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PUBLIC

To: Members of Pensions and Investments Committee

Tuesday, 25 February 2020

Dear Councillor,

Please attend a meeting of the **Pensions and Investments Committee** to be held at **10.00 am** on **Wednesday, 4 March 2020** in Council Chamber, County Hall, Matlock, DE4 3AG, the agenda for which is set out below.

Yours faithfully,

Simon Hobbs
Director of Legal and Democratic Services

A G E N D A

PART I - NON-EXEMPT ITEMS

1. To receive apologies for absence (if any)
2. To receive declarations of interest (if any)
3. Variation in order of business
4. To confirm the non-exempt Minutes of the meeting held on 22 January 2020 (Pages 1 - 8)

5 (a) Climate-Related Disclosures Report (Pages 9 - 38)

5 (b) Investment Report (Pages 39 - 118)

5 (c) Stewardship Report (Pages 119 - 164)

5 (d) Funding Strategy Statement Consultation (Pages 165 - 218)

5 (e) Treasury Management Strategy Report (Pages 219 - 232)

6. Exclusion of the Public

To move "That under Regulation 21 (1)(b) of the Local Authorities (Executive Arrangements) (Access to Information) (England) Regulations 2000, the public be excluded from the meeting for the following items of business on the grounds that they involve the likely disclosure of exempt information as defined in Paragraph(s)… of Part 1 of Schedule 12A to the Local Government Act 1972"

PART II - EXEMPT ITEMS

6 (a) To receive declarations of interest (if any)

7. To confirm the exempt Minutes of the meeting held on 22 January 2020 (Pages 233 - 236)

8 (a) Climate Risk Report (Pages 237 - 316)

8 (b) Stage 2 Appeal under the LGPS Application for Adjudication Disagreement Procedure (Pages 317 - 328)

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MINUTES of a meeting of the **PENSIONS AND INVESTMENT COMMITTEE** held at County Hall, Matlock on 22 January 2020

PRESENT

Councillor N Atkin (in the Chair)

Derbyshire County Council

Councillors T Ainsworth (substitute Member), R Ashton, R Flatley (substitute Member), S Marshall-Clarke, M Wall (substitute Member) and G Wharmby (substitute Member)

Derby City Council

Councillors M Carr and L Eldret

Derbyshire County Unison

Mr M Wilson

Also in attendance – N Dowey, D Kinley, K Riley and N Smith.

R Graham, O Fishburn and N Read (Pension Board members)

Apologies for absence were received on behalf of Councillors J Boult, P Makin, R Mihaly, J Perkins and B Ridgway.

1/20 **MINUTES** **RESOLVED** that the minutes of the meeting held on 11 December 2019 be confirmed as a correct record and signed by the Chairman.

2/20 **GOVERNANCE IN THE LOCAL GOVERNMENT PENSION SCHEME** Members were informed of recent reports on governance in the Local Government Pension Scheme (LGPS) from the LGPS Scheme Advisory Board (SAB) and The Pensions Regulator, and to note the intention of officers to work with Derbyshire Pension Board to develop the governance arrangements of the Pension Fund.

In February 2019, the SAB appointed Hymans Robertson (Hymans) to examine the effectiveness of LGPS governance models and to consider alternatives or enhancements to existing models which could strengthen LGPS governance arrangements. Hymans were particularly asked to look at potential conflicts of interest between the pension function of administering authorities and their host local authority. They engaged extensively with stakeholders and considered four governance models. The key findings from the resulting Good Governance Report were presented.

In August 2019, the SAB appointed Hymans to assist two working groups in the next phase of the good governance project. These were Standards and Outcomes Workstream, and Compliance and Improvement Workstream. The Phase II Report which contained the proposals of both workstreams was published in November 2019 and was attached at Appendix 1 to the report. It was envisaged that all the proposals made in the report would be enacted via the introduction of new statutory governance guidance (the Guidance) issued on behalf of MHCLG. The main proposals were highlighted.

The SAB subsequently agreed, that's its Secretariat, in conjunction with the project team at Hymans and scheme stakeholders, should proceed to develop Phase III of the project, including developing drafting statutory guidance on governance compliance statements and establishing a set of key performance indicators. Final proposals for Phase III of the project were due to be considered by the SAB in early February 2020.

The recent SAB and TPR governance reports would be taken into consideration in the Derbyshire Pension's Fund's ongoing review of its governance arrangements. In particular, the reports would help to inform the Fund's review of its policies and procedures and assist with the identification of areas where Fund specific policies should be developed. Officers would work with Derbyshire Pension Board to develop the governance arrangements of the Fund to comply with the new statutory governance guidance as it is developed and to emulate best practice.

RESOLVED to (1) note the recent LGPS governance reports from SAB and TPR; and

(2) note the intention of officers to work with Derbyshire Pension Fund to develop the governance arrangements of the Fund.

3/20 **QUARTERLY PENSION ADMINISTRATION PERFORMANCE REPORT 1 OCTOBER 2019 TO 31 DECEMBER 2019** A report from the Director of Finance & ICT was presented on performance levels achieved by the pensions administration team of Derbyshire Pension Fund and other activity undertaken in the third quarter of 2019-20 (Q3).

The statutory timescales against which performance was currently measured were set by The Occupational Pension Schemes Regulations 1996. Table 2 in the report captured performance against these targets in Q3 of 2019-20. The number of case types being measured has been reduced for a temporary period as the Team redevelops its reporting capability on the new system. As part of this redevelopment, the performance targets used will be reviewed as the efficiencies of the new pension administration system began to be realised. The process for recording workflows on the new system is also subject to ongoing development.

Six new academies had joined the Fund as scheme employers during Q3, but no new admission bodies had joined during this period. The number of employers now participating in the Fund has reached 317.

A successful event had been held for employers at Cromford Mills on 25 November 2019 covering the areas of ill-health retirement and dealing with appeals. Induction training had been held at County Hall on 6 November 2019 for new and substitute members of the Pensions and Investment Committee and new members of the Pension Board.

The Fund is dependent upon the receipt of prompt and accurate data from its employers to enable accurate record keeping, funding decisions and benefit calculations. The I-Connect solution will standardise, automate and validate the data received from employers each month, and uploaded it into Altair much more efficiently than by current methods. This will enable contribution reconciliation to take place monthly, thereby relieving the pressure at year-end. The implementation project is underway and a number of employers are working with the Project Team as early adopters of this new functionality.

A specific project is also underway to reduce and ultimately eliminate the remaining backlog areas of ‘Aggregations’ and ‘Deferreds’. Resource had been allocated, and monitoring and reporting methods were being developed. In the key area of ‘aggregations’, reporting had been able to identify that the backlog had reduced by 532 cases during Q3, from 2,861 to 2,329. It was expected that this rate of reduction would be maintained during Q4. The current backlog of ‘deferred benefit’ cases was 2,282.

A dedicated Project Team had been created to oversee the migration of the Fund’s records from the UPM system to Altair. The project had now been successfully completed with all processes and calculations working well and staff initiation training taken on board. The Project Team would now focus on I-Connect and the Altair system support work would become ‘business as usual’.

Members enquired if the Team undertook any benchmarking, particularly with our neighbouring authorities. It was reported that once the Altair system had bedded down then benchmarking exercises could be undertaken and this would be in line with Cipfa recommendations.

RESOLVED to note the workloads and performance levels outlined in the report.

4/20 **DERBYSHIRE PENSION FUND COMPLAINTS POLICY** The Derbyshire Pension Fund Complaints Policy (the Policy) had been developed to prove assurance to members of the Pension Fund that all complaints would be considered properly and in a consistent manner. The Policy would also ensure that complaints were recorded consistently and that the Fund's effectiveness in dealing with complaints was monitored, with member feedback supporting the continued improvement of services.

The Altair pension administration system, implemented in 2019, provides the functionality to record, escalate and monitor the progress of complaints within Fund members' individual records. This functionality would enable the Pension Fund to implement the procedures set out in the Policy. The implementation of the Policy was expected to result in fewer Applications for the Adjudication of Disagreements Procedure cases.

A summary of the complaints received by the Fund will be reported to the Pensions and Investment Committee within the quarterly Pensions Administration Performance Reports.

RESOLVED to approve the draft Derbyshire Pension Fund Complaints Policy attached at Appendix 1 to the report.

5/20 **DERBYSHIRE PENSION FUND PENSION ADMINISTRATION STRATEGY** Derbyshire Pension Fund (the Fund) maintains a Pension Administration Strategy (PAS) in line with Regulation 59 of the LGPS Regulations 2013, which is reviewed and revised annually. The PAS is circulated to all employers and published on the Fund's website. It sets out the roles and the service standards to be achieved by the Fund, and by the Fund's participating employers, to enable the efficient administration of Fund members' records. It also includes details of how administrative underperformance by employers will be monitored and managed.

The last review of the PAS was undertaken and approved by the Committee in July 2019. Subsequently, the arrangements for the management of employer underperformance had been reviewed, taking into consideration the Fund's practical experience of implementing charges for employer underperformance. The 2020 review had been undertaken promptly to ensure that the proposed revisions to the process for charging for underperformance, and to the level of charges, were documented, implemented and communicated to employers as soon as possible.

RESOLVED to approve the draft Derbyshire Pension Fund Pension Administration Strategy 2020 attached at Appendix 1 to the report.

6/20 **DERBYSHIRE PENSION FUND RISK REGISTER** The Risk Register was kept under constant review by the risk owners, with quarterly review by the Director of Finance & ICT. A copy of both the Summary and Main Risk Registers were presented. Changes from the previous quarter were highlighted. The Risk Register had the following four High Risk items:-

(1) Fluctuations in assets and liabilities (Risk No.15)
(2) LGPS Central related underperformance of investment returns (Risk No.25)
(3) Impact of McCloud judgement on funding (Risk No.32)
(4) Impact of McCloud judgement on administration (Risk No.40)

There was an inevitable risk for any pension fund that assets may be insufficient to meet liabilities and funding levels fluctuate from one valuation to the next, principally reflecting external risks around both market returns and the discount rate used to value the Fund's liabilities. Every three years, the Fund undertook an actuarial valuation which was a planning exercise for the Fund to determine the expected cost of providing the benefits built up by members at the valuation date in today's terms (the liabilities) compared to the funds held by the Pension Fund (the assets), and to determine employer contribution rates.

As part of the valuation exercise, the Pension Fund's Funding Strategy Statement (FSS) was reviewed, to ensure that an appropriate funding strategy was in place. The FSS set out the funding policies adopted, the actuarial assumptions used and the time horizons considered for each category of employer. The Fund's draft 2020 FSS was currently subject to consultation with the Fund's stakeholders.

The Fund was 87% funded at 31 March 2016. There had been an improvement in the funding level of the Fund to 97% at March 2019, with a reduction in the deficit from £564m to £163m.

The forthcoming review of the Fund's long term investment strategy would take into account the results of the actuarial valuation as well as the information contained in the Fund's Climate Risk Report.

LGPSC was a relatively new company which had launched its first investment products in April 2018. There was a risk that the investment returns delivered by the company would not meet the investment return targets against the specified benchmarks. The Fund continued to take a meaningful role in the development of LGPSC, and had input into the design and development of the company's product offering to ensure that it would allow the Fund to implement its investment strategy. The company's manager selection process was scrutinised by the Partner Funds and the Fund would initially continue to carry out its own due diligence on selected managers as confidence was built in the company's manager selection skills. The performance of LGPSC investment vehicles was monitored and reviewed jointly by the Partner Funds under the Investment Working Group (a sub-group of the Partner Funds' Practitioners' Advisory Forum) and by the Pool's Joint Committee.

Following the judgement in the McCloud case, and confirmation that remedies relating to that judgement would need to be made to all public service schemes, LGPS benefits accrued from 2014 may need to be enhanced so that all members, regardless of age, would benefit from the 'underpin', or restitution could be achieved in a different way, for example by paying compensation.

The Local Government Scheme Advisory Board announced, on 15 November 2019, that the remedy for the LGPS, was likely to involve the extension of some form of underpin to members in scope who were not currently offered protection. Therefore, a full history of part time hour changes and service break information from 1 April 2014 would be needed in order to recreate final salary service. It was also likely that, in order to ensure reverse discrimination did not occur, all leavers since 2014 would need to be checked against a new underpin.

The SAB has had discussions with the Government Actuary's Department (GAD) around the mechanics of how a remedy might work in the LGPS including the range of potential issues (both retrospective and ongoing) which could arise from the application of some form of underpin to a wider membership. A remedy was not expected to be implemented before the end of financial year 2020-21.

GAD had estimated that the impact for the LGPS as a whole could be to increase active member liabilities by 3.2%, based on a given set of actuarial assumptions. The Fund's actuary had adjusted GAD's estimate to better reflect Derbyshire Pension Fund's local assumptions. The revised estimate as it applied to the Fund was that total liabilities (i.e. the increase in active members' liabilities expressed in terms of the employer's total membership) could be around 0.4% higher as at 31 March 2019, an increase of approximately £26.7m.

The uncertainty caused by the McCloud judgement was reflected on the Risk Register under two separate risks for clarity, one under Funding & Investments and one under Administration, although the two risks were closely linked.

The funding risk related to the risk of there being insufficient assets within the Fund to meet the increased liabilities. In line with advice issued by the SAB, the Fund's 2019 actuarial calculations had been based on the current benefit structure, with no allowance made for the possible outcome of the cost cap mechanism or McCloud. However, an extra level of prudence had been introduced into the setting of employer contribution rates to allow for the potential impact of the McCloud case. This had been clearly communicated to the Fund's employers in the valuation letters.

In the short term, the impact of the uncertainty caused by the McCloud case was greatest for exit payments and credits as at a cessation event, the cost of benefits was crystallised. The draft 2020 Funding Strategy Statement included an allowance for a 1% uplift in a ceasing employer's total cessation liability for cessation valuations that were carried out before any changes to the LGPS benefit structure were confirmed.

The administration risk related to the enormous challenge that would be faced by administering authorities and employers in backdating scheme changes over such a significant period. Whilst the Fund already required employers to submit information about changes in part-time hours and service breaks, the McCloud remedy may generate additional queries about changes since 1 April 2014; employers had, therefore, been asked to retain all relevant employee records. The Fund would continue to keep up to date with news related to this issue from the Scheme Advisory Board, the Local Government Association, the Government Actuary's Department and the Fund's actuary.

No new items had been added to the Risk Register and no items had been removed from the Risk Register. It was suggested that a comment on trends in the Risk Register would be a helpful addition.

RESOLVED to note the risk items identified in the Risk Register.

7/20 **INDEPENDENT INVESTMENT ADVISER OBJECTIVES** On 10 June 2019, the Competition and Markets Authority had published the Investment Consultancy and Fiduciary Management Market Investigation Order. The Order set out the mandatory guidelines for Pension Scheme Trustees in respect of the procurement and monitoring of Fiduciary Management Services.

The Order potentially had consequences for the LGPS Pools, but on 29 July 2019 the Department for Work and Pensions published a consultation entitled Trustee Oversight of Investment Consultants and Fiduciary Managers which sought to clarify that the Order did not apply to the LGPS with the exception of Remedy 7: Requirement to set strategic objectives for providers of investment consultancy. As a result of the Order, the Pension Fund was now required to set strategic objectives for its Independent Investment Adviser, Mr Fletcher of MJ Hudson Allenbridge, which in turn should be linked to the objectives of the Pension Fund. The proposed strategic objectives for the Pension Fund's Independent Investment Adviser were set out in Appendix 1 to the report. The proposed strategic objectives had been agreed with Mr Fletcher and were in line with the agreed Consultancy Agreement between the Pension Fund and the Independent Investment Adviser.

RESOLVED that the proposed strategic objectives set out in the report for the Pension Fund's Independent Investment Adviser be approved.

8/20 **ADMISSION, CESSATION AND BULK TRANSFER POLICY** The draft Admission, Cessation and Bulk Transfer Policy (the Policy) sets out the Fund's approach to the risks involved in the admission of new employers to the

Pension Fund and how it deals with possible bulk transfers and employers ceasing their participation in the Fund. The purpose of this Policy is to ensure that only appropriate bodies are admitted to the Fund and that the financial risk to the Fund and other employers in the Fund is identified, minimised and managed accordingly.

The Policy interacts with the Pension Fund's Funding Strategy Statement (FSS). The draft Policy has been prepared in liaison with the Fund's actuary, Hyman Robertson LLP.

RESOLVED to approve the draft Derbyshire Pension Fund Admission, Cessation and Bulk Transfer Policy attached at Appendix 1 to the report.

9/20 **EXCLUSION OF THE PUBLIC** **RESOLVED** that the public be excluded from the meeting during the Committee's consideration of the remaining items on the agenda to avoid the disclosure of the kind of information detailed in the following summary of proceedings:-

SUMMARY OF PROCEEDINGS CONDUCTED AFTER THE PUBLIC HAD BEEN EXCLUDED FROM THE MEETING

1. To consider the exempt report of the Director of Finance and ICT on Investment in Infrastructure (contains information relating to the financial or business affairs of any particular person (including the Authority holding that information))

Agenda Item No. 5 (a)

DERBYSHIRE COUNTY COUNCIL

PENSIONS AND INVESTMENTS COMMITTEE

4 March 2020

Report of the Director of Finance & ICT

CLIMATE-RELATED DISCLOSURES

1 Purpose of the Report

To present Derbyshire Pension Fund's (the Pension Fund/Fund) Climate-Related Disclosures report, which has been prepared in collaboration with LGPS Central Limited, to the Pensions and Investments Committee.

2 Information and Analysis

A report outlining the Fund's approach to incorporating the implications of climate change into its investment processes was considered by Committee in August 2017.

The report concluded that material climate change risks and opportunities could be experienced across the whole of the Fund's portfolio and that officers would continue to evaluate the risks on a case by case basis as part of the investment process alongside other risk factors, whilst continuing to keep up to date with research on the financial materiality of climate change. It was noted that from April 2018, the Fund, as part of the LGPS Central Pool, would have access to a dedicated Responsible Investment officer increasing the ability of the Fund to participate in collaborative initiatives with respect to climate change.

Since the report was considered by Committee, climate change has continued to move up the political and financial agenda. The urgency of addressing the issue of climate change has increased as the world has experienced a number of extreme weather events and as five of the warmest years on record have been recorded since 2010.

Pension Fund Risks
The overall risk for the Fund is that its assets will be insufficient to meet its liabilities. Underlying the overall risk, the Fund is exposed to demographic

risks, regulatory risks, governance risks, administration risks and financial risks including investment risk.

The Fund categorises the risks it is exposed to under the following headings:

- Governance
- Funding and Investments
- Administration

Within investment risk, the Fund is exposed to the following risks:

- performance
- volatility
- concentration
- liquidity
- macroeconomic
- currency
- transition (risk associated with transitioning from one investment to another)

Climate change risk is not currently separated out from the other investment risks on the Fund's Risk Register or included as a potential risk to the liabilities of the Fund. However, the Fund's approach to managing the risks associated with climate change, via the incorporation of Environmental, Social and Governance (ESG) factors into the investment process and Fund stewardship activities, is included in the Investment Strategy Statement approved by Committee in October 2018.

It is increasingly best practice for pension funds to develop stand-alone climate strategies given the magnitude of the potential climate-related risks and opportunities.

Climate-related Policy/Frameworks

The Bank of England (the BOE), having established that the financial risks from climate change are significant and will manifest through transition risks and physical risks, expects the organisations that it supervises to develop an enhanced approach to managing the financial risks of climate change covering governance, risk management, scenario analysis and disclosure. The BOE recognises that the understanding of this risk is immature but organisations are expected to embed their approach to managing climate-related risk into business-as-usual risk management and, as tools and expertise develop, more granular requirements will be incorporated into BOE policies.

The Taskforce on Climate-related Financial Disclosures (The Task Force/TCFD) was commissioned in 2015 by Mark Carney in his remit as Chair of the Financial Stability Board, in recognition of the risks caused by greenhouse gas emissions to the global economy and the impacts that are likely to be experienced across many economic sectors. The Task Force was asked to develop voluntary, consistent climate-related financial disclosures that would be useful to investors, lenders and insurance underwriters in understanding material climate-related risks.

In 2017, the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies with respect to how climate-related risks and opportunities are being managed. Guidance was also released to support all organisations in developing disclosures consistent with the recommendations, with supplemental guidance released for specific sectors and industries, including asset owners.

The Task Force divided climate-related risks into two major categories: risks related to the **transition** to a lower-carbon economy; and risks related to the **physical** impacts of climate change. The TCFD report noted that climate-related risks and the expected transition to a lower carbon economy affect most economic sectors and industries, however, opportunities will also be created for organisations focused on climate change mitigation and adaptation solutions. The report also highlighted the difficulty in estimating the exact timing and severity of the physical effects of climate change.

The Task Force structured its recommendations around four thematic areas that represent core elements of how organisations operate: **governance; strategy; risk management;** and **metrics and targets**. The four overarching recommendations are supported by recommended disclosures that build out the framework with information that will help investors/stakeholders understand how reporting organisations assess climate related risks and opportunities.

Policy frameworks to guide pension funds in their approach to dealing with the potential risks and opportunties of climate change have also been developed by the Local Authority Pension Fund Forum and by the Pensions and Lifetime Savings Association.

Climate-related Disclosures
In collaboration with LGPSC, the Fund has developed a Climate-Related Disclosures report (the Disclosures report, attached as Appendix 1) which is aligned with the recommendations of the TCFD. It describes the way in which climate-related risks are currently managed by the Fund and includes the results of recent climate scenario analysis and carbon risk metrics analysis undertaken on the Fund’s assets as part of LGPSC’s preparation of a Climate Risk Report for the Pension Fund. The Disclosures report also includes information on the Fund’s governance of climate risk and on the Fund’s climate-related stewardship activities.

The challenges of measuring the potential impact of climate change on investment portfolios are well recognised. The Fund believes that a suite of carbon risk metrics and climate scenario analysis currently provides the most appropriate method of analysing climate risk to provide an evidence base which will support the development of a detailed strategy for integrating climate risk into investment decisions.

Climate Scenario Analysis

Climate scenario analysis carried out at the asset class level estimates the effects of different climate scenarios on key financial parameters (e.g. risk and return) over a selection of time periods. The climate scenario analysis has been carried out on the Fund's current asset allocation and on the asset allocation set out in the Fund's Strategic Asset Allocation Benchmark.

Key findings of the climate scenario analysis are:

- A 2°C scenario would have a positive impact on the Fund's returns considering both a timeline to 2030 and to 2050. This positive impact is boosted under the Strategic Asset Allocation reflecting the 3% allocation to Global Sustainable Equities.
- A 3°C scenario (which is in line with the current greenhouse gas trajectory) has a relatively muted impact on the Fund's annual returns.
- A 4°C scenario would reduce the Fund's annual returns, with most asset classes expected to experience negative returns.

The climate scenario analysis only forecasts the climate related impact on returns, and does not take account of any other factors which may have an impact including economic and market conditions; political and geopolitical events; monetary policy conditions, etc. It is also important to note that the asset allocation required to capture the upside under one scenario, may have a negative impact under an alternative scenario.

Climate stress testing analysis suggests that should a 2°C scenario suddenly be priced in by the market, the Fund could benefit in terms of financial returns, whereas the opposite is true should a 4°C scenario be priced in by the market.

Carbon Risk Metrics

Carbon risk metrics analysis on the Fund's listed equities portfolios considers: portfolio carbon footprint (weighted average); fossil fuel exposure; carbon risk management; and clean technology (portfolio weight in companies whose products and services include clean technology).

Key findings of the carbon risk metrics analysis are:

- The Fund's Total Quoted Equities portfolio is around 18% more carbon efficient than the blended benchmark (the blended benchmark is based on the regional allocations of the portfolio).
- Each regional equity portfolio has a lower carbon footprint that its regional benchmark.
- Each regional equity portfolio has a lower than benchmark weight in companies with fossil fuel reserves and a lower weight in termal coal reserves.
- The Fund's Total Quoted Equities portfolio has around a 9% lower exposure to clean technology than the blended portfolio benchmark.

The measure for clean technology exposure should be treated with some caution as there appears to be a moderate positive correlation in the dataset between sectors that have a high carbon intensity and those that have a higher weight in clean technology.

Next Steps
Officers are currently digesting the Fund's Climate Risk Report (CRR) which will be utilised to support the development of a Climate Strategy and a Climate Stewardship Plan for the Pension Fund.

In addition, high level climate change risk analysis from the Fund's actuary, Hymans Robertson LLP, which considers the potential effect of climate change on the Fund's liabilities as well as on the assets of the Pension Fund, will support the development of the Climate Strategy. Guidance on implementing the TCFD recommendations for asset owners from the TCFD and the Principles for Responsible Investment will also be utilised.

Climate change risk will be added as a separate risk to the Fund's Risk Register. The Fund's climate-related disclosures will develop over time and will be updated after a Climate Strategy and a Climate Stewardship Plan have been developed for the Fund. It is anticipated that climate-related disclosures will be included in the Pension Fund's Annual Report.

3 Other Considerations

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

4 Officer's Recommendation

That Committee notes the Climate-Related Disclosures report attached as Appendix 1.

PETER HANDFORD
Director of Finance & ICT

Derbyshire Pension Fund

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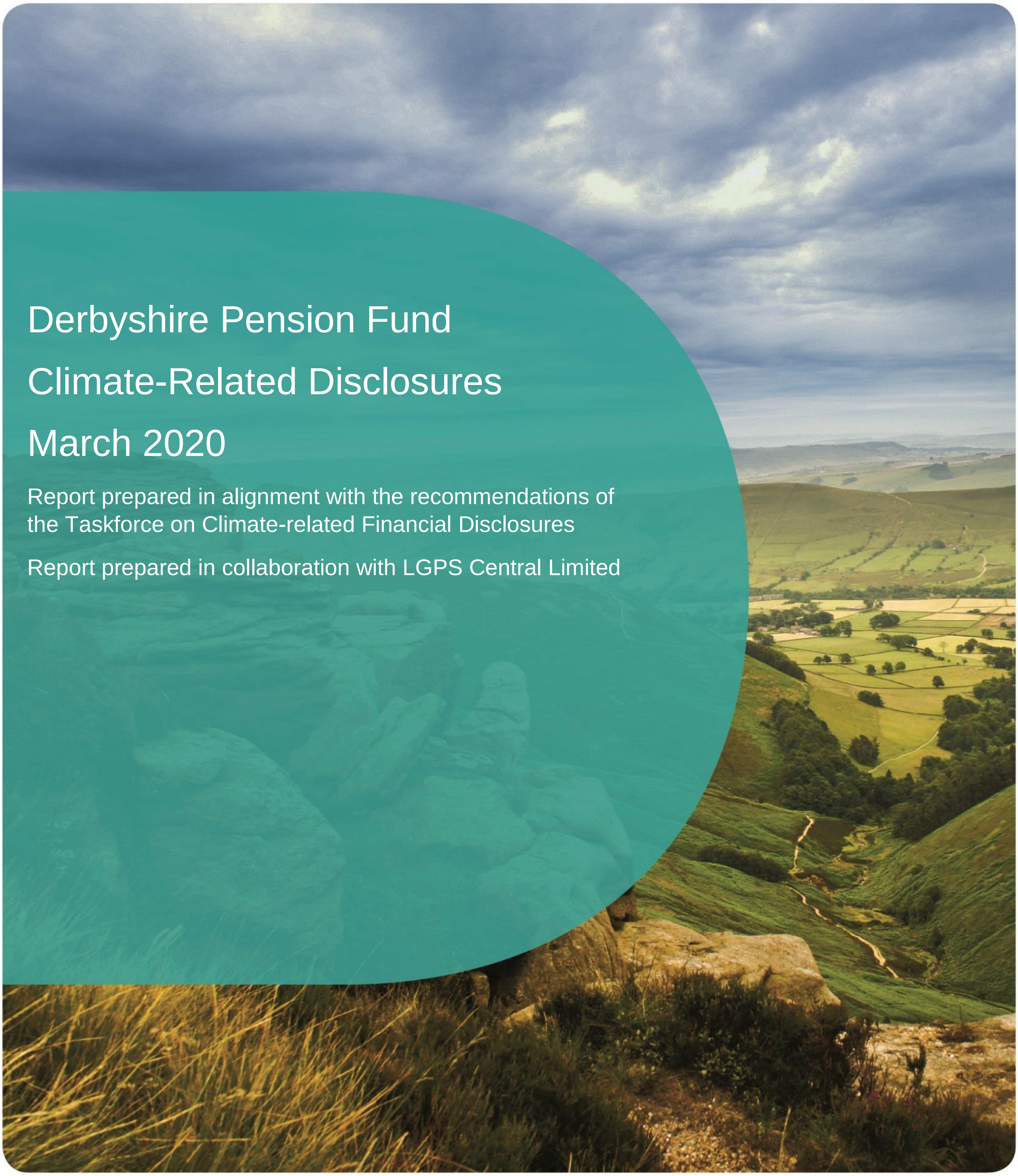


Derbyshire Pension Fund

Climate-Related Disclosures

March 2020

Report prepared in alignment with the recommendations of the Taskforce on Climate-related Financial Disclosures

Report prepared in collaboration with LGPS Central Limited

County Hall, Matlock, Derbyshire, DE4 3AH
Administered by Derbyshire County Council

Glossary of Terms and Abbreviations

Anthropogenic
Anthropogenic in terms of climate change refers to the impact humans have had on climate change, primarily through emissions of greenhouse gases.

Financial Stability Board
The Financial Stability Board is an international body that monitors and makes recommendations about the global financial system. It was established after the G20 London summit in April 2009 as a successor to the Financial Stability Forum.

Greenhouse Gases
Greenhouse gases are gases in the Earth's atmosphere that are capable of absorbing infrared radiation and thereby trap and hold heat in the atmosphere. The main greenhouse gases are: water vapour; carbon dioxide; methane; and nitrous oxide.

Scope 1 Greenhouse Gas Emissions
Scope 1 emissions are direct emissions produced by the activities of the emitter.

Scope 2 Greenhouse Gas Emissions
Scope 2 emissions are indirect emissions generated by the electricity, heat, or steam consumed and purchased by the emitter.

Scope 3 Greenhouse Gas Emissions
Scope 3 emissions are other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities not covered in Scope 2, outsourced activities, waste disposal, etc.

UNFCCC
The UNFCCC secretariat (UN Climate Change) is part of the United Nations and was established in 1992 when countries adopted the United Nations Framework Convention on Climate Change (UNFCCC).

Abbreviations

CO_2	Carbon Dioxide
CH_4	Methane
DPF	Derbyshire Pension Fund
ESG	Environmental, Social & Governance
GHG	Greenhouse Gas
LGIM	Legal & General Investment Management
LGPSC	LGPS Central Limited
NDC	Nationally Determined Contribution
TCFD	Taskforce on Climate-related Financial Disclosures
WEF	World Economic Forum

Introduction to the TCFD

The Taskforce on Climate-related Financial Disclosures (The Task Force/TCFD) was commissioned in 2015 by Mark Carney in his remit as Chair of the Financial Stability Board, in recognition of the risks caused by greenhouse gas emissions to the global economy and the impacts that are likely to be experienced across many economic sectors. The Task Force was asked to develop voluntary, consistent climate-related financial disclosures that would be useful to investors, lenders and insurance underwriters in understanding material climate-related risks.

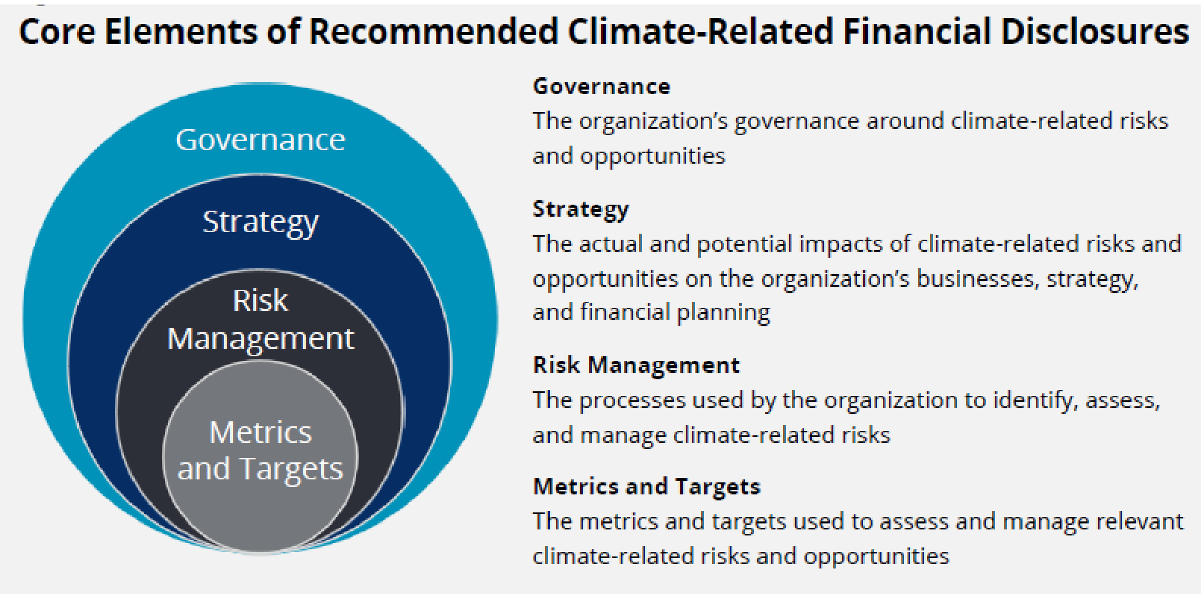
In 2017, the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies with respect to how climate-related risks and opportunities are being managed. Guidance was also released to support all organisations in developing disclosures consistent with the recommendations, with supplemental guidance released for specific sectors and industries, including asset owners.

In his introduction to the final TCFD report, Michael Bloomberg (TCFD Chair) noted: 'it is difficult for investors to know which companies are most at risk from climate change, which are best prepared, and which are taking action. The Task Force's report establishes recommendations for disclosing clear, comparable and consistent information about the risks and opportunities presented by climate change. Their widespread adoption will ensure that the effects of climate change become routinely considered in business and investment decisions. Adoption of these recommendations will also help companies better demonstrate responsibility and foresight in their consideration of climate issues. That will lead to smarter, more efficient allocation of capital, and help smooth the transition to a more sustainable, low carbon economy.'

The Task Force divided climate-related risks into two major categories: risks related to the **transition** to a lower-carbon economy; and risks related to the **physical** impacts of climate change. The TCFD report noted that climate-related risks and the expected transition to a lower carbon economy affect most economic sectors and industries, however, opportunities will also be created for organisations focused on climate change mitigation and adaptation solutions. The report also highlights the difficulty in estimating the exact timing and severity of the physical effects of climate change.

The Task Force structured its recommendations around four thematic areas that represent core elements of how organisations operate: **governance, strategy; risk management;** and **metrics and targets** (see Figure 1).

Figure 1: Core Elements of Recommended Climate-Related Financial Disclosures



The four overarching recommendations are supported by recommended disclosures (see Appendix 1) that build out the framework with information that will help investors/stakeholders understand how reporting organisations assess climate related risks and opportunities. The disclosures are designed to make TCFD-aligned disclosures comparable, but with sufficient flexibility to account for local circumstances. Examples of pension funds that have been early adopters of the TCFD recommendations include: AP2; NEST; PGGM; RPMI Railpen; The Pensions Trust; and Environment Agency Pension Fund.

Derbyshire Pension Fund (the Pension Fund/Fund) supports the TCFD recommendations as the optimal framework to describe and communicate the steps the Fund is taking to manage climate-related risks and incorporate climate risk management into investment processes. The Fund is a long-term investor, diversified across asset classes, regions and sectors. It is in the Fund's interest that the market is able to effectively price climate-related risks and that policy makers are able to address market failure. The TCFD report noted the important role that large asset owners have in influencing the organisations in which they invest to provide better climate-related financial disclosures.

Official supporters of the TCFD total 930 organisations (as at December 2019) representing a market capitalisation of over $11 trillion. Disclosure that aligns with the TCFD recommendations currently represents best practice. The Fund believes TCFD-aligned disclosure from asset owners, asset managers, and corporates, is in the best interest of the Fund's stakeholders.

About this report

This Climate-related Disclosures report, which has been prepared in collaboration with LGPS Central Ltd (LGPSC), describes the way in which climate-related risks are currently managed by the Fund. It includes the results of recent climate scenario analysis and carbon risk metrics analysis undertaken on the Fund's assets as part of LGPSC's preparation of a Climate Risk Report for the Pension Fund.

Climate scenario analysis carried out at the asset class level estimates the effects of different climate scenarios on key financial parameters (e.g. risk and return) over a selection of time periods.

The Task Force recognised that the use of scenarios in assessing climate-related issues and their potential financial implications is relatively recent and that practices will evolve over time, but believed that such analysis is important for improving the disclosure of decision-useful, climate-related financial information.

Carbon risk metrics analysis on the Fund's listed equities portfolios considers: portfolio carbon footprint (weighted average); fossil fuel exposure; carbon risk management; and clean technology (portfolio weight in companies whose products and services include clean technology).

The challenges of measuring the potential impact of climate change on investment portfolios are well recognised. The Fund believes that a suite of carbon risk metrics and climate scenario analysis currently provides the most appropriate method of analysing climate risk to support the development of a detailed strategy for integrating climate risk into investment decisions.

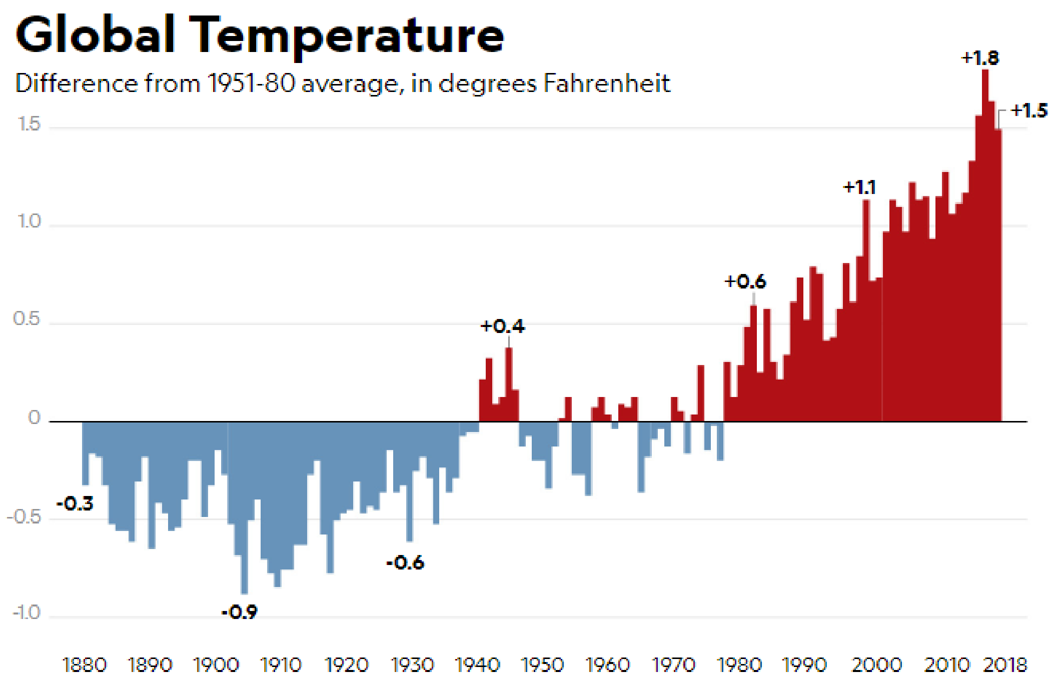
The findings of the Climate Risk Report, which is structured around the TCFD's four thematic areas of governance, strategy, risk management and metrics and targets, are being utilised to support the development of a Climate Strategy and a Climate Stewardship Plan for the Pension Fund. In addition, high level climate change risk analysis from the Fund's actuary, Hymans Robertson LLP, which considers the potential effect of climate change on the Fund's liabilities as well as on the assets of the Pension Fund, will support the development of the Climate Strategy. Guidance on implementing the TCFD recommendations for asset owners from the TCFD and the Principles for Responsible Investment will also be utilised.

The Fund's climate-related disclosures will develop over time and this report will be updated after a Climate Strategy and a Climate Stewardship Plan have been developed for the Fund. It is anticipated that climate-related disclosures will be included in the Pension Fund's Annual Report.

