match liabilities as they fall due.

The Fund holds conventional fixed income, index-linked and corporate bonds and within multi-asset credit it holds private debt, high yield debt and asset-backed securities. Index linked bonds are regarded as a particularly good match for pension fund liabilities. The majority of the Fund's government bond holdings are issued by the government of the United Kingdom; the currency exposure of any overseas sovereign bonds holdings is hedged to sterling.

Property

Property investments have traditionally been split between three different sectors: office; retail and industrial. Increasingly within the asset management industry, exposure to niche sectors such as student accommodation and exposure to debt secured against property assets is also included within the property asset class. Returns from this asset class come from rental income and the change in market values. Rental income has accounted for a

¹ Source: Barclays Equity Gilt Study 2017

large proportion of total returns over the long term. Given the relative stability of rental income, which gives property bond like characteristics, the returns from property are generally expected to fall between the returns from equities and those from bonds.

Property investment can be carried out directly via the purchase of physical properties or indirectly via the purchase of pooled vehicles or property company shares. The majority of the Fund's property exposure is gained via direct investment; pooled vehicles are used to gain exposure to niche sectors and overseas assets. The Fund's exposure to property debt is currently contained within the allocation to corporate bonds.

Alternatives

Alternatives include infrastructure, private equity, hedge funds, commodities and pooled multi-asset funds (also known as diversified growth funds). The Fund has exposure to infrastructure and private equity.

Infrastructure offers access to long term predictable cash flows, which are often linked to inflation. A low correlation to the business cycle and the other major asset classes provides diversification benefits and long investment horizons. The majority of the Fund's infrastructure investments are in developed European core assets (long term assets with regulated returns) and social PFI concessions (typically schools, hospitals and military accommodation).

Private equity investment refers to investment in unquoted, privately owned companies. Investors expect to receive an illiquidity premium for investing in this asset class and target returns above those expected from publicly quoted equities. Returns from private equity primarily come from capital growth, rather than income when investments are exited (realised) following a period of business growth/transformation. Private equity offers access to a broader universe of companies than the publicly quoted space.

Risk

The overall risk for the Fund is that its assets will be insufficient to meet its liabilities. The Funding Strategy Statement, which is drawn up following the triennial actuarial valuation of the Fund, sets out how any deficit in assets compared with liabilities is to be addressed.

Underlying the overall risk, the Fund is exposed to demographic risks, regulatory risks, governance risks and financial risks (including investment risk). The measures taken by the Fund to control these risks are included in the Funding Strategy Statement and are reviewed periodically by the Committee via the Fund's risk register. The primary investment risk is that the Fund fails to deliver the returns anticipated in the actuarial

valuation over the long term. The Committee anticipates expected market returns on a prudent basis to reduce the risk of underperforming expectations.

It is important to note that the Fund is exposed to external, market driven, fluctuations in asset prices which affect the liabilities (liabilities are estimated with reference to government bond yields) as well as the valuation of the Fund's assets. Holding a proportion of the assets in government bonds helps to mitigate the effect of falling bond yields on the liabilities to a certain extent. Further measures taken to control/mitigate investment risks are set out in more detail below:

Concentration

The Committee manages the risk of exposure to a single asset class by holding different categories of investments (e.g. equities, bonds, property, alternatives and cash) and by holding a diversified equity portfolio, spread by both geography and market sectors. Each asset class is managed within an agreed permitted range to ensure that the Fund does not deviate too far away from the Benchmark, which has been designed to meet the required level of return with an appropriate level of exposure to risk, taking into consideration the level of correlation between the asset classes.

Volatility

The Benchmark contains a high proportion of equities with a commensurate high degree of volatility. The strong covenant of the major employing bodies enables the Committee to take a long term perspective and to access the forecast inflation plus returns from equities.

Performance

Investment managers are expected to outperform the individual asset class benchmarks detailed in the overall Strategic Asset Allocation Benchmark. The Fund's performance is measured by an independent provider and reported to the Committee on a quarterly basis. The Committee takes a long term approach to the evaluation of investment performance, but will take steps to address persistent underperformance.