Climate-related risks

Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels. Most of this warming has occurred in the last 35 years, with the five warmest years on record taking place since 2010. As shown in Figure 2, the observed global mean surface temperature has risen from around 1950 onwards. Over 97% of climate scientists (Source: NASA) agree that this trend is the result of greenhouse gas (GHG) emissions which are being trapped in the atmosphere and creating a 'greenhouse effect' – a warming that occurs when the atmosphere blocks heat radiating from Earth towards space. These climate scientists have observed that these climactic changes are primarily the result of human activities including electricity and heat production, agriculture and land use change, industry, and transport.

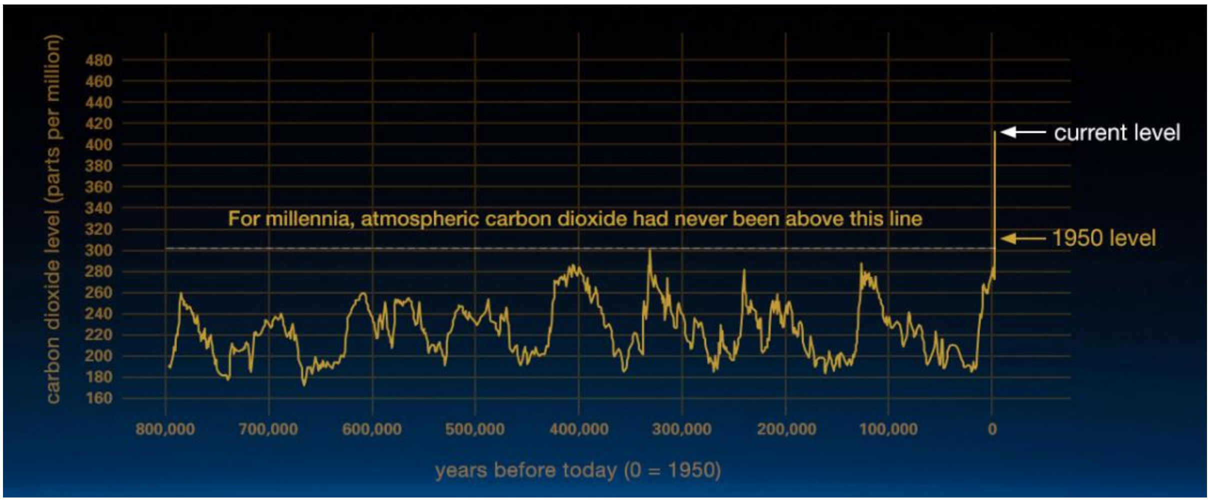
Figure 2: Graph showing Global Temperature Difference from 1951-80 average. Source: NASA



The principle source of GHG emissions, particularly carbon dioxide, is the burning of fossil fuels for the production of energy. The second largest contributor is methane, primarily related to agrarian activities (i.e. relating to cultivated land or the cultivation of land), fossil fuel production and waste.

During the last 250 years, atmospheric concentrations of carbon dioxide (CO_2) and methane (CH_4) have increased by 40% and 150%, respectively. In March 2019, the global monthly average concentration of carbon dioxide was 411.04ppm compared to its pre-industrial equivalent of 280ppm.

Figure 3: Levels of atmospheric carbon dioxide. Source: NASA



Climate scientists believe that in order to mitigate the worst economic impacts of climate change, there should be a globally co-ordinated policy response. The majority of climate scientists anticipate that given the current level of climate action, the world will be between 2°C and 4°C warmer by 2100, with significant regional variations. This is substantially higher than the Paris Climate Change Agreement (see Figure 4 for selected extracts of the Paris Agreement), which reflects a collective goal to hold the increase in the climate's mean global surface temperature to well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase to 1.5°C.

Figure 4: Selected extracts from the Paris Agreement on climate change. Source: UNFCCC.

Paris Agreement Article 2(1)a

Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

Paris Agreement Article 2(1)c

Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Paris Agreement Article 4(1)

In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.

The Paris Agreement commits signatories to the establishment of Nationally Determined Contributions (NDCs), which are intended to be individually equitable and collectively sufficient to achieve Article 2(1)a. It is estimated that under current global policies (and assuming successful implementation), the world is heading towards a warming of 3.2°C.

The low-carbon transition is already underway, with a number of governments and institutions around the world intensifying their climate change policies, and corporates responding in turn. One example is the recent UK declaration to bring all greenhouse gas emissions to Net Zero by 2050. This change in legislation amends the 2008 Climate Change Act target of an 80% reduction in GHC emissions compared to 1990 levels. The Committee on Climate Change have since revealed that current policy is insufficient to meet this target, meaning new and tougher measures are likely to be introduced, affecting businesses across the UK economy.

Acknowledgement of the risks posed by climate change among business and government leaders is reflected in the World Economic Forum (WEF) Global Risks Report, which illustrates the increased focus on environmental and social risks (compared with purely economic and political risks) over time. Environmental risks, particularly those associated with climate change, account for the top five risks of global business leaders by likelihood, and four of the top five risks by impact (if water crises are included).

Figure 5: WEF Top global risks. Source: World Economic Forum Global Risks Perception Survey 2019-20

The more attention business leaders pay to managing climate risk, the greater the implications for investors. The WEF's global risks are also highly interconnected. For example, climate change potentially exposes businesses to more natural disasters, extreme weather and water shortages. These in turn may lead to involuntary migration or conflict. Taking the interconnectivity of risks into account will continue to be important for long-term investors seeking to anticipate the effects of climate change and prepare their portfolios for a changing global context.

Given its contribution to global GHG emissions, the energy sector is expected to play a significant role in the long-term decarbonisation of the economy, albeit fossil fuels are expected to continue to provide a large proportion of the global energy mix for many years to come. The behaviour of private and state-owned energy companies will be as important as the actions taken by their publicly traded counterparts. It is also important to recognise that the demand for energy and the type of energy demanded will also play a crucial role in global decarbonisation.

However, the potential climate-related issues faced by diversified investors (such as pension funds) are not limited to the oil & gas and power generation sectors. Investors focussing exclusively on primary energy suppliers could fail to identify material climate risks in other sectors. There is considerable uncertainty in the crystallisation pathway for climate risk.

Well known concepts such as stranded assets risk are not homogeneous within certain sectors (e.g. oil & gas and power generation), and robust due diligence will be required in order to identify the potential winners and losers. The uncertainty of climate change stems from the complexity and inter-relationship of value and supply chains, the flow through of fossil fuels to by-products and services across multiple sectors and industries, the pass through cost of carbon, policy fragmentation, and the consideration that certain companies are too big to fail. The likelihood of asset stranding depends on the commodity, the asset quality, the customer base, the rate of technology change, cost curve dynamics, mitigating strategies (e.g. company diversifying portfolio), and the ability of the market to price risk and timing thereof.

The Fund recognises that climate-related risks can be financially material and that the due consideration of climate risk falls within the scope of the Fund's fiduciary duty. Given the Fund's long-dated liabilities and the timeframe in which climate risks could materialise, a holistic approach to risk management covering all sectors and all relevant asset classes is warranted.

Governance

TCFD Recommended Disclosure
a) Describe the board's oversight of climate-related risks and opportunities

Roles and responsibilities at the Fund are clearly set out in the Fund's Governance Policy & Compliance Statement.

The Pensions & Investments Committee is responsible for approving the Fund's Investment Strategy Statement, which includes the Fund's approach to responsible investment and climate change. The committee will in due course be presented with a Climate Strategy for approval. The committee meets six to eight times a year. The committee has historically received a quarterly voting report in respect of the directly held direct equity holdings but these have now largely been transitioned into pooled products, and going forward the committee will receive copies of the stewardship and voting reports of the managers managing these pooled products. As reported in the Annual Report, the committee has received training on responsible investment (including climate change).

In 2020, the Pensions & Investments Committee received a report from LGPSC which will support the formulation of the Fund's Climate Strategy.

Derbyshire Pension Board has an oversight role in ensuring the effective and efficient governance and administration of the Fund, including securing compliance with the LGPS Regulations and any other legislation relating to the governance and administration of the Scheme.

In order to support good decision-making, the Fund applies the Myners Principles. Disclosure of the Fund's compliance against the Myners Principles is made annually in the Fund's Annual Report.

TCFD Recommended Disclosure
b) Describe management's role in assessing and managing climate-related risks and opportunities.

The Head of Pension Fund and the Investments Manager have primary day-to-day responsibility for the way in which climate-related investment risks are currently managed. As a largely externally managed fund, the implementation of much of the management of climate-related risk is delegated to portfolio managers. Each manager's approach to Environmental, Social and Governance (ESG) factors and how these are integrated into their investment process is assessed as part of the manager selection process. The Fund's external managers are monitored on a regular basis, and following the receipt of a report from LGPSC, the Fund plans to develop a Climate Stewardship Plan.

In 2020, the Fund Officers received a report from LGPSC which will support greater consideration of climate change within strategy setting, including asset allocation and specific investment selection. Receipt of a report from LGPSC is expected to occur annually.

Strategy

TCFD Recommended Disclosure
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.

As a diversified asset owner, the range of climate-related risks and opportunities are varied and constantly evolving. A subset of risk factors is presented in Table 1.

Table 1: Examples of Short, Medium & Long-Term Risks

	Short & Medium Term	**Long Term**
Risks	Carbon prices Policy change Technological change Consumer preferences Stock selection Timing	Resource scarcity Extreme weather events Sea level rise
Asset class	Listed equities Growth assets Energy-intensity industry Oil-dependent sovereign issuers Carbon-intensive corporate issuers	Infrastructure Property Agriculture Commodities Insurance

Short-term risks include stock price movements resulting from increased regulation to address climate change.

Medium-term risks include technology and policy changes leading to rapid product obsolescence or changes in consumer behaviour (e.g. uptake in electric vehicles), stock selection (there will be winners and losers across all sectors) and timing (being the first adopter does not guarantee success or better returns).

Long-term risks include stranded assets, physical damages to real assets and resource availability. Examples would the risk to coastal infrastructure assets from rising sea levels.

The Fund has received a report from LGPSC and will use its findings to develop a Climate Strategy.

TCFD Recommended Disclosure
b) Describe the impact of climate-related risks and opportunities on the organisation's business, strategy and financial planning.

The Fund believes that diversification across asset classes, regions, and sectors is an important investment risk management tool to reduce risk. The Fund recognises that climate risk is systemic and is unlikely to be eliminated through diversification alone. As part of the last review of the Fund's Investment Strategy Statement, the Fund approved a 3% allocation to Global Sustainable Equities. This allocation will target investments in global companies that are sustainable in financial, environmental, social and governance terms and, where appropriate, that are providing solutions to sustainability challenges. Furthermore, the Fund has invested in several renewable energy opportunities, and continues to actively assess and invest in these opportunities. Research commissioned by LGPSC from Mercers (presented below) suggests that these allocations could lead to a positive return impact on the Fund's investment portfolio were a 2°C scenario to be suddenly priced in by the market.

The Fund's allocated weighting to the UK equity market has also been reduced from 30% in December 2016 to 18% in December 2019. This has significantly reduced the Fund's exposure to companies with fossil fuel reserves. The Fund's carbon risk metrics analysis (Figure 8 below) shows that the UK equity market has the highest exposure to fossil fuel reserves compared to other regional equity markets, although it should be noted that some of the largest UK companies with fossil fuel reserves are among the most progressive in terms of factoring climate risk into their long-term strategy. In each regional equity portfolio, the Fund has a lower exposure to fossil fuel reserves companies than the benchmark.

The Fund is exploring options to further embed climate-related risks and opportunities into its investment strategy.

TCFD Recommended Disclosure
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Analysis has been carried out by Mercer for LGPSC to understand the extent to which the Fund's risk and return characteristics could come to be affected by a set of climate scenarios. This includes an estimation of the annual climate-related impact on returns and climate stress tests (to explore the potential impact of a sudden climate-related price movement). All asset classes are included in this analysis. The climate scenarios considered are 2°C, 3°C and 4°C above pre-industrial levels. Two asset allocations have been analysed: (1) the asset allocation as at 31 July 2019; and (2) the Strategic Asset Allocation. Since 31 July 2019, the Fund has made progress towards the Strategic Asset Allocation weightings, including further investment into sustainable infrastructure, and expects to complete the planned allocation to Global Sustainable Equities in the near-term.

The results of the climate scenario analysis are shown below:

Table 2: Annualised climate change impact on portfolio returns to 2030 and 2050[1]

Scenario	Timeline	Current Asset Allocation	Strategic Asset Allocation
2°C	2030	+0.15%	+0.25%
	2050	+0.02%	+0.08%
3°C	2030	-0.02%	-0.01%
	2050	-0.07%	-0.06%
4°C	2030	-0.06%	-0.06%
	2050	-0.11%	-0.12%

Key: red ≤ -10 bps; amber > -10 bps, < 10bps; green ≥ 10 bps

[1] Extract from Mercer Limited's (Mercer) report "Climate Change Scenario Analysis" dated 31 January 2020 prepared for and issued to LGPS Central Limited for the sole purpose of undertaking climate change scenario analysis for Derbyshire Pension Fund. Other third parties may not rely on this information without Mercer's prior written permission. The findings and opinions expressed are the intellectual property of Mercer and are not intended to convey any guarantees as to the future performance of the investment strategy. Information contained herein has been obtained from a range of third party sources. Mercer makes no representations or warranties as to the accuracy of the information and is not responsible for the data supplied by any third party.

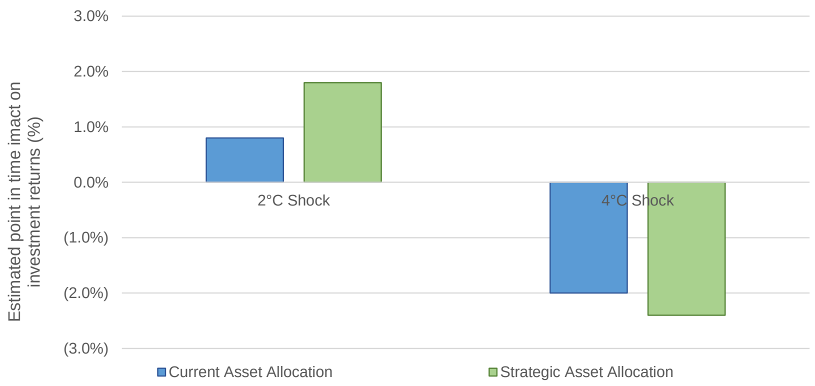
The climate scenario analysis forecasts the following:

- A 2°C scenario would have a positive impact on the Fund's returns considering both a timeline to 2030 and to 2050. This positive impact is boosted under the Strategic Asset Allocation reflecting the 3% allocation to Global Sustainable Equities.
- A 3°C scenario (which is in line with the current GHG trajectory) has a relatively muted impact on the Fund's annual returns.
- A 4°C scenario would reduce the Fund's annual returns, with most asset classes expected to experience negative returns.

The climate scenario analysis only forecasts the climate related impact on returns, and does not take account of any other factors which may have an impact including economic and market conditions; political and geopolitical events; monetary policy conditions, etc. It is also important to note that the asset allocation required to capture the upside under one scenario, may have a negative impact under an alternative scenario. For example, annual returns under a 2°C scenario benefit from higher allocations to sustainable equities and sustainable infrastructure, whereas these allocations may have a negative impact under a 4°C scenario because the assets will be subject to increased physical risk.

Climate stress testing analysis (Figure 6) suggests that should a 2°C scenario suddenly be priced in by the market, the Fund could benefit in terms of financial returns, whereas the opposite is true should a 4°C scenario be priced in by the market.

Figure 6: Impacts to returns based on the sudden pricing in of plausible climate-scenarios[2]



[2] Extract from Mercer Limited's (Mercer) report "Climate Change Scenario Analysis" dated 31 January 2020 prepared for and issued to LGPS Central Limited for the sole purpose of undertaking climate change scenario analysis for Derbyshire Pension Fund. Other third parties may not rely on this information without Mercer's prior written permission. The findings and opinions expressed are the intellectual property of Mercer and are not intended to convey any guarantees as to the future performance of the investment strategy. Information contained herein has been obtained from a range of third party sources. Mercer makes no representations or warranties as to the accuracy of the information and is not responsible for the data supplied by any third party.

Translating climate scenario analysis into an investment strategy is a challenge as: there is a wide range of plausible climate scenarios; the probability of any given scenario is hard to determine; and the best performing sectors and asset classes in a 2°C scenario tend to be the worst performers in a 4°C and vice versa. Despite the challenges, the Fund believes it is worthwhile procuring climate-related research in order to support robust decision making.

Risk Management

TCFD Recommended Disclosure
a) Describe the organisation's process for identifying and assessing climate-related risks.

The Fund seeks to identify and assesses climate-related risks at the total Fund level and at the individual asset level. Both 'top-down' and 'bottom-up' analysis has been received by the Fund from LGPSC. The Fund recognises that the tools and techniques for assessing climate-related risks in investment portfolios are an imperfect but evolving discipline. The Fund aims to use the best available information to assess climate-related threats to investment performance.

As far as possible climate risks are assessed in units of investment return, in order to compare with other investment risk factors.

As a largely externally-managed pension fund, the identification and assessment of climate-related risks is also the responsibility of individual fund managers appointed by the Fund. Existing fund managers are monitored on a regular basis to review the integration of climate risks into the portfolio management, and to understand their engagement activities.

Stewardship activity is conducted with investee companies by the Fund. The Fund values the importance of shareholder voting as a stewardship tool and has retained the services of a specialist third party voting service provider. Historically the Fund executed voting activities directly, but following the transition of the vast majority of its direct equity holdings into pooled products, voting is executed by the Fund's appointed fund managers (see below). The Fund has several selected stewardship partners including LGPSC, Hermes EOS, and Local Authority Pension Fund Forum (LAPFF) (see Table 3 below). The Fund is developing a Climate Stewardship Plan based on the results of the LGPSC Report in order to focus the Fund's engagement resources.

TCFD Recommended Disclosure
b) Describe the organisation's process for managing climate-related risks.

The Fund manages risk by prioritising those risks which it believes will have the biggest impact on the Fund. For climate-related risks, this will likely depend on analyses including climate scenario analysis and carbon risk metrics. The Fund's approach to climate risk management will be further developed in its forthcoming Climate Strategy.

Stewardship activities will remain an important aspect of the Fund's approach to managing climate risk. The Fund expects all investee companies to manage material risks, including climate change, and the Fund believes that climate risk management can be meaningfully improved through focussed stewardship activities by investors.

Either through its own membership or through LGPSC's membership, the Fund has several engagement partners that engage investee companies on climate risk.

Table 3: The Fund's Stewardship Partners

Organisation	Remit
ISS	Specialist third party voting service provider. ISS' research includes recommendations on casting votes on climate-related shareholder resolutions.
LGPS Central Limited	The Fund is a 1/8th owner of LGPSC. Climate change is one of LGPSC's stewardship themes, with quarterly progress reporting available on the website. The Responsible Investment Team at LGPSC engages companies on DPF's behalf, including via the Climate Action 100+ initiative.
HERMES EOS	Hermes EOS is engaged by LGPSC to expand the scope of the engagement programme, especially to reach non-UK companies. In 2018, Hermes EOS conducted engagements on 307 climate change issues across its company universe.
Local Authority Pension Fund Forum	DPF is a long-standing member of the LAPFF. LAPFF conducts engagements with companies on behalf of local authority pension funds. In 2018 LAPFF conducted over 150 engagements on climate change.

The Fund recognises that outcomes of engagement are of greater importance than the volume of engagement. The outcomes of engagement activities of the Fund's stewardship partners are published on each provider's website.

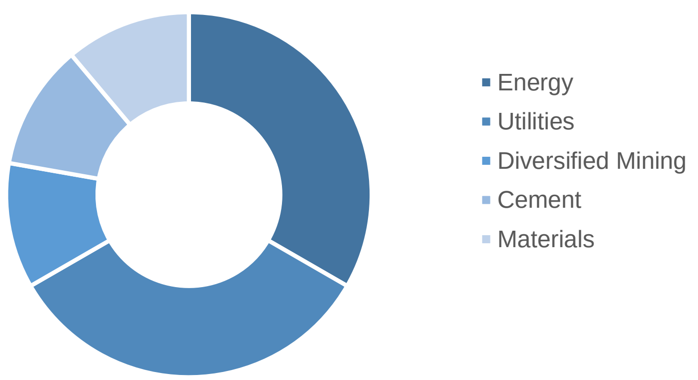
The instruction of shareholder voting opportunities is an important part of climate stewardship. Following the transition of the vast majority of its direct equity holdings into pooled products, voting activity is largely carried out by external fund managers. Legal & General Investment Management (LGIM) currently manage a sizeable proportion of the Fund's assets on a passive basis. The votes in respect of these assets are cast by LGIM. LGIM has a robust approach to incorporating climate change factors in its voting decisions, including on specific climate-related shareholder resolutions. The Fund's direct US Equity portfolio is managed by an external manager, and the manager is responsible for casting the votes in line with their policies, which include specific consideration of climate change factors.

During 2018/19, the Fund co-filed a Climate Action 100+ shareholder resolution to BP Plc for consideration at the Company's AGM in May 2019. The resolution called on the company to set out a business strategy that is consistent with the goals of the Paris Agreement on Climate Change. The resolution received the support of the board of BP and was passed overwhelmingly.

The results of the Fund's direct voting activities have historically been reported to the Pensions & Investments Committee meetings on a quarterly basis. Given the recent transition of the direct equity holdings into pooled vehicles, going forward the committee will receive copies of the quarterly LGIM and LGPSC stewardship and voting reports.

Based on analysis prepared by LGPSC, the Fund plans to develop a Climate Stewardship Plan which, alongside the wide-scale engagement activity undertaken by LGPSC, Hermes EOS, and LAPFF, will include targeted engagement at investee companies of particular significance to the Fund's portfolio.

Figure 7: Sectors to be included in proposed Climate Stewardship Plan



TCFD Recommended Disclosure
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.

Both 'mainstream' risks and climate-related risks are discussed by the Pensions & Investments Committee. While specific macro-economic risks are not usually included in isolation, the Fund plans to include climate risk as a separate risk on the Fund's Risk Register.

Climate risk will be further managed through the development of a Climate Strategy and a Climate Stewardship Plan.

Metrics and Targets

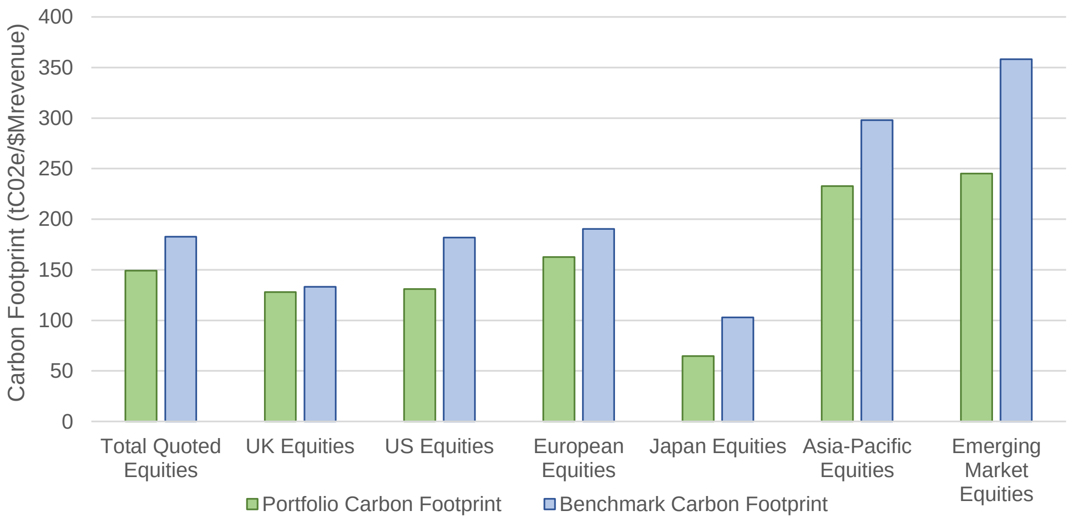
TCFD Recommended Disclosure
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

The Fund has recently received a report on carbon risk metrics for its listed equities portfolios, which represent over 50% of the Fund's total assets. The poor availability of data in asset classes other than listed equities prevents a more complete analysis at this time. Carbon risk metrics aid the Fund in assessing the potential climate-related risks to which the Fund is exposed, and identifying areas for further risk management, including company engagement and fund manager monitoring. The Fund additionally monitors stewardship data (see above).

TCFD Recommended Disclosure
b) Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. TCFD Guidance: *Asset owners should provide the weighted average carbon intensity, where data are available or can be reasonably estimated, for each fund or investment strategy.*

In line with the TCFD guidance the Fund provides below the carbon footprints of the Fund's listed equity portfolios[3]:

Figure 8: Portfolio Carbon Footprints in each regional equity portfolio[4]



Note: The blended benchmark comprises the underlying regional benchmarks, weighted in proportion to the current GBP amount in each equity region.

Compared to the blended benchmark, the Fund's Total Quoted Equities portfolio is around 18% more carbon efficient than the benchmark (Figure 8). This means that, on average, for every $m of economic output companies produce, the Fund's investee companies emit 18% fewer GHG emissions than the companies in the benchmark. Each regional equity portfolio has a lower portfolio carbon footprint than its regional benchmark. In addition, each regional equity portfolio has a lower than benchmark weight in companies with fossil fuel reserves (the Total Quoted Equities portfolio has around 12% less weight in fossil fuel companies that the benchmark - Figure 9) and a lower weight in thermal coal reserves (c. 25% lower in the Total Quoted Equities portfolio – Figure 10).

The carbon footprint analysis above includes scope 1 and 2 emissions (those emitted either directly by a company or indirectly through its procurement of electricity and steam) but does not include scope 3 emissions (those emitted by a company's suppliers and customers). This means that for some companies the assessment of their carbon footprint could be considered an 'understatement'. Examples could include an online retailer whose logistics emissions are not included in scope 1 or 2. The Fund has chosen not to include scope 3 emissions in the carbon footprint metrics for two reasons: (1) the rate of scope 3 disclosure remains insufficient to use reliably in carbon foot-printing analysis; and (2) the inclusion of scope 3 emissions leads to

[3] Analysis undertaken on the listed equities portfolios with holdings data as of 31 July 2019.
[4] Certain information ©2019 MSCI ESG Research LLC. Reproduced by permission.

double-counting at the portfolio level. To overcome the risk of 'understating' carbon risk, the Fund additionally assesses its exposure to fossil fuel reserves.

Figure 9: Exposure to companies with fossil fuel reserves in each regional equity portfolio[5]

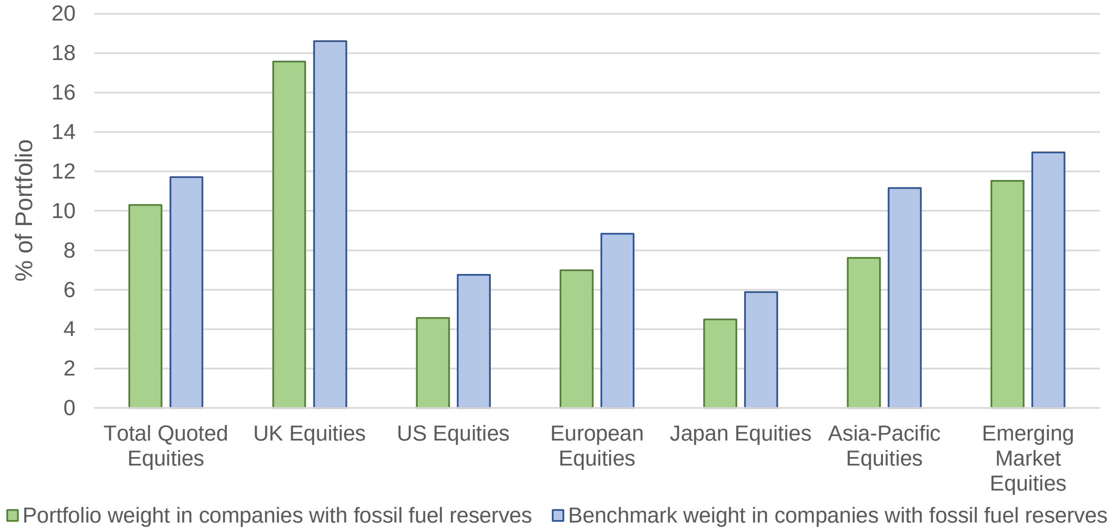


Figure 10: Exposure to thermal coal reserves in each regional equity portfolio[6]

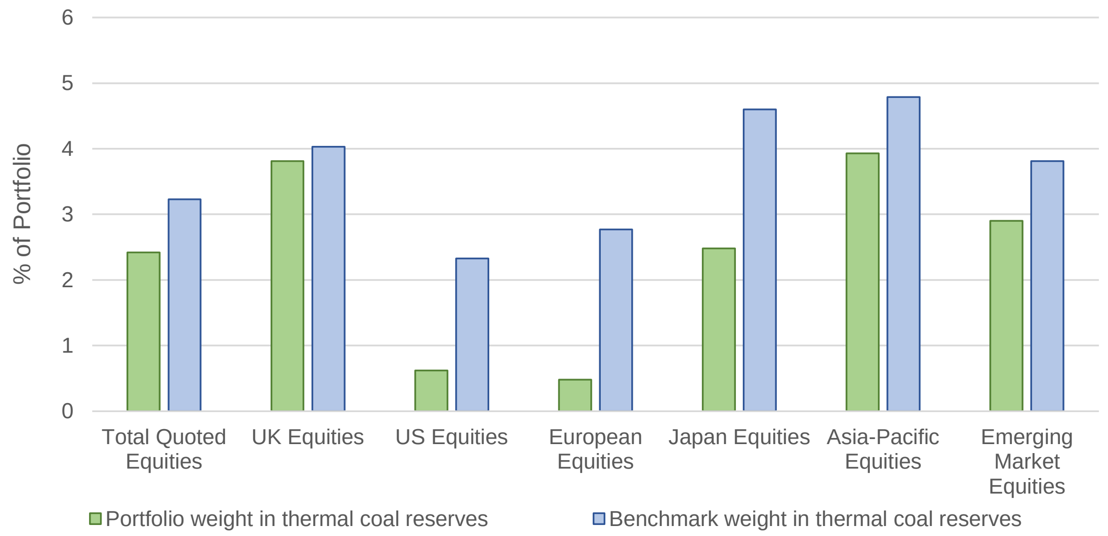
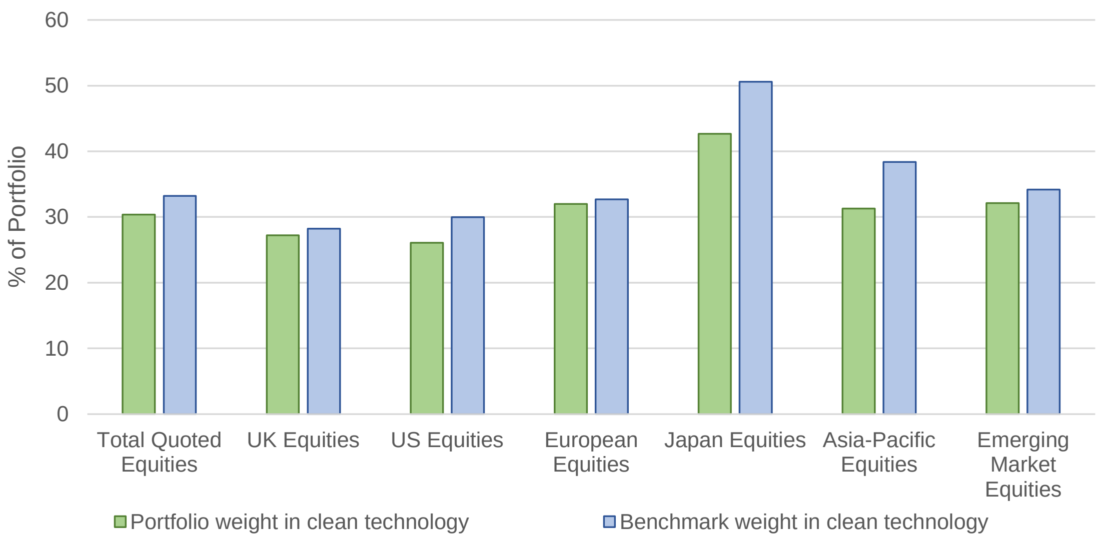


Figure 11 indicates that the Fund's Total Quoted Equities portfolio has around a 9% lower exposure to clean technology than the blended portfolio benchmark. The Fund notes that this measure should be viewed with some caution as there appears to be a moderate positive correlation in the dataset between sectors that have a high carbon intensity (or a higher weight in fossil fuel reserves) and those that have a higher weight in clean technology. For example, Utilities and Oil & Gas are the sectors with the third and fourth

[5] Certain information ©2019 MSCI ESG Research LLC. Reproduced by permission.
[6] Certain information ©2019 MSCI ESG Research LLC. Reproduced by permission.

highest weight in clean technology. This correlation means that it may be difficult to have a diversified portfolio that is simultaneously carbon efficient, is underweight fossil fuels, and overweight clean technology. The Fund's exposure to clean technology should increase as result of the recent decision (not included in the results above) to invest in Global Sustainable Equities. Furthermore, the analysis takes no account of the Fund's unquoted on-shore & offshore, solar and hydro renewable energy infrastructure investments.

Figure 11: Exposure to clean technology in each regional equity portfolio[7]



Whilst the Fund's carbon risk metrics results show that the Fund already has a lower carbon footprint, together with lower exposure to fossil fuel reserves and thermal coal reserves that the blended portfolio benchmark, the Fund is proactively exploring ways to further embed climate risk management in its investment decision making. The Fund expects to update its carbon risk metrics data on an annual basis.

TCFD Recommended Disclosure
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

The ability for diversified investors (such as pension funds) to set meaningful climate targets is inhibited by the paucity in credible methodologies and data currently available. Like most investors, the Fund is supportive of the development of target-setting methodologies, and of the increasing completeness of carbon datasets. The adoption of quantifiable climate targets remains, however, under review while the available methodologies mature.

[7] Certain information ©2019 MSCI ESG Research LLC. Reproduced by permission.

Appendix 1

TCFD Recommendations for Asset Owners

Governance

Recommended Disclosure (a) Describe the board's oversight of climate-related risks and opportunities.

Recommended Disclosure (b) Describe management's role in assessing and managing climate-related risks and opportunities.

Strategy

Recommended Disclosure (a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.

Recommended Disclosure (b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.

Recommended Disclosure (c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Risk Management

Recommended Disclosure (a) Describe the organisation's processes for identifying and assessing climate-related risks.

Recommended Disclosure (b) Describe the organisation's processes for managing climate-related risks.

Recommended Disclosure (c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

Metrics and Targets

Recommended Disclosure (a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

Recommended Disclosure (b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

Recommended Disclosure (c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

Important Information

Extract above from Mercer Limited's (Mercer) report "Climate Change Scenario Analysis" dated 31 January 2020 prepared for and issued to LGPS Central Limited for the sole purpose of undertaking climate change scenario analysis for Derbyshire Pension Fund. Other third parties may not rely on this information without Mercer's prior written permission. The findings and opinions expressed are the intellectual property of Mercer and are not intended to convey any guarantees as to the future performance of the investment strategy. Information contained herein has been obtained from a range of third party sources. Mercer makes no representations or warranties as to the accuracy of the information and is not responsible for the data supplied by any third party.

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Agenda Item No. 5(b)

DERBYSHIRE COUNTY COUNCIL

PENSIONS AND INVESTMENTS COMMITTEE

4 March 2020

Report of the Director of Finance & ICT

INVESTMENT REPORT

1 Purpose of the Report

To review the Fund's asset allocation, investment activity since the last meeting, long term performance analysis and to seek approval for the investment strategy in the light of recommendations from the Director of Finance & ICT and the Fund's independent adviser.

2 Information and Analysis

(i) Report of the External Adviser

A copy of Mr Fletcher's report, incorporating his view on the global economic position, factual information for global market returns, the performance of the Fund and his recommendations on investment strategy and asset allocation, is attached as Appendix 1.

(ii) Asset Allocation and Recommendations Table

The Fund's latest asset allocation as at 31 January 2020 and the recommendations of the Director of Finance & ICT and Mr Fletcher, in relation to the Fund's new strategic asset allocation benchmark.

The table also shows the recommendations of the Director of Finance & ICT, adjusted to reflect the impact of future investment commitments. These commitments (existing plus any new commitments recommended in this report) relate to Private Equity, Multi-Asset Credit, Property and Infrastructure and total around £310m. Whilst the timing of drawdowns will be lumpy and difficult to predict, the In-house Investment Management Team (IIMT) believes that these are likely to occur over the next 18 to 36 months.

Asset Category	Old Benchmark	New Benchmark	Fund Allocation	Fund Allocation	Permitted Range	Benchmark Relative Recommendation		Recommendation		Adjusted for Commitments (1)	Benchmark Sterling Return	Benchmark Sterling Return
			31/10/19	31/01/20		AF 04/03/20	DPF 04/03/20	AF 04/03/20	DPF 04/03/20	DPF 04/03/20	3 Months to 31/12/19	3 Months to 31/01/20
Growth Assets	**62.0%**	**57.0%**	**55.7%**	**55.9%**	**+/- 8%**	**-**	**(1.0%)**	**57.0%**	**56.0%**	**57.6%**	**n/a**	**n/a**
UK Equities	25.0%	16.0%	17.3%	17.4%	+/- 4%	-	+1.4%	16.0%	17.4%	17.4%	4.2%	2.2%
Overseas Equities:	33.0%	37.0%	35.4%	35.3%	+/- 6%	-	(1.6%)	37.0%	35.4%	35.4%	n/a	n/a
North America	12.0%	12.0%	10.5%	10.9%	+/- 4%	(1.0%)	(2.0%)	11.0%	10.0%	10.0%	1.4%	5.0%
Europe	9.0%	8.0%	8.5%	8.4%	+/- 3%	-	(0.6%)	8.0%	7.4%	7.4%	0.9%	0.9%
Japan	5.0%	5.0%	6.6%	6.4%	+/- 2%	-	+1.0%	5.0%	6.0%	6.0%	0.2%	(0.8%)
Pacific ex-Japan	4.0%	4.0%	5.0%	4.7%	+/- 2%	-	-	4.0%	4.0%	4.0%	2.8%	0.4%
Emerging Markets	3.0%	5.0%	4.8%	4.9%	+/- 2%	+1.0%	-	6.0%	5.0%	5.0%	4.0%	0.5%
Global Sustainable	-	3.0%	-	-	+/- 2%	-	-	3.0%	3.0%	3.0%	1.5%	3.0%
Private Equity	4.0%	4.0%	3.0%	3.2%	+/- 2%	-	(0.8%)	4.0%	3.2%	4.8%	4.4%	2.4%
Income Assets	**18.0%**	**23.0%**	**20.5%**	**20.4%**	**+/- 6%**	-	**(1.8%)**	**23.0%**	**21.2%**	**25.3%**	**n/a**	**n/a**
Multi-Asset Credit	4.0%	6.0%	6.1%	6.3%	+/- 2%	-	0.5%	6.0%	6.5%	8.1%	0.9%	0.9%
Infrastructure	5.0%	8.0%	6.4%	6.2%	+/- 3%	-	(1.2%)	8.0%	6.8%	9.0%	0.7%	0.7%
Direct Property (3)	5.0%	5.0%	4.7%	4.6%	+/- 2%	+1.0%	(0.4%)	5.0%	4.6%	4.6%	1.2%	1.2% (2)
Indirect Property (3)	4.0%	4.0%	3.3%	3.3%	+/- 2%	(1.0%)	(0.7%)	4.0%	3.3%	3.6%	1.2%	1.2% (2)
Protection Assets	**18.0%**	**18.0%**	**17.3%**	**17.3%**	**+/- 5%**	**(2.0%)**	**(0.7%)**	**16.0%**	**17.3%**	**17.3%**	**n/a**	**n/a**
Conventional Bonds	5.5%	6.0%	5.5%	5.4%	+/- 2%	-	-	6.0%	6.0%	6.0%	(3.9%)	1.4%
Index-Linked Bonds	6.5%	6.0%	5.7%	5.7%	+/- 2%	(2.0%)	(0.9%)	4.0%	5.1%	5.1%	(8.5%)	0.6%
Corporate Bonds	6.0%	6.0%	6.1%	6.2%	+/- 2%	-	0.2%	6.0%	6.2%	6.2%	(0.3%)	2.9%
Cash	**2.0%**	**2.0%**	**6.5%**	**6.4%**	**0 – 8%**	**+2.0%**	**+3.5%**	**4.0%**	**5.5%**	**(0.2%)**	**0.1%**	**0.1%**

Total Investment Assets totaled £5,219.5m at 31 January 2020.
(1) Recommendations adjusted for investment commitments at 31 January 2020 and presumes all commitments are funded from cash.
(2) Benchmark Return for the three months to 31 December 2019.
(3) The maximum permitted range in respect of Property is +/- 3%.