Illiquidity

Close attention is paid to the Fund's projected cash flows; the Fund is currently cash flow positive, in that annually there is an excess of cash paid into the Fund from contributions and investment income after pension benefits are paid out. The Fund expects to be cash flow positive for the short to medium term. Despite the growing proportion of illiquid investments in the Fund, a large proportion of the assets are held in liquid assets and can

be realised quickly, in normal circumstances, in order for the Fund to pay its immediate liabilities.

Currency

The Fund's liabilities are denominated in sterling which means that investing in overseas assets exposes the Fund to a degree of currency risk. The Committee regards the currency exposure associated with investing in overseas equities as part of the return on the overseas equities; the currency exposure on overseas bonds is hedged back to sterling.

Stock Lending

The Fund does not currently participate in any stock-lending arrangements, but is likely to in the future as part of the LGPS Central pool. The Committee will ensure that robust controls are in place to protect the security of the Fund's assets before entering into any stock lending arrangements.

Custody

The risk of losing economic rights to the Fund's assets is managed by the use of a global custodian for custody of the assets, regular scrutiny of the Fund's providers, and the maintenance of independent investment accounting records.

LGPS Central Pool

Derbyshire Pension Fund is part of the LGPS Central Pool (the Pool) with the LGPS funds of Cheshire, Leicestershire, Nottinghamshire, Shropshire, Staffordshire, West Midlands, the West Midlands Integrated Transport Authority and Worcestershire. The Pool has been established in accordance with Government requirements for the pooling of LGPS investment assets. Collective investment management offers the potential for substantial savings in investment management fees, increased opportunities for investor engagement and access to a shared pool of knowledge and expertise.

The eight administering authorities of the pension funds within the LGPS Central Pool are equal shareholders in LGPS Central Limited. LGPS Central Limited (the Company) has been established to manage investments on behalf of the Pool, and received authorization from the Financial Conduct Authority in January 2018. The Company launched its first sub-funds within an Authorised Contractual Scheme collective investment vehicle in April 2018. The Fund entered into a discretionary management agreement with the Company in respect of the investment management of the Fund's UK Equity portfolio in April 2018. The

transition of the Fund's remaining assets into products offered by the Company is likely to take several years. Responsibility for determining the Strategic Asset Allocation Benchmark and the tactical quarterly asset allocation positions remains with the Fund.

Robust governance arrangements have been established both within the Company and within the wider Pool to ensure that the Company operates effectively and meets the objectives of the pension funds within the LGPS Central Pool.

A Joint Committee, set up in accordance with provisions of the Local Government Act 1972, provides oversight of the delivery of the objectives of the Pool, the delivery of client service, the delivery against the LGPS Central Pool business case and deals with common investor issues.

A Shareholders' Forum, comprising one elected Member from each of the participating administering authorities, oversees the operation and performance of LGPS Central Limited and represents the ownership rights and interests of the shareholding councils within the LGPS Central Pool.

To support the Joint Committee and the Shareholders' Forum, a Practitioners' Advisory Forum has been created, consisting of Officers from each of the shareholding councils within the Pool. This forum provides day-to-day oversight of the Operator, scrutinizing the delivery of products, investment performance and investment costs, monitoring customer service and the delivery of wider investor services, such as voting and responsible investment.

Responsible Investment

Responsible investment is an approach to investment that aims to incorporate environmental, social and governance (ESG) factors into investment decisions, to better manage risk and generate sustainable, long term returns.²

The Committee believes that responsible investment covers both incorporating ESG factors into the investment process and Fund stewardship and governance through considered voting and engagement with investee companies.

Effective management of financially material ESG risks should support the requirement to protect investment returns over the long term. The Fund's investment team seek to understand relevant ESG factors alongside conventional financial considerations within the investment process, and the Fund's external investment managers are expected to do the

² UN Principles for Responsible Investing
Investment Strategy Statement Approved
XX September 2018

same. Non-financial factors may be considered to the extent that they are not detrimental to the investment return.