The table above reflects the following three categorisations:

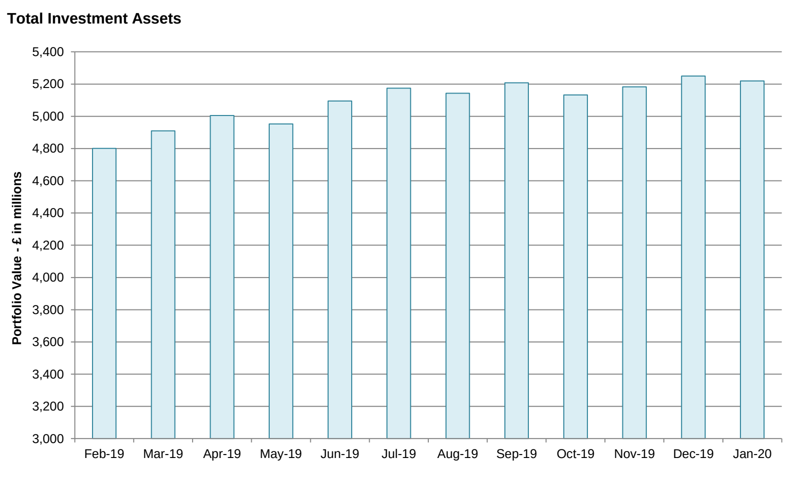
- **Growth Assets**: largely equities plus other volatile higher return assets such as private equity;
- **Income Assets**: assets which are designed to deliver an excess return, but with more stable return patterns than Growth Assets because income represents a large proportion of the total return of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

Relative to the new benchmark, the Fund as at 31 January 2020, was overweight Cash, and underweight in Growth Assets, Income Assets and Protection Assets.

If all of the Fund's commitments (existing plus any new commitments recommended in this report) were drawn-down, the cash balance would reduce by 5.7% to -0.2%. However, in practice as these commitments are drawn-down, they will be partly offset by new net cash inflows from dealing with members, investment income, distributions from existing investments and changes in the wider asset allocation.

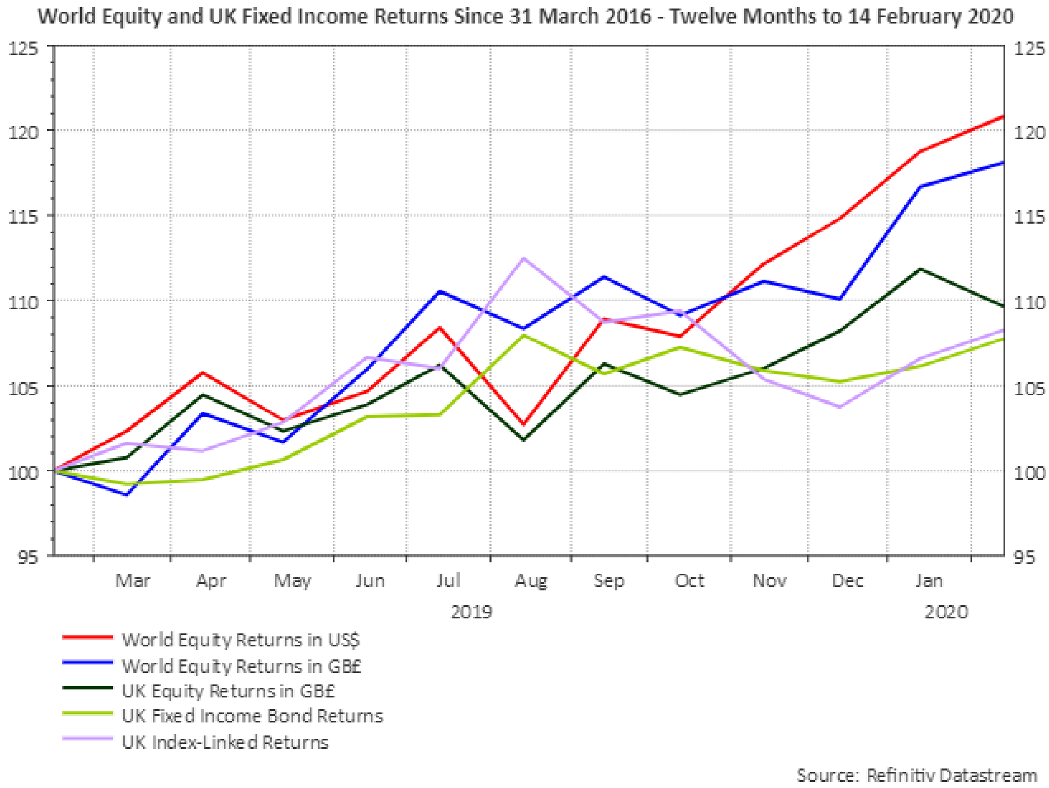
(iii) Total Investment Assets

The value of the Fund's investment assets rose by £86.6m (1.7%) between 31 October 2019 and 31 January 2020 to just over £5.2bn, comprising a non-cash market gain of around £65m and cash inflows from dealing with members & investment income of around £20m. Over the twelve months to 31 January 2020, the value of the Fund's investment assets has risen by £468.6m (9.9%), comprising a non-cash market gain of around £370m and cash inflows from dealing with members & investment income of around £100m. A copy of the Fund's valuation is attached at Appendix 2.



The Fund's valuation can fluctuate significantly in the short term, reflecting market conditions, and supports the Fund's strategy of focusing on the long term.

(iv) Market returns over the last 12 months



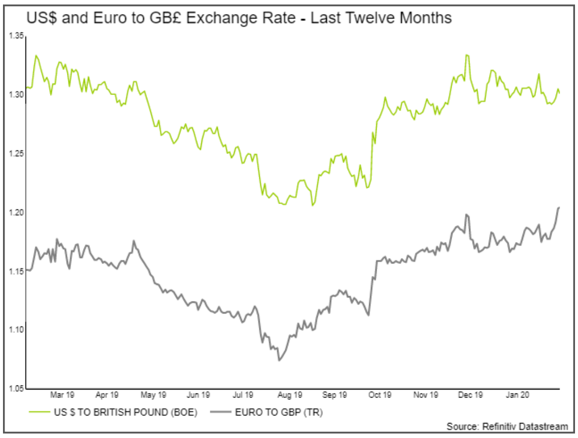
The chart above shows market returns for Global Equities in Sterling and the US dollar, UK Equities, UK Fixed Income and UK Index Linked bonds for the twelve months to 14 February 2020.

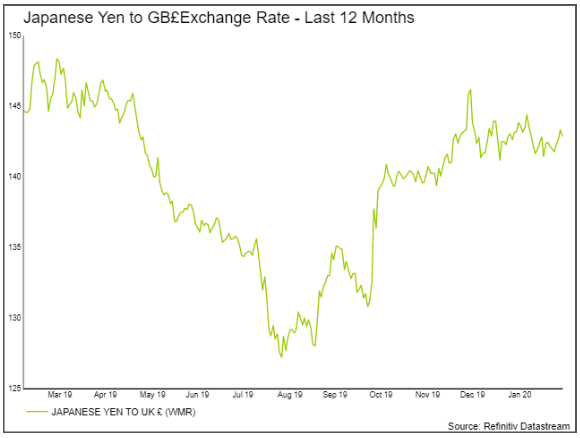
Global Equity markets returned 22.3% in Sterling terms (27.2% in local currency) in 2019. This partly reflected a rebound from the heavy equity sell-off in Q4 2018 (-10.5% in Sterling terms), but also reflected looser than expected monetary policy throughout the year. The top-10 developed market central banks cut rates eight times collectively after two years of broad-based policy tightening. Equity markets hit all-time highs, as multiples expanded against a back-drop of slowing earnings growth, geo-political uncertainty (albeit slightly reduced uncertainty following the phase one US – China trade deal), and a slowdown in share buy backs. The S&P500's forward price to earnings ratio currently sits at around 18.4x, 2.1x higher than its 25 year average.

Volatility picked-up towards the end of January 2020, with global equities returning -0.63% in Sterling terms in the month, rising to -1.12% in local currency terms. Concerns over the coronavirus outbreak checked the market optimism that followed the signing of a phase one US – China trade deal. Markets were also impacted by the 'flare-up' in tensions between the US and Iran, although these have subsequently de-escalated.

Positive equity market momentum has returned in February 2020 to date (to 14 February 2020; FTSE All World +5.2% in Sterling terms and +3.9% in local currency terms) as economic data across most regions continued to show modest improvement. Near-term recessionary fears have eased, although the impact of the coronavirus outbreak is unclear and it is likely that the outbreak will have an impact on growth in the first half of 2020, particularly in the Asia-Pacific region where China is effectively in shutdown. The vast majority of central banks are currently expected to remain accommodative in the coming year, including supporting the global economy through any disruption caused by the coronavirus.

In the first half of 2019, Sterling investors generally benefited from a weaker pound relative to the US dollar but in the second half of 2019 the pound strengthened from a low of around £1:$1.20 in August to £1:U$1.33 in December (see chart below). The rise reflected a combination of factors, including three target rate reductions in the US (discussed below), a growing expectation that there would not be a hard Brexit and the decisive outcome of the General Election. The GB£:€ and GB£:¥ exchange rates have also followed a similar pattern over the course of 2019.





UK Conventional and Index-Linked bonds returned 6.9% and 6.4%, respectively, in 2019. Global government bond valuations moved to unprecedented levels in 2019, as central banks reacted to deteriorating global economic growth. Having kept target interest rates unchanged at 2.0% to 2.25% since the start of the year, the US Federal Reserve reduced the target rate three times in the second half of the year. The U-turn in global monetary policy was further demonstrated by the European Central Bank (ECB) restarting asset purchases, after halting them in January 2019.

UK Gilt and Index-Linked yields rose sharply (i.e. prices fell resulting in negative returns), however, in the final quarter of 2019. The 10 year gilt yield rose from 49 basis points to 82 basis points over the quarter as both main political parties pledged to spend more should they be elected. As a result, UK Conventional and Index-Linked Bonds returned -3.9% and -8.5% in Q4

2019, respectively. This was mirrored at a global level, with the world government bonds ex-UK index in local currency terms returning -7.7% over the quarter. The easing of global trade tensions helped 'risk-on' markets to rally, with higher risk asset classes such as high-yield bonds (+2.5%) and emerging market debt (+1.4%) posting positive returns in the quarter.

Yields fell in January 2020 (i.e. prices rose) as the pick-up in equity market volatility increased demand for 'risk-off' assets and concerns over the coronavirus outbreak.

Although markets expect central banks to remain accommodative in 2020, no further rate cuts are expected in the US where the Federal Reserve tends to avoid policy changes in an election year. However, in response to the coronavirus outbreak, the People's Bank of China (PBOC) has recently reduced the one–year rate at which it lends to banks via its Medium-term Lending Facility by 10 basis points, after a similar reduction to short-term rates two weeks earlier. Markets expect further PBOC reductions if the virus continues to weigh on economic activity.

Asset class weightings and recommendations are based on values at the end of January 2020, and are relative to the new strategic asset allocation benchmark which became effective on 1 January 2019. Many global stock markets are trading close to all-time highs (see charts below which show the long term performance of the FTSE All Share and S&P 500 Composite), and global stock markets have now participated in an almost eleven year bull market (i.e. a rising market). Given the current modest economic backdrop and stretched equity valuations, the IIMT believe that returns will be lower going forward.

(v) Longer Term Performance

Figures provided by Portfolio Evaluation Limited show the Fund's performance over 1, 3, 5 and 10 years to 31 December 2019.

Per annum	DPF	Benchmark Index
1 year	13.6%	13.5%
3 year	7.2%	6.6%
5 year	8.6%	8.0%
10 year	8.7%	8.4%

The Fund out-performed the benchmark in all time periods.

The IIMT are working with Portfolio Evaluation Limited to separately show the performance attributable to products and services provided by LGPS Central Limited, and those resulting from the Fund's non-pooled assets.

(vi) Category Recommendations

	Old Benchmark	New Benchmark	Fund Allocation	Permitted Range	Recommendation		Benchmark Relative Recommendation	
			31 Jan-20		AF	DPF	AF	DPF
Growth Assets	62.0%	57.0%	55.9%	± 8%	57.0%	56.0%	-	(1.0%)
Income Assets	18.0%	23.0%	20.4%	± 6%	23.0%	21.2%	-	(1.8%)
Protection Assets	18.0%	18.0%	17.3%	± 5%	16.0%	17.3%	(2.0%)	(0.7%)
Cash	2.0%	2.0%	6.4%	0 – 8%	4.0%	5.5%	+2.0%	+3.5%

The new strategic asset allocation benchmark reflects a re-balancing of the Fund's assets from Growth Assets to Income Assets, and also introduces a new 3% allocation to Global Sustainable Equities.

At an overall level, the Fund was overweight Cash at 31 January 2020, and underweight Growth Assets, Income Assets and Protection Assets, although if commitments waiting to be drawn down were taken into account, the Fund would move to an overweight position in Growth and Income Assets. The table on page 2 assumes that all new commitments will be funded out of the current cash weighting; in practice as private market commitments are drawn down they are likely to be funded partially out of cash and partially by distributions (income and capital) from existing investments and sales of public market assets. The Fund has progressively reduced its exposure to Growth Assets over the last two years, as equity valuations have become increasingly stretched, and increased the allocation to Income Assets and Protection Assets.

The IIMT recommendations reflected in this report: marginal increase Growth Assets to 56.0% (1.0% underweight), albeit the regional composition is changed from the current allocation to reflect the implementation of the allocation to sustainable equities: North American Equities -0.9%; European Equities -1.0%; Japanese Equities -0.4%; Asia-Pacific Ex-Japan -0.7%; Emerging Markets +0.1%; and Global Sustainable Equities +3.0%); increase Income Assets by 0.8% (Infrastructure +0.6% and Multi-Asset Credit +0.2%); maintain Protection Assets at 17.3% (Conventional Bonds +0.6%; and Index-Linked Bonds -0.6%); and reduce Cash by 0.9%. The IIMT notes that the recommendations are subject to market conditions, and the majority of the regional equity sales will be dependent on the investment of the proposed

3.0% allocation to Global Sustainable Equities which is subject to the completion of satisfactory manager due diligence and appointment.

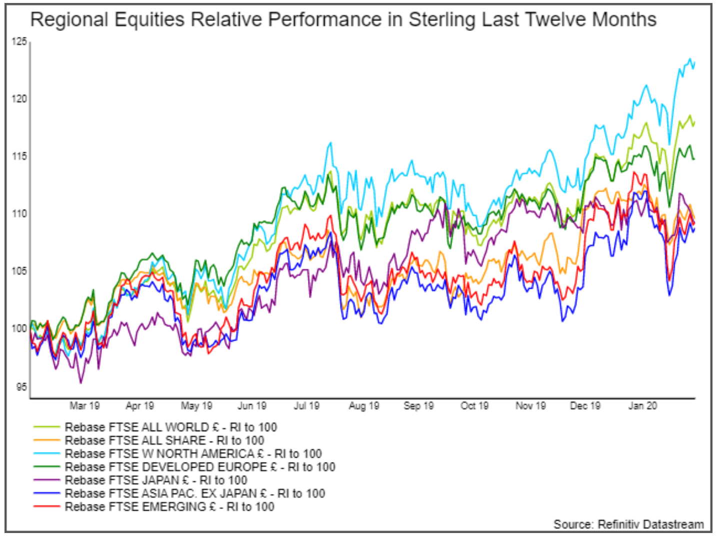
The IIMT continues to recommend a defensive cash allocation. Public markets, supported by accommodative monetary policy, continue to trade on rich valuations, at the same time as lower nominal GDP forecasts point to pressure on revenue growth and at the same time as reduced earnings forecasts still appear to be too optimistic. Despite the apparent economic stabilisation suggested by recent data, global trade and investment remain weak. Furthermore, as noted above, the cash weighting will be reduced as the Fund's current commitments are drawn down.

(vii) Growth Assets

At 31 January 2020, the overall Growth Asset weighting was 55.9%, up from 55.7% at 31 October 2019, reflecting relative market strength.

The IIMT recommendations below marginally increase the overall Growth Asset weighting to 56.0%, 1.0% underweight relative to the benchmark. The IIMT believes that a small underweight position is warranted due to continued rich equity valuations and the late cycle nature of the global economy. The IIMT note that continued accommodative monetary policy and the recent signing of a phase one US – China trade deal, have reduced near-term recessionary fears and political uncertainty. However, political uncertainty is likely to pick-up again in the run-up to the US election, the phase one trade deal ended the damaging escalation of tariff imposition between the US and China but left many fundamental issues unresolved, and the impact of the coronavirus outbreak has yet to be established.

The Chart opposite shows the relative regional equity returns in Sterling terms over the last twelve months, and the charts overleaf show the returns since the last Investment Report was presented to Committee and in Q1 2020. Over the



Benchmark Returns	Q1 2020 (*)	Q4 2019	1 Year	3 Year	5 Year
FTSE All World	4.5%	1.5%	22.3%	10.4%	12.6%
FTSE UK	(1.2%)	4.2%	19.2%	6.9%	7.5%
FTSE North America	7.0%	1.4%	26.5%	12.4%	14.9%
FTSE Europe	2.9%	0.9%	20.2%	8.5%	10.0%
FTSE Japan	0.1%	0.2%	14.8%	6.7%	11.9%
FTSE Asia Pacific Ex-Japan	2.3%	2.8%	14.5%	8.9%	9.6%
FTSE Emerging Markets	0.6%	4.0%	15.9%	9.0%	9.5%

Source: Performance Evaluation Limited & DataStream

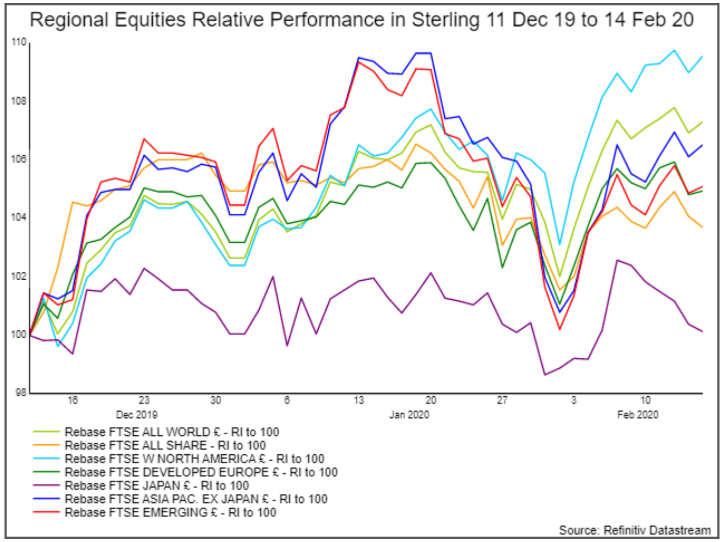
(*) 1 January 2020 to 14 February 2020

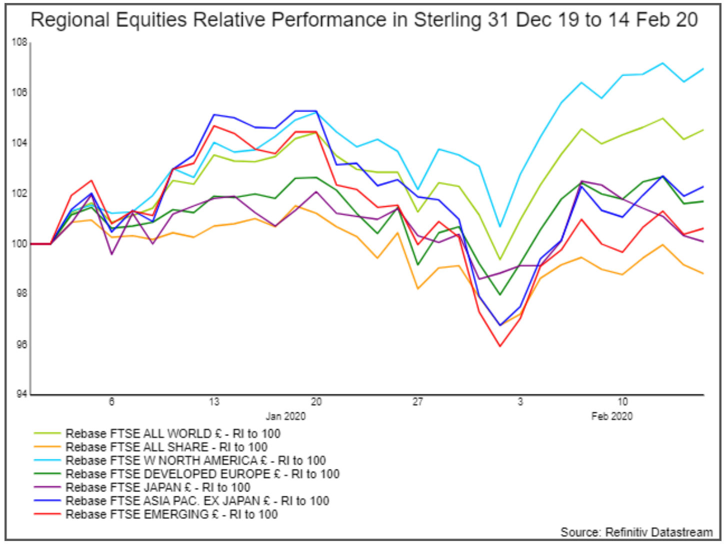
calendar year to December 2019, the US market provided the strongest return, followed by Europe. This was also the case in local currency terms, where the US market returned 31.5%, followed by Europe at 27.7%.

Equity returns for Sterling investors in Q4 2019 were impacted by a stronger pound following the General Election. Whilst the FTSE All World returned 9.1% in local currency terms over the quarter, this fell to 1.5% in Sterling terms as the US$:GB£ exchange rate moved from 1.23 to 1.33. In local currency terms, Emerging Markets were the strongest performer returning 11.8%, closely followed by Asia-Pacific returning 10.5%.

During Q1 2020 to date, equity returns have generally been positive in local currency terms, although the United Kingdom (-1.2%); Japan (-0.4%); and Emerging Markets (-1.2%) have posted negative returns. However, a weaker pound over the quarter-to-date has limited the losses, and in Sterling terms, both Japan (+0.1%) and Emerging Markets (+0.6%) have posted positive returns. Local currency Japanese and Emerging Market returns have been impacted by the coronavirus outbreak, and it is difficult at present to forecast how the situation will develop and the subsequent economic impact.

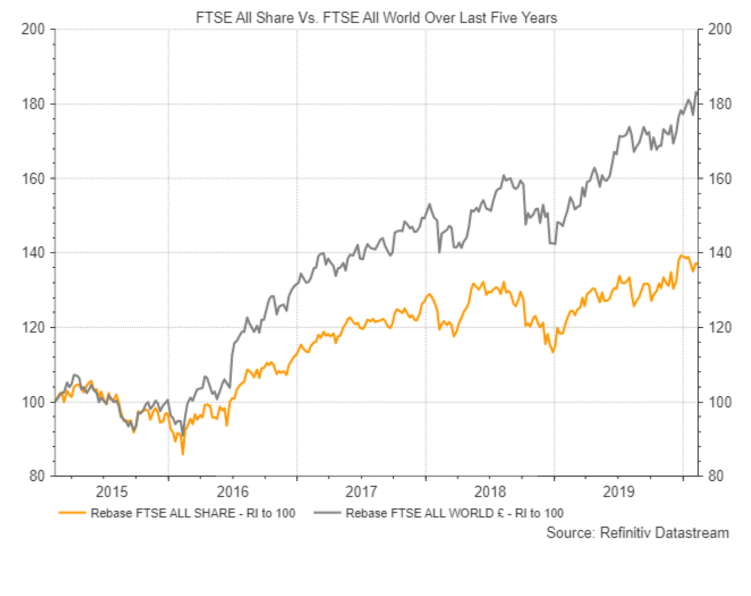
UK Equities returned 9.6% in the year to 14 February 2020, lagging most regional markets, as Brexit and political concerns continued to weigh on investor sentiment. UK equities, together with Sterling, initially rallied following the general election in December but investor confidence faded after it was announced that the Withdrawal Agreement Bill would include a provision preventing an extension of transition period beyond the end of 2020, giving the UK a very short period of time to agree a free trade deal and avoid a hard Brexit.





United Kingdom Equities

DPF Weightings	
Old Neutral	25.0%
New Neutral	16.0%
Actual 31.1.20	17.4%
AF Recommendation	16.0%
IIMT Recommendation	17.4%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	(1.2%)
Q3 19/20	4.2%
1 Year to Dec-19	19.2%
3 Years to Dec-19 (pa)	6.9%
5 Years to Dec-19 (pa)	7.5%



Whilst there were no net transactions in the period, relative market strength increased the weighting in UK Equities from 17.3% at 31 October 2019 to 17.4% at 31 January 2020; 1.4% overweight relative to the benchmark. The transition to a passive UK Equity product was completed in November 2019, although the Fund continues to maintain a portfolio of small and mid-cap pooled vehicles. These accounted for around 8% of the UK portfolio at 31 January 2020, and have performed strongly over the long-term.

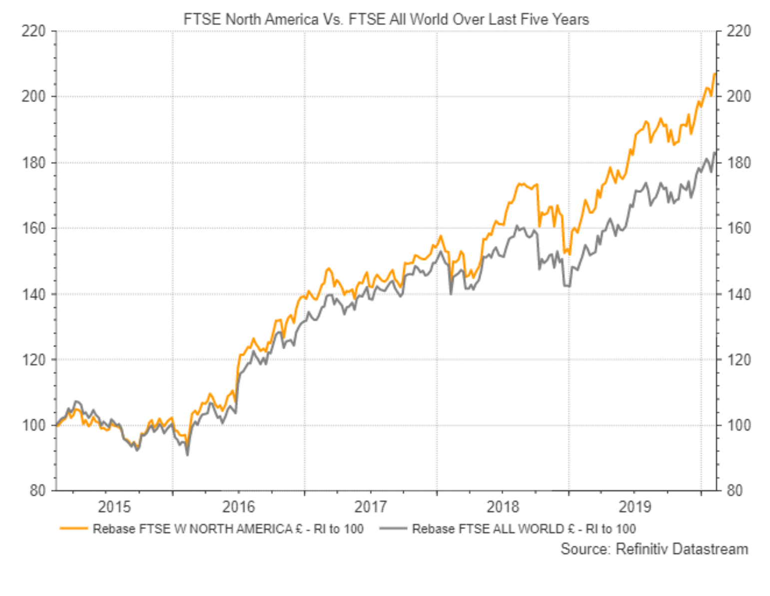
Mr Fletcher recommends a neutral weighting of 16% in UK Equities and notes that the prolonged uncertainty over Brexit has caused the UK market to underperform the rest of the world, and as a result the UK equity market has become ‘‘cheap’’ on a relative valuation basis. Mr Fletcher notes that he would not suggest a further reduction in the allocation.

The IIMT notes that whilst the first estimate of Q4 2019 GDP growth showed that the economy stagnated at the end of 2019, more recent data has been positive. Since the election, indicators in respect of activity PMIs (Purchasing Managers’ Index), British Retail Consortium Retail Sales Monitor, CBI Surveys and housing activity have shown improvement, and this is likely to be supported by a fiscal boost in the Budget in March 2020. Political risk has reduced, particularly in the eyes of overseas investors, although the IIMT note that this could increase again should the UK – EU trade deal negotiations hit difficulties.

Whilst the IIMT believes that UK Equity returns may be volatile in the short-term, the current forward price to earnings ratio of 13.8x is attractive when compared to the 25 year average (14.3x), and against US and developed market peers (e.g. 18.4x and 17.1x, respectively). UK Equities also currently offer an attractive dividend yield (4.8% versus 1.8% in the US), and with around 70% of the earnings of the UK market generated overseas, investors are currently able to access those earnings at attractive levels. As a result, the IIMT recommends maintaining the current UK weighting of 17.4%.

North American Equities

DPF Weightings	
New Neutral	12.0%
Old Neutral	12.0%
Actual 31.1.20	10.9%
AF Recommendation	11.0%
IIMT Recommendation	10.0%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	7.0%
Q3 19/20	1.4%
1 Year to Dec-19	26.5%
3 Years to Dec-19 (pa)	12.4%
5 Years to Dec-19 (pa)	14.9%



There were no transactions in the period but relative market strength increased the Fund's North American Equity weighting to 10.9% at 31 January 2020, 1.1% underweight.

Mr Fletcher notes that the US continues to have a higher growth rate and lower interest rates than other developed markets and this is more than fully priced into the current level of valuations. Whilst the latest published data on manufacturing PMI's suggests that the slowdown in global trade and industrial production caused by the US – China trade negotiations may be behind us, Mr Fletcher believes that this is likely to have a more positive impact on Europe, Japan and Asia Pacific. Mr Fletcher recommends that the Fund remains 1% underweight in US Equities.

The IIMT notes that the US economy grew for the twelfth successive year in 2019. Whilst the growth rate moderated from around 3% per annum to 2.1% in Q4 2019, the economic backdrop and non-farm payrolls (US employment numbers) remain positive, although rising payroll costs are placing pressure on margins, and consumer confidence has declined. Whilst the signing of a phase one US – China trade deal was positive news, representing a de-escalation of tensions, significant tariffs remain in place and these are at far higher levels than before the start of the trade war. Trade tensions could re-escalate following the US election.

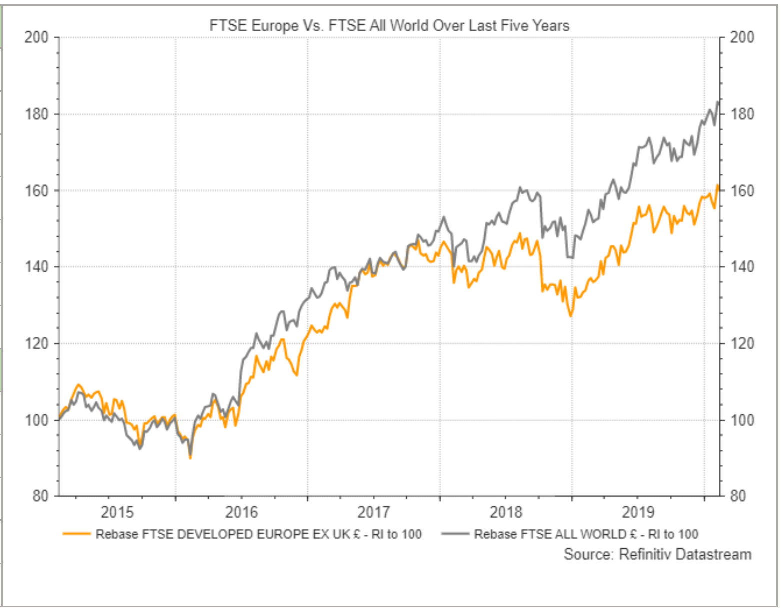
Political uncertainty in the US in the run-up to the US Presidential election is also likely to increase. The policies of a number of the leading contenders in the race for the Democratic leadership are likely to cause increasing concern on Wall Street as the campaign progresses.

US Equities have generated a total local currency return of 52.3% over the three years to 14 February 2020, of which 25.6% relates to the last twelve months alone. Around two-thirds of this increase has been driven by a concentrated increase in just eight stocks (Facebook, Apple, Amazon, Netflix, Google, Microsoft, Visa and MasterCard), and the current market forward price earnings ratio of 18.4x versus a 25 year average of 16.3x.

The IIMT believes that the increasingly late cycle nature of the US economy, coupled with rich equity valuations, and the sharp rise in the US equity market noted above support an underweight position, and recommends that the Fund's position is reduced by 0.9% to 10.0% (2.0% underweight).

European Equities

DPF Weightings	
Old Neutral	9.0%
New Neutral	8.0%
Actual 31.1.20	8.4%
AF Recommendation	8.0%
IIMT Recommendation	7.4%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	2.9%
Q3 19/20	0.9%
1 Year to Dec-19	20.2%
3 Years to Dec-19 (pa)	8.5%
5 Years to Dec-19 (pa)	10.0%



Whilst there were no transactions in the period, relative market weakness reduced the Fund's allocation to European Equities to 8.4% at 31 January 2020; 0.4% overweight.

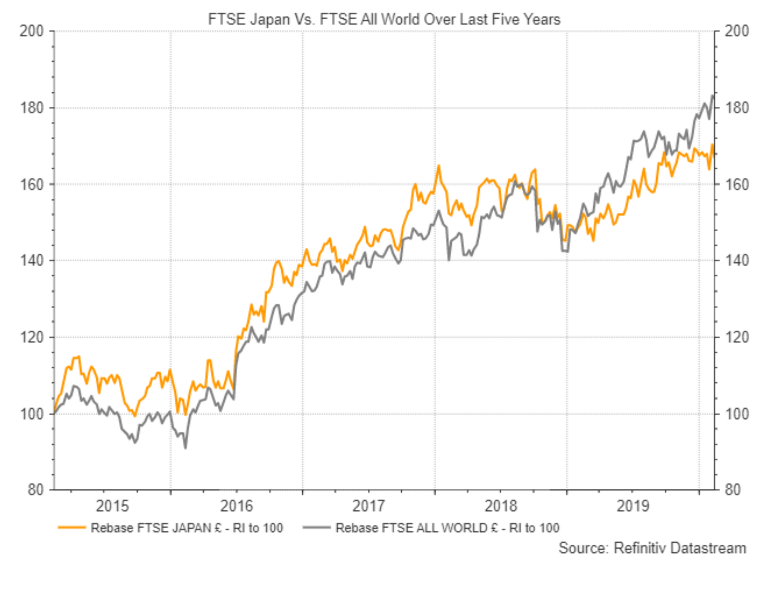
Mr Fletcher recommends a neutral position of 8%, noting that the recent US – China phase one trade agreement is likely to have a positive impact as the region should benefit from any rebound in global manufacturing.

Growth in the Eurozone remains weak despite continued monetary policy support. Overall growth in Q4 2019 was 0.1% but the regions three largest economies either stagnated (Germany 0%) or contracted (France -0.1% and Italy -0.3%). Eurozone manufacturing activity has shown some improvement, and should international trade improve on the back of the US – China phase one trade deal, both Germany and Italy should benefit. Christine Lagarde, the new president of the European Central Bank (ECB), has reiterated calls for more fiscal stimulus, in particular to countries more able to borrow than others, commenting that good fiscal support would support the ECB's monetary policy.

The IIMT believes that the sharp rise in the European Equity market (up 24.4% in local currency terms over the last twelve months, largely driven by higher multiples) represents an opportunity to 'lock-in' some further profit against a lacklustre background. The IIMT recommends reducing the current weighting by 1.0% to 7.4% (0.6% underweight).

Japanese Equities

DPF Weightings	
Old Neutral	5.0%
New Neutral	5.0%
Actual 31.1.20	6.4%
AF Recommendation	5.0%
IIMT Recommendation	6.0%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	0.1%
Q3 19/20	0.2%
1 Year to Dec-19	14.8%
3 Years to Dec-19 (pa)	6.7%
5 Years to Dec-19 (pa)	11.9%



Whilst there were no transactions in the three months to January 2020, relative market weakness reduced the weighting by 0.2% to 6.4% at 31 January 2020; 1.4% overweight against the benchmark.

Mr Fletcher recommends a 5% neutral position, noting that the recent US – China phase one trade agreement is likely to have a positive impact.

GDP fell by -1.6% in Q4 2019 (-6.3% on an annualised basis). Private consumption was adversely effected by the introduction of a long-delayed increase in consumption tax from 8% to 10% on 1 October and business investment weakened as businesses delayed capital expenditure to prioritise recovery and reconstruction efforts after the multiple typhoons that struck Japan in the autumn. The fall was the largest quarterly drop since 2Q14, right after the previous consumption tax hike in 2014.

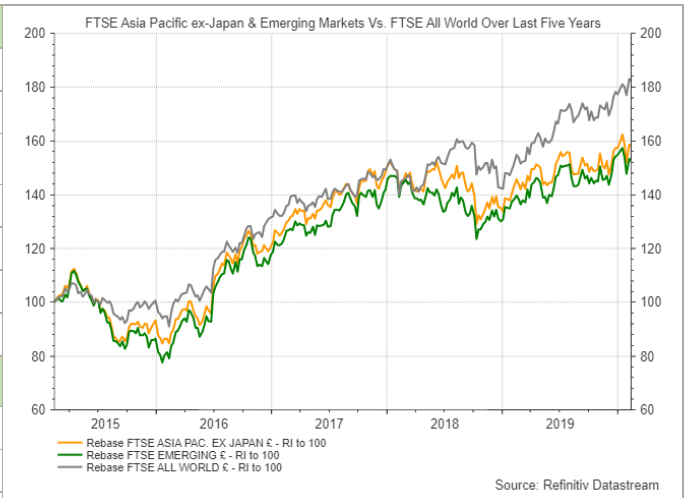
Consensus forecasts for 2020 indicate growth of 0.4% but this now appears optimistic given the greater than expected Q4 2019 drop. Recessionary fears have increased, and these are being exacerbated by the coronavirus outbreak. Early indicators for Q1 2020 have not been encouraging, with the manufacturing PMI and Tankan Survey both declining, and firms forecasting lower industrial output.

The Japanese service sector has outperformed the weaker manufacturing sector which has struggled in the face of lower exports. Japanese industry has been affected by global trade tensions, including a dispute with South Korea and a slowdown in growth in China, which is Japan's biggest trading partner. In response to the challenging backdrop, the Japanese government announced a $120bn stimulus plan in December 2019, with a particular focus on reconstruction, which should help to support economic growth. The economy in 2020 should also benefit from Japan's hosting of the Olympics and Paralympics.

Notwithstanding the 2019 slowdown, the IIMT believes that the long term story in Japan remains intact. Valuations remain attractive, relative both to their historical ranges and other developed markets with the current forward price to earnings ratio of 14.4x remaining substantially below its 25 year average. The diversifying and defensive qualities of the Japanese market (e.g. the safe-haven status of the ¥) also provide investment support. Whilst the IIMT believes that an overweight position remains appropriate, it is recommended that the allocation is reduced by 0.4% to 6.0%; 1.0% overweight.

Asia Pacific Ex-Japan and Emerging Market Equities

DPF Weightings	Asia-Pac	EM
Old Neutral	4.0%	3.0%
New Neutral	4.0%	5.0%
Actual 31.1.20	4.7%	4.9%
AF Recommendation	4.0%	6.0%
IIMT Recommendation	4.0%	5.0%
Benchmark Returns (GB£)	**Asia-Pac**	**EM**
Q4 19/20 to 14 Feb-20	2.3%	0.6%
Q3 19/20	2.8%	4.0%
1 Year to Dec-19	14.5%	15.9%
3 Years to Dec-19 (pa)	8.9%	9.0%
5 Years to Dec-19 (pa)	9.6%	9.5%



Divestment of £11m resulting from the winding-up of a pooled investment vehicle, together with relative market weakness, reduced the allocation to Asia Pacific Ex-Japan Equities by 0.3% to 4.7% at 31 January 2020. Net investment of £5m increased the allocation to Emerging Market Equities by 0.1% to 4.9% at 31 January 2020.

Mr Fletcher has continued to recommend a neutral weighting of 4% in Asia Pacific Equities, and a 1% overweight allocation of 6% to Emerging Market Equities. Mr Fletcher continues to have confidence in the long-term growth prospects of emerging market economies, and believes that the potential weakness caused by the coronavirus outbreak is an opportunity to increase the Fund's weighting.

The IIMT continues to believe in the long term growth potential of these regions, noting that these regions have accounted for well over half of global GDP growth over the last ten years. As shown below, the Asia Ex-Japan region is forecast to grow by 5.0% in 2020, rising to 5.1% in 2021. These rates are significantly higher than developed markets.

Region	Real GDP 2019 (A)	Real GDP 2020 (F)	Real GDP 2021 (F)
Asia Ex-Japan	5.0%	5.0%	5.1%
Latin America	0.6%	1.5%	2.3%
Eastern Europe	2.2%	2.6%	2.6%
North America	2.3%	1.9%	1.9%
Japan	1.0%	0.4%	0.6%
Eurozone	1.2%	1.0%	1.2%
United Kingdom	1.3%	1.1%	1.4%

Source: January 2020 Consensus Forecasts

Seven out of the world's fifteen largest economies by GDP form part of the Asia Pacific Ex-Japan and Emerging Market regions (China 2nd; India 5th; Brazil 9th; Russia 10th; South Korea 11th; Australia 14th; and Mexico 15th). These seven countries accounted for 28.6% of global GDP in 2019, of which China accounted for 16.3%. However, over the last five years, Asia Pacific and Emerging Market equity returns have been relatively weak - cumulative total dollar returns from US equities over the last five years totalled 75.4%, compared to 32.4% from Asia Pacific equities and 27.6% from emerging market equities. This poor relative performance has been attributed to three key drivers: a stronger dollar acting as a headwind for further migration of western savings pools towards these regions; tepid global growth, including an on-going slowdown in China; and the increase in more domestically focused political agendas (e.g. at the expense of further globalisation).

Equity cash inflows into these regions had started to increase prior the coronavirus outbreak, supported by strong structural dynamics (e.g. rising GDP per capita and an increasing urbanisation rate), the signing of a US – China phase one trade agreement, a growing belief that the economic outlook has stabilised and attractive relative valuations (a current forward price to earnings ratio of around 13.0x versus a twenty year average of around 14.7x). However, the short term economic outlook is now less clear following the coronavirus outbreak. Whilst the virus has spread to 24 countries, the outbreak is most prevalent in the Asia Pacific region, particularly China. Passenger traffic in China is down by around 60% compared to the Lunar New Year holiday last year and property sales have fallen sharply. There are also signs that the disruption is starting to spread to neighbouring economies through supply chains. Imports to Korea from China during the first ten days of February 2020 fell by nearly 50% year-on-year, representing the largest fall since the Asia financial crisis in 1999 and larger than the drop experienced at the height of the global financial crisis in 2008-09.

It is unclear what impact the outbreak will have on the global economic outlook, although parallels are being drawn to the 2003 SARS outbreak. Following the SARS outbreak in April 2003, Chinese GDP fell from 2.9% in Q1 to 0.8% in Q2, before rebounding back to 3.7% in Q3 2003 as the outbreak of the virus was contained and cases fell. It is worthwhile noting that China now accounts for a much greater proportion of the global economy than it did in 2003 (17% now versus 4% then).

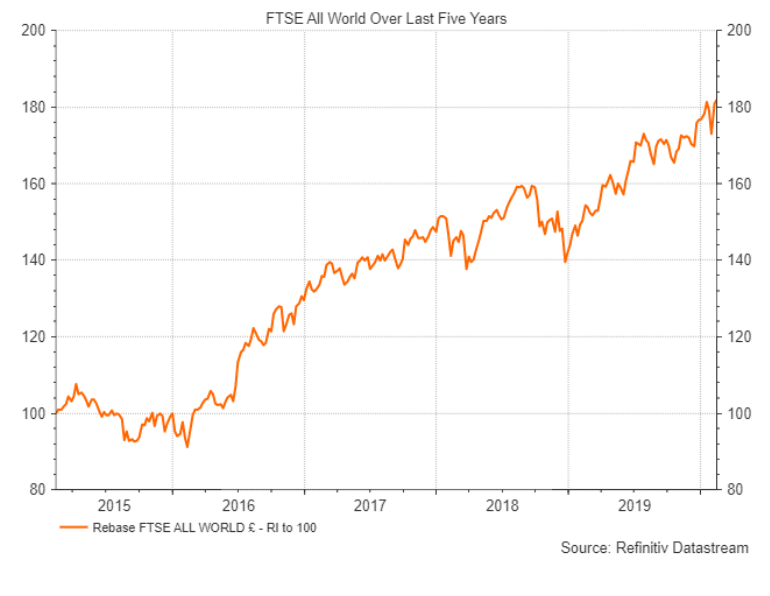
Capital Economics forecast that the coronavirus outbreak will reshape the global economic outlook for at least the next few quarters, and bring the global growth-streak to an end; Capital Economics now expect the Chinese economy to contract in Q1 2020. However, Capital Economics believe that provided containment measures are further relaxed in the coming weeks, activity in the affected countries will rebound in Q2 and the global recovery will get back on track, albeit they also note that some have questioned whether the outbreak will have longer term impacts, including threatening further globalisation. For example, the outbreak has highlighted vulnerabilities in global supply chains. Many firms are now warning about an impending shortage of component parts caused by factory closures in China. Capital Economics note that before the outbreak, global economic indicators were either stabilising or picking up.

Since the start of the calendar year, both Asia Pacific Ex-Japan Equities and Emerging Market Equities have under-performed relative to the FTSE All World, reflecting coronavirus concerns. Whilst the IIMT continues to believe in the long term growth potential of these regions, the short term outlook is less clear. Regional economic data has continued to disappoint, with slowing GDP growth across China, India, South Korea, Emerging Europe and Latin America. Whilst growth outside of China is expected to pick-up in 2020, the recovery is expected to be subdued, and underpinned by further monetary policy support. The Chinese economy was expected to slow further in 2020 even before the coronavirus outbreak, and has been affected by weaker external demand, lacklustre credit growth and strained corporate balance sheets weighing on investment.

The IIMT recommends that the Fund reduces the Asia Pacific Ex-Japan Equity weighting by 0.7% to take it to a neutral position of 4%, whilst adding marginally to Emerging Market Equities to return the region to a neutral weighting of 5%.

Global Sustainable Equities

DPF Weightings	
Old Neutral	-
New Neutral	3.0%
Actual 31.1.20	-
AF Recommendation	3.0%
IIMT Recommendation	3.0%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	4.5%
Q3 19/20	1.5%
1 Year to Dec-19	22.3%
3 Years to Dec-19 (pa)	10.4%
5 Years to Dec-19 (pa)	12.6%



The new strategic asset allocation benchmark includes a 3% allocation to Global Sustainable Equities, and Mr Fletcher recommends a 3% neutral allocation. The Committee has already approved the use of a non-DCC framework to appoint two or three investment managers to manage the planned allocation on a discretionary basis. The non-DCC framework has now been finalised and the IIMT is currently in the process of selecting the managers to be appointed. The IIMT expects this to be completed by mid-March 2020, with cash deployment as soon as possible thereafter.

The IIMT recommends a neutral opening allocation of 3%.

Private Equity

DPF Weighting					
Old New	New Neutral	Actual 31.1.20	Committed 31.1.20	AF Recommendation	IIMT Recommendation
4.0%	4.0%	3.2%	4.8%	4.0%	3.2%
Benchmark Returns (GB£)					
Q4 19/20 to 14 Feb-20	Q3 19/20	1 Year to Dec-19	3 Years to Dec-19 (pa)	5 Years to Dec-19 (pa)	
(1.1%)	4.4%	20.2%	7.9%	8.4%	

The Private Equity allocation increased by 0.2% between 31 October 2019 and 31 January 2020 at 3.2% reflecting existing commitment drawdowns; 4.8% on a committed basis.

Mr Fletcher recommends a neutral weighting of 4% in Private Equity. The IIMT continues to seek out opportunities, and recommends that the current invested and committed weightings are maintained while opportunities are assessed, albeit the IIMT notes that private equity earnings multiples have increased over the last few years, and are now approaching record highs, particularly in respect of large and mega cap deals, making it difficult to find attractive opportunities at this stage in the cycle. The IIMT continues to prefer small to mid-cap focused opportunities, believing that this part of the market is less competitive and innovation is more likely to come from smaller, lesser known, private businesses than larger and more visible companies. Consideration is also being given to investing in listed small-cap stocks as an alternative but this is not considered an immediate priority, and is scheduled to be reviewed as part of a LGPS Central Pool collaboration exercise in 2020/21.

(viii) Income Assets

At 31 January 2020, the overall weighting in Income Assets was 20.4%, down from 20.5% at 31 October 2020, principally reflecting relative market weakness. The IIMT recommendations below would take the overall Income Asset weighting to 21.2%, and the committed weighting to 25.3%.

Multi Asset Credit

DPF Weighting				
Old Neutral	New Neutral	Actual 31.1.20	AF Recommendation	IIMT Recommendation
4.0%	6.0%	6.3%	6.0%	6.5%
Benchmark Returns (GB£)				
Q4 19/20 to 14 Feb-20	Q3 19/20	1 Year to Dec-19	3 Years to Dec-19 (pa)	5 Years to Dec-19 (pa)
0.5%	0.9%	3.8%	3.6%	n/a

Net investment of £12m in January 2020 increased the invested weighting from 6.1% at 31 October 2019 to 6.3% at 31 January 2020; 8.1% on a committed basis versus a neutral weight of 6%. Whilst this implies the pension fund will be 2.1% overweight should all the commitments be drawn-down, in practice it is unlikely that the commitments will be fully drawn, and some of the existing closed-ended investments have now entered their distribution phase (i.e. returning cash to investors).

Mr Fletcher recommends a neutral 6% allocation to Multi-Asset Credit in order to increase the diversified opportunity set going forward.

The IIMT continues to remain positive about the long-term attractions of this asset class. Whilst Multi-Asset Credit is likely to under-perform in a ‘risk-off’ environment, the under-performance should be lower than that experienced by Growth Assets.

Q4 2019 reported positive returns across sub-investment grade asset classes as markets experienced a ‘risk-on’ environment in the final months of 2019. This may indicate that pricing risk has increased and returns over 2020 may be more muted. Default risk is the biggest risk to the Multi-Asset Credit portfolio, and the IIMT, together with the Fund’s selected investment managers, continue to prefer a bias towards defensive forms of credit (e.g. senior secured debt) with strong covenants, short duration, floating rate protection and a yield pick-up. Whilst credit defaults are currently low (reflecting the low interest environment and the ability of corporates to refinance relatively easy) there is a risk that geopolitical uncertainty could cause an unexpected loss of confidence which leads to an economic slowdown, a loss of corporate earnings and a rise in defaults. Disciplined and active fundamental credit selection is vital.

The IIMT recommends increasing the invested weighting by 0.2% to 6.5% in the upcoming quarter (0.5% overweight) to cover existing commitment draw-downs.

Property

DPF Weighting				
Old Neutral	New Neutral	Actual 31.1.20	AF Recommendation	IIMT Recommendation
9.0%	9.0%	7.9%	9.0%	7.9%
Benchmark Returns (GB£)				
Q4 19/20 to 14 Feb-20	Q3 19/20	1 Year to Dec-19	3 Years to Dec-19 (pa)	5 Years to Dec-19 (pa)
Not Available	1.2%	2.5%	6.1%	6.9%

The Fund’s allocation to Property fell by 0.1% to 7.9% at 31 January 2020. Direct Property accounted for 4.6% (0.4% underweight) and Indirect Property accounted for 3.3% (0.7% underweight). The committed weight was 8.2% at 31 January 2020.

Mr Fletcher notes that the property market continues to provide diversified returns and that the Direct Property Manager continues to outperform. Mr Fletcher continues to recommend a neutral overall allocation to Property, with a preference for a 1% overweight position in Direct Property and a 1% underweight in Indirect Property.

The IIMT recommends maintaining the current 4.6% allocation to Direct Property whilst the Property Manager continues to seek out attractive propositions. The Property Manager notes that the UK commercial property market was subdued in the last six months of 2019 but improved clarity in terms of the General Election result and Brexit is expected to boost confidence and liquidity moving forward. Total overall returns remain low, largely due to an under-performing retail sector, where the news has failed to improve. A bias towards office, industrial and alternative assets in terms of sector weightings, as well as enhancing values through active asset management should be of benefit to Fund performance looking forward.

The IIMT continues to assess indirect property opportunities, with a focus on vehicles invested in specialist areas which provide diversification to the Direct Property portfolio, strong covenants and sustainable rental growth. The IIMT recommends maintaining the Indirect Property weighting at 3.3% (3.6% on a committed basis), whilst investigating further investment opportunities in this asset class.

Infrastructure

DPF Weighting					
Old Neutral	New Netural	Actual 31.1.20	Committed 31.1.20	AF Recommendation	IIMT Recommendation
5.0%	8.0%	6.2%	9.0%	8.0%	6.8%
Benchmark Returns (GB£)					
Q4 19/20 to 14 Feb-20	Q3 19/20	1 Year to Dec-19	3 Years to Dec-19 (pa)	5 Years to Dec-19 (pa)	
0.5%	0.7%	2.8%	2.6%	2.3%	

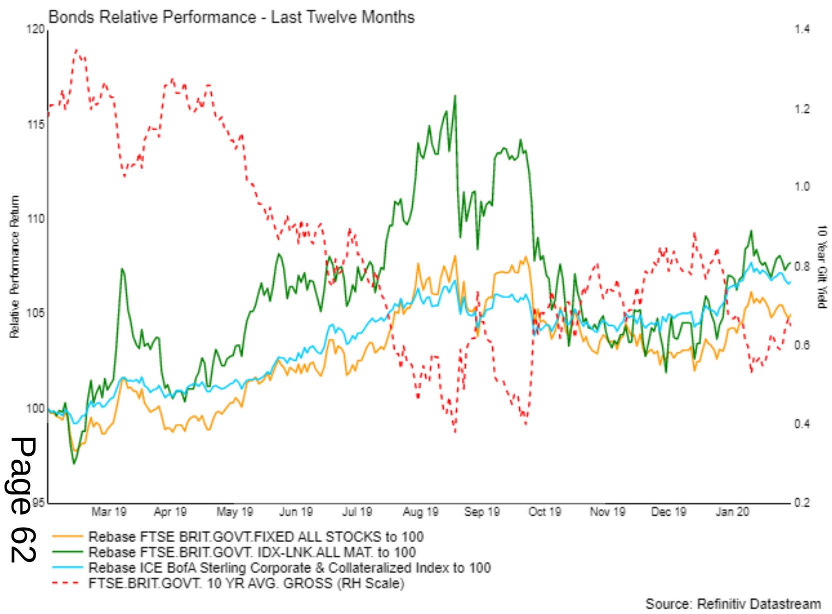
Investment in the three months to January 2020 totalled £2m. The invested weighting fell by 0.2% to 6.2% over the period, resulting from an adverse currency movement. The committed weighting increased to 9.0% at 31 January 2020 reflecting a £50m commitment to a globally diversified renewable energy fund.

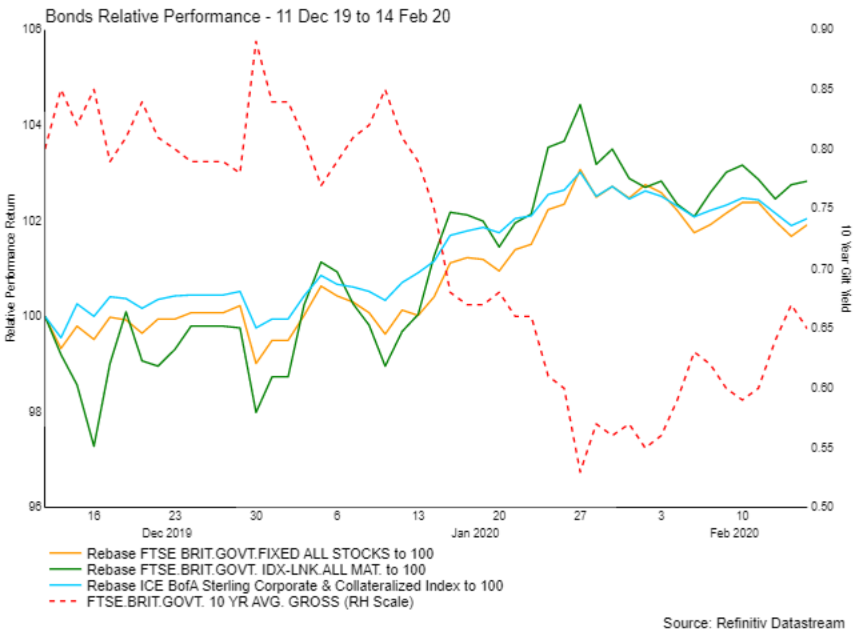
Mr Fletcher recommends a neutral weighting of 8% relative to the benchmark.

The IIMT continue to view Infrastructure as an attractive asset class, and favour a bias towards core infrastructure assets given the market is now increasingly late cycle. Core infrastructure assets can offer low volatility; low correlation to equity and fixed income; and reliable long-term cash flows. The IIMT continue to believe that infrastructure assets are exposed to increased political and regulatory risk, and this is managed through geographic diversification. Future investment opportunities, which are in line with these objectives, continue to be assessed, including additional renewable energy generation assets; renewable energy storage & demand management assets; and associated transmission and distribution assets.

The IIMT recommends increasing the invested weighting by 0.6% to 6.8% in the upcoming quarter, in anticipation of existing commitment draw-downs.

(ix) Protection Assets





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The weighting in Protection Assets at 31 January 2020 was 17.3%, the same as reported at 31 October 2019.

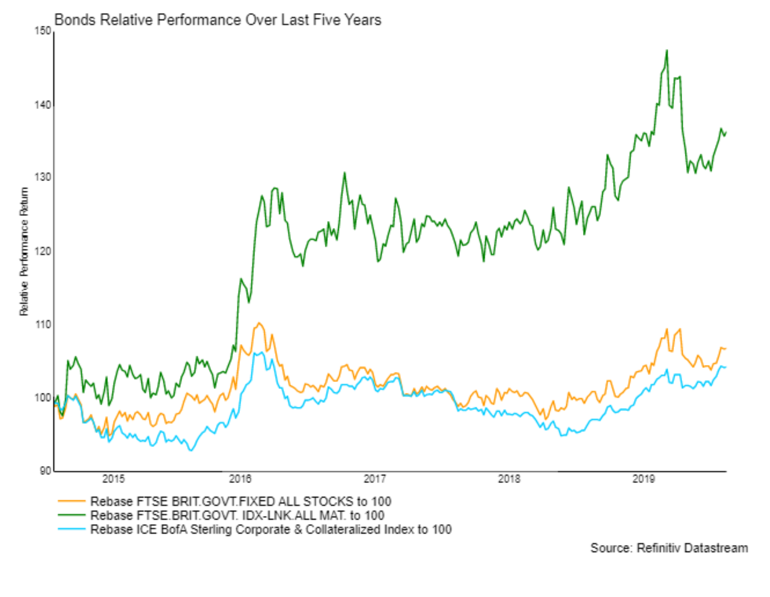
The IIMT recommendations below maintain the weighting at 17.3%.

The charts above show the relative bond returns over the last twelve months, and since the last Committee meeting.

The UK 10 year government bond yield fell sharply (i.e. prices rose) between May 2019 and September 2019 as UK economic activity slowed and uncertainty about the UK's departure from the EU intensified. Yields rose in the run-up to the General Election as fears over a 'no-deal' Brexit receded and investors focussed on concerns that UK public spending was likely to increase significantly following the General Election. In the first weeks of 2020, yields have generally followed the news on the coronavirus; falling when the outbreak appears to be spreading and rising when containment appears to be more successful.

Conventional Bonds

DPF Weightings	
Old Neutral	5.5%
New Neutral	6.0%
Actual 31.1.20	5.4%
AF Recommendation	6.0%
IIMT Recommendation	6.0%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	2.7%
Q3 19/20	(3.9%)
1 Year to Dec-19	6.9%
3 Years to Dec-19 (pa)	3.1%
5 Years to Dec-19 (pa)	3.9%



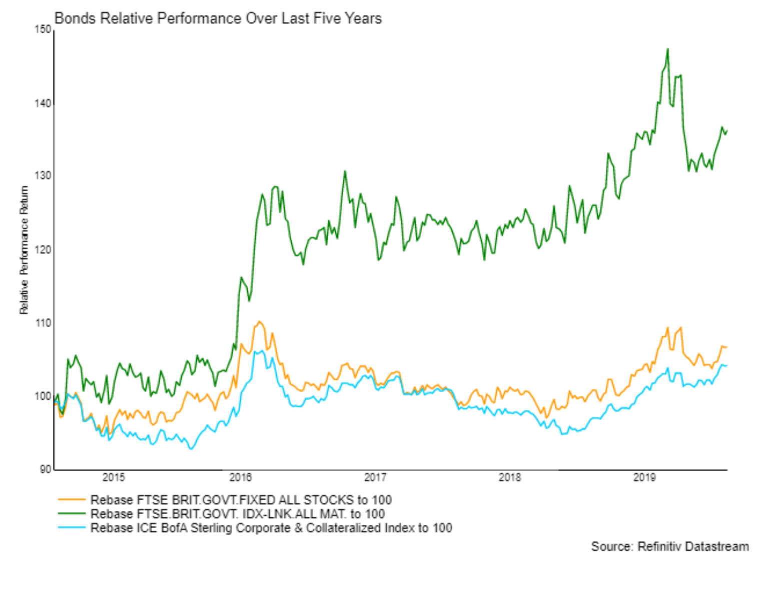
There were no transactions in the period, and the weighting in Conventional Bonds fell by 0.1% to 5.4% at 31 January 2020, reflecting relative market weakness; 0.6% underweight.

Mr Fletcher has increased his recommended allocation to Conventional Bonds by 1.0% to a neutral position of 6.0%. Mr Fletcher notes that whilst government bond yields increased significantly in Q4 2019, they have fallen back in January 2020 to almost the ‘all-time-lows’ seen earlier in 2019 as markets have responded to the coronavirus outbreak. Mr Fletcher believes that the current level of yield is temporary because it does not reflect the underlying economic data and is inconsistent with the recent decisions taken by central banks (outside of China) to keep rates on hold. Both the US Federal Reserve and the Bank of England have declined to reduce rates at their most recent policy meetings, and now that we are in a presidential election year, the US Federal Reserve is unlikely to increase US rates unless it is unavoidable. Mr Fletcher therefore expects government bond markets to potentially produce negative returns over the next couple of quarters. However, Mr Fletcher believes that the downside risk is greatest for Index-Linked bonds (see later), and has increased his allocation to Conventional Bonds by 1% at the expense of a 1% reduction in his allocation to Index-Linked Bonds.

The IIMT continue to believe that conventional sovereign bonds do not appear to offer good value at current levels, but note that they are diversifying assets and continue to afford greater protection than other asset classes in periods of market uncertainty as evidenced by the recent rally following the coronavirus outbreak (up 4.2% Q4 2018/19 to date). The IIMT recommends increasing the weighting by 0.6% to a neutral allocation of 6% to reflect the greater downside risk in respect of Index-Linked bonds as highlighted below.

Index-Linked Bonds

DPF Weightings	
Old Neutral	6.5%
New Neutral	6.0%
Actual 31.1.20	5.7%
AF Recommendation	4.0%
IIMT Recommendation	5.1%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-20	4.2%
Q3 19/20	(8.5%)
1 Year to Dec-19	6.4%
3 Years to Dec-19 (pa)	2.8%
5 Years to Dec-19 (pa)	6.0%



The Fund's weighting in Index Linked Bonds remained at 5.7% at 31 January 2020; 0.3% underweight. The Fund's off-benchmark hedged US Treasury Inflation Protected Securities (TIPS) portfolio, together with short duration positioning, protected the Fund from the benchmark negative return in Q4 2019 quarter of -8.5%. There were no transactions in the period.

As noted earlier, Mr Fletcher expects government bond markets to potentially produce negative returns over the next couple of quarters. Mr Fletcher has reduced his recommended allocation to UK Index-Linked Bonds from 6% to 3%, and maintained his 1% allocation US TIPS (i.e. 4% overall).

There has been an announcement that there will be a consultation on the future of the Retail Prices Index (RPI), the measure of inflation that is used to calculate all the cash flows of the UK government's index-linked gilts. Mr Fletcher notes that since the announcement some of the relative overvaluation in the UK index-linked market has been removed, albeit year-to-date in absolute terms the market has rallied strongly along with other long-dated low coupon government bonds. Mr Fletcher believes that this represents an opportunity to tactically reduce the exposure to UK Index-Linked Bonds, and recommends that the Fund considers selling at least half of its remaining index-linked gilts and buying duration equivalent UK conventional gilts or US TIPS, until at least the result of the consultation process and potential subsequent legal challenge is known.

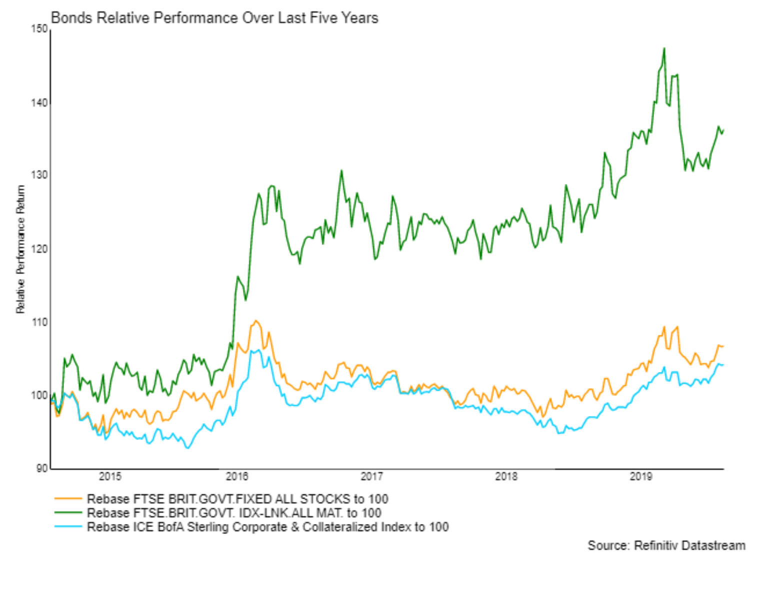
The consultation period is due to start following the Budget on 11th March and will run for six weeks with a response to the consultation expected before the parliamentary summer recess. The consultation will focus on a proposal to amend the underlying calculation of the RPI to align with CPIH (Consumer Prices Index including owner occupiers' housing costs). Over the last decade, the RPI has increased by around 1% more than CPIH on average per annum. This would imply a potential loss of value to index-linked holders.

The earliest date set for any possible change to the methodology for calculating the RPI is February 2025. Between 2025 and 2030, any change to the methodology will require the consent of the UK Chancellor.

The Fund is underweight relative to the benchmark in the longer dated index-linked bonds that would be most affected by any change in methodology that was not accompanied by some form of investor compensation. Whilst this position, together with the off-benchmark holdings in US inflation-linked bonds, provides the Fund with some protection against a negative outcome, the IIMT recommends reducing the current weighting in UK Index Linked Bonds from 5.7% to 5.1% (0.9% underweight) to reflect the fact that the consultation is likely to lead to increased volatility in the asset class. It is recommended that the current exposure to US TIPS (around 20% of the Index-Linked portfolio) is maintained.

Corporate Bonds

DPF Weightings	
Old Neutral	6.0%
New Neutral	6.0%
Actual 31.1.20	6.2%
AF Recommendation	6.0%
IIMT Recommendation	6.2%
Benchmark Returns (GB£)	
Q4 19/20 to 14 Feb-19	2.6%
Q3 19/20	(0.3%)
1 Year to Dec-19	11.4%
3 Years to Dec-19 (pa)	4.6%
5 Years to Dec-19 (pa)	5.2%



Whilst there were no transactions in the period, relative market strength increased the weighting in Corporate Bonds at 31 January 2020 to 6.2%; 0.2% overweight.

Mr Fletcher notes that investment grade bonds are likely to move in line with government bonds and deliver negative returns over the next couple of quarters. Investment grade credit is also vulnerable to high yield bonds because of their higher duration, high leverage, low interest cover (particularly in the US) and falling liquidity. Mr Fletcher continues to believe that corporate bonds should be held at a 6% neutral position because the biggest risk is in longer duration, lower yielding government bonds, as these offer little protection in a rising yield environment. Mr Fletcher does not anticipate a worsening of credit conditions to cause a pick-up in credit defaults.

The IIMT recommends that the current allocation of 6.2% is maintained.

The Fund's transition of the legacy UK corporate bond portfolio into a global investment grade corporate bond fund developed by LGPS Central Limited is on-going. This will see the Fund's corporate bond benchmark realigned with that of the underlying LGPS Central Limited product.

(x) Cash

The Cash weighting at 31 January 2020 was 6.4%, 4.4% overweight relative to the benchmark. Mr Fletcher has maintained his 2% overweight allocation of 4% to Cash.

Whilst the global economy appears to have stabilised, the economic outlook remains modest, and appears to be heavily dependent on sustained central bank monetary support. Public markets continue to trade on rich valuations, with many global stock markets trading close to all-time highs; global stock markets have now participated in an almost unprecedented eleven year bull market. Notwithstanding the recent improvement in the global political backdrop, political uncertainty is likely to increase throughout 2020 as the rhetoric surrounding the US Presidential race steps up, including the threat that the US – China trade war (together with other trade wars) could escalate again following the election. Against this background, the IIMT recommends a defensive cash allocation of 5.5%. Furthermore, it should be noted that the cash weighting will reduce as private market commitments are drawn down.

3 Other 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 Investment Section.

5 Officer's Recommendations

5.1 That the report of the external adviser, Mr Fletcher, be noted.

5.2 That the asset allocations, total assets and long term performance analysis in this report be noted.

5.3 That the strategy outlined in the report be approved.

PETER HANDFORD

Director of Finance & ICT

Fourth Quarter 2019 Investment Report

PREPARED FOR:

Derbyshire County Council Pension Fund: Pensions and Investment Committee Meeting

MARCH 2020

Investment Report for Derbyshire County Council Pension Fund

This report has been prepared by Anthony Fletcher "External Investment Advisor" of Derbyshire County Council Pension Fund (the Fund). At the request of the Pension and Investment Committee the purpose of the report is to fulfil the following aims: -

- Provide an overview of market returns by asset class over the last quarter and 12 months.
- An analysis of the Fund's performance by asset class versus the Fund specific benchmark for the last quarter and the last 12 months.
- An overview of the economic and market outlook by major region, including consideration of the potential impact on the Fund's asset classes
- An overview of the outlook for each of the Funds asset classes for the next two years; and recommend asset class weightings for the next quarter together with supporting rationale.

The report is expected to lead to discussions with the in-house team on findings and recommendations as required. The advisor is expected to attend quarterly meetings of the Pensions and Investment Committee to present his views and actively advise committee members.

Meeting date 4th March 2020
Date of paper 4th February 2020

1. Market Background (Fourth quarter 2019)

Overall, 2019 turned out to be a much stronger year for most asset classes than expected at the start of the year. The significant volatility that weighed heavily on returns in the fourth quarter of 2018 quickly disappeared, as a result of the quick action of the world's major Central Banks and the US Federal Reserve (Fed) in particular.

Having stabilised the markets through rate cuts, the Fed was joined by the ECB and to a lesser extent the Bank of Japan with further moves to ease monetary policy. In October the Fed cut rates for the third time and suggested that there would be no further rates cuts in 2019 and 2020.

2020 is a presidential election year in the US and it has been the policy of the Fed in the past not to change rates once the election campaign has properly started unless it is unavoidable, therefore it is highly likely that the Fed will be on hold until November.

US equity market performance was buoyed by better than expected economic data and strengthening indications that a Phase One trade deal with China would be secured soon. Towards the end of the quarter, this culminated with official confirmation from both countries that a deal would be signed in mid-January. The S&P 500 ended the quarter up 9.1%, bringing year to date returns to 31.5% in US dollar terms.

UK stock market performance was modestly positive in Q4: the FTSE 100 rose by 2.7%, while the FTSE All-Share gained 4.2%. This subdued performance (in comparison to other equity indices) was the result of increased fear of a no-deal Brexit and the uncertainty created by another general election campaign, which unexpectedly led to a decisive win by the Conservative party. Even though UK indices rose mildly over the quarter, the returns for the whole of 2019 were still solid at 17.2% for the FTSE 100 and 19.2% for the FTSE All-Share. The weakness of the Euro and industrial production in Germany meant that European stocks only produced modest gains over the quarter. The Euro STOXX 50 index gained 5.2% in Euro terms over Q4.

After a lack lustre year, caused by uncertainty around the US / China trade negotiations, global geopolitical concerns and civil unrest in some countries, Emerging equity markets outperformed many other markets in Q4, the MSCI Emerging Markets index was up 11.7%.

The performance of emerging markets was flattered to some extent by the weakness of the US dollar. However, for Sterling based investors the recovery of the Pound against most currencies meant that overseas investment returns were lower than local currency returns.

Government bond yields rebounded from the lows seen in the third quarter, as investors increased their risk appetite. US Treasuries outperformed, with a loss of -0.8% over Q4, compared to the more "interest rate" sensitive UK Gilt market that returned -3.9% and Index Linked Gilts returned -8.5%.

In contrast to the returns from government bonds, UK investment grade corporate bonds delivered a return of -0.2% and the more economically sensitive but, less interest rate sensitive global high yield bond market returned +2.8%.

For the first time in the past 12 months, the UK property market saw a rise in house prices of over 1%. The average house price rose to £215,282, representing an increase from last quarter of 1.4% on a seasonally adjusted basis. On average commercial property prices also increased by 1.0% over the last quarter, despite office values remaining flat.

Commodity markets were generally higher in the fourth quarter, with some notable exceptions. Soft commodities prices were higher and metals (gold, copper, silver, and palladium) all performed strongly. Energy saw mixed performance, with Brent prices up 8.6%, contrasting with a fall in the price of natural gas of -6.1%.

Table 1, below shows the total investment return in pound Sterling for the major asset classes, using FTSE indices except where noted; for the month of January 2020 and the 3 and 12 months to the end of December 2019.

% TOTAL RETURN DIVIDENDS REINVESTED

	MARKET RETURNS		
		Period end 31st December 2019	
	January 2020	**3 months**	**12 months**
Global equity ACWI^	-0.1	1.1	23.4
Regional indices			
UK All Share	-3.3	4.2	19.2
North America	0.7	1.4	26.5
Europe ex UK	-0.3	1.2	21.3
Japan	-1.2	0.2	14.8
Pacific Basin	-3.0	2.8	14.5
Emerging Equity Markets	-4.1	4.0	15.9
UK Gilts - Conventional All Stocks	3.5	-3.9	6.9
UK Gilts - Index Linked All Stocks	4.1	-8.5	6.4
UK Corporate bonds*	2.8	-0.2	11.0
Overseas Bonds**	2.1	-1.6	5.8
UK Property quarterly^	-	1.2	2.5
Sterling 7 day LIBOR	0.06	0.18	0.7

^ MSCI indices * iBoxx £ Corporate Bond; **Citigroup WGBI ex UK hedged

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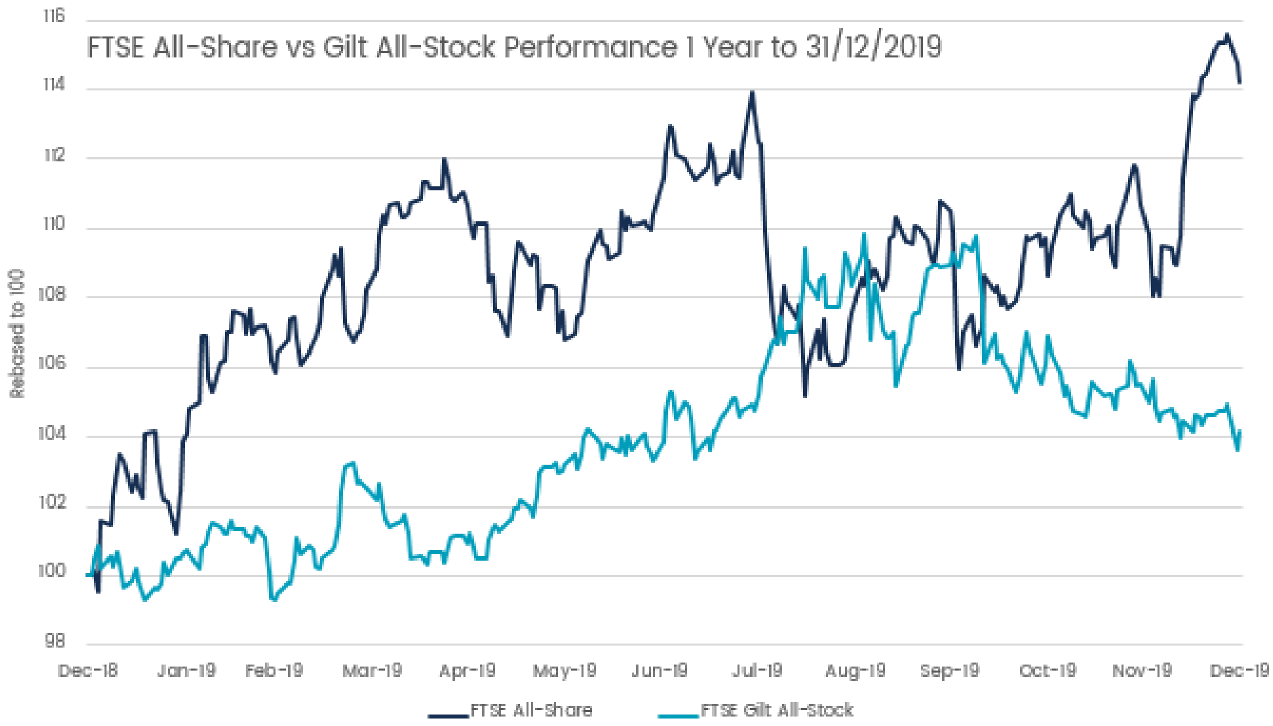
Chart 1: - UK bond and equity market returns - 12 months to 31st December 2019



Source: - Bloomberg

Table 2: - Change in Bond Market yields over the quarter and 12 months.

BOND MARKET % YIELD TO MATURITY	30th September 2019	31st December 2019	Quarterly Change	31st December 2018	Current 31st January 2020
UK GOVERNMENT BONDS (GILTS)					
10 year	0.49	0.82	**+0.33**	1.23	0.52
30 year	0.97	1.33	**+0.36**	1.82	1.04
Over 15y Index linked	-2.22	-1.84	**+0.38**	-1.57	-2.01
OVERSEAS 10 YEAR GOVERNMENT BONDS					
US Treasury	1.66	1.92	**+0.26**	2.68	1.51
Germany	-0.57	-0.19	**+0.38**	0.24	-0.43
Japan	-0.21	-0.01	**+0.20**	0.00	-0.07
NON-GOVERNMENT BOND INDICES					
UK corporates	2.05	2.16	**+0.11**	3.01	1.87
Global High yield	5.48	5.10	**-0.38**	7.46	5.11
Emerging markets	4.45	4.39	**-0.06**	5.35	4.24

Source: - Bloomberg, G8LI, UC00, HW00, EMGB, ICE indices 31st January 2020.

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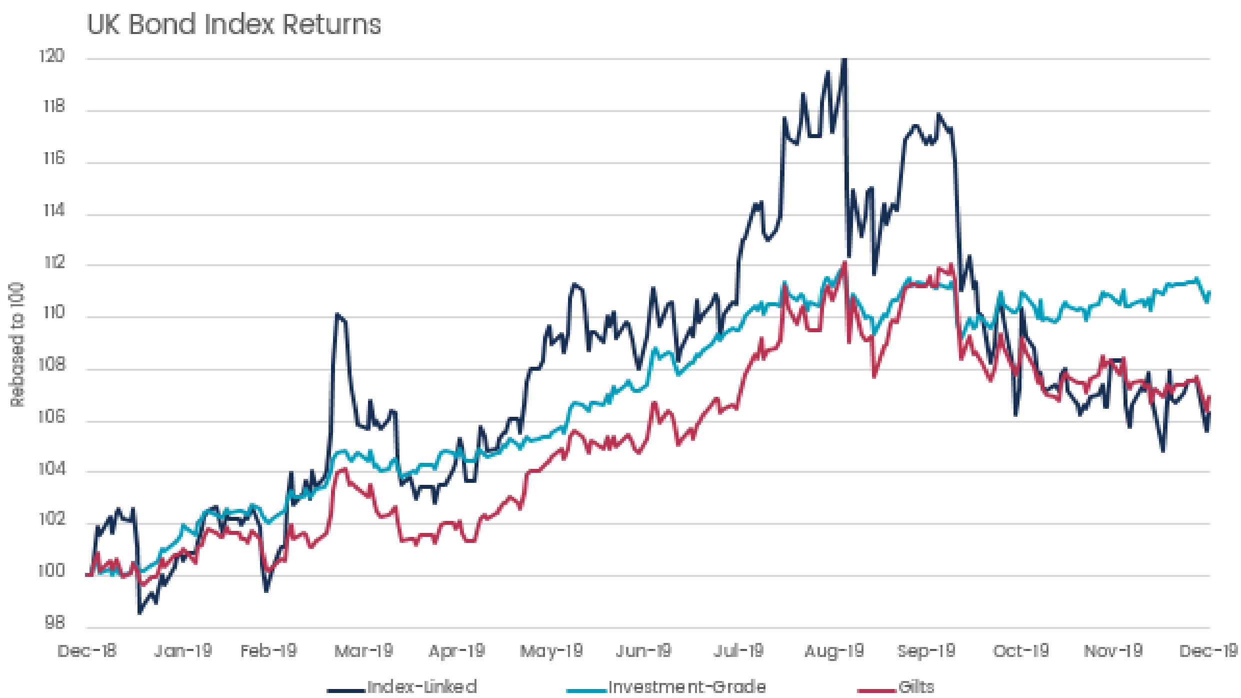
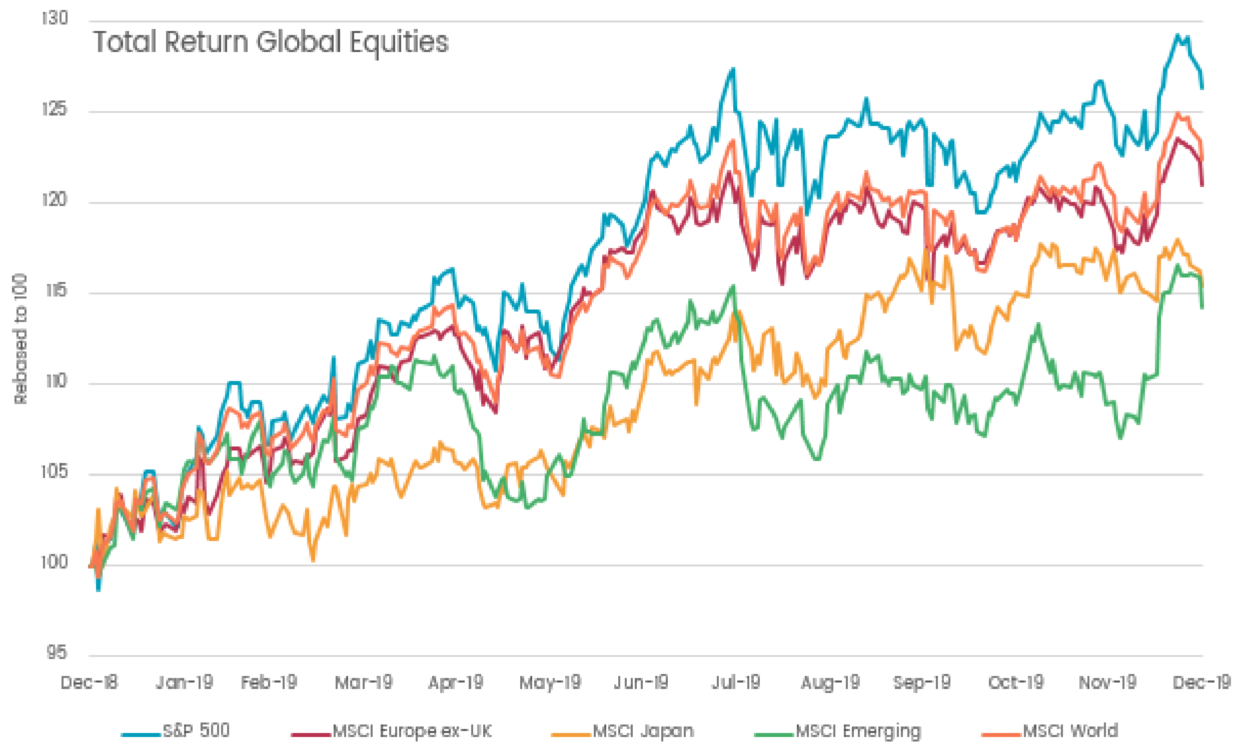
Chart 2: - Bond index returns in Sterling terms, 12 months to 31st December 2019.