The Committee recognizes its responsibility to act in the best interest of the Fund's employers and scheme members, whilst seeking to protect local tax payers and employers from unsustainable pension costs.

A strategy of engagement with companies to influence behaviour and enhance value, rather than negative screening to exclude stocks from the portfolio on ESG/ethical grounds, is more compatible with the administering authority's fiduciary duties and supports responsible investment.

It is recognized that risks and opportunities related to climate change could be experienced across the whole of the Fund's investment portfolio and that the current understanding of the potential risks posed by climate change and the development of consistent climate related disclosures are still at an early stage. It also recognised that it will take time for companies to adapt to changing regulatory and market positions. The incorporation of ESG factors into the investment process and Fund stewardship and governance activities will seek to manage the risks associated with climate change.

Membership of the Local Authority Pension Fund Forum (LAPFF) helps Derbyshire Pension Fund to engage with companies to understand relevant issues and to promote best practice. LAPFF was set up in 1991 and is a voluntary association of 77 Local Authority pension funds based in the UK with combined assets of over £230bn. It exists to promote the investment interests of local authority pension funds, and to maximise their influence as shareholders to promote high standards of corporate governance and corporate responsibility amongst the companies in which they invest.

Collective pressure from investors via organisations such as the LAPFF has helped to encourage listed companies to enhance their corporate governance and to improve their environmental and social impacts. The Fund attaches great importance to the exercise of voting rights and currently casts votes in respect of its directly held equity investments in the United Kingdom and North America.

The Committee has appointed Institutional Shareholder Services, a third party voting agency to provide voting services for its directly held UK equity investments. Voting is carried out in line recommendations from Institutional Shareholder Services, whose voting principles cover four key tenets on accountability, stewardship, independence and transparency. The Fund also periodically receives voting alerts from the LAPFF on certain resolutions. If the voting alert from the LAPFF conflicts with the voting service recommendation, due consideration is given to all the arguments before the vote is cast. A report to review the Fund's voting activity is taken to the Committee on a quarterly basis.

The Fund has appointed Wellington Management (Wellington) in a discretionary capacity to manage its directly held North American investments, including voting in line with local practice. Wellington have policies and procedures to ensure that they collect and analyse all relevant information for each meeting, applying their proxy voting guidelines accurately and executing votes in a timely manner.

The Fund is a Tier 1 signatory to the Financial Reporting Council's UK Stewardship Code (the Fund's statement of compliance with the Code can be found on Derbyshire County Council's website: <https://www.derbyshire.gov.uk/site-elements/documents/pdf/working-for-us/pensions/investments/investment-strategy/financial-reporting-council-stewardship-code-statement-2017.pdf>). The Code aims to enhance the quality of engagement management between investors and companies to help improve long-term risk-adjusted returns to shareholders. The Fund expects its external investment managers to support the UK Stewardship Code.

Following the launch of the LGPS Central Pool, an increasing portion of the Fund's investments will be transitioned into products managed by LGPS Central Limited. The Company has developed a Responsible Investment & Engagement Framework (the Framework) incorporating the Responsible Investment beliefs of the Pension Funds within the LGPS Central Pool which will be applied to both internally and externally managed investment mandates. The Framework contains the following beliefs:

- Long-termism: A long-term approach to investment will deliver better returns and the long-term nature of LGPS liabilities allows for a long-term investment horizon.
- Responsible Investment: Responsible Investment is supportive of risk adjusted returns over the long-term, across all asset classes. Responsible investment should be integrated into the investment process of the Company and its investment managers.
- Diversification, risk management and stewardship: Diversification across investments with low correlation improves the risk return profile. A strategy of engagement, rather than exclusion, is more compatible with fiduciary duty and more supportive of responsible investment, because the opportunity to influence companies through stewardship is waived in a divestment approach. Even well-diversified portfolios face systematic risk. Systematic risk can be mitigated over the long-term through widespread stewardship and industry participation.
- Corporate governance and cognitive diversity: Investee companies and asset managers with robust governance structures should be better positioned to handle the effects of shocks and stresses of future events. There is clear evidence showing

that decision-making and performance are improved when company boards and investment teams are composed of cognitively diverse individuals.