Source: - Bloomberg

Chart 3: **-** Overseas equity markets returns in Sterling terms, 12 months to 31st December 2019.



Source: - Bloomberg

Recent developments (January 2020)

After 47 (43) years of ever closer integration the UK officially left the European Union on the 31st of January 2020. This however just marks "the end of the beginning" and now the UK has only 11 months to arrive at what will probably turn out to be an outline of the UK's future trading relationship with Europe. Both parties have set out their stalls, with Europe stating that if the UK wants friction free access to the Eurozone it will have to agree "broad regulatory" alignment and the UK government stating more or less the opposite.

After a marked slowdown of UK economic activity in 4th quarter, early data reports in January suggest enough of a rebound to persuade the Bank of England not to cut rates at their MPC meeting in January. Looking ahead the UK economy is likely to be supported by a sizeable fiscal boost, to be confirmed at the budget on the 11th March. The stock market should be supported by the removal of "Corbyn" risk, an attractive relative valuation, it's high yield and of course 5 years of a government with a big enough majority to deliver its intended policies.

By the end of the month markets suffered something of a reversal of fortune after getting off to a good start in the new decade. Equity markets were lower and the bond markets higher as the extent of the Coronavirus outbreak in China started to become clear. At the time of writing the WHO has not declared a "pandemic" but 26 different countries have reported cases of the infection but with only a couple of deaths outside China. At the moment it would appear that the virus is more "infectious" but not as deadly as the "SARS" outbreak in 2003. The next couple of weeks are considered pivotal in terms of containing the outbreak. As a result of the almost total shut down of transport within China and with its neighbours the outbreak is likely to have at least a temporary impact on growth in the region.

In the medium term the signing of the Phase one trade deal between the US and China should help reduce economic uncertainty. While the US and China will benefit from more trade and lower tariffs, the EU in particular Germany and Italy will also benefit from a potential rebound in global manufacturing.

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2. Investment Performance

Table 3 shows the performance of the Derbyshire Pension Fund versus the fund specific benchmark for the 3 months and year to the end of December 2019. The total Fund performance was in line with the benchmark over 3 and slightly ahead of benchmark over 12 months. Measured against longer time horizons, more appropriate for Pension Fund performance, the Fund continues to deliver positive returns and has outperformed the strategic benchmark on rolling 3,5,10 years and since inception on a net of fees basis. Over 10 years the Fund has achieved a total return of 8.7% per annum. Over 12 months the PEL attribution data suggests Stock Selection was positive whereas Asset Allocation made a smaller negative contribution.

Table 3: - Derbyshire Pension Fund and Benchmark returns

% TOTAL RETURN (NET) 31ST DECEMBER 2019	3 MONTHS		12 MONTHS	
	Derbyshire Pension Fund	**Benchmark**	**Derbyshire Pension Fund**	**Benchmark**
Total Growth Assets	**2.5**	**2.5**	**19.6**	**20.1**
UK Equity	5.2	4.2	19.9	19.2
Total Overseas Equity	**1.2**	**1.7**	**19.5**	**20.5**
North America	1.5	1.4	26.6	26.5
Europe	0.9	0.9	20.3	20.2
Japan	0.4	0.2	16.0	14.8
Pacific Basin	0.3	2.8	11.5	14.5
Emerging markets	3.3	4.0	15.5	15.9
Global Sustainable Equity	0.0	1.5	0.0	22.3
Global Private Equity	1.9	4.4	16.7	20.2
Total Protection Assets	**-3.1**	**-4.3**	**7.7**	**7.3**
UK Gilts	-2.9	-3.9	5.6	6.9
UK & Overseas Inflation Linked	-6.5	-8.5	7.1	6.4
UK Corporate bonds	-0.3	-0.3	10.4	11.4
Total Income Assets	**0.2**	**1.0**	**5.4**	**6.0**
Multi-asset Credit	1.0	0.9	5.4	3.8
Infrastructure	-0.9	0.7	8.5	2.8
Property (all sectors)	0.4	1.2	3.4	2.5
Internal Cash	0.0	0.1	0.1	0.5
Total Fund	**0.9**	**0.9**	**13.6**	**13.5**

Total fund value at 31st December 2019 £5,250 million

The fourth quarter saw reasonable returns from equity markets in local currency terms, however when currency is taken into consideration all overseas equity market returns were lower than those from the UK. After strong returns from bond markets year to date the fourth quarter saw negative returns from all bond markets, with long duration government bonds delivering the worst returns.

Over 12 months Growth assets produced the strongest positive returns as equity markets recovered from the negative returns generated in the fourth quarter of 2018.

Growth assets – Equity performance

Over the quarter the Fund terminated LGPS Central as manager of the UK direct active equity portfolio. Management of this part of the Fund was transferred to a passive fund managed by Legal and General Investment Management. Because this happened during the quarter and there have been some transition costs incurred it is difficult to comment about performance. The Fund retained a small exposure to listed investment companies, over 3 and 12 months it appears that because of the residual overweight position the UK equity portfolio outperformed its benchmark.

As can be seen in the table above absolute returns from overseas equities were lower than UK equities over 3 months due to the renewed strength of the Pound. Over 12 months overseas equity slightly outperformed UK equities and relative returns were mixed.

North American equity actively managed in a segregated portfolio (by Wellington) slightly outperformed over the quarter and 12 months. The Fund allocation remains slightly underweight with stock selection main driver of performance. The 3 year returns have recovered but remain slightly below the benchmark, over 10 years, Wellington remains 1.3% ahead of benchmark.

The continental European equity portfolio is passively managed by UBS. The 3 and 12 month returns are slightly ahead of benchmark as the allocation remains 0.5% overweight.

The other equity assets are invested in Japan, the Pacific Basin and Emerging Markets equities, via pooled funds selected by the in-house team, there were no significant changes in allocation. The performance of Japanese and Pacific ex Japan equity remains volatile over the short term but both allocations have delivered above benchmark returns over 3, 5 and 10 years. The absolute returns from emerging equity have also been volatile and over most periods are slightly behind the benchmark.

Private equity continues to deliver strong positive absolute and relative returns that are significantly ahead of the benchmark over the more meaningful 3, 5 and 10 year periods.

As yet no allocation has been made to Sustainable Global Equity, which is causing a drag on overall growth asset performance.

Protection assets - Fixed Income Performance

Over the fourth quarter the bond portfolio experienced negative absolute returns, but because the Fund is slightly underweight relative to the strategic allocation and the Fund's assets have lower aggregate duration (interest rate sensitivity) than the benchmark, performance was 1.2% better than the benchmark, over 3 months and 0.4% better over 12 months.

Income assets – Property, MAC and Infrastructure

Over the quarter, the total allocation to all property produced positive returns that were behind benchmark over 3 months, but well ahead of benchmark over 12 months. Over the longer-term direct property investments have helped the allocation outperform the benchmark whereas indirect property returns have been more mixed.

Over all the last 3 months the change in the value of Sterling had a negative impact on total returns, but over longer periods Infrastructure allocations produced positive returns well ahead of the benchmark.

The Multi-Asset Credit (MAC) allocation a combination of private debt, high yield and emerging market debt has outperformed in all periods. The 3y returns are 4.6% pa compared to 3.6% for the LIBOR based benchmark.

3. Economic and Market outlook

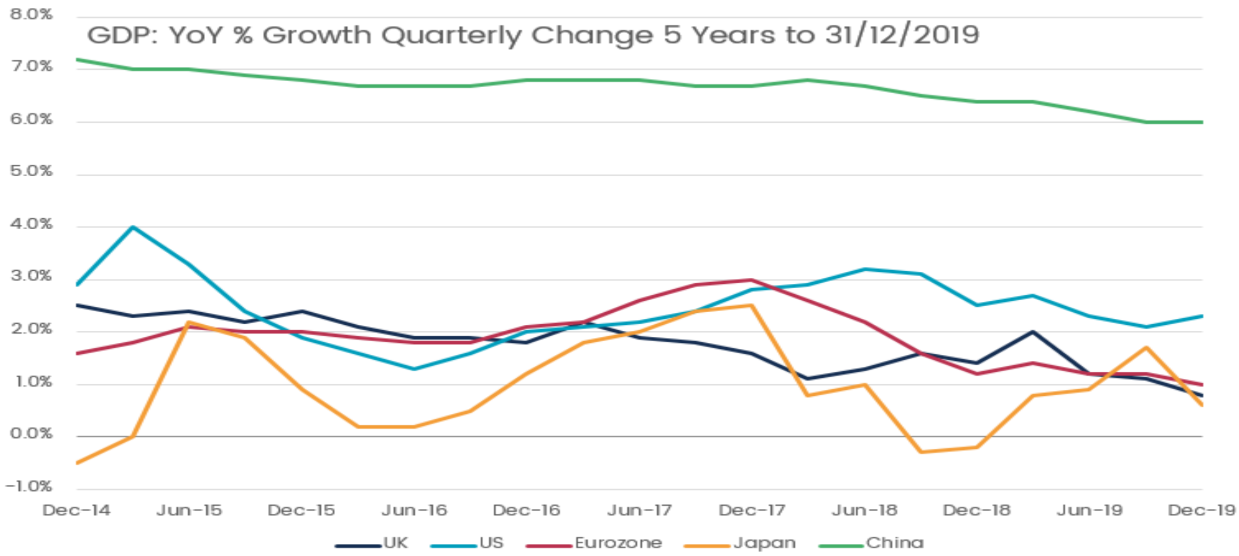
Economic outlook

As can be seen in chart 4 below, the global economy slowed again in the fourth quarter. However, a number of forward looking business sentiment indicators of economic activity such as US composite ISM and European PMI appear to have troughed, with both indicators now increasing. This change of direction for business sentiment combined with an increase of actual capital expenditure and investment and a resilient consumer is largely explained by 3 factors. The decision of the central banks to confirm easier monetary policy is here to stay, the announcement of a trade deal between the US and China and finally increased levels of employment. While the trade negotiations have not gone away, 2020 is a US Presidential election year and Mr Trump will be focussed on getting re-elected thereby making a noise about his excellent ability as a negotiator rather than engaging in actual "horse trading" with the Chinese. This is not to suggest that we are about to see a surge in global economic activity, just that growth in 2020 and early 2021 may be slightly better than the consensus expectations set out in table 4 below and that the risk of a US recession has been pushed off into the future.

The prospects for the UK economy have also improved but some uncertainty remains because of the short timetable for agreement on trade with the EU. The election victory has removed a lot of the political/parliamentary uncertainty for the next 5 years and potentially 10 years.

The main caveat to all this, is the Coronavirus outbreak in China. On the positive side the virus appears less deadly than SARS and normal seasonal flu, but it is more easily transmitted and as a completely new virus it's development is uncertain. If the outbreak follows the pattern of recent respiratory illnesses, the impact on the economy of the region and globally will prove temporary, with any activity lost, being offset by stronger activity later in the year.

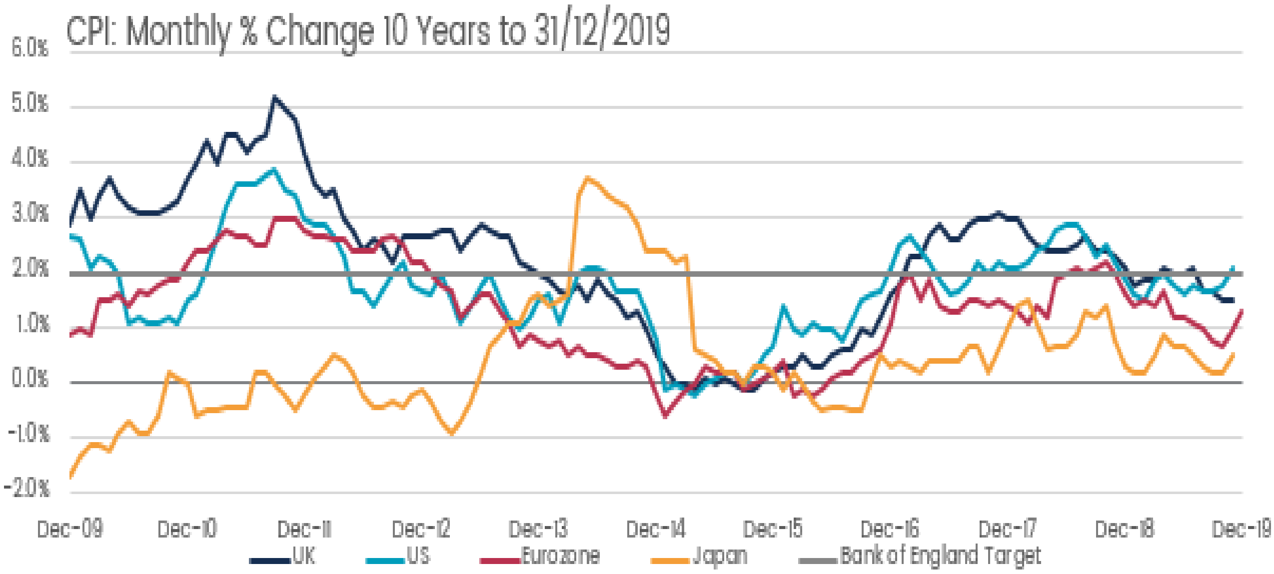
Chart 4: **-** Global Growth – Annual % Growth rate, last 5 years.



Source: - Bloomberg

As can be seen in chart 5 below, notwithstanding the tick up in the rate of inflation towards the end of 2019. The annual rate of inflation in the developed economies remains at or below the respective central bank's target rate.

Chart 5: **-** Inflation – Annual rate versus Central Bank Target



Source: - Bloomberg

Central Banks

There has been little Central Bank activity to report since the last PIC meeting. After cutting rates or increasing their QE programmes in 2019, most central banks have done little more than repeat their commitment to easy money at their respective more recent monthly meetings. The ECB have confirmed that they will be looking to see what else can be done to support growth in Europe. In the UK, the Chancellor has announced that Andrew Bailey will become the new Governor of the Bank of England from 16 March 2020. With his long experience at the Bank, before joining the FCA he is seen as the "continuity" candidate.

At the moment the Peoples Bank of China (PBoC) is the only central bank that has responded to the Coronavirus outbreak. Immediately after the end of the Lunar New Year celebrations and just as the Chinese markets re-opened, they announced a number of measures aimed at supporting the economy. It is clear to me that the equity markets have decided that central banks will respond with further easing of policy as required to offset the impact of the illness.

In January the Bank of England's Monetary Policy Report said that despite weakness in the economy in 2019, there were early signs that growth was picking up. At its meeting the MPC voted 7:2 to maintain the Bank Rate at 0.75% but stated that if growth doesn't pick up it could cut rates.

Politics

Events in the middle east took a potential turn for the worse in the beginning of January, when Mr Trump took the opportunity to have the leading Iranian General Qasem Soleimani killed, while he was visiting Iraq. The rhetoric from Iran following the attack was strident as usual, but the retaliation to date has been limited to a rocket attack on a US base inside Iraq. This is probably because at the height of the tension, the Iranian military accidentally shot down a Ukrainian passenger jet as it left Tehran airport. Iran has returned to it's Uranium enrichment programme and it should be remembered that the country has a fairly long memory when it comes to seeking retaliation.

The Impeachment hearings of Mr Trump went along partisan lines with the Senate declaring him not guilty of high crimes and misdemeanours. Despite overwhelming evidence that he had tried to put pressure on the Ukrainian President to investigate his Democratic party political rival, Joe Biden.

In New Hampshire Primaries to decide the US Democratic party's candidate to run against Mr Trump in the presidential election later this year, Bernie Sanders has taken an early lead over the other candidates but Mr Trump remains favourite to win the election.

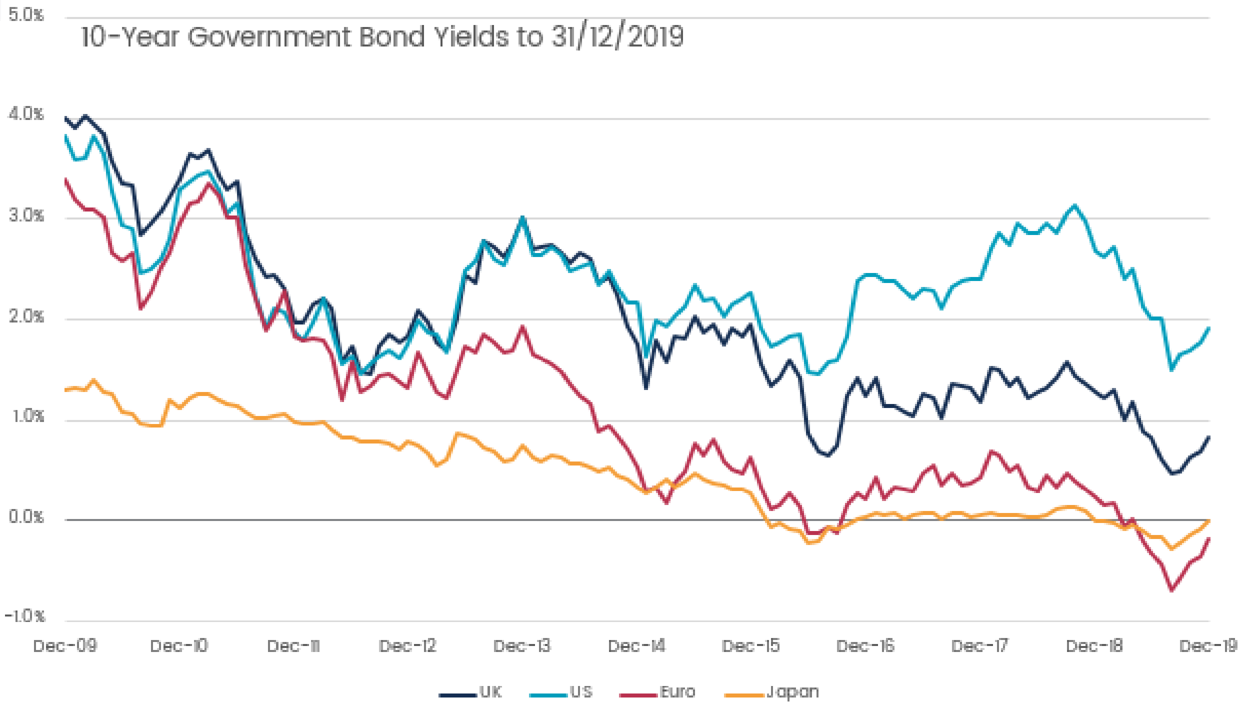
The UK left the EU on the 31st January 2020 and is about the start the negotiations on the future trade relationship with the EU. Both sides have set out their stalls, with Europe stating that if the UK wants friction free access to the Eurozone it will have to agree "broad regulatory" alignment and the UK government stating more or less the opposite. The dominance of Dominic Cummings as chief adviser to the prime minister was demonstrated at the first cabinet re-shuffle by the resignation of the Chancellor Sajid Javid.

Government bonds

As can be seen in tables 1 and 2 above and chart 6 below, the last quarter of 2019 saw 10 year government bond yields increase by 0.3% to 0.4% generating significant negative returns. The markets were responding to the realisation that central banks had probably done enough to reduce the risk of a recession and that while interest rates were not about to rise they were unlikely to keep falling. Add to this the agreement on trade and the improvement in leading economic indicators and it would have been reasonable to believe government bonds had become too expensive.

I believe this trend of rising yields would have continued but for the outbreak of the Coronavirus in China. Like the equity markets the bond markets are now expecting central banks to respond with more easy monetary policy in order to reduce the risk of a growth shock leading to a recession from the outbreak. As a result, government bond yields have fallen back close to the lows seen in September 2019. This is in my opinion an over-reaction that is likely to unwound as most of any growth given up during the period of the outbreak is recovered over the balance of the year. On balance I view the current level of government bond yields as temporary and expect yields to rise in the medium term.

Chart 6: - Government bond yields, last 10 years.



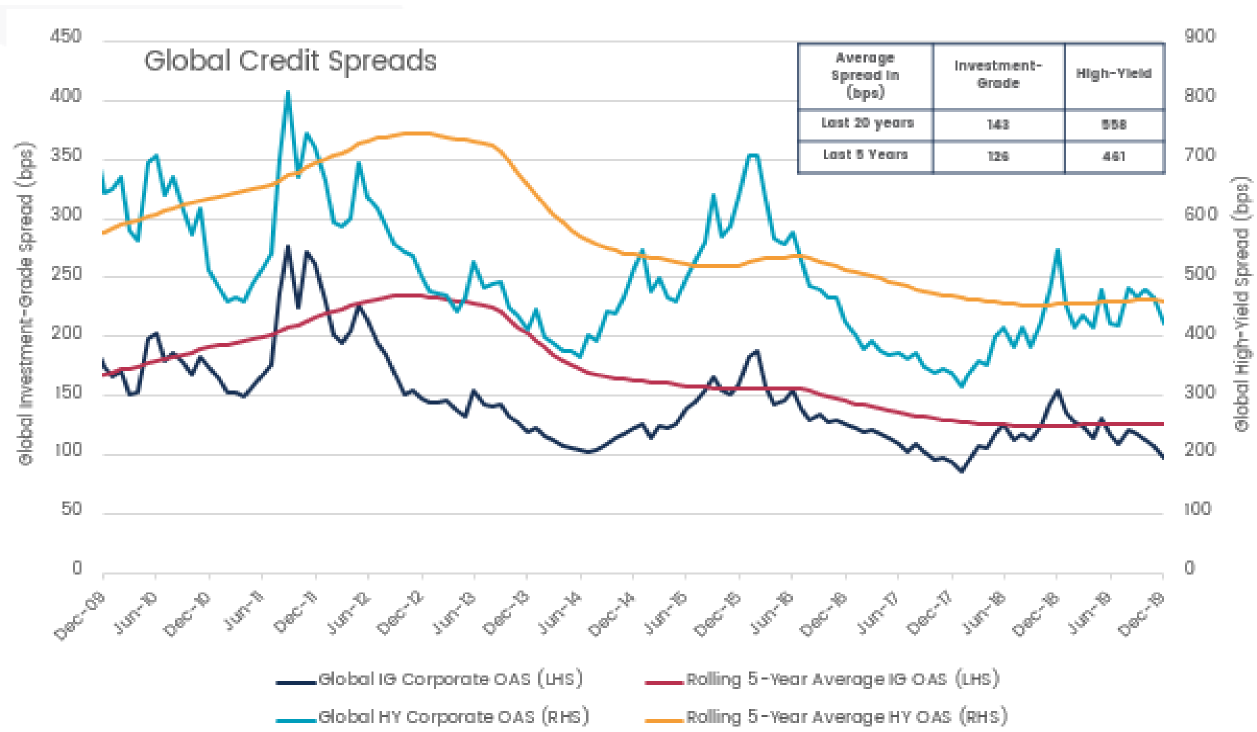
Source: - Bloomberg

Non-government bonds

As can be seen in Chart 7 below, the excess yield spread for both investment grade non-government and high yield bonds fell by 0.2% and 0.7% respectively during the fourth quarter, meaning that non-government bonds outperformed. In 2020 quarter to date the spread on investment grade bonds is unchanged and while high yield spreads have widened the all in yield is unchanged. The continued good performance of the non-government bond market is also underwritten by the markets expectation of central bank action. While it is true that cuts in interest rates and return of QE has improved borrowing conditions for corporates and potentially extended the period of low aggregate default rates, yield spreads are well below the long run average, which makes the markets vulnerable to an increase in government bond yields.

Just as for government bonds there is also the chance that total returns from investment grade credit could be flat or even negative. I haven't changed my mind on holding high yield bonds, because of their higher yield and lower duration they may still be able to outperform. See Table 7 below for an estimate of the impact of rising bond yields on UK Government and non-government bond markets.

Chart 7: **-** Credit spreads, extra yield over government bonds, last 10 years.



Source: - Bloomberg

Equities

As can be seen in Chart 8 below local currency equity market returns in the fourth quarter of 2019 were quite strong, by contrast returns in Sterling terms were lower due to the strength of the pound, see table 1 and chart 3 above.

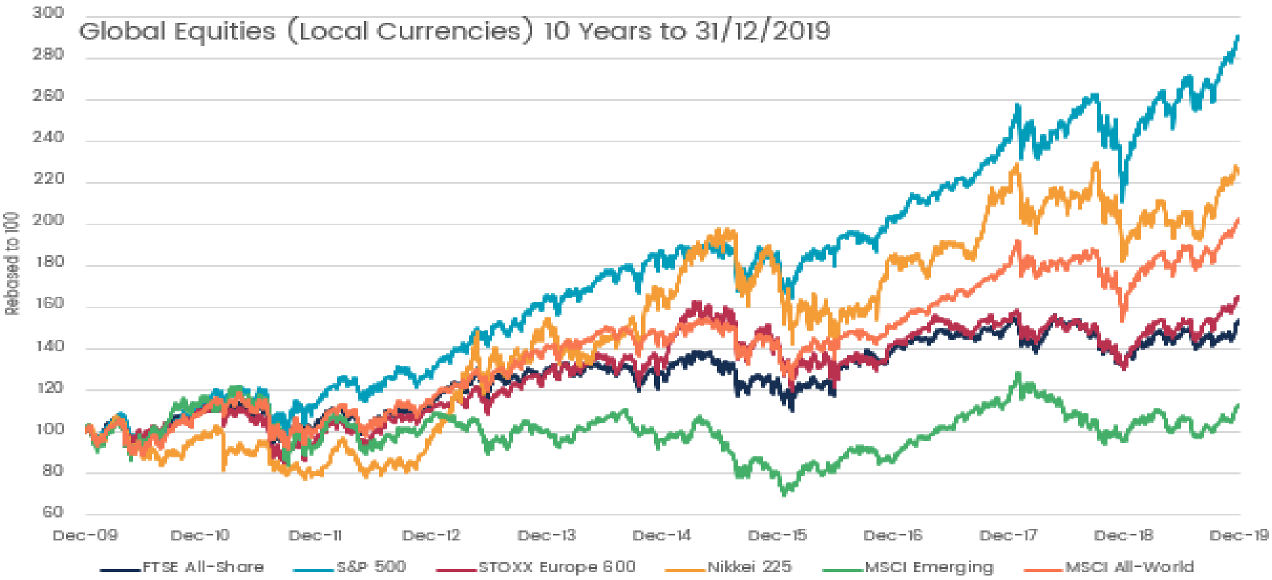
The increased tensions in the middle east and the early reports of the Coronavirus outbreak in China caused markets to dip in January, but on a year to date basis (14th February) most equity market indices are higher with the US S&P 500 and the Euro Stoxx 600 recording new all-time highs. As mentioned above in the government bond section the equity markets are expecting central banks to respond with more easy monetary policy in order to reduce the risk of a growth shock leading to a recession from the outbreak. The PBoC not surprisingly have been leading the way announcing further stimulus to offset the expected hopefully short term weakness in Chinese growth.

Away from the obvious weakness in China the early signs are that the US and European economies have avoided recession; as evidenced by a turning point in leading indicators, the ongoing impact of easy central bank policy and the trade deal, should all be positive, supporting equity markets in the medium term. Those companies in the US that have reported their fourth quarter earnings are showing a quarter on quarter as well as year on year small but generally better than expected outcomes.

An environment of relatively easy monetary policy, moderate growth and low inflation is not bad for equity markets. The main caveat to this as with bond markets at the moment is the outcome of the Coronavirus outbreak in China. If as I expect, the illness follows the pattern of SARS in 2003, equity markets should be OK.

In the short term market performance will be dominated by the Coronavirus but over the medium term I believe the support of monetary policy, the trade deal and the recovery of leading indicators will lead to moderate positive performance of equity markets. In the US in particular Mr Trump will want the economy and equities to do well this year to help him win the Presidential election.

Chart 8: **-** Global equity indices, last 10 years.



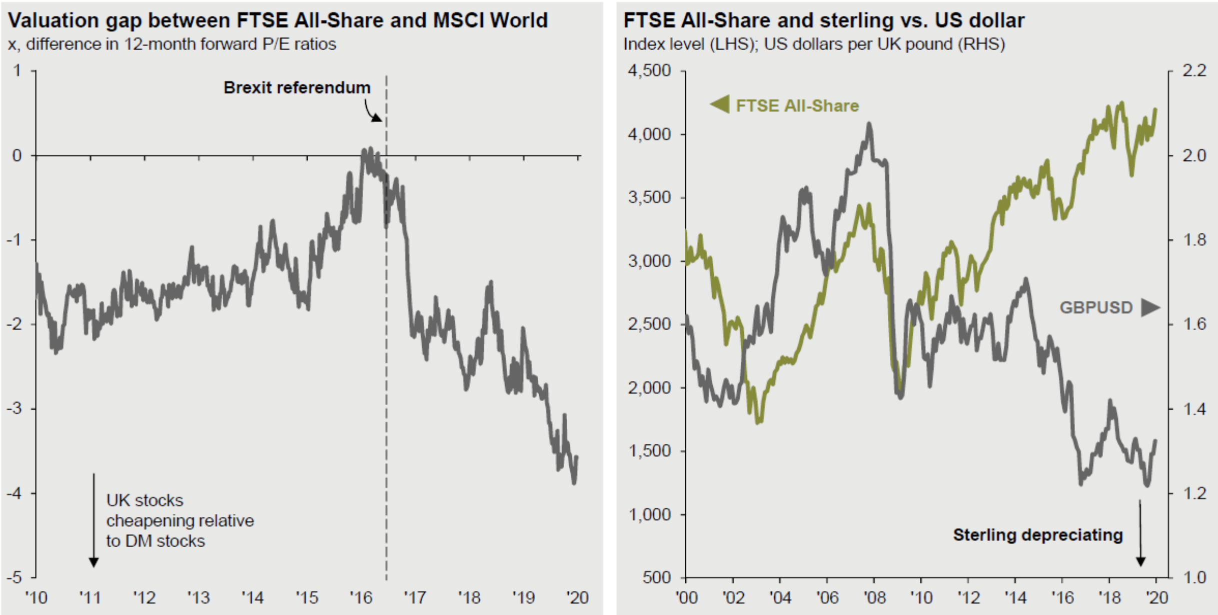
Source: - Bloomberg

UK equity

As mentioned above January saw UK equity market indices slip into negative territory, year to date they have recovered but remain negative mainly due to the renewed strength of the pound.

As I mentioned in my last report some asset managers believe the UK equity market has become cheap on a relative value basis, see chart 9 below. The level of political uncertainty, since the referendum result and the 2017 general election, the crescendo of which was seen in the fourth quarter of 2019, has not gone completely away but it has fallen significantly. The December 2019 general election resulted in a strong Government that has a big enough majority to at least try to achieve its objectives without needing to seek a consensus from other parties in parliament. Also, from an external investors point of view the removal of the risk of a Labour government for at least 5 years and potentially 10 years thereby removing risk of nationalisation or a change in the legislative and tax framework means the UK is now a more attractive place to invest, for the medium to long term.

Chart 9: - Left Hand Chart; The value of the UK equity market relative to the Global equity market, Right Hand Chart; The value of Sterling relative the FTSE All Share Index.



Source: (Left) FTSE, MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. The P/E gap is the 12-month forward price-to-earnings ratio of the FTSE All-Share minus the 12-month forward price-to-earnings ratio of MSCI World. A zero level represents both indices trading at the same valuation level, a negative level represents the FTSE All-Share trading on a cheaper valuation than MSCI World. (Right) FTSE, Refinitiv Datastream, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK.* Data as of 31 December 2019.

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While chart 9 above, left hand side, only shows the last 10 years of history relative to global equities, the longer term history suggests that UK equity is cheap as it has been in the last 30 years. The chart on the right hand side suggests that since 2012, the value of Sterling has not kept up with the value of the equity market (a proxy for the economy) making the UK even more attractive to foreign investors.

Table 4 shows the consensus forecasts for GDP growth in calendar 2019, 2020 and 2021 and my expectations in October 2019 and January 2020.

Table 4: - GDP forecasts - Consensus versus Advisor expectations.

% CHANGE YOY							
	2019	2020				2021	
	JANUARY 2020	OCTOBER 2019		JANUARY 2020		JANUARY 2020	
	Consensus	Consensus	AF	Consensus	AF	Consensus	AF
US	2.3	1.8	**1.8**	1.9	**2.0**	1.9	**2.0**
UK	1.3	1.0	**1.0**	1.1	**1.4**	1.4	**1.4**
Japan	1.0	0.2	**0.2**	0.4	**0.6**	0.8	**0.8**
EU 28	1.4	1.2	**1.2**	1.2	**1.4**	1.4	**1.4**

Source: - Consensus Economics January 2020

With pretty much a full year of actual data, consensus estimates for growth in 2019 have been revised slightly higher, but the actual growth outcome is somewhat below the initial expectations of the consensus in January 2019. The new year has also seen renewed optimism on growth with consensus forecasts also revised higher for 2020, with the exception of EU 28 (UK included for now) where the growth forecast is unchanged. I have included the consensus growth forecasts for 2021, these show that growth is expected to pick up slightly next year.

Notwithstanding the uncertainty over the short term growth outlook caused by the Coronavirus outbreak in China, which has been estimated by some economists to cut growth by 1.5% in the first quarter, I expect only a temporary impact, with growth rebounding over the rest of the year. I also believe the reduction of uncertainty due to the phase one trade deal between the US and China and the impending ramp up in the US presidential election campaign could lead to growth being nudged higher in 2020 and 2021. It would appear that the US Fed's change in policy last year has stabilised the economy and manufacturing PMI's a lead indicator for growth, which were causing concern in the middle of last year have now turned higher. The increase in potential global trade and manufacturing is most positive for Europe, Japan and the emerging economies. Even in the UK, while our future trading relationship with the EU remains uncertain, the size of the new governments majority has led to the removal of a number of key risks to foreign direct investment, which should help with the funding of the proposed fiscal expansion.

In the US, third quarter 2019 growth was confirmed at 2.1% annualised. The estimate of fourth quarter growth was in line with expectations at 2.1%. Consumer spending slowed sharply but net trade via a fall in imports made the biggest positive contribution. Investment was also lower as inventories fell as did non-residential investment. For the second year in a row growth missed Mr Trump's 3% annual target.

In the third quarter UK GDP expanded 1.1% year over year, the lowest rate since the second quarter of 2012. While this was better than the previously estimated 1.0% it was lower than the confirmed rate of 1.2% in the second quarter. Like the US falling imports flattered net trade proving a boost to growth and while the consumer remained resilient, government spending and private capital formation (investment) were both lower. As I mentioned last quarter, it is unlikely that growth will rebound much in the fourth quarter as it will be weighed down by Brexit and the general election campaign.

The Japanese economy grew by a revised 0.4% in the third quarter, matching second quarter growth rate, this brings the annual growth rate up to 1.8% for the year to the end of December 2019. Private consumption was the main positive contributor while export demand remained negative.

Euro Area GDP was revised higher from 0.2% to 0.3% in the third quarter but fourth quarter growth was a lacklustre 0.1%, the 1% annual growth rate for 2019 was the weakest since 2013. While the German economy grew by 0.1%, growth in France and Italy unexpectedly shrank.

Consumer Price Inflation

Table 5 shows the consensus forecasts for Consumer Price Inflation in calendar 2019, 2020 and 2021 and my expectations in October 2019 and January 2020.

Table 5: - Consumer Price Inflation forecasts - Consensus versus Advisor expectations

% CHANGE YOY							
	2019	2020				2021	
	JANUARY 2020	OCTOBER 2019		JANUARY 2020		JANUARY 2020	
	Consensus	Consensus	AF	Consensus	AF	Consensus	AF
US	1.8	2.1	**2.0**	2.1	**2.0**	2.1	**2.0**
UK	1.8	2.1	**2.0**	1.7	**1.5**	1.9	**1.8**
Japan	0.5	0.7	**0.6**	0.6	**0.5**	0.6	**0.5**
EU 28	1.4	1.6	**1.5**	1.4	**1.3**	1.5	**1.4**

Source: - Consensus Economics January 2020

The consensus forecasts for inflation in calendar 2019 have been nudged lower again in January, which at this point of the year probably reflects a more complete sample set than anything else. Throughout the last year the consensus has nudged down the annual rate of inflation and that trend appears to remain in place with lower inflation expected for 2020 and 2021. As I have said before I have been surprised by the low level of inflation, but I believe it is not dead but merely sleeping. In the past Fiscal expansion has proved to be inflationary, for now the lower inflation outcomes and expectations are good news for Central Banks helping them remain accommodative.

In the last 3 months of 2019 US headline inflation increased to an annual rate of 2.3% from 1.8% boosted by a sharp increase in energy costs, the cost of medical care products and services were also higher while food price inflation eased. The annual rate of core inflation was unchanged at 2.3%.

Since July the UK headline inflation rate (CPI) has fallen from 2.1% to 1.3% in December, the recent falls have been driven by services, food and drink inflation. Clothing and footwear prices also dropped after being flat in November, these recent price moves at a time when prices for these goods tend to be rising shows the widespread competition in the retail sector. Core inflation which excludes food, energy, alcohol and tobacco in the UK, was also lower at 1.4% p.a. CPIH also fell to 1.4% pa, whereas RPI increased slightly to 2.2%. All these rates of inflation are at their lowest levels for 3 years.

Inflation in the Euro Area has steadily picked up after hitting a low of 0.7% pa, in October 2019 it had increased to 1.4% pa, in December. Core inflation, which like the UK excludes food, energy, alcohol and tobacco, remained steady at 1.1% pa, the core rate is a key measure for the ECB when deciding monetary policy.

The Japanese inflation rate increased to 0.8% pa in December mainly due to increases in food transport and housing, all of which are difficult to avoid. The recently revised calculation of core inflation also increased at a higher than expected rate of 0.9% pa. however, the average rate of core inflation for 2019 was only 0.5%, well below the Bank of Japan's target rate of 2%.

4. The outlook for the securities markets

The second half of 2019 marked the trough in the short term cycle for economic activity and a near term peak in political uncertainty. Therefore, I believe the outlook for underlying economic growth has improved and this should be reflected in the performance of markets over the next 12 to 18 months.

But because many of the risks the markets have been dealing with have not completely gone away. I expect markets to remain volatile. The UK still has to agree it's new relationship with the EU, as a result a no deal Brexit remains possible, but the uncertainty of a dysfunctional parliament has gone away. Mr Trump has agreed a phase one trade deal with China, but the battle for Global hegemony remains. Central banks have reduced the chances of a recession by returning to monetary policy stimulus, but growth in developed economies remains lacklustre. Income inequality between Capital and Labour persists and fuels the increasingly divisive rise of populism.

On top of the issues mentioned above over the next couple of quarters the markets are going to have to deal with the as yet unknow impact of the Coronavirus outbreak. For now, the expectation is that the impact will be a temporary growth shock in the first quarter of 2020 with a commensurate rebound in the second quarter, but we don't know yet and it does require the outbreak following a similar pattern of development to SARS in 2003 and the other respiratory infections emanating from the region in the last few years. China is a much larger contributor to global growth and is much more internationally integrated than it was seventeen years ago.

Despite my slightly more optimistic view on the underlying macro-economic fundamentals, I have not changed my views on the Funds asset allocation. Over the medium to long term (more than 5 years), I believe equity markets especially emerging equity will probably deliver better returns than government bond markets, I also believe private markets can also deliver stronger returns.

My suggested allocation to Growth assets remains at neutral, I have also decided to keep the regional allocations unchanged, neutral for UK, Europe, Japan and Asia-pacific; but I remain 1% underweight the US and 1% overweight emerging on the basis of the relative valuation. Year to date bond yields have again fallen, giving the opportunity to take profits on government bonds in particular as I believe the long term trend for yields remains higher. Therefore, I would suggest remaining tactically 2% underweight Protection assets and 2% overweight cash, should the opportunity present itself this cash could be deployed by increasing the exposure to growth or income assets rather than back into protection assets. I believe the priority for the Fund remains increasing the allocation to Income assets, therefore I continue to recommend a neutral allocation.

Bond Markets

In table 6, below I have set out my expectations for 3 month LIBOR interest rates and benchmark 10 year government bond yields, over the next 3 and 12 months. They are not meant to be accurate point forecasts, more an indication of the possible direction of yields from February 2020.

Table 6: - Interest rate and Bond yield forecasts

%	CURRENT	SEPTEMBER 2020	MARCH 2021
UNITED STATES			
3month LIBOR	1.78	1.75	1.75
10 year bond yield	1.51	1.75	2.00
UNITED KINGDOM			
3month LIBOR	0.70	0.75	0.75
10 year bond yield	0.52	1.0	1.25
JAPAN			
3month LIBOR	-0.05	-0.10	-0.10
10 year bond yield	-0.07	0.10	0.10
GERMANY			
3month EURIBOR	-0.42	-0.25	-0.25
10 year bond yield	-0.43	0.0	0.0

Source: - Bloomberg, Trading Economics; 31st January 2020

As can be seen in table 2 above government bond yields increased significantly in the fourth quarter of 2019, but in January they have fallen almost back to the "All Time Lows" seen in the summer of 2019 as markets have responded to the Coronavirus outbreak. The current level of yield is temporary, it does not reflect the underlying economic data and is inconsistent with the recent decisions by central banks (outside of China) to keep rates on hold. Both the Fed and the Bank of England have declined to cut rates at their most recent policy meetings and now that we are in a presidential election year in the US the Fed is unlikely to change interest rates unless it is unavoidable. I therefore expect government bond markets to produce negative returns over the next couple of quarters. A neutral monetary policy outlook in the US is supportive of high yield bond markets, as it reduces the possibility of defaults caused by higher borrowing costs, while spreads may not narrow by much the higher the yield, the higher the potential return.

Bond Market (Protection Assets) Recommendations

The bond markets have over the last few weeks fully priced in the risk posed by the Coronavirus outbreak in China. While the Chinese central bank will continue to provide stimulus, this is predominantly a temporary situation as any growth given up in the first quarter of 2020 will be more than made up by future growth over the rest of the year. Outside of China, government yields are likely to rise, I therefore propose remaining underweight government bonds.

The recent move in government yields has caused non-government bonds yield spreads to widen. This is because the change is being driven by a change in the direction of yields (interest rate sensitivity / duration) it is not related to a worsening of credit conditions. Year to date investment grade bond spreads have broadly moved together with government bond yields, whereas high yield and emerging bond market yields have moved broadly sideways. If my predictions about government bond yields are correct then I believe investment grade non-government bonds are likely to perform in line and deliver a similar level of negative return. Investment grade credit is also vulnerable because of its higher duration, the high leverage, low interest cover particularly in the US and falling liquidity in all markets. The high yield bond market may continue to deliver reasonable returns because duration risk is lower and ironically compared to history, leverage is lower and interest cover higher. In an environment where government bond yields are rising the lower the yield and the longer the duration the lower the total return conversely the higher the yield and the lower the duration the better the result will be provided defaults do not increase.

As usual in table 7 below I have updated the data and recalculated my estimates of the total return impact of rising yields for government and non-government bond indices based on their yield and interest rate sensitivity (Duration) over 3 and 12 months. The estimates do not take into consideration any widening of spread over the holding period, the 3 month estimates are remarkably similar to the total return experienced in the fourth quarter of 2019.

Table 7: - Total returns from representative bond indices

INDEX	YIELD TO MATURITY %	DURATION	YIELD INCREASE %	% TOTAL RETURN, HOLDING PERIOD	
				3 MONTH	12 MONTHS
All Stock Gilts	0.72	13.5	0.5	-6.4	-6.0
All Stock Linkers	-2.17	18.1	0.5	-9.1	-8.9
UK Corporate Bonds	1.87	8.6	0.5	-3.4	-2.4
Global High Yield	5.11	3.5	0.5	+0.8	+4.3

Source: - BofA Merrill Lynch Indices 31st January 2020

As I mentioned in my last report despite my reservations about the level of yield expressed above, I still believe corporate bonds should be held at neutral in the Fund, mainly because I believe the biggest risk is in longer duration, lower yielding government bonds especially index linked gilts, as can be seen in table 7 above gilts provide little protection in a rising yield environment. In terms of the allocation to index linked gilts I would prefer to remain underweight by holding US TIPS and seeking inflation linked returns from investments in other asset classes like infrastructure and real assets.

Since the announcement that there will be a consultation on the inflation indexation of the Index Linked Gilts market, some of the relative overvaluation has been removed from the market. Year to date in absolute terms the market has rallied strongly along with other long dated low coupon government bonds. I believe this represents an opportunity to tactically reduce exposure and I would suggest that the Fund considers selling at least half of its remaining index linked gilts and buying duration equivalent conventional gilts or US TIPS. At least until the result of the consultation process and potential subsequent legal challenge is known.

LGIM and Insight Investment, two of the largest investors in this market believe that about 50% of the RPI premium remains in the price of index linked gilts. If the Chancellor decides to adopt CPIH as the replacement for RPI indexation, then there is the potential for a further one off 10% fall in Asset values as a result of this decision, without a commensurate fall in the value of most private pension fund Liabilities. The consultation period is now expected to start following the Budget on 11th March and run for about six weeks. At the moment investors and asset owners are expected to seek compensation if there is a change and the Treasury have indicated that there will be no compensation. As a result, there is a good chance that the issue will have to be resolved in the Courts.

Equity Markets

Table 8 below, shows the dividend yield for 2019 and the earnings growth and price / earnings ratio estimates, for 2020 and 2021 provided by Citi Research.

Table 8: **-** Dividend yield, Earnings growth and Price/Earnings Ratios

COUNTRY	DIVIDEND YIELD %	EARNINGS GROWTH		PRICE/EARNINGS RATIO	
FORECAST PERIOD	2019	2020	2021	2020	2021
United Kingdom	4.8	6.3	6.2	12.8	12.0
United States	1.8	10.1	10.8	18.2	16.4
Europe ex UK	3.2	9.2	8.7	14.9	13.7
Japan	2.4	5.6	7.7	14.4	13.1

Source: - Citi Research, Global Equity Strategist, December 2019

Earnings growth estimates for 2020 have been revised down and the new estimates for 2021 have been forecast in line with the estimates for 2020. This is unusual because equity analysts are a fairly optimistic bunch and would normally be more positive about the future. Having said that I believe these estimates are much more consistent with the growth outlook for the next couple of years. However, these forecasts do not take into consideration the potential impact of the new coronavirus in China, as they were published before the extent of outbreak was understood. At the moment I believe the impact on activity will prove to be temporary so in the medium term I am happy to stick with these equity growth estimates even if the P/E ratios, especially for the US looked a bit stretched. What is clear is that the dividend yield, while not guaranteed, of the equity markets, especially the UK is extremely attractive, relative to the yield available from the respective bond markets.

Equity Market (Growth Assets), Recommendations

As mentioned in my last report I suggest keeping the allocation to growth assets neutral to the strategic benchmark.

Looking regionally, the US continues to have a higher growth rate and lower interest rates, but this is more than fully priced into the current level of valuations therefore, I believe the Fund should maintain an underweight position. While the latest data published on manufacturing PMI's suggest that the slowdown in global trade and industrial production caused by the US, China trade negotiations maybe behind us. This change is likely to have a more positive benefit on Europe, Japan and Asia pacific. As a result, I believe Europe, Japan and Asia Pacific should be maintained at a neutral allocation. Because I continue to have confidence in the long-term growth prospects of the emerging economies, I see the potential weakness caused by the Coronavirus outbreak as an opportunity and suggest that the Fund maintains its overweight allocation. As mentioned last quarter the prolonged uncertainty over Brexit has caused the UK market to underperform the rest of the world, as a result the equity market has become "cheap" on a relative valuation basis, therefore I would suggest no further reduction in the allocation.

As the asset allocation to Private Equity remains underweight relative to benchmark, I continue to recommend that investments are sought to increase the allocation to neutral.

The Fund has had a 3% benchmark allocation to Global Sustainable Equity since the beginning of 2019, this is a topical area of investment currently and an opportunity that should not be missed, I suggest a 3% neutral allocation should be seen as an initial investment.

Income Assets

In the last year the allocation to Income Assets has been increased from 18% to 23%. The allocation to both Infrastructure (committed capital) and Multi-Asset Credit has been held at neutral over the quarter as the in-house team have found managers to invest an increasing amount of Derbyshire's allocated capital.

The Property market continues to provide diversified returns for the Fund and the direct property manager continues to outperform. I continue to recommend that a neutral overall weight to property be maintained and express a preference for being 1% overweight direct, against being 1% underweight indirect property.

The cash balance in the new strategic benchmark is set at 2%. Because of the extremely low level of government bond yields in the UK and the potential for these to increase over the coming months I remain of the opinion that cash is held temporarily at +2% overweight funded by being underweight government bonds. If as I expect bond yields rise from their current extremely low levels then this cash could be deployed to the bond market but given my expectations for bond and equity markets this money could also be used to invest in more growth assets.

The asset allocation set out in table 9 below, shows the new Strategic benchmark allocations for the Derbyshire Pension Fund and my suggested relative weights as of 15th November 2019 and 31st January 2020. My suggested asset allocation weights are relative to the classification of assets and strategic benchmark ranges. These allocations represent an ideal objective for the Fund based on my expectations for economic growth and market performance, but they do not take into consideration the difficulty in reallocating between asset classes and the time needed by the In-house Team and their investment managers to find correctly priced assets for inclusion in the Fund.

Table 9: - Recommended asset allocation against the new Strategic Benchmark that came into effect on the 1st January 2019.

% ASSET CATEGORY	DERBYSHIRE STRATEGIC WEIGHT 1ST JANUARY 2019	ANTHONY FLETCHER 15TH NOVEMBER 2019	DERBYSHIRE STRATEGIC WEIGHT 1ST JANUARY 2019	ANTHONY FLETCHER 31ST JANUARY 2020
Growth Assets	**57**	**0**	**57**	**0**
UK Equity	**16**	**0**	**16**	**0**
Overseas Equity	**41**	**0**	**41**	**0**
North America	12	**-1**	12	**-1**
Europe ex UK	8	**0**	8	**0**
Japan	5	**0**	5	**0**
Pacific ex Japan	4	**0**	4	**0**
Emerging markets	5	**+1**	5	**+1**
Global Sustainable	3	**0**	3	**0**
Private Equity	4	**0**	4	**0**
Income Assets	**23**	**0**	**23**	**0**
Property	9	**0**	9	**0**
Infrastructure	8	**0**	8	**0**
Multi-asset Credit	6	**0**	6	**0**
Protection Assets	**18**	**-2**	**18**	**-2**
Conventional Gilts	6	**-1**	6	**0**
UK index Linked	6	**-2**	6	**-3**
US TIPS	0	**+1**	0	**+1**
UK corporate bond	6	**0**	6	**0**
Cash	**2**	**+2**	**2**	**+2**

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Appendix

References

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

- Derbyshire Pension Fund, PEL and WM performance services
- Citi Research,
- FTSE, Citigroup, IPD, Barclay's Global and ICE Indices
- Kames, Blackrock, M&G and JP Morgan, Asset Management
- Bank of England, UK Debt Management Office, UK OBR, UK Treasury, ONS
- US Bureau of Labour Statistics, US Commerce Dept. Executive office of the President of the United States.
- Bank of Japan, Japan MITI
- ECB, Eurostat
- Bloomberg, Markit, Trading Economics, DataStream and S&P
- Financial Times, Daily Telegraph, Wall Street Journal, New York Times, Washington Post

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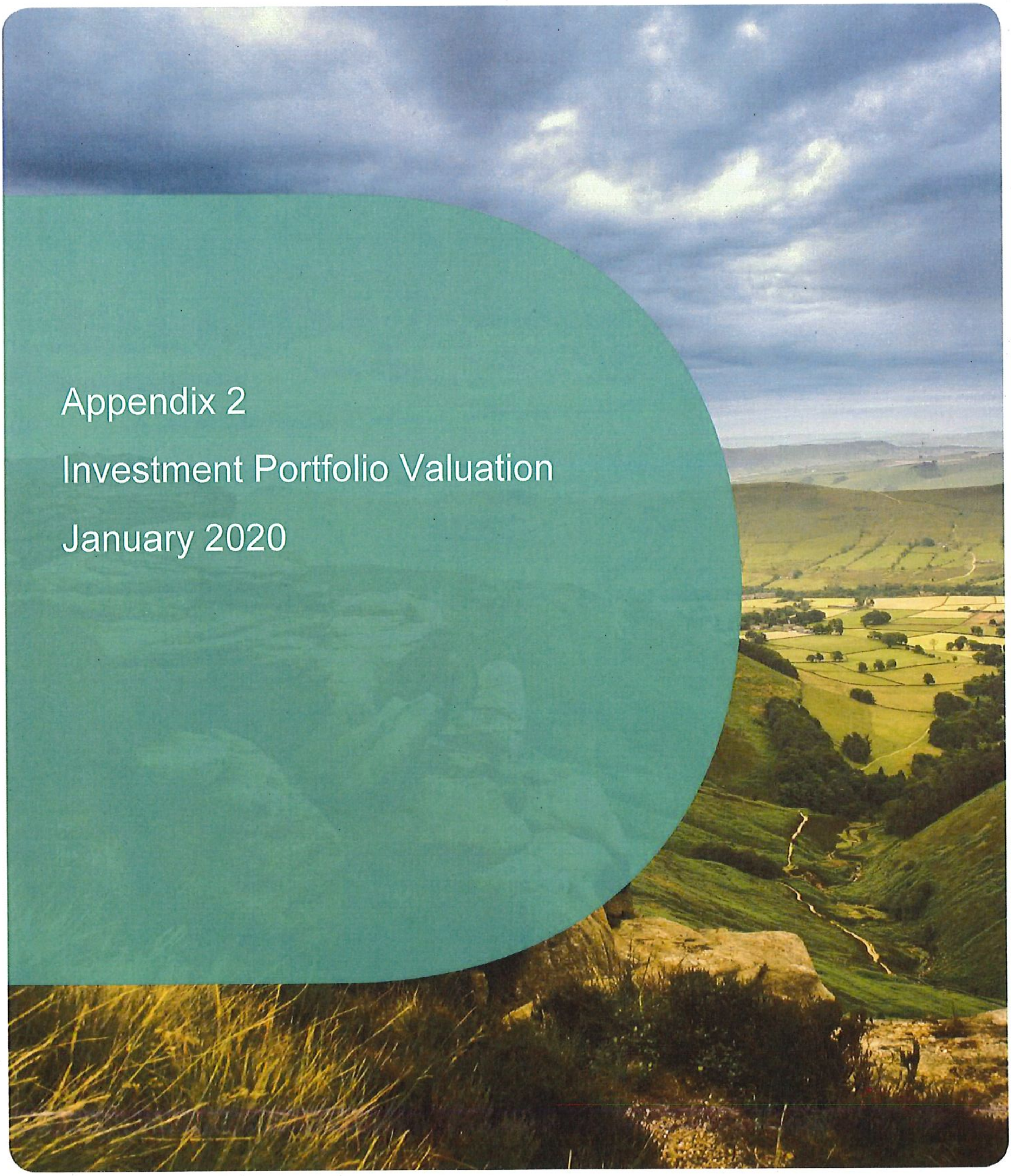


Appendix 2

Investment Portfolio Valuation

January 2020

County Hall, Matlock, Derbyshire, DE4 3AH
Administered by Derbyshire County Council

lgps

DERBYSHIRE PENSION FUND

	DCC 31/01/2020 £m
Growth Assets	**2915.3**
UK	909.7
US	567.1
Europe	438.6
Japan	331.7
Pacific (ex Japan)	243.9
Emerging Markets	255.4
Global Sustainable	0.0
Private Equity	169.0
Income Assets	**1067.3**
Infrastructure	329.6
Property	411.8
Direct	240.3
Indirect	171.6
Multi-Asset Credit	325.9
Protection Assets	**900.7**
Government	283.0
UK	238.8
Overseas	44.2
Index Linked	295.9
UK	
Overseas	
Non Government	321.7
Cash	**334.3**
LGPSC Regulatory Capital	**2.0**
Total	**5219.5**

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID

UK EQUITIES Company name	Number held	Mkt price in local currency	Mkt Price GBP	Value in Sterling £
UK EQUITIES FUND				
LGIM UK EQUITY INDEX FUND				
UK EQUITIE: LGIM UK EQUITY INDEX FUND	60,241,735.30	**13.95**	**13.95**	840,167,386
UK EQUITIES TOTAL				**840,167,386**

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID
UK EQUITIES

Sector	Company Name	Number held	Mkt Price Pence	Total £
EQUITY INVESTMENT COMPANIES				
UK Investment Co's	ABERFORTH SML 1P	939,000	1438.00	13,502,820
UK Investment Co's	BLACKROCK SMALLER COMPANIES TRUST PLC	830,000	1714.00	14,226,200
UK Investment Co's	LOW CARBON ACCELERATOR LTD	3,868,000	0.00	-
UK Investment Co's	MONTANARO UK SMALLER CO'S 10P	11,996,285	140.00	16,794,799
UK Investment Co's	RIVER & MERCANTILE UK MICRO	2,902,170	165.00	4,788,581
UK Investment Co's	STRATHDON INVESTMENTS PLC	20	1000.00	20,000
UK Equity Investment Companies Total				**49,332,400**
UNIT TRUSTS & OEICs				
UK Unit Trusts	LIONTRUST UK SMALLER COMPANIES FUND1	1,201,544.47	1680.99	20,197,842
UK Unit Trusts & OEICs Total				**20,197,842**
TOTAL UNITED KINGDOM				**69,530,242**

DERBYSHIRE PENSION FUND					
JANUARY 2020 PORTFOLIO VALUATION - BID					
US EQUITIES					
Sector	**Company Name**	**Number held**	**Mkt price USD/ CAN$**	**Mkt Price GBP**	**Value in Sterling £**
OIL & GAS PRODUCERS					
US Oil & Gas	BP PLC-SPONS ADR	47689	36.12	27.35	1,304,297
US Oil & Gas	CHEVRON CORP	45628	107.08	81.08	3,699,563
US Oil & Gas	CONCHO RESOURCES INC	14114	75.75	57.36	809,549
US Oil & Gas	DIAMONDBACK ENERGY INC	16685	74.36	56.31	939,455
US Oil & Gas	EXXON MOBILE CORP	156444	62.10	47.02	7,356,329
US Oil & Gas	MARATHON PETROLEUM CORP	64414	54.48	41.25	2,657,223
US Oil & Gas	NOBLE ENERGY INC	73061	19.77	14.97	1,093,712
US Oil & Gas	OVINTIV INC	55875	15.62	11.83	660,860
US Oil & Gas	PIONEER NATURAL RESOURCES CO	8691	134.97	102.20	888,214
US Oil & Gas	TC ENERGY CORP	65075	54.82	41.51	2,701,244
US Oil & Gas Producers Total					**22,110,445**
OIL & GAS SERVICES					
US Oil & Gas Services	SCHLUMBERGER LTD	93701	33.50	25.37	2,376,838
US Forestry & Paper Total					**2,376,838**
CHEMICALS					
US Chemicals	CABOT CORP	56994	39.87	30.19	1,720,624
US Chemicals	CELANESE CORP	19777	103.49	78.36	1,549,778
US Chemicals	FMC CORP	29051	95.58	72.37	2,102,513
US Chemicals	INGEVITY CORP	22124	65.21	49.38	1,092,417
US Chemicals	LINDE PLC	20882	203.00	153.71	3,209,806
US Chemicals	PPG INDUSTRIES INC	28919	119.81	90.72	2,623,535
US Chemicals Total					**12,298,673**
FORESTRY & PAPER					
US Industrial Metals	INTERNATIONAL PAPER CO	34323	40.71	30.83	1,058,027
US Forestry & Paper Total					**1,058,027**
INDUSTRIAL METALS					
US Industrial Metals	LIVENT CORP	42162	9.40	7.12	300,096
US Industrial Metals Total					**300,096**
AEROSPACE					
US Aero defence	BOEING CO/THE	13585	318.01	240.80	3,271,230
US Aero defence	LOCKHEED MARTIN CORP COM	19533	427.84	323.96	6,327,919
US Aero defence	NORTHROP GRUMMAN CORP	14634	374.40	283.50	4,148,676
US Aero defence	UNITED TECHNOLOGIES CORP	64080	150.14	113.69	7,284,999
US Aerospace Total					**21,032,824**
GENERAL INDUSTRIAL					
US Div Ind	BALL CORP	51891	72.18	54.65	2,836,087
US Div Ind	DANAHER CORP	34459	160.82	121.77	4,196,172
US Div Ind	DYCOM INDUSTRIES INC	21691	40.38	30.58	663,218
US Div Ind	GARDNER DENVER HOLDINGS INC	111130	35.33	26.75	2,972,936
US Div Ind	ILLINOIS TOOL WORKS INC	14852	174.86	132.40	1,966,464
US Div Ind	INGERSOLL-RAND PLC	29614	133.13	100.81	2,985,270
US Div Ind	PACCAR INC	19009	74.19	56.18	1,067,862
US Div Ind	REXNORD CORP	26717	32.65	24.72	660,513
US Div Ind	TRITON INTERNATIONAL LTD/BER	28181	37.53	28.42	800,840
US Div Ind	WABTEC CORP	16459	73.85	55.92	920,374
US General Industrial Total					**19,069,737**
ELECTRONIC EQUIPMENT					

US Electricity	3M CO	10931	158.65	120.13	1,313,139
US Electricity	FORTIVE CORP	47226	74.92	56.73	2,679,104
US Electricity	GENERAL ELECTRIC CO	75691	12.43	9.41	712,403
US Electricity	NVENT ELECTRIC PLC	50129	24.94	18.88	946,665
US Electronic Equipment Total					**5,651,310**
INDUSTRIAL TRANSPORT					
US Transportation	FEDEX CORP	12386	144.63	109.51	1,356,438
US Transportation	HUNT (JB) TRANSPORT SERVICES	33712	107.88	81.69	2,753,823
US Transportation	NORFOLK SOUTHERN CORP	3051	208.14	157.60	480,849
US Transportation	UBER TECHNOLOGIES INC	121888	36.29	27.48	3,349,335
US Industrial Transport Total					**7,940,445**
SUPPORT SERVICES					
US Support Services	CERIDIAN HCM HOLDING INC	3853	73.27	55.48	213,765
US Support Services	GENPACT LTD	63394	44.28	33.53	2,125,526
US Support Services	TRANSUNION	13005	91.74	69.47	903,399
US Support Services	TRINET GROUP INC	35632	57.05	43.20	1,539,240
US Support Services Total					**4,781,930**
BEVERAGES					
US Beverages	COCA-COLA CO/THE	275705	58.38	44.21	12,187,632
US Beverages Total					**12,187,632**
FOOD PRODUCTION/PROCESS					
US Food Prod & Proce	MONDELEZ INTERNATIONAL INC-A	165418	57.37	43.44	7,185,851
US Food Production & Processing Total					**7,185,851**
HOUSEHOLD GOODS					
US Hous Gds Txtiles	UNDER ARMOUR INC-CLASS A	298783	20.17	15.27	4,563,230
US Hous Gds Txtiles	UNDER ARMOUR INC-CLASS C	210737	17.96	13.60	2,865,878
US Hous Gds Txtiles	VF CORP	67175	82.97	62.82	4,220,262
US Household Goods Total					**11,649,370**
PERSONAL GOODS					
US Personal Care / Hc	PROCTOR & GAMBLE CO/THE	125545	124.50	94.27	11,835,303
US Personal Goods Total					**11,835,303**
HEALTHCARE EQUIPMENT & SERVICES					
US Healthcare Equipm	ANTHEM INC	37929	265.27	200.86	7,618,512
US Healthcare Equipm	EDWARDS LIFESCIENCES CORP	18147	219.74	166.39	3,019,427
US Healthcare Equipm	ENVISTA HOLDINGS CORP	70577	29.58	22.40	1,580,782
US Healthcare Equipm	HCA HOLDINGS INC	24203	138.70	105.02	2,541,887
US Healthcare Equipm	SHOCKWAVE MEDICAL INC	42442	43.42	32.88	1,395,392
US Healthcare Equipm	THERMO FISHER SCIENTIFIC	23360	312.90	236.93	5,534,635
US Healthcare Equipment & ServicesTotal					**21,690,635**
PHARMACEUTICAL, BIOTECH					
US Pharm, Biotech	89BIO INC	14400	26.58	20.13	289,820
US Healthcare	ABBOTT LABORATORIES	97840	87.11	65.96	6,453,496
US Healthcare	AERIE PHARMACEUTICALS INC	11723	20.47	15.50	181,705
US Healthcare	ALNYLAM PHARMACEUTICALS INC	2766	114.79	86.92	240,418
US Healthcare	APELLIS PHARMACEUTICALS INC	11236	41.11	31.13	349,760
US Pharm, Biotech	ASSEMBLY BIOSCIENCES INC	7199	17.55	13.29	95,667
US Pharm, Biotech	ATRECA INC-A	9538	18.38	13.92	132,744
US Pharm, Biotech	ASTRAZENECA PLC-SPONS ADR	179432	48.69	36.87	6,615,311
US Healthcare	BAXTER INTERNATIONAL INC	54471	89.19	67.53	3,678,681
US Healthcare	BIOGEN INC	6185	268.84	203.57	1,259,054
US Healthcare	BIOHAVEN PHARMACEUTICAL HOLD	13673	48.45	36.69	501,612
US Healthcare	BLACK DIAMOND THERAPEUTICS I	18900	36.18	27.40	517,775
US Healthcare	BLUEBIRD BIO INC	5011	79.70	60.35	302,408
US Healthcare	BRISTOL-MYERS SQUIBB CO	102329	62.93	47.65	4,876,038
US Healthcare	COHERUS BIOSCIENCES INC	59283	18.04	13.66	809,799

US Healthcare	CONSTELLATION PHARMACEUTICAL	8700	32.98	24.97	217,260
US Pharm, Biotech	ELI LILLY & CO	41110	139.58	105.69	4,344,915
US Pharm, Biotech	FORTY SEVEN INC	27866	36.88	27.93	778,173
US Pharm, Biotech	GLOBAL BLOOD THERAPEUTICS IN	8786	65.21	49.38	433,826
US Pharm, Biotech	GLYCOMIMETICS INC	18311	4.28	3.24	59,343
US Pharm, Biotech	G1 THERAPEUTICS INC	16294	19.36	14.66	238,860
US Pharm, Biotech	HERON THERAPEUTICS INC	10636	20.86	15.80	167,998
US Pharm, Biotech	IMMUNOGEN INC	37600	4.72	3.57	134,382
US Pharm, Biotech	INCYTE CORP	6262	73.07	55.33	346,468
US Pharm, Biotech	IRONWOOD PHARMACEUTICALS INC	31994	12.08	9.15	292,648
US Pharm, Biotech	KODIAK SCIENCES INC	5300	60.93	46.14	244,522
US Healthcare	MADRIGAL PHARMACEUTICALS INC	3519	82.99	62.84	221,134
US Healthcare	MIRATI THERAPEUTICS INC	3263	86.80	65.72	214,461
US Healthcare	MOMENTA PHARMACEUTICALS INC	16300	28.99	21.95	357,805
US Healthcare	MYOKARDIA INC	11431	67.96	51.46	588,231
US Healthcare	MYOVANT SCIENCES LTD	23146	12.70	9.62	222,582
US Healthcare	NEKTAR THERAPEUTICS	27826	19.89	15.06	419,079
US Healthcare	ODONATE THERAPEUTICS INC	12709	29.19	22.10	280,903
US Pharm, Biotech	PFIZER INC	303366	37.23	28.19	8,552,056
US Pharm, Biotech	PHASEBIO PHARMACEUTICALS INC	38700	4.97	3.76	145,639
US Pharm, Biotech	PORTOLA PHARMACEUTICALS INC	63181	12.79	9.68	611,882
US Pharm, Biotech	RADIUS HEALTH INC	20644	17.56	13.30	274,492
US Pharm, Biotech	REATA PHARMACEUTICALS INC-A	1782	218.79	165.67	295,220
US Pharm, Biotech	REVANCE THERAPEUTICS INC	41254	22.38	16.95	699,096
US Pharm, Biotech	RIGEL PHARMACEUTICALS INC	37337	2.26	1.71	63,894
US Pharm, Biotech	SATSUMA PHARMACEUTICALS INC	5500	24.71	18.71	102,907
US Pharm, Biotech	SEATTLE GENETICS INC	7212	108.39	82.07	591,910
US Pharm, Biotech	SYNDAX PHARMACEUTICALS	24029	9.38	7.10	170,667
US Pharm, Biotech	TRICIDA INC	15035	35.27	26.71	401,531
US Pharm, Biotech	TURNING POINT THERAPEUTICS I	5100	58.39	44.21	225,486
US Healthcare	VERTEX PHARMACEUTICALS INC	5738	227.04	171.91	986,446
US Healthcare	WAVE LIFE SCIENCES LTD	11951	7.10	5.38	64,250
US Healthcare	UNITEDHEALTH GROUP INC	25633	272.35	206.22	5,286,125
US Pharmaceutical, Biotech Total					**54,338,478**
FOOD RETAIL					
US Retail Food & Drug	HOUGHTON MIFFLIN HARCOURT CO	102894	5.52	4.18	430,071
US Retail Food & Drug	HYATT HOTELS CORP-CL A	56891	84.52	64.00	3,640,941
US Retail Food & Drug	MCDONALD'S CORP	99732	213.89	161.96	16,152,346
US Retail Food & Drug	PERFORMANCE FOOD GROUP CORP	61000	51.79	39.22	2,392,139
US Food Retail Total					**22,615,497**
RETAILERS - GENERAL					
US Retailers Gen	AMAZON.COM INC	15090	2,007.70	1,520.23	22,940,277
US Retailers Gen	LOWE'S COS INC	4228	116.17	87.96	371,911
US Retailers Gen	TJX COMPANIES INC	61	59.03	44.70	2,727
US Retailers - General Total					**23,314,915**
MEDIA					
US Media & Photo	CHARTER COMMUNICATIONS INC-A	27946	517.05	391.51	10,941,146
US Media & Photo	ELECTRONIC ARTS INC	55268	107.79	81.62	4,510,896
US Media & Photo	FACEBOOK INC	54762	201.89	152.87	8,371,528
US Media & Photo	LIBERTY MEDIA CORP-MEDIA C	68394	46.79	35.43	2,423,158
US Media & Photo	MATCH GROUP INC	34180	78.21	59.22	2,024,161
US Media & Photo	NETFLIX INC	24719	345.04	261.26	6,458,192
US Media & Photo	NEW YORK TIMES CO-A	35425	32.01	24.24	858,630
US Media & Photo	WALT DISNEY COMPANY	71496	138.27	104.70	7,485,491
US Media Total					**43,073,201**
ELECTRICITY					
US Electricity	AVANGRID INC	25800	53.26	40.33	1,040,475
US Electricity	DUKE ENERGY CORP	34548	97.62	73.92	2,553,714

US Electricity	EDISON INTERNATIONAL	22194	76.52	57.94	1,285,941
US Electricity	EXELON CORP	169260	47.58	36.03	6,098,028
US Electricity	NATIONAL GRID PLC-SP ADR	31230	66.24	50.16	1,566,401
US Electricity	NRG ENERGY INC	108141	36.89	27.93	3,020,714
US Electricity	PPL CORP	92533	36.18	27.40	2,534,987
US Electricity Total					**18,100,260**
GAS & WATER					
Gas	SEMPRA ENERGY	45251	160.60	121.61	5,502,808
Gas	UGI CORP	36367	41.56	31.47	1,144,442
US Gas & Water Total					**6,647,249**
BANKS, RETAIL					
US Banks Retail	BANK OF AMERICA CORP	528918	32.81	24.84	13,140,297
US Banks Retail	JPMORGAN CHASE & CO	32105	132.31	100.19	3,216,444
US Banks Retail	SVB FINANCIAL GROUP	3138	240.33	181.98	571,047
US Banks - Retail Total					**16,927,787**
NON-LIFE INSURANCE					
US Insurance	AMERICAN INTERNATIONAL GROUP	104940	50.24	38.04	3,992,099
US Insurance	ASSURANT INC	25531	130.54	98.84	2,523,609
US Insurance	ASSURED GUARANTY LTD	87375	45.83	34.70	3,032,129
US Insurance	ATHENE HOLDING LTD-CLASS A	68759	43.56	32.98	2,267,922
US Insurance	HARTFORD FINANCIAL SVCS GRP	62980	59.27	44.88	2,826,495
US Insurance	MARSH & MCLENNAN COS INC COM	39703	111.85	84.69	3,362,559
US Insurance	PROGRESSIVE CORP	31255	80.67	61.08	1,909,159
US Insurance	PRUDENTIAL FINANCIAL INC	12967	91.04	68.94	893,886
US Insurance	TRUPANION INC	34637	31.95	24.19	837,957
US Non-Life Insurance Total					**21,645,815**
REAL ESTATE					
US Real Estate	AMERICAN TOWER CORP	36638	231.70	175.44	6,427,889
US Real Estate	ALEXANDRIA REAL ESTATE EQUIT	28280	163.13	123.52	3,493,203
US Real Estate	CAMDEN PROPERTY TRUST	3011	112.42	85.12	256,310
US Real Estate	EQUINIX INC	11787	589.73	446.54	5,263,409
US Real Estate	HEALTHPEAK PROPERTIES INC	2222	35.98	27.24	60,536
US Real Estate	STORE CAPITAL CORP	60790	39.25	29.72	1,806,685
US Real Estate	VORNADO REALTY TRUST	25730	65.77	49.80	1,281,381
US Real Estate Total					**18,589,413**
GENERAL FINANCIAL					
US Special Finance	AMERICAN EXPRESS CO	39041	129.82	98.30	3,837,719
US Special Finance	ARES MANAGEMENT CORP - A	81411	36.06	27.30	2,222,897
US Special Finance	EQUITABLE HOLDINGS INC	149200	24.01	18.18	2,712,512
US Special Finance	THE BLACKSTONE GROUP INC-A	100788	61.07	46.24	4,660,659
US Special Finance	EQUIFAX INC	9250	149.87	113.48	1,049,704
US Special Finance	FLEETCOR TECHNOLOGIES INC	14174	315.26	238.71	3,383,545
US Special Finance	GLOBAL PAYMENTS INC	50526	195.40	147.96	7,475,669
US Special Finance	HAMILTON LANE INC-CLASS A	35785	64.86	49.11	1,757,473
US Special Finance	IHS MARKIT LTD	58036	78.85	59.71	3,465,052
US Special Finance	ONEMAIN HOLDINGS INC	49153	42.32	32.04	1,575,093
US Special Finance	PAYPAL HOLDINGS INC	37681	113.87	86.22	3,248,945
US Special Finance	RAYMOND JAMES FINANCIAL INC	18742	91.39	69.20	1,296,956
US Special Finance	S&P GLOBAL INC	12905	293.57	222.29	2,868,668
US Special Finance	TD AMERITRADE HOLDING CORP	63670	47.48	35.95	2,289,055
US Special Finance	VISA INC CL A SHS	53411	198.90	150.61	8,044,075
US Special Finance	VOYA FINANCIAL INC	42775	59.74	45.24	1,934,933
US Special Finance	WEX INC	11474	216.91	164.24	1,884,539
US General Financial Total					**53,707,493**
SOFTWARE					
US Software & Comp $	ADOBE SYSTEMS INC	6900	351.05	265.82	1,834,124
US Software & Comp $	ALPHABET INC - CL A SHARES	16110	1,431.79	1,084.15	17,465,679

US Software & Comp S	BLUCORA INC	100778	22.54	17.07	1,720,007
US Software & Comp S	GODADDY INC - CLASS A	46168	67.22	50.90	2,349,904
US Software & Comp S	GUIDEWIRE SOFTWARE INC	11179	112.44	85.14	951,775
US Software & Comp S	MICROSOFT CORP	211663	170.17	128.85	27,273,354
US Software & Comp S	SALESFORCE.COM INC	33624	182.24	137.99	4,639,847
US Software & Comp S	SCIENCE APPLICATIONS INTERNATIONA	12697	87.73	66.43	843,451
US Software & Comp S	SERVICENOW INC	7394	338.35	256.20	1,894,333
US Software & Comp S	SLACK TECHNOLOGIES INC-CL A	33413	20.71	15.68	523,970
US Software & Comp S	SPLUNK INC	7199	155.21	117.53	846,063
US Software & Comp S	SPOTIFY TECHNOLOGY SA	10122	141.27	106.97	1,082,747
US Software & Comp S	SS&C TECHNOLOGIES HOLDINGS	88551	63.01	47.71	4,224,872
US Software & Comp S	SVMK INC	129518	17.65	13.36	1,730,954
US Software & Comp S	VERISIGN INC	22046	208.05	157.54	3,473,027
US Software & Comp S	WORKDAY INC-CLASS A	14238	184.63	139.80	1,990,499
US Software Total					**72,844,604**
TECHNOLOGY HARDWARE					
US IT Hardware	ADVANCED MICRO DEVICES	90090	46.96	35.56	3,203,430
US IT Hardware	APPLE INC	119627	309.34	234.23	28,020,501
US IT Hardware	FIRST SOLAR INC	8934	49.57	37.53	335,332
US IT Hardware	INTEL CORP	43203	63.89	48.38	2,090,053
US IT Hardware	KLA-TENCOR CORP	18461	165.73	125.49	2,316,685
US IT Hardware	LATTICE SEMICONDUCTOR CORP	130884	18.60	14.08	1,843,360
US IT Hardware	LUMENTUM HOLDINGS INC	36931	75.77	57.37	2,118,844
US IT Hardware	MARVELL TECHNOLOGY GROUP LTD	133466	24.04	18.20	2,429,493
US IT Hardware	MICRON TECHNOLOGY INC	75209	53.05	40.17	3,021,105
US IT Hardware	TAIWAN SEMICONDUCTOR-SP ADR	44023	53.93	40.84	1,797,714
US IT Hardware	TERADYNE INC	27677	65.95	49.94	1,382,116
US IT Hardware	TEXAS INSTRUMENTS INC	37452	120.62	91.33	3,420,621
US IT Hardware	WESTERN DIGITAL CORP	42758	65.48	49.58	2,120,004
US Technology Hardware Total					**54,099,259**
TOTAL UNITED STATES					**567,073,089**

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID

EUROPEAN EQUITIES Company name	Number held	Mkt price in local currency	Mkt Price GBP	Value in Sterling £
EUROPEAN				
PASSIVE TRACKER FUND				
EUROPEAN UBS LIFE EUROPE EX-UK EQUITY T	127,335,613	**344.41**	**3.44**	438,556,584
EUROPEAN EQUITIES TOTAL				**438,556,584**