- Fees and remuneration: The management fees of investment managers and the remuneration policies of investee companies are of significance for the Company's clients, particularly in a low-return environment. Fees and remuneration should be aligned with the long-term interests of our clients, and value for money is more important than the simple minimisation of costs.
- Risk and opportunity: Risk premia exist for certain investments; taking advantage of these can help to improve returns. There is risk, but also opportunity in holding companies that have weak governance of financially material ESG issues. Opportunities can be captured so long as they are aligned to the Company's objectives and strategy, and so long as there is a sufficient evidence base upon which to make an investment decision.
- Climate change: Financial markets could be materially impacted by climate change and by the response of climate policy-makers. Responsible investors should proactively manage this risk factor through stewardship activities, using partnerships of like-minded investors where feasible.

Review of the Investment Strategy Statement

PREPARED FOR:

Derbyshire Pension Fund

SEPTEMBER 2018

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Review of the Investment Strategy Statement for Derbyshire Pension Fund

This report has been prepared by Anthony Fletcher, the “External Investment Adviser” of the Derbyshire Pension Fund (the Fund). The review was undertaken at the request of Derbyshire County Council as the Administering Authority for the Derbyshire Pension Fund.

The Fund is required by regulation to have an Investment Strategy Statement (ISS) in place, and to review it following any material change in the factors which are judged to have a bearing on the stated investment policy and at least every three years as required by the Regulations.

The Fund’s ISS has been drawn up to be in compliance with Regulation 7 of the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016 (“the Regulations”), as updated by the Department for Communities and Local Government in July 2017. It has been prepared following consultation with such persons as Derbyshire County Council considered appropriate.

Anthony Fletcher’s role is to provide an independent review the ISS and to make recommendations for changes that should be considered in light of the regulations and the objectives of the Fund.

Meeting date 11th September 2018

Date of paper 3rd September 2018

The At the request of Derbyshire County Council as the Administering Authority for the Derbyshire Pension Fund, I have carried out a review of the ISS, and to the best of my knowledge, I have found it to be consistent with the objectives of the Derbyshire Pension Fund and compliant with the regulations as set out in Regulation 7 of the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2017.

Statutory background

Regulation 7(1) requires an administering authority to formulate an investment strategy which must be in accordance with guidance issued by the Secretary of State.

The Investment Strategy Statement required by Regulation 7 must include:-

- a) A requirement to invest money in a wide variety of investments;
- b) The authority's assessment of the suitability of particular investments and types of investments;
- c) The authority's approach to risk, including the ways in which risks are to be measured and managed;
- d) The authority's approach to pooling investments, including the use of collective investment vehicles and shared services;
- e) The authority's policy on how social, environmental or corporate governance considerations are taken into account in the selection, non-selection, retention and realisation of investments; and
- f) The authority's policy on the exercise of rights (including voting rights) attaching to investments.

The Investment Strategy Statement must also set out the maximum percentage of the total value of all investments of fund money that it will invest in particular investments or classes of investment. This, in effect, replaces Schedule 1 to the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2009 ("the 2009 Regulations").

Under Regulation 7(6) and (7), the statements must be published by 1st April 2017 and then kept under review and revised from time to time and at least every three years.

Under transitional arrangements, key elements of the 2009 Regulations relating to investment policies will continue in force until such time that the Investment Strategy Statement under Regulation 7 is published.

Further to my statement above, I note that the Fund's Investment Strategy Statement addresses all the requirements set out above.

Investment Background

Since the beginning of the current year, the Fund's in-house Investment Team, and myself, have been reviewing the current Strategic Asset Allocation Benchmark of the Fund. The review has been conducted in the light of the excellent performance achieved from both Equity and Bond markets over recent years, and the recognition that the high levels of return achieved by most asset classes over this period, are unlikely to continue in the medium term. The objectives of the review are as follows:

- Assess whether the current Strategic Asset Allocation Benchmark, and thereby the Investment Strategy Statement, are suitable for the medium to long term future;
- Assess whether the Fund investment assets are sufficiently diversified;
- Take account of how markets are developing;
- To consider whether the Fund is taking advantage of the opportunities available; and
- To have a clear understanding of what the Fund requires from the LGPS Central Pool.

As a result of the review, it appears prudent to take some profits on the Fund's Growth Assets, and rebalance the Strategic Asset Allocation Benchmark towards Income Assets and to also incorporate the developing trends in growth from emerging markets and the focus on sustainable investment, as well as the future requirements of the Derbyshire Pension Fund.

The problem with moving from Growth Assets to Income Assets is that government bonds, the traditional source of income, have become very low yielding, long in duration and expensive. This is just as the long-term trend of falling interest rates and yields may have come to an end. As well as providing a fixed income, bonds also have interest rate sensitivity. Long duration, or high interest rate sensitivity, is not a good attribute in a low yielding or potentially rising interest rate environment because of the impact it has on the capital value of bonds.

It may therefore be prudent to seek other sources of income or contractual cash flows, with higher yields and lower interest rate sensitivity, where the income comes from a different source than government bond markets. These can be found by investing in alternative strategies such as Multi-Asset Credit, Private Debt and Infrastructure.

When analysing the future developments in Growth Assets, a number of issues have become clear; the Fund is probably too overweight in UK equity, and too underweight emerging equity, compared to the global distribution of the sources of economic growth. Whilst a high weight to UK equity can be justified because it is the "home market", the Fund's liabilities are in the UK and more than 50% of the earnings of companies listed on the London stock market are derived from outside the UK, the UK equity market has a high concentration to certain companies and a high weight in the Energy and Financial sectors and low weight to Technology, compared to the global economy.

Also while the Fund, its investment managers and the LGPS Central Pool has a high degree of focus on Environmental, Social and Governance issues (ESG), it has no dedicated allocation to exploit the growing trend in sustainability investing.

Changes

The asset allocation categories have been changed to better reflect the function they perform in the Fund. Total Equity including Private Equity has been reclassified as “Growth Assets” and the total weight has been reduced by 5% from 62% to 57%. Multi-Asset Credit (MAC) and Infrastructure, have been reclassified, along with Property, as “Income Assets”, with a total fund weight of 23%. Finally Bonds have been reclassified as “Protection Assets” with no significant changes in distribution between Government and Corporate bonds, but with the inclusion of Cash within this category.

Growth Assets 57%: This now consists of listed and publically quoted equity 53%, reduced by 5%; and Private Equity, unchanged at 4%. Within the allocation to Growth Assets, the allocation to UK equity has been reduced from 25% to 16% and Europe ex-UK from 9% to 8%; 5% has been redeployed within Growth Assets; emerging market equity has been increased by 2% from 3% to 5%, to better reflect the contribution emerging markets make to global growth, and the balance of 3% has been deployed to a “Global Sustainable Equity Fund” to reflect the development of this diversified style of investment. These changes have been made to further diversify the equity portfolio and to better reflect the sources of global growth and trends developing in markets.

Income Assets 23%: This category consists of Property (9%, unchanged), MAC and Infrastructure. The 5% reduction in Growth Assets noted above has been deployed to Income Assets, split between MAC (6%) and Infrastructure (8%), an increase of 2% and 3%, respectively, because these asset classes should generate higher income than government and investment grade bonds and because of their diversification characteristics.

Protection Assets 20%: Consists of Conventional Government bonds 6%, increased by 0.5%; Inflation Linked Government bonds, decreased by 0.5%; Investment grade non-government bonds, unchanged at 6%; and Cash, unchanged at 2%.

Strategic Asset Allocation, Permitted Ranges and Performance Benchmarks

The revised Strategic Asset Allocation, Performance Benchmarks and Permitted Ranges for tactical asset allocation are set out in table 1 below.