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID

OTHER EQUITIES	Company name	Number held	Mkt price in local currency	Mkt Price GBP	Value in Sterling £
JAPAN					
Investment Companies					
Japan	CC Japan Income & Growth Trust	5,000,000	149.00	149.00	7,450,000
Japan	JPMorgan JAP IT 25P	7,730,000	434.00	434.00	33,548,200
Japan	JPMF japs smoc	2,250,000	414.00	414.00	9,315,000
Japan	Schroder Japan Growth Fund 10p ords	11,300,000	190.00	190.00	21,470,000
J Investment Companies Total					71,783,200
Unit Trusts & OEICs					
Japan	Baillie Gifford OGF - Japanese B Acc Shares	4,522,619.35	1,704.00	1,704.00	77,065,434
Japan	Baring Japan Growth Trust	5,500,000.00	221.60	221.60	12,188,000
Japan	Invesco Japan FD-UKNTACC	4,565,901.17	194.89	194.89	8,898,485
Japan	JPMorgan Jap Fd A Acc	3,000,000.00	495.70	495.70	14,871,000
Japan	Schroder UT Tokyo Ac	11,000,000.00	356.90	356.90	39,259,000
J Unit Trusts Total					152,281,918
Life Policies					
Internatio	LGIM Japan Equity Index Fund	26,144,067.250	2.02	2.02	52,878,468
International Life Policies					52,878,468
Investment Entities					
Japan	Aberdeen Global - JAP Smaller Cos Fund D£	1,662,639.78	11.58	11.58	19,253,369
Japan	JO Hambro - Japan Fd GBP-A	15,000,000.00	2.37	2.37	35,490,000
J Investment Entities Total					54,743,369
JAPAN TOTAL					331,686,955
OTHER ASIA					
Investment Companies					
Asian	ABERDEEN ASIAN INCOME FUND ORDS	3,000,000	201.00	201.00	6,030,000
Asian	ABERDEEN NDIT 25P	7,780,000	242.00	242.00	18,827,600
Asian	ASIA DRAGON TRUST 20P	8,610,000	391.00	391.00	33,665,100
Asian	INVESCO ASIA TRUST 10P	6,358,000	273.00	273.00	17,357,340
OA Investment Companies Total					75,880,040
Unit Trusts & OEICs					
Asian	Stewart Investors Asia Pacific Fund (First State As	5,250,000	1,454.64	1,454.64	76,368,600
Asian	JPMorgan Asia Fund A Ac	20,000,000	233.70	233.70	46,740,000
Asian	Schroder Instl PAC Fd Ac	2,000,000	1,651.00	1,651.00	33,020,000
OA Unit Trusts Total					156,128,600
Investment Entities					
Asian	Baring Int'l Australia $	130,000.000	121.03	91.64	11,913,709
OA Investment Entities Total					11,913,709
OTHER ASIA TOTAL					243,922,349
EMERGING MARKETS					
Investment Companies					
Internatio	ABERDEEN EMERGING MARKETS	2,788,425	582.00	582.00	16,228,634
Internatio	BLACKROCK FRONTIERS INV TRUST	2,950,000	116.00	116.00	3,422,000
Internatio	JP Morgan EMER IT25P	3,465,500	999.00	999.00	34,620,345
Int'l Investment Companies Total					54,270,979
Unit Trusts & OEICs					
Internatio	Stewart Investors Global Emerging Markets Funf	3,000,000	846.73	846.73	25,401,900
Latin Ame	Thd ndle Lnamer Gwth	3,500,000	297.33	297.33	10,406,550
Int'l Unit Trusts Total					35,808,450
Life Policies					
Internatio	LGIM World Emerging Markets Index Fund	34,671,449.980	3.52	3.52	121,945,384
International Life Policies					121,945,384
Investment Entities					
Latin Ame	JPMorgan LNAMER A U$	86,085.904	50.73	38.41	3,306,797
Internatio	POLUNIN FUNDS-DEVEL CNTY-B	47,502.659	1,113.62	843.23	40,055,813
LatAm Investment Entities Total					43,362,610
EMERGING MARKETS TOTAL					255,387,422
OTHER EQUITIES TOTAL					830,996,726

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID

OTHER EQUITIES Company name	Number held	Mkt price in local currency	Value in Sterling £
PRIVATE EQUITY			
Quoted Private Equity			
UK Invest APAX GLOBAL ALPHA LTD	3,000,000	164.50	4,935,000
UK Invest HARBOURVEST GLOBAL PRIVATE	925,000	1836.00	16,983,000
UK Invest HGCAPITAL TRUST PLC	7,053,150	267.50	18,867,176
UK Invest ICG ENTERPRISE TRUST PLC	181,795	966.00	1,756,140
UK Invest NB PRIVATE EQUITY PARTNERS Ltd (A)	1,500,000	15.60	17,718,480
UK Invest PANTHEON INTERNATIONAL PLC	345,000	2435.00	8,400,750
UK Invest PRINCESS PRIVATE EQUITY HOLDING LTD	500,000	11.15	4,683,000
UK Invest STANDARD LIFE PRIVATE EQUUITY	900,000	385.00	3,465,000
UK Invest SCHRODER UK PUBLIC PRIVATE	5,000,000	31.50	1,575,000
UK Quoted Private Equity Total			**78,383,546**
Unquoted Private Equity			
UK Uncla ADAM STREET PARTNERS (FEEDER) 2017 FU	30,000,000	0.47	10,708,506
UK Uncla BAIRD CAPITAL PARTNERS EUROPE FUND L	4,300,000	0.03	111,679
UK Uncla CAPITAL DYNAMICS GLOBAL SECONDARIES	20,000,000	0.71	10,712,768
UK Uncla CAPITAL DYNAMICS MID-MARKET DIRECT FI	25,000,000	0.94	19,638,877
UK Uncla CAPITAL DYNAMICS LGPS COLLECTIVE PE \	20,000,000	0.39	7,891,900
UK Uncla CATAPULT GROWTH FUND UNITS	3,000,000	0.07	224,251
UK Uncla EAST MIDLANDS VENTURE	3,000,000	0.07	197,722
UK Uncla EPIRIS FUND II	25,000,000	0.54	13,422,687
UK Uncla GRAPHITE CAPITAL PARTNERS FUND 1X A	11,250,000	0.02	193,881
UK Uncla GRAPHITE CAPITAL PARTNERS FUND 1X C	11,250,000	0.02	193,881
UK Uncla MOBEUS EQUITY PARTNERS IV LP	10,000,000	0.63	6,304,696
UK Invest PANORAMIC ENTERPRISE CAPITAL UNITS	1,428,486	1.17	1,675,834
UK Invest PANORAMIC GROWTH FUND 2 LP	10,000,000	0.42	4,176,968
UK Invest PARTNERS GROUP GLOBAL VALUE 2008	7,500,000	0.45	2,855,041
UK Invest STAR CAPITAL STRATEGIC ASSETS III LP	12,500,000	0.49	5,124,033
UK Uncla VESPA CAPITAL II LLP	10,000,000	0.72	7,161,634
UK Unquoted Private Equity Total			**90,594,359**
PRIVATE EQUITY TOTAL			**168,977,905**
INFRASTRUCTURE			
UK Infrastructure Quoted			
Closed-er FORESIGHT SOLAR FUND LTD	4,000,000	116.50	4,660,000
Closed-er GREENCOAT UK WIND PLC	11,875,000	142.00	16,862,500
Closed-er HICL INFRASTRUCUTRE CO LTD	6,060,872	177.60	10,764,109
Closed-e INTERNATIONAL PUBLIC PARTNERSHIP LTD	20,462,823.00	167.20	34,213,840.06
Closed-e 3I INFRASTRUCTURE PLC	2,249,999.00	310.50	6,986,246.90
Closed-e RENEWABLES INFRASTRUCTURE GR	8,111,111.00	131.80	10,690,444.30
UK Infrastructure Quoted Total			**84,177,140**
UK Infrastructure Unquoted			
UK Uncla DALMORE CAPITAL 3 LP	25,000,000	1.00	25,118,541
UK Uncla EQUITIX FUND 1 LTD P'SHIP	7,500,000	1.67	12,519,945
UK Uncla Equitix Fund IV Ltd P'ship	25,000,000	1.11	27,680,948
UK Uncla FIRST STATE EDIF II	20,000,000	0.84	14,058,631
UK Uncla IMPAX NEW ENERGY INVESTORS II UNITS	10,000,000	0.01	109,881
UK Uncla JP Morgan Infrastructure Investment Fund UK L	110,000,000	1.00	83,441,975
UK Uncla MEIF 5 Co-Invest LP	12,600,000	0.60	6,398,263
UK Uncla MEIF 6 Co-Invest LP	28,000,000	0.00	-
UK Uncla Macquarie European Infrastructure Fund 5 LP	14,400,000	0.98	11,866,714
UK Uncla Macquarie European Infrastructure Fund 6 SCS|	56,000,000	0.24	11,419,320
UK Uncla Macquarie Green Infrastructure Fund (Euro)	59,000,000	0.00	-
UK Uncla PIP Multi Strategy Infrastructure LP	25,000,000	0.83	20,829,607
UK Uncla SL CAPITAL INFRASTRUCTURE 1LP	15,000,000	1.14	17,080,114
UK Uncla SL Capital Infratructure II SCSP	25,000,000	0.71	14,852,332
UK Infrastructure Total			**245,376,271**
INFRASTRUCTURE TOTAL			**329,553,411**
ALTERNATIVES TOTAL			**498,531,316**

DERBYSHIRE PENSION FUND **31/01/2020**
JANUARY 2020 PORTFOLIO VALUATION - BID **Valuation**

					Valuation £
Real Property					
Property		Southampton Property			6,800,000
Property		Retail Unit Tamworth			8,450,000
Property		15-17 Jockeys Field London			11,700,000
Property		D'Arblay House, London			16,900,000
Property		Bristol Odeon Development			5,200,000
Property		Quintins Centre, Hailsham			6,000,000
Property		Caledonia House, London			24,100,000
Property		Chelsea Fields Ind Est, London			13,800,000
Property		Planet Centre, Feltham			14,100,000
Property		Hill St, Mayfair			15,900,000
Property		Birmingham - Travelodge developm't			17,200,000
Property		Saxmundham, Tesco developm't			9,700,000
Property		Roundhay Road, Leeds			6,600,000
Property		Premier Inn, Rubery, Birmingham			6,200,000
Property		South Normanton Warehouse, Alfreton			15,600,000
Property		Loddon Centre, Basingstoke			13,800,000
Property		Parkway, Bury St Edmunds			11,250,000
Property		Waitrose, York			13,550,000
Property		Link 95, Haywood Manchester			10,650,000
Property		Car Park, Welford Rd Leicester			12,750,000
Total Real Property					**240,250,000**
Property Managed Funds			**Number held**	**Mkt price**	
Property	**Pence**	Assura PLC	6,000,000	77.8000	4,668,000
Property	**GBP**	Aviva Pooled Property Fund - class A	611,335	16.4933	10,082,941
Property	**GBP**	Aviva Pooled Property Fund - class B	527,609	16.6156	8,766,531
Property	**GBP**	Bridges Property Alternatives Fund III LP	10,000,000	0.7611	7,611,186
Property	**GBP**	Bridges Property Alternatives Fund IV LP	10,000,000	0.2351	2,350,996
Property	**EUR**	Fidelity Eurozone Select Real Estat Fund - price in Euro	4,486	6070.4789	22,876,500
Property	**GBP**	Hearthstone Residential Fund 1 LP	25,000,000	0.7261	18,152,919
Property	**GBP**	Igloo Regeneration P'ship Property Unit Trust	4,644,493	0.0419	194,641
Property	**EUR**	Invesco Real Estate-European Fund FCP - SIF	44,569	118.2870	4,428,408
Property	**Pence**	Target Healthcare REIT Ltd	4,085,000	119.5000	4,881,575
Property	**GBP**	M&G PP UK Property Fund (Inc)	27,124	729.0600	19,775,023
Property	**EUR**	M&G European Property Fund SICAV-FIS (Class X)	25,000,000	1.0339	21,712,405
Property	**GBP**	Threadneedle Pensions Property Fund	1,647,730	6.1563	10,143,923
Property	**Pence**	Tritax Big Box Indirect Pooled Fund	10,000,000	139.5000	13,950,000
Property	**GBP**	Unite UK Student Accommodation Fund	15,584,567	1.4103	21,978,264
Total Property Funds					**171,573,313**
Regulatory Capital		LGPS Central	**0.00**		2,000,000
Cash		*Updated to 31 January 2020*	**Mellon USD**	**Exch rate**	
Cash		Northern Trust	*UK*		20,848,981
Cash			*Euro*		0
Cash			*Wellington*		4,872,894
		Northern Trust	*LGPS Cent-Capital & Income*		0
Cash					
Cash		Cash - Lloyds bank Superfund			11,535,000
		Adjustments for timing differences	*LGIM Emerg Mrkts Purch trade :*		-20,000,000
Cash		Cash Temporary Loans	207,000,000		
		Lloyds 95 Day Notice	10,008,744		
		Santander 180 Day Notice	10,000,000		
		Aberdeen Standard Life	30,000,000		
		Federated Prime Rate	30,000,000		
		Insight MMF	30,000,000		
		Certs of Deposit	0		
		Treasury Bills	0		317,008,744
Total Cash				Total Cash	**334,265,619**

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID

UK GILTS	Number held	Mkt Price in local currenc (Clean) use Calc & IL Valuation	Mkt Price in local currency (Dirty) use for Non IL Valuation	Mkt Price pence GBP	Total £ GBP
TSY 3.75% 7/9/2020	10,322,000	101.81	103.34	103.34	10,666,964
TSY 4.75% 7/3/2020	10,000,000	100.36	102.31	102.31	10,230,637
TSY 1.75% 7/9/2022	13,490,000	103.42	104.13	104.13	14,047,723
TSY 4% 7/3/2022	10,995,000	107.40	109.04	109.04	11,988,768
TSY 2.25% 7/9/2023	15,400,000	106.53	107.45	107.45	16,547,149
TSY 5% 7/3/2025	5,500,000	123.14	125.18	125.18	6,885,049
TSY 2% 7/9/2025	7,000,000	109.04	109.86	109.86	7,690,038
TSY 1.5% 7/22/2026	5,650,000	107.11	107.15	107.15	6,054,226
TSY 4.25% 7/12/2027	18,000,000	129.60	130.28	130.28	23,449,950
TSY 4.75% 7/12/2030	13,162,000	144.21	144.97	144.97	19,080,521
TSY 4.25% 7/6/2032	12,370,000	142.52	143.19	143.19	17,712,665
TSY 4.5% 7/9/2034	16,373,000	151.42	153.26	153.26	25,092,938
TSY 4.25% 7/3/2036	11,400,000	151.24	152.98	152.98	17,439,686
TSY 1.75% 7/9/2037	11,800,000	113.41	114.13	114.13	13,467,381
TSY 4.75% 7/12/2038	7,934,000	166.57	167.33	167.33	13,275,624
TSY 4.25% 7/9/2039	4,050,000	159.19	160.93	160.93	6,517,774
TSY 3.25% 1/22/2044	8,000,000	147.15	147.25	147.25	11,780,171
TSY 4.25% 7/12/2046	3,900,000	175.42	176.09	176.09	6,867,607
001 UKGB Total					**238,794,870**
US GOVERNMENT BONDS					
T 2.75% 31/8/2023	26,191,000	105.02	106.20	80.42	21,061,797
T 2.25% 15/11/2024	21,000,000	104.29	104.78	79.34	16,661,845
T 2.75% 15/11/2042	7,500,000	114.17	114.78	86.91	6,518,144
004 USGB Total					**44,241,786**
NON GOVERNMENT BONDS					
Kames UK Corp Bond Fund	48,202,369	326.42	326.42	326.42	157,342,172
Royal London UK Corporate Bond I	160,017,046	102.74	102.74	102.74	164,404,713
Non Govt Bonds Total					**321,746,885**
MULTI ASSET CREDIT					
AMP Capital Infrastructure Debt Fu	17,000,000	0.95	0.95	0.95	13,561,477
Barings Global Private Loan Fund	40,000,000	0.54	0.54	0.54	21,571,432
Barings Global Private Loan Fund 2	40,000,000	0.92	0.92	0.92	36,666,277
Barings Global Private Loan Fund 3	50,000,000	0.27	0.27	0.27	13,548,570
CQS Credit Multi Asset Fund Class	105,489	1,078.53	1,078.53	1,078.53	113,773,506
CVC Credit PARTNERS European	76,000,000	0.29	0.29	0.29	18,546,521
Janus Henderson Multi Asset Credi	98,198,676	1.10	1.10	1.10	108,230,948
Multi Asset Credit Total					**325,898,731**
UK INDEX LINKED					
TREAS 4.125% IL STK 22/7/2030	6,510,000	382.44	382.73	382.73	24,915,913
TREAS 2% IL STK 26/1/2035	8,000,000	293.48	293.56	293.56	23,484,615
002 UKGIL Total					**48,400,527**

INDEX LINKED (3 monthers)

UK INDEX LINKED (3monthers)	Number held	Clean Price	Index Ratio	Gross	Accrued Interest	Total
TREAS 0.125% IL STK 22/3/2024	9,230,000	110.9850	1.200660	12,299,459.58	4,247.32	12,303,707
TREAS 1.25% IL STK 22/11/2027	7,400,000	133.6440	1.499800	14,832,506.07	18,550.82	14,851,057
TREAS 0.125% IL STK 22/3/2029	5,325,000	127.7600	1.225940	8,340,339.53	2,450.38	8,342,790
TREAS 1.25% IL STK 22/11/2032	2,777,000	156.5330	1.340480	5,826,961.21	6,961.57	5,833,923
TREAS 0.75% IL STK 22/3/2034	11,465,000	152.7580	1.253340	21,950,626.65	31,654.74	21,982,281
TREAS 1.125% IL STK 22/11/2037	5,580,000	175.2500	1.439170	14,073,571.47	12,589.49	14,086,161
TREAS 0.625% IL STK 22/3/2040	5,600,000	170.4790	1.344260	12,833,413.63	12,884.62	12,846,298
TREAS 0.625% IL STK 22/11/2042	5,950,000	180.6320	1.369930	14,723,465.15	7,457.93	14,730,923
TREAS 0.125% IL STK 22/3/2044	11,470,000	168.2510	1.200640	23,170,418.61	5,278.09	23,175,697
TREAS 0.125% IL STK 22/3/2046	8,730,000	173.6000	1.129070	17,111,371.99	4,017.24	17,115,389
TREAS 0.75% IL STK 22/11/2047	6,500,000	202.7510	1.400910	18,462,333.72	9,776.79	18,472,111
TREAS 0.125% IL STK 10/08/2048	5,300,000	180.7100	1.059200	10,144,625.70	-126.02	10,144,500
TREAS 0.5% IL STK 22/3/2050	5,000,000	201.3170	1.363930	13,729,114.79	9,203.30	13,738,318
UK INDEX LINKED (3monthers) TOTAL						**187,623,154**

US INDEX LINKED	Number held	Clean Price	Index Ratio	Gross $	Accrued Interest $	Total $	Total £
TII0.125% 15/1/2023	7,000,000	100.687500	1.114240	7,853,302.80	456.73	7,853,760	5,946,866.72
TII3.625% 15/4/2028	4,045,000	130.554688	1.590160	8,397,534.95	44,470.13	8,442,005	6,392,286.25

DERBYSHIRE PENSION FUND
JANUARY 2020 PORTFOLIO VALUATION - BID

	Number held	Mkt Price in local currenc (Clean) use	Mkt Price in local currenc (Dirty)	Mkt Price pence GBP			Total £ GBP
TII1.750% 15/1/2028	5,550,000	114.953125	1.227670	7,832,409.91	5,069.71	7,837,480	5,934,539.57
TII2.5% 15/1/2029	7,000,000	123.484375	1.197910	10,354,621.74	9,134.62	10,363,756	7,847,436.31
TII2.125% 15/2/2040	4,095,000	138.148438	1.189930	6,731,646.43	40,671.81	6,772,318	5,127,999.37
TII0.75% 15/2/2042	20,300,000	110.765625	1.138220	25,593,356.89	71,160.33	25,664,517	19,433,172.43
TII0.625% 15/2/2043	10,000,000	108.164063	1.118660	12,099,881.02	29,211.96	12,129,093	9,184,149.20
0045 USGB IL Total							**59,866,450**

TOTAL BONDS	**1,226,572,402**
Index linked-total	**295,890,131**
Conventional-total	**283,036,656**
Non gov-total	**647,645,615**

Agenda Item No. 5 (c)

DERBYSHIRE COUNTY COUNCIL

PENSIONS AND INVESTMENTS COMMITTEE

4 March 2020

Report of the Director of Finance & ICT

STEWARDSHIP REPORT

1 Purpose of the Report

To provide the Pensions & Investments Committee with an overview of the stewardship activity carried out by Derbyshire Pension Fund's (the Fund) external investment managers in the quarter ended 31 December 2019.

2 Information and Analysis

The Fund's directly held UK Equities were transitioned into an LGIM passive pooled product in November 2019. LGIM exercises the voting rights in respect of the equities held within its UK Equity Index Fund. In order to ensure that the Pensions & Investments Committee is aware of the engagement activity being carried out by LGIM and by LGPS Central Limited (the Fund's pooling company), copies of the following two reports are attached:

- Q4 2019 Legal & General Investment Management (LGIM) ESG Impact Report (Appendix 1)
- Q3 2019/20 LGPS Central Limited Quarterly Stewardship Report (Appendix 2).

LGIM currently manage around £1bn of assets on behalf of the Fund through passive products covering: UK Equities; Japanese Equities; and Emerging Market Equities. It is expected that LGPS Central Limited will manage a growing proportion of the Fund's assets going forward as part of the LGPS pooling project.

These two reports provide an overview of the investment managers' current key stewardship themes and voting and engagement activity over the last quarter. It is anticipated that stewardship reports from both managers will be presented to the Pensions & Investments Committee on a quarterly basis.

3 Other 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 considerations.

4 Officer's Recommendation

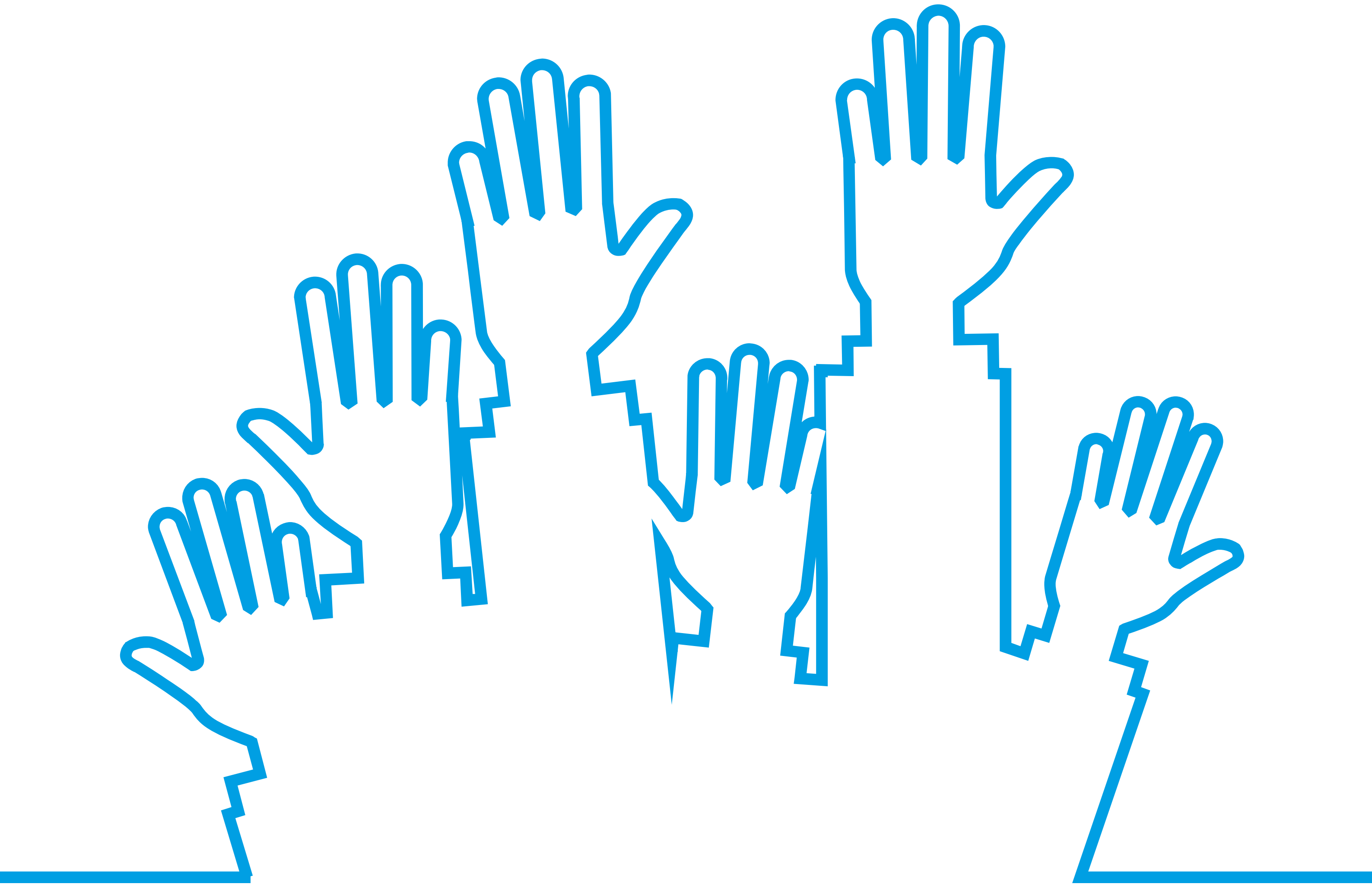
That Committee notes the stewardship activity of LGIM & LGPS Central Limited.

PETER HANDFORD

Director of Finance & ICT

Active ownership

Q4 2019 ESG Impact Report



Active ownership means using our scale and influence to bring about **real, positive change to create sustainable investor value**.

Legal & General
INVESTMENT MANAGEMENT

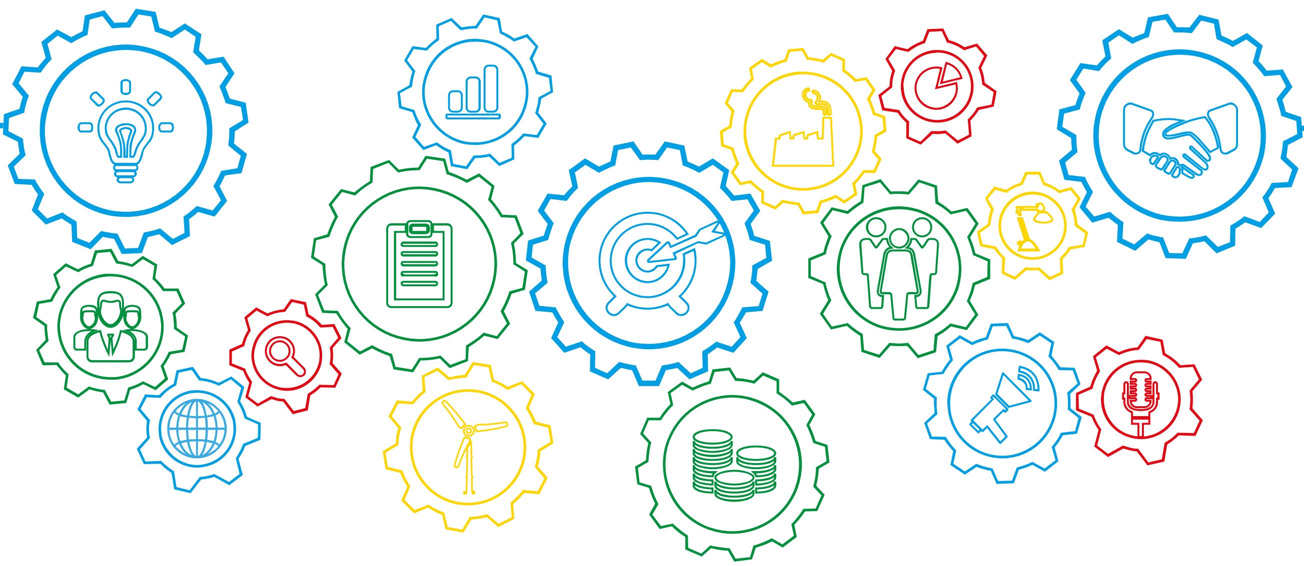
Our mission

To use our influence to ensure that:

Companies integrate **environmental, social and governance** (ESG) factors into their culture and everyday thinking.

&

Markets and regulators create an **environment** in which **good management** of ESG factors is valued and supported.



Our focus

1 Holding boards to account

To be successful, companies need to have people at the helm who are well equipped to create resilient long-term growth. By voting and engaging directly with companies, we encourage management to control risks and benefit from emerging opportunities.

We seek to protect and enhance our clients' assets by engaging with companies and holding management to account for their decisions. Voting is an important tool in this process, and one which we use extensively.

2 Creating sustainable value

We believe it is in the interest of all stakeholders for companies to build sustainable business models that are also beneficial to society. We work to prevent market behaviour that destroys long-term value creation.

At LGIM, we want to safeguard and grow our clients' assets by ensuring that companies are well positioned for sustainable growth. Our active and enhanced index mandates incorporate ESG factors in the investment process and we consider ESG factors when voting on our holdings in all strategies.

We engage directly and collaboratively with companies to highlight key challenges and opportunities, and to support strategies that can deliver long-term success.

3 Promoting market resilience

As a long-term investor for our clients, it is essential that markets are able to generate sustainable value. In doing so, companies should become more resilient to change and therefore benefit the whole market.

We use our scale and influence to ensure that issues impacting the value of our clients' investments are recognised and appropriately managed. This includes working with key decision-makers such as governments and regulators, and collaborating with asset owners to bring about positive change.

Action and impact

NAVIGATING THE ENERGY TRANSITION

The International Energy Agency (IEA) invited LGIM to its Paris headquarters to speak to representatives of the largest listed and national oil companies, senior academics and investors.

We presented the results of our recent research, warning the energy industry against complacency as it faces an existential challenge with climate policy implementation and the rise in electric vehicle use. We continue to engage with the IEA on the energy transition, including contributing to one of its upcoming reports in 2020.

We are also helping our clients navigate the energy transition, publishing a short **guide** to climate for UK government pension schemes[1]. Alongside this, we published blog posts explaining why regulators and investors are acting[2], **why large-scale divestment is not a climate panacea[3]**, and **how to check if asset managers are engaging effectively[4].**


November 2019 Changing climate, changing investments?

For Investment Professionals only

LGPS **INTELLIGENCE**

Changing climate, changing investments?

Amid the US China trade war and worries of a UK recession, recent months might not have been the best time for the dollar or sterling, but they were a remarkable period for Celsius, with the hottest July and September in recorded history.[1]

James Sparshott is Head of Local Authorities within distribution, where he is responsible for managing and developing relationships with LGIM's LGPS clients.

Iancu Daramus is a sustainability analyst supporting LGIM in the development of low-carbon investments.

Galvanised by Greta Thunberg and the Extinction Rebellion movement, six million protesters took to the streets around the world in late September, with an estimated 100,000 in London alone,[2] calling for climate action. For its part, the UK government has passed landmark legislation targeting net zero greenhouse gas emissions by 2050, and over half of local councils have now declared a climate emergency.[3]

As Bank of England Governor Mark Carney warns that companies which fail to adapt to the low-carbon economy 'will fail to exist',[4] regulators are also sounding the alarm. In 2018, the Department of Work and Pensions (DWP) asked pension fund trustees to report on how they are managing material financial risks, including those from climate change.[5] In July this year, all financial regulators issued a joint statement saying they will be closely watching firms' approaches to climate change.[6]

But there are also grounds for hope, as 'clean tech' continues its remarkable progress: wind and solar are the cheapest source of new power in more than two thirds of countries globally.[7] In the UK, renewables have for the first time produced more electricity than fossil fuels.[8]

Faced with public and regulatory pressure, changing market dynamics, as well as the changing climate, how can the Local Government Pension Scheme (LGPS) respond?

DIVESTED INTERESTS

One radical suggestion put forward by activist campaigners calls for full divestment from fossil fuels by LGPS funds. But a single, simple cause and effect – that reliance on fossil fuels is driving a dangerous rise in global emissions – does not mean that a simple solution is at hand.

1 https://eu.usatoday.com/story/news/nation/2019/10/04/global-warming-september-2019-hottest-record/3865898002/
2 https://www.theguardian.com/environment/2019/sep/27/climate-crisis-6-million-people-join-latest-wave-of-worldwide-protests
3 https://www.localgov.co.uk/Over-half-of-councils-declare-%E2%80%98climate-emergency%E2%80%99/47899
4 https://www.cityam.com/businesses-must-tackle-climate-change-fail-exist-bank/
5 See our 'ESG checklist' for trustees for more details: https://www.lgim.com/uk/en/insights/our-thinking/client-solutions/material-change-a-five-step-esg-checklist-for-trustees.html
6 https://www.bankofengland.co.uk/prudential-regulation/publication/2019/joint-statement-on-climate-change
7 https://about.bnef.com › new-energy-outlook
8 https://www.theguardian.com/business/2019/oct/14/renewable-electricity-overtakes-fossil-fuels-in-uk-for-first-time

Legal & General INVESTMENT MANAGEMENT

EMPLOYEE-RELATED ENGAGEMENTS

We have been a supporter of the **Workforce Disclosure Initiative** since its inception in 2017. We believe greater transparency can lead to improvements in the adoption of better workplace culture and inclusion. We also **wrote to eight companies** to encourage them to provide **greater disclosure regarding labour practices.**

We publicly **supported the Living Wage Foundation's efforts** and have assisted the foundation by **co-signing a letter** to a number of UK companies calling on them to pay a living wage and to become accredited.

RECOGNITION FOR LEADING ENGAGEMENT

We have recently been described by The Guardian as "one of the most outspoken fund managers over the climate crisis"[5], and our pragmatic approach to engaging on climate change continued to receive external recognition. Independent think tank InfluenceMap reviewed the 15 largest asset managers and found LGIM to be "leading in robust engagement with companies"[6], further backed by support of climate shareholder proposals.

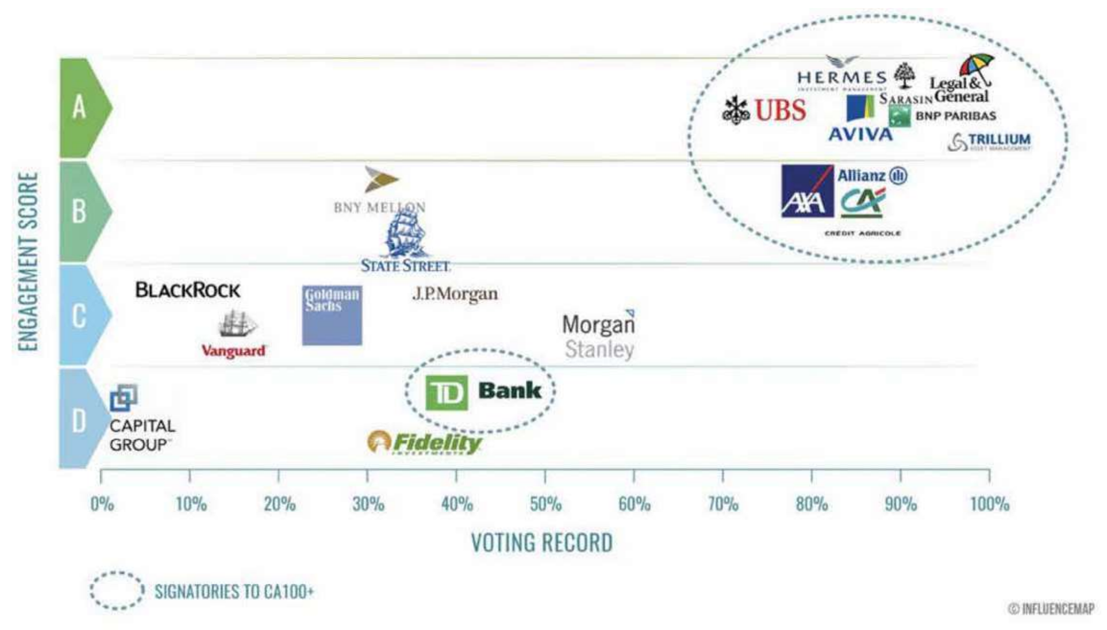
LGIM is the only fund manager in the top 15 to receive an A+ score for our climate engagement and voting.

> "Legal and General exhibited best practice [...] through its Climate Impact Pledge"
>
> - InfluenceMap

The same view was echoed in the Financial Times (FT), which noted that our stance on climate "is much tougher than across the rest of the industry"[7].

1. https://www.lgim.com/files/_document-library/knowledge/thought-leadership-content/lgps-intelligence/lgps-intelligence-nov-2019-final.pdf
2. https://futureworldblog.lgim.com/categories/themes/changing-climate-changing-investments/
3. https://futureworldblog.lgim.com/categories/themes/using-a-sledgehammer-to-crack-a-nut/
4. https://futureworldblog.lgim.com/categories/themes/three-steps-for-gauging-your-asset-manager-s-corporate-engagement/
5. The Guardian, 22 Nov 2019
6. InfluenceMap – Asset Managers and Climate Change (2019), available at: https://influencemap.org/report/FinanceMap-Launch-Report-f80b653f6a631cec947a07e44ae4a4a7
7 Financial Times, *Big investors turn screw over climate pollution disclosure,* 12 Dec 2019

HOW ASSET MANAGERS SCORE ON CLIMATE ENGAGEMENT & RESOLUTIONS



Addressing environmental, social and governance issues (ESG) issues is in the financial interest of companies and of our clients. Therefore, our engagements are not driven by any particular ethical agenda. That is why our efforts have support from the top of LGIM: in an op-ed for the FT, Michelle Scrimgeour, our Chief Executive, noted that "the success of companies over the long term is inseparable from the sustainability of the societies in which they operate", issuing a rallying cry to investors for more forceful engagement and collaboration[8].

But we recognise the long road ahead. The latest blog from Sacha Sadan, our Director of Corporate Governance, explains that **"asset managers can do more – and not just on climate change"**[9]

STAKEHOLDER EVENT IN LONDON

We held our third annual stakeholder roundtable at our London offices. Following from past years' events, we implemented many of the suggestions put forward by participants, including providing reasons behind our votes against, applying our minimum standards globally and also proposing and supporting shareholder resolutions.

This year, our clients, representatives from investor engagement groups and other stakeholders from across the industry provided feedback on five key themes we are planning to work on in the future: accountability of directors, audit, income inequality, privacy and security and health. We shall continue to take into account these comments and suggestions for action when framing our engagements.

NEW JOINERS

Our corporate governance team expanded this quarter with two new recruits:

- Aina Fukuda, ESG Manager, has joined our Japan office, strengthening our international ESG capabilities. She has responsibility for Japan stewardship and sustainable investments.

- Maria Zhivitskaya, Sustainability and Responsible Investment Manager, has joined our London office during Catherine Ogden's maternity leave.

8 Financial Times, *Index investors should not be passive owners when it comes to ESG*, 12 Dec 201

9. https://futureworldblog.lgim.com/categories/themes/asset-managers-must-do-more-and-not-just-on-climate-change/

Engagement on social and governance scores

Following the development of LGIM's proprietary ESG score, we have launched our first engagement campaign to push some of the world's biggest companies to improve their social and governance practices.

We recognise that ESG factors could play an increasingly important role in determining the performance of certain assets. As a result, we developed the LGIM ESG score, a proprietary and rules-based approach to scoring many of the companies we invest in on the basis of their ESG profile. The LGIM ESG score combines an environmental score, a social score and a governance score, with adjustments made for a company's overall levels of transparency with regards to ESG issues.

The LGIM ESG score has principally been created and is used for the following purposes:

1. To improve market standards globally and monitor ESG developments of our entire investment universe using quantitative measures;
2. To incentivise companies to improve their ESG profile through a transparent methodology;
3. To create investment solutions for our clients.

Focused on assessing companies' performance against common market-wide ESG issues and themes which can potentially affect long-term returns, the LGIM ESG scores utilises a total of **28 key ESG data points**.

For example, a company may receive a low social score because women account for less than 30% of its employee base. This score would be made using data provided by market leading provider Refinitiv.

All companies are assessed using the same indicators. We acknowledge a given issue might not be as important to every company's short-term bottom line, however, it can have an enormous impact on the market as a whole if not addressed. This focus on the overall market health differentiates our ESG scores from others in the market.