The Fund’s liabilities are exclusively denominated in UK pounds. It is therefore prudent to have a significant exposure to investment assets that are denominated in UK pounds and benchmarked in the UK. However, it is also reasonable for reasons of diversification of risk and return to have exposure to assets which are denominated in other currencies, located in other geographic regions and in sectors that may not be available in the UK. I therefore support the Fund’s Strategic Asset Allocation to a wide range of asset classes, geographies and sectors.

Over the last 10 years, all equity markets have produced strong relative returns, but it is expected that over the next 10 to 15 years, the returns from developed equity markets, in particular, may be lower and the volatility of those returns higher. Reducing risk by having a lower total weight, together with further diversification within equity, as well as a higher allocation to Income Assets rather than Growth Assets, is a reasonable approach.

Over the last 30 years, bonds have produced high levels of total return as interest rates and inflation have fallen. As a result, nominal and real government bond yields have fallen to very low levels. While bonds provide excellent diversification characteristics and predictable cash flows, from a strategic point of view, I believe it is appropriate maintain the current low weight to government bonds.

An increase in exposure to assets that accrue more of their return from income rather than growth (e.g. Multi-Asset Credit), also reduces interest rate risk, potentially enhancing the level of yield and uncorrelated total returns achieved.

I also endorse the recommendation to increase the exposure to Infrastructure. This is an asset class which also derives more of its total return from income rather than growth. Infrastructure investment can provide diversification benefits to traditional asset classes, the cash flows generated by infrastructure are contractual, long term and often inflation linked making them consistent with the long term objectives of a Pension Fund.

Table 1. Strategic Asset Allocation, Permitted Ranges and Performance Benchmarks.

Asset Category	Asset Allocation	Permitted Range	Performance Benchmark
Growth Assets	57.0%	+/- 8%	
Total Equities	53.0%	+/- 8%	
UK Equities	16.0%	+/- 4%	FTSE All Share
-Overseas Equities	37.0%	+/- 6%	
-North America	12.0%	+/- 4%	FTSE World North America
-Europe	8.0%	+/- 3%	FTSE AW Developed Europe Ex-UK Net
-Japan	5.0%	+/- 2%	FTSE World Japan
-Pacific ex-Japan	4.0%	+/- 2%	FTSE All World Asia-Pacific ex Japan
-Emerging Markets	5.0%	+/- 2%	FTSE Emerging Markets
-Global Sustainable	3.0%	+/- 2%	FTSE All World
Private Equity	4.0%	+/- 2%	FTSE All Share + 1%
Income Assets	23.0%	+/- 6%	
Property	9.0%	+/- 3%	IPD UK Quarterly Property Index
Infrastructure	8.0%	+/- 3%	LIBOR 3m + 2%
Multi-Asset Credit	6.0%	+/- 2%	LIBOR 3m + 3%
Protection Assets	20.0%	+/- 5%	
Government Bonds	6.0%	+/- 2%	FTSE UK Government Fixed All Stocks
Inflation Linked Bonds	6.0%	+/- 2%	FTSE UK Index-Linked All Stocks
Non-Government Bonds	6.0%	+/- 2%	BAML Sterling Corporate Bonds
Cash	2.0%	0 - 8%	Sterling 7 Day LIBID
Total	100.0%		

I have reviewed the asset categories, % allocation, permitted ranges and performance benchmarks in the table above and find them both prudent and reasonable from the point of view of the Fund's objectives and my understanding of the regulations.

Anthony Fletcher

External Investment Adviser

3rd September 2018

Appendix

References

Source material was provided by, including but not limited to, the following suppliers:-

Derbyshire Pension Fund.

Department for Communities and Local Government: -

Local Government Pension Scheme

Guidance on Preparing and Maintaining an Investment Strategy Statement

July 2017.

Hymans Robertson:-

Derbyshire Pension Fund

Review of investment strategy 31st July 2018.



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