SOCIAL AND GOVERNANCE DATA POINTS:

Refinitiv	Women on the board	Social diversity	=	LGIM S
Refinitiv	Women at the executive level			
Refinitiv	Women in management			
Refinitiv	Women in the workforce			
Sustainalytics	Bribery and corruption policy	Human capital		
Sustainalytics	Freedom of association policy			
Sustainalytics	Discrimination policy			
Sustainalytics	Supply chain policy			
Sustainalytics	Employee incidents			
Sustainalytics	Business ethics incidents			
Sustainalytics	Social supply chain incidents			
Refinitiv	Free Float	Investor rights	=	LGIM G
Refinitiv	Equal voting rights			
Refinitiv	Independent chair	Board Composition		
Refinitiv	Independent directors on the board			
Refinitiv	Board tenure			
Refinitiv	Non-audit fees paid to auditors	Audit		
Refinitiv	Audit committee expertise			
Refinitiv	Audit opinion			

The overall company scores are made public on our **website**[1] and are updated biannually. We believe this will contribute to incentivise companies to improve their ESG profile.

LGIM'S GLOBAL ESG SCORE

September 2019

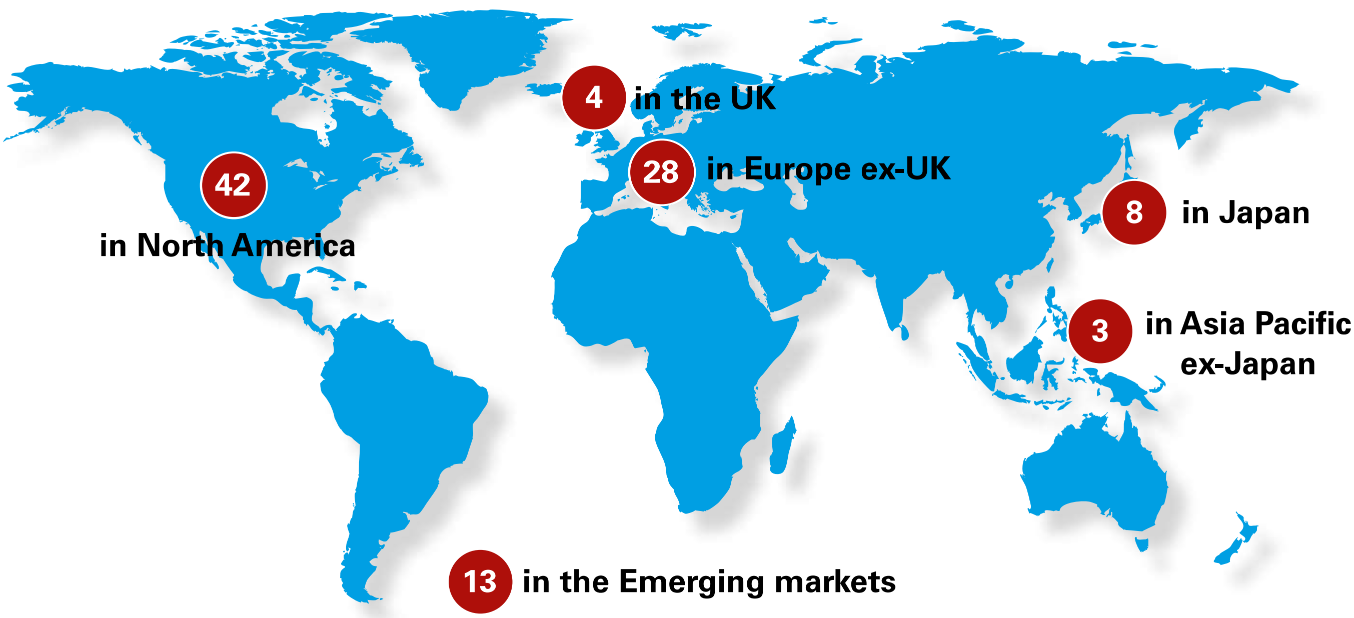
COMPANY NAME	LGIM ESG SCORE
1&1 DRILLISCH AG	32
360 SECURITY TECHNOLOGY IN-A	19
3I GROUP PLC	74
3M CO	43
3SBIO INC	44
51JOB INC-ADR	37
58.COM INC-ADR	34
A2 MILK CO LTD	46
AAC TECHNOLOGIES HOLDINGS IN	38

As a long-term and active investor, we are extensively engaging with the world's biggest companies on climate change and the below 2°C transition through our Climate Impact Pledge engagement, using third party provider data and a (qualitative) engagement overlay.

Under this campaign, we have focused our current engagement efforts on the biggest companies we are invested in through our equity and fixed income offerings, which also have the lowest LGIM social and/or governance score(s). This resulted in a target list of 98 companies across many regions. In the past, the lack of reliable data meant our approach in these engagement areas was largely qualitative in nature. **The creation of the LGIM ESG scores enables us to use reliable, available and consistent data on key social and governance issues.**

We sent a letter to the board chair of each of these companies. Many companies have already contacted us to better understand how to improve their score(s).

Target list of companies:



1. https://www.lgim.com/uk/en/capabilities/corporate-governance/gender-diversity-scores/

Diversity campaigns

UK GENDER DIVERSITY SCORES

We place significant emphasis on companies' board and leadership team composition. This is to ensure they are equipped to deliver in the future for the benefit of our clients. We believe that groups with a diverse set of views and perspectives can deliver better decisions. Therefore, since 2011 we have been engaging with UK companies on the benefits of having gender diverse boards and leadership teams.

Our commitment to this issue culminated in the development of **LGIM's gender diversity score** in 2018, to analyse the largest UK companies on their gender diversity throughout the organisation. These scores are also a data source for our index fund, the L&G Future World Gender in Leadership UK Index Fund. It gives greater weight to companies that have higher gender diversity scores and less weight to companies that have lower scores. The scores are an input into the index which is tracked by the fund.

When we launched these scores, **we wrote to the companies in the bottom 10%** from a gender diversity perspective. The objective was to help these companies understand our expectations and incentivise them to improve their approach to gender diversity. The scores are updated every six months and are published on our **website**[1] to provide full transparency. Our aim is to encourage companies to disclose clearly in their annual reports a breakdown of their gender diversity beyond board level to include their executive committee, management level and across their workforce. By not disclosing this information alongside their diversity policies, we may be underestimating their current progress; therefore we are encouraging better transparency.

We renewed our engagement this quarter by sending letters to 30 laggard companies. Given the importance of these gender diversity scores, we commit to **writing to the laggards annually** to push further the diversity agenda. We will also track the progress in their scores over time. We have already seen progress, as **between April 2018 and April 2019, 50% of companies we wrote to have improved their score by three points or more.**

EUROPE GENDER DIVERSITY CAMPAIGN

Globally our aspiration is to have a minimum of 30% women representation on boards and executive committees. Whilst we recognise that some European countries have quotas in place for board level representation, we are consistently pushing for a minimum threshold of 25% women on the board in these markets from 2020, and we will look to strengthen this in the coming years.

As part of these efforts, **we wrote to 20 of the largest European companies that have poor gender balance at board level.** Our letter set out the importance we place on gender balance within companies at all levels, and that we expect companies to have a minimum of 30% women as an aspirational target for all seniority levels. We also stressed the importance of clearly disclosing the gender split of the board, executives, management and the workforce, and ensuring that this data is publically available.

We shall continue to assess the progress of the companies we engaged with and to push for improvement.

1. https://www.lgim.com/uk/en/capabilities/corporate-governance/gender-diversity-scores/

Climate Impact Pledge: third engagement cycle underway

We conducted our annual review of the frameworks we use to assess companies' strategy on climate change. This is an effective way of understanding how their businesses are adapting to the risks and opportunities presented by a low-carbon transition. Our reviews ensure that our analysis accurately reflects evolving sector best practice across industries, and that our ambitions are escalated in response to the financial threat of accelerating climate change.

We are explicitly asking companies to make changes to their 'business as usual' by adapting to the constraints of a low-carbon transition and ensure that they are well-positioned to meet the objectives of the Paris Agreement of limiting temperature rise to well-below 2°C. Some of the key topics which we are discussing across the targeted sectors are highlighted below:

- **Food –** is the company setting targets to transition portfolios towards less emissions-intensive products? Is it engaging with its supply chain to improve soil health, eliminate deforestation and reduce agricultural emissions?

- **Oil & gas and mining –** is the company disclosing what percentage of its assets that would be viable if the world's energy consumption transitions in line with a 2°C scenario?

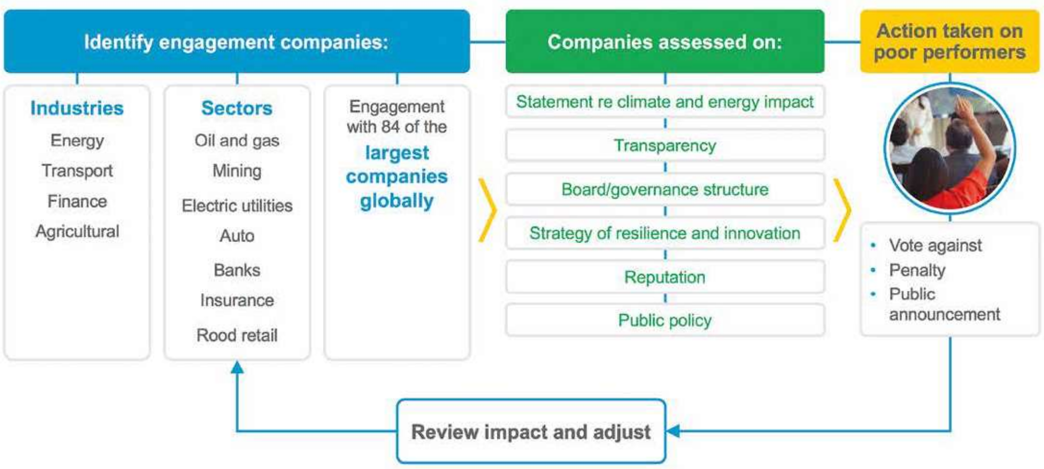
- **Financials –** is the company setting targets to reduce the emissions associated with its financing activities in line with a trajectory to keep temperature rise well-below 2°C?

- **Autos and electric utilities –** is the company setting targets to reduce the greenhouse gas emissions from its vehicle fleet or electricity generation line with a well-below 2°C trajectory?

RESULTS OF ENGAGEMENT

Following the methodology review, we began the third yearly cycle of Climate Impact Pledge engagements in September. To date, we have sent **almost 60 letters** to some of the world's largest companies, highlighting the areas related to climate change where we want them to improve or go further. The team has held **around 50 meetings** with companies to date, and since then we have seen some significant progress.

For example, Hong Kong-based electric utility **CLP** announced in December that it will not invest in any additional coal-fired generation capacity and will phase out its existing coal-plants by 2050. Additionally, **Commonwealth Bank of Australia** announced earlier this year that it will only finance new oil & gas projects if they are demonstrated to be compatible with the goals of the Paris Agreement.



Engagements in Europe

A summary of the corporate governance team's engagements in the European (ex-UK) market this quarter.

ITALY

We participated in a conference on ESG in Rome and also met with four companies with headquarters in the city:

- With **Poste Italiane** we discussed strategy, including its extensive national coverage as well its relationship/competition with Amazon. We also engaged on Poste Italiane's sustainability programme and its digital educational initiative for older customers.

- With **Eni** we discussed its remuneration structure and stressed the importance of transparency.

- With **Enel** we discussed its diversity programme. Enel's board is 33% female and is led by a woman.The company has a public target for shortlisting in recruitment and we encouraged it to go further and have public targets in general. Enel works with universities and high schools to increase the pool of female recruits.

- We also discussed diversity with **Terna** where the level of gender diversity on the board is at a high 44% but below the board level the numbers drop significantly. We encouraged the company to widen its recruitment pool.

SWITZERLAND

We participated in the Swiss Corporate Governance Dialog conference in Zurich where investors and corporates gathered to discuss the state of corporate governance in Switzerland. This was also an opportunity to have a direct and open discussion with board members and high-level representatives of many Swiss companies.

Diversity on the board but also at various seniority levels was a key topic of our discussions with Swiss companies. A revision of the Swiss corporate law could soon see the introduction of a rule to have 30% of positions on the board of directors and 20% of positions on executive boards to be held by women.

Industrials company **Kardex** does not have a woman on its board and presented the challenges it faces in recruiting talented women on its board.This contrasted with construction company **Implenia** which, despite operating in a sector with generally lower rates of female participation, managed to achieve 29% diversity at board level and 22% at executive committee level.

We also noted that Swiss boards could benefit from a better understanding of the role of **board effectiveness reviews**, especially given their importance[1] for boards and investors. Only 8% of Swiss Market Index (SMI) companies underwent an externally facilitated board review in 2018 and two—thirds of SMI Mid companies did not refer to board assessment practices in their annual report.[2] We asked the board of financial services company **Baloise Holdings** to consider undertaking external board effectiveness reviews.This allows for an independent assessment of the board to be made by a fresh pair of eyes with experience in assessing many other boards.

1. https://www.lgim.com/uk/en/capabilities/corporate-governance/influencing-the-debate/
2. Source: 2018 Switzerland, Spencer Stuart Board Index

Case study

Case study:
Novartis

Market cap:
£176 billion

Sector:
Pharmaceuticals

Country:
Switzerland

What is the issue? Novartis received approval from the US Food and Drug Administration (FDA) for a drug called Zolgensma, which was developed by its subsidiary, AveXis, in May 2019. The drug is approved for children up to two years of age suffering from the deadly muscle wasting disease spinal muscular atrophy. It is to date the world's most expensive drug (USD 2.1 million).

In mid-March of 2019, Novartis via AveXis, was alerted to allegations of data manipulation in a subset of data. An internal investigation was undertaken. Novartis did not alert the FDA of its initial findings until the end of June. The FDA conducted on-site inspections in July/August, following which it issued a so-called 483 form[3] which outlined concerns over the timing of self-disclosure to the FDA. It is to be noted that the FDA has continued to support the use of the drug.

Why is it an issue? We are concerned that Novartis did not consider it necessary to immediately alert the FDA when it discovered the internal data manipulation. We believe this sends the wrong message from the very top to the rest of the organisation, especially in light of the chief executive's commitment that Novartis must hold itself to the "highest ethical standards and always aim to win and maintain the trust of society and [its] many stakeholders".

What did LGIM do? Soon after the publication of the FDA letter, we met with Novartis together with our Active Equities team.

We clearly communicated our disappointment that the company had not immediately contacted the FDA. We also shared our concerns that this showed poor judgement from management and sent the wrong signals throughout the organisation.

We recently followed this up with another meeting, and shared our expectation for this issue to be reflected in executive pay.

What was the outcome? The company has publicly committed to the FDA that it will, going forward, notify the authority within five business days after receipt of "any credible allegation" related to data integrity during a filing.

We will monitor the publication of Novartis' annual report and will analyse the remuneration report and pay awards granted for financial year 2019 and take into account any actions taken in this regard when voting at the 2020 annual general meeting.

3. An FDA Form 483 is issued to firm management at the conclusion of an inspection when an investigator(s) has observed any conditions that inits judgment may constitute violations of the Food Drug and Cosmetic (FD&C) Act and related Acts.

Public policy update

Over the past quarter we have been actively engaged, and closely following, a wide variety of policy and regulatory developments around the world. The corporate governance team has a new dedicated ESG Public Policy Analyst, Alexander Burr, who joined our London office in September.

UNITED KINGDOM

New and improved UK Stewardship Code:

In October, the much-anticipated revised UK Stewardship Code was officially released[1]. The new code is the culmination of over two years of consultation from the UK's Financial Reporting Council (FRC) and comes into effect this year. We sought fundamental reform to the Stewardship Code in four key areas:

- what the code covers;
- how signatories disclose against it;
- assurance of reporting; and
- enforcement or oversight mechanism.

We were delighted that three of our four key asks have been embedded into the revised 2020 Stewardship Code. With respect to the content of the code, this has been importantly **extended to all global asset classes and funds that we manage.** This increases the code's relevance to our clients and provides that stewardship ought to be embedded within the signatories' investment culture, rather than selectively applied to certain regions, funds or investment styles.

The **disclosure requirements of signatories** for the 2020 Stewardship Code have been transformed. Instead of a tick box compliance process, Stewardship Code signatories will have to **evidence** how the code is applied through a public annual Outcome and Activities report. The reporting requirements are detailed, and we believe ought to provide the right level of information to assist stakeholders in assessing the quality of stewardship being undertaken.

Finally, the FRC will be **assessing compliance** with the code and its reporting against its own assessment framework. Potential signatories will be refused if reporting expectations are not met. This provides an important mechanism to ensure stewardship activities are undertaken by signatories.

We will continue to work with the FRC to develop an assessment framework that is sufficiently robust. From 2020 you should also expect to see expanded reporting of our stewardship activities across asset classes to better reflect best practice as set out in the code.

Audit:

In December the FRC announced new rules that would **prohibit audit firms from providing almost any non-audit activity for their audit clients**, including the provision of recruitment and remuneration services. In recent years we have strengthened our voting policy on the provision of non-audit work having received feedback from clients in previous year's stakeholder events. We have also highlighted the risk of the provision of non-audit work to auditors independence in various consultations on the audit sector in the last two years, including the Competitions & Market Authority. We are pleased the FRC has acted so strongly to address this conflict.

Sustainable Development Goals (SDGs):

We provided input for a consultation on a proposal to establish a framework for recommended SDGs disclosures. This was produced by chartered accountant groups in the UK, Australia and New Zealand.

We fully support the objectives set out by the SDGs and recognise that reporting against the SDGs can be a challenging task for organisations. We are therefore greatly supportive of efforts to develop a framework that helps organisations to report transparently and consistently against their SDG contributions.

1. https://www.frc.org.uk/investors/uk-stewardship-code

UNITED STATES

In the US we have been working together with Legal & General Investment Management America (LGIMA) to engage with the Securities Exchange Commission (SEC) on several important points.

In October we, alongside 28 global institutional investors (part of the 'Human Capital Management Coalition') wrote[2] to the SEC with regards to the modernisation of regulation on human capital disclosures. It is our view that a combination of rules-based disclosures and more open-ended principles-based disclosures is necessary to accurately assess how companies are managing their human capital.

Over the past months we have also been working with LGIMA as well as The Council of Institutional **Investors**[3] (CII) and the **UN PRI**[4] to voice **concerns**[5] on two proposals on proxy voting advice. The SEC's proposed rules on shareholder proposals and proxy advisers would introduce a major impediment to ESG integration, which has traditionally depended on dedicated investors engaging with management and access to unbiased and efficient proxy voting advice. If adopted, these would be the most significant changes to the voting rights of shareholders in decades and in our view would severely jeopardise the interests of individual and institutional investors.

EUROPEAN UNION

At a European Union level, we have continued to closely follow the important and in-depth technical work outlined in the Commission's **action plan** on sustainable finance. Specific areas of interest for us over the past few months have been the finalisation of:

1) the **EU Taxonomy**, a clear and detailed EU classification system for sustainable activities. It creates a common language for all actors in the financial system and aims to stop 'greenwashing';

2) **Climate Change Benchmark regulation**; and

3) **Sustainable-related disclosure regulation.** The benchmark and disclosure regulations have now been finalised and the taxonomy is going through the final stages of political approval.

We are delighted to see that tackling climate and environmental-related challenges continues to be at the top of the political agenda for the EU. This has been highlighted by the European Commission's recent paper on the **European Green Deal** – an ambitious strategy that aims to transform the EU into a net-zero emissions economy by 2050, where economic growth is decoupled from resource use.

At the United Nations' climate change conference, we, as part of the Institutional Investors Group on Climate Change (IIGCC), showed our strong support for the establishment of a **2050 net-zero emissions target for the EU** in an open letter to EU leaders.

2. https://www.sec.gov/comments/s7-11-19/s71119.htm
3. https://www.cii.org/correspondence
4. https://www.unpri.org/sustainable-markets/briefings-and-consultations
5. https://www.sec.gov/comments/4-725/4-725.htm

Public policy update (cont.)

GERMANY

As a major long-term investor in German equity and bonds, we have engaged with the German government and Parliament on the transposition of the **EU Shareholder Rights Directive II**, aimed at strengthening shareholder rights, into German law. Two focus areas for us have been:

1) **Remuneration of the management board** – we expressed our strong preference for the government's proposal to introduce a binding shareholder vote on the remuneration policy. We believe this would strengthen Germany's corporate governance system and align it with other European member states, reinforce the protection of its minority shareholders and ultimately improve market standards. The German Parliament adopted the final piece of legislation in November, with an advisory vote for both the remuneration policy and report. Whilst this is not our preferred approach, we welcome the introduction of the say-on-pay system in Germany, which was only optional until this point.

2) Related party transactions - we encouraged the government to review the proposed threshold for disclosure and approval of related party transactions that was set out in the draft law. We asked for a more stringent threshold to be set to allow for a greater amount of related party transactions to be put under the scrutiny of minority shareholders. We believed this would better ensure their protection, mitigate the risk of a related party taking advantage of its position and help the market cost of capital. A more stringent threshold of 1.5% of assets was put in place by the law adopted in November.

JAPAN

We have closely followed the **Amendment to the Foreign Exchange and Foreign Trade Act.** The amendment requires foreign investors to file a 'pre-acquisition notification' to the government if they intend to acquire 1% or more of a listed company in a restricted sector. It also requires foreign investors intending to influence management on a range of governance or business issues to file a pre-notification of their intentions. We have been supportive of the efforts of the Asian Corporate Governance Association (ACGA) and the International Corporate Governance Network (ICGN) to seek clarification from the Japanese government on whether this applies to asset managers and have also met with the Japanese Financial Services Agency in this regard. For now, it would appear asset managers are exempt.

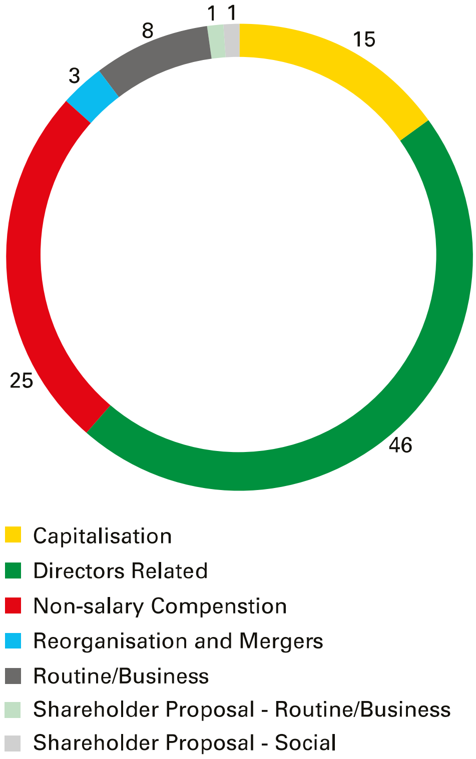
Regional updates

UK

Q4 2019 VOTING SUMMARY UK

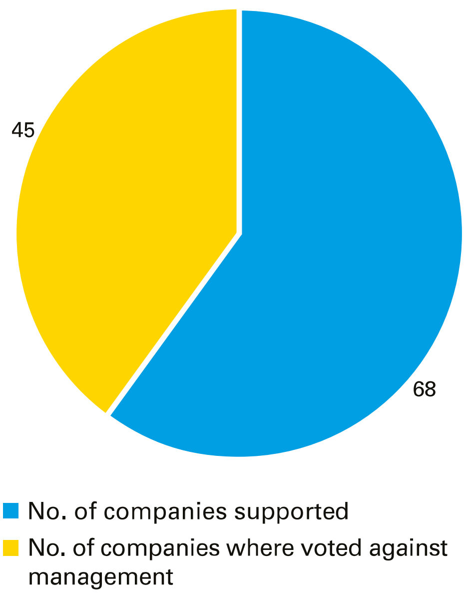
Proposal category	UK		
	For	Against	Abstain
Anti-takeover Related	46		
Capitalisation	252	15	
Directors Related	439	46	
Non-salary Compensation	95	25	
Reorganisation and Mergers	28	3	
Routine/Business	339	8	
Shareholder Proposal - Compensation			
Shareholder Proposal - Corporate Governance			
Shareholder Proposal - Directors Related			
Shareholder Proposal - General Economic Issues			
Shareholder Proposal - Health/Environment			
Shareholder Proposal - Other/Miscellaneous			
Shareholder Proposal - Routine/Business		1	
Shareholder Proposal - Social/Human Rights			
Shareholder Proposal - Social		1	
Total	1199	99	
Total resolutions	1298		
No. AGMs	78		
No. EGMs	43		
No. of companies voted	113		
No. of companies where voted against management on at least one resolution	45		
% no. of companies where at least one vote against	40%		

Votes against management



‘LGIM voted against at least one resolution at 40% of UK companies over the quarter.’

Number of companies voted for/against



Source for all data LGIM. The votes above represent voting instructions for our main FTSE pooled index funds

Regional updates

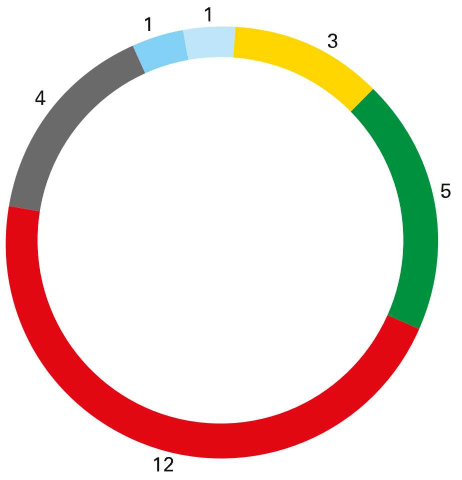
Europe

Q4 2019 VOTING SUMMARY EUROPE

Proposal category	EUROPE		
	For	Against	Abstain
Anti-takeover Related			
Capitalisation	37	3	
Directors related	55	3	2
Non-salary Compensation	19	12	
Reorganisations and Mergers	2		
Routine/Business	58	2	2
Shareholder Proposal - Compensation			
Shareholder Proposal - Corporate Governance		1	
Shareholder Proposal - Directors Related			
Shareholder Proposal - General Economic Issues			
Shareholder Proposal - Health/Environment			
Shareholder Proposal - Other/Miscellaneous	4	1	
Shareholder Proposal - Routine/Business			
Shareholder Proposal - Social/Human Rights			
Shareholder Proposal - Social			
Total	175	22	4
Total resolutions	201		
No. AGMs	8		
No. EGMs	17		
No. of companies voted	25		
No. of companies where voted against management on at least one resolution	12		
% no. of companies where at least one vote against	48%		

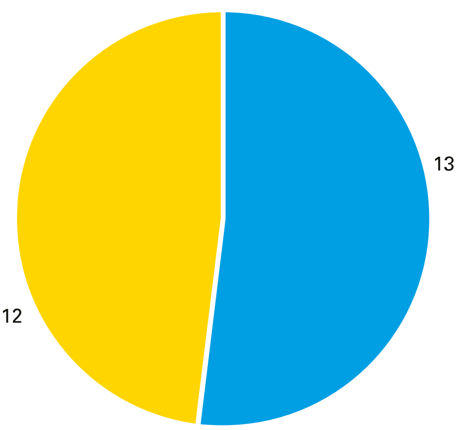
'LGIM voted against at least one resolution at 48% of European companies over the quarter.'

Votes against management and abstentions



- Capitalisation
- Directors Related
- Non-salary Compensation
- Routine/Business
- Shareholder Proposal - Corporate Governance
- Shareholder Proposal - Other/Miscellaneous

Number of companies voted for/against abstentions



- No. of companies where supported management
- No. of companies where voted against management (including abstentions)

Source for all data LGIM. The votes above represent voting instructions for our main FTSE pooled index funds

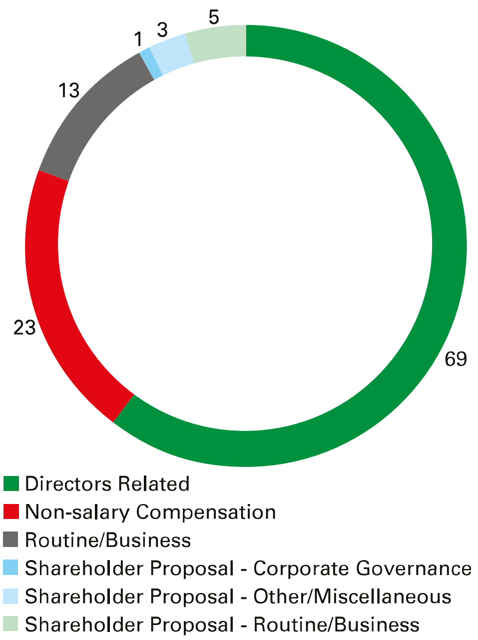
Regional updates

North America

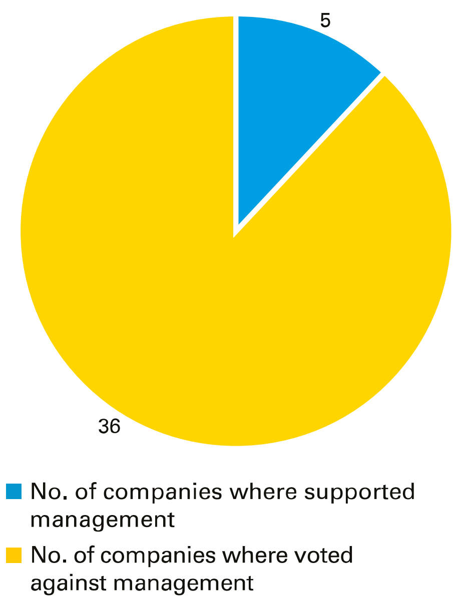
Q4 2019 VOTING SUMMARY NORTH AMERICA

Proposal category	NORTH AMERICA		
	For	Against	Abstain
Anti-takeover Related	4		
Capitalisation	13		
Directors Related	273	69	
Non-salary Compensation	23	23	
Reorganisations and Mergers	4		
Routine/Business	26	13	
Shareholder Proposal - Compensation			
Shareholder Proposal - Corporate Governance		1	
Shareholder Proposal - Directors Related	1		
Shareholder Proposal - General Economic Issues			
Shareholder Proposal - Health/Environment			
Shareholder Proposal - Other/Miscellaneous		3	
Shareholder Proposal - Routine/Business		5	
Shareholder Proposal - Social/Human Rights			
Shareholder Proposal - Social			
Total	344	114	
Total resolutions	458		
No. AGMs	35		
No. EGMs	6		
No. of companies voted	41		
No. of companies where voted against management on at least one resolution	36		
% no. of companies where at least one vote against	88%		

Votes against management



Number of companies voted for/against



'LGIM voted against at least one resolution at 88% of North American companies over the quarter.'

Source for all data LGIM. The votes above represent voting instructions for our main FTSE pooled index funds

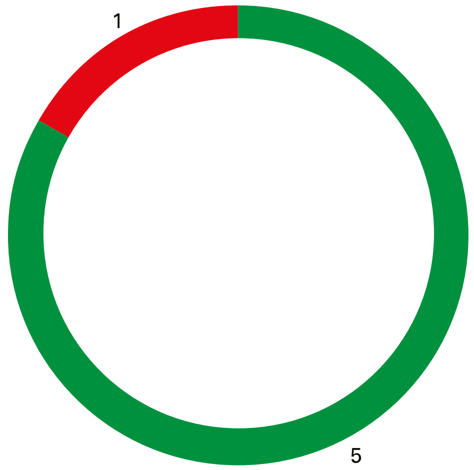
Regional updates

Japan

Q4 2019 VOTING SUMMARY JAPAN

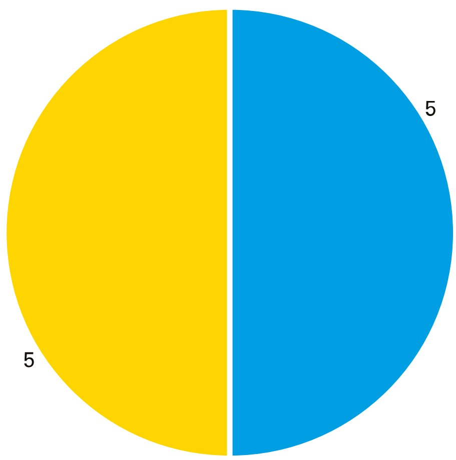
Proposal category	JAPAN		
	For	Against	Abstain
Anti-takeover Related			
Capitalisation			
Directors Related	79	5	
Non-salary Compensation	2	1	
Reorganisations and Mergers	4		
Routine/Business	8		
Shareholder Proposal - Compensation			
Shareholder Proposal - Corporate Governance			
Shareholder Proposal - Directors Related			
Shareholder Proposal - General Economic Issues			
Shareholder Proposal - Health/Environment			
Shareholder Proposal - Other/Miscellaneous			
Shareholder Proposal - Routine/Business			
Shareholder Proposal - Social/Human Rights			
Shareholder Proposal - Social			
Total	93	6	
Total resolutions		99	
No. AGMs		9	
No. EGMs		1	
No. of companies voted		10	
No. of companies where voted against management on at least one resolution		5	
% no. of companies where at least one vote against		50%	

Votes against management



Directors Related
Non-salary Compensation

Number of companies voted for/against



No. of companies where supported management
No. of companies where voted against management

‘LGIM voted against at least one resolution at 50% of Japanese companies over the quarter.’

Source for all data LGIM. The votes above represent voting instructions for our main FTSE pooled index funds

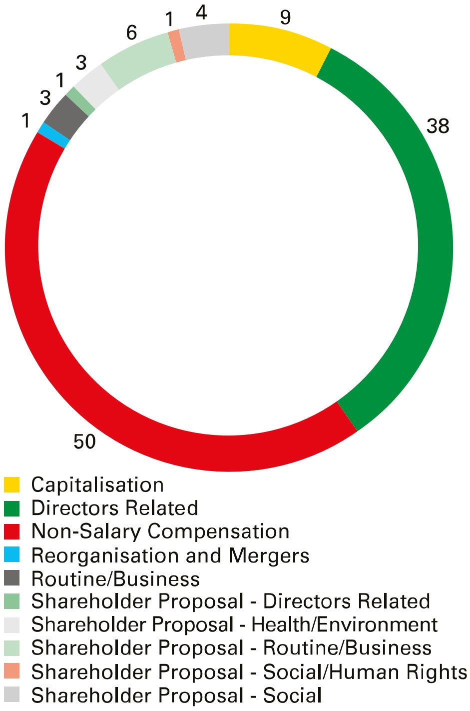
Regional updates

Asia Pacific

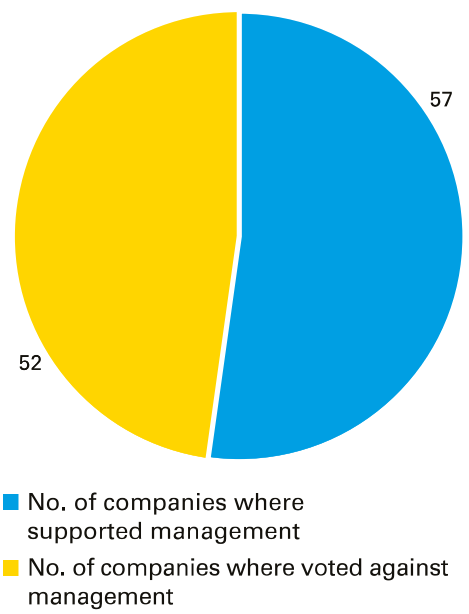
Q4 2019 VOTING SUMMARY ASIA PACIFIC

Proposal category	ASIA PACIFIC		
	For	Against	Abstain
Anti-takeover Related	9		
Capitalisation	24	9	
Directors Related	251	38	
Non-salary Compensation	136	50	
Reorganisations and Mergers	31	1	
Routine/Business	54	3	
Shareholder Proposal - Compensation			
Shareholder Proposal - Corporate Governance			
Shareholder Proposal - Directors Related		1	
Shareholder Proposal - General Economic Issues			
Shareholder Proposal - Health/Environment	1	3	
Shareholder Proposal - Other/Miscellaneous			
Shareholder Proposal - Routine/Business	4	6	
Shareholder Proposal - Social/Human Rights	1	1	
Shareholder Proposal - Social	2	4	
Total	513	116	
Total resolutions	629		
No. AGMs	92		
No. EGMs	17		
No. of companies voted	109		
No. of companies where voted against management on at least one resolution	52		
% no. of companies where at least one vote against	48%		

Votes against management



Number of companies voted for/against



'LGIM voted against at least one resolution at 48% of Asia Pacific companies over the quarter.'

Source for all data LGIM. The votes above represent voting instructions for our main FTSE pooled index funds

Regional updates

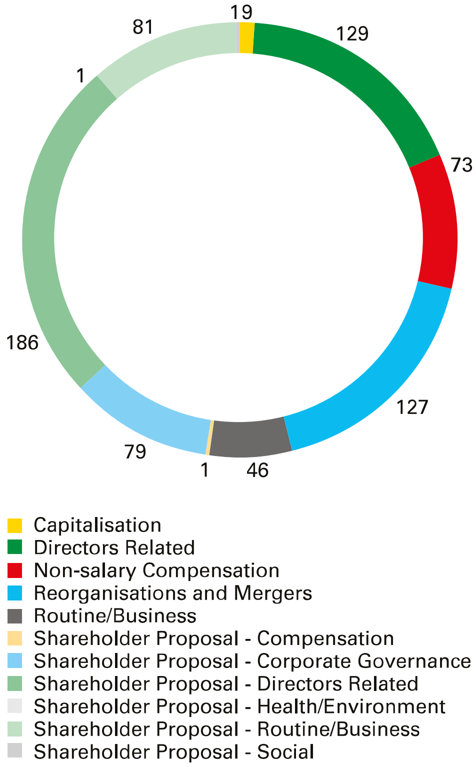
Emerging markets

Q4 2019 VOTING SUMMARY EMERGING MARKETS

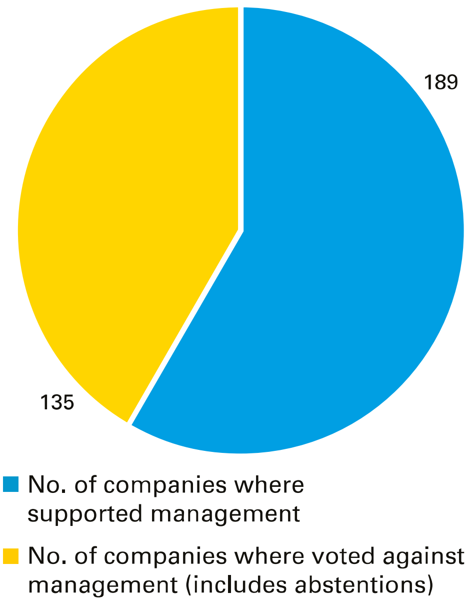
Proposal category	EMERGING MARKETS		
	For	Against	Abstain
Anti-takeover Related			
Capitalisation	358	9	
Directors Related	735	75	54
Non-salary Compensation	64	73	
Reorganisations and Mergers	371	127	
Routine/Business	390	46	
Shareholder Proposal - Compensation	6	1	
Shareholder Proposal - Corporate Governance		79	
Shareholder Proposal - Directors Related	14	186	
Shareholder Proposal - General Economic Issues			
Shareholder Proposal - Health/Environment		1	
Shareholder Proposal - Other/Miscellaneous			
Shareholder Proposal - Routine/Business	5	81	
Shareholder Proposal - Social/Human Rights			
Shareholder Proposal - Social		1	
Total	1943	679	54
Total resolutions	2676		
No. AGMs	50		
No. EGMs	278		
No. of companies voted	324		
No. of companies where voted against management /abstained on at least one resolution	135		
% no. of companies where at least one vote against	42%		

'LGIM voted against at least one resolution at 42% of emerging markets companies over the quarter.'

Votes against management and abstentions



Number of companies voted for/against/abstentions



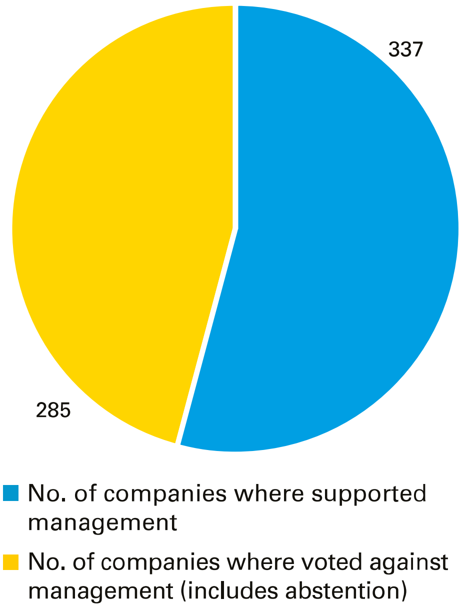
Source for all data LGIM. The votes above represent voting instructions for our main FTSE pooled index funds

Global Voting summary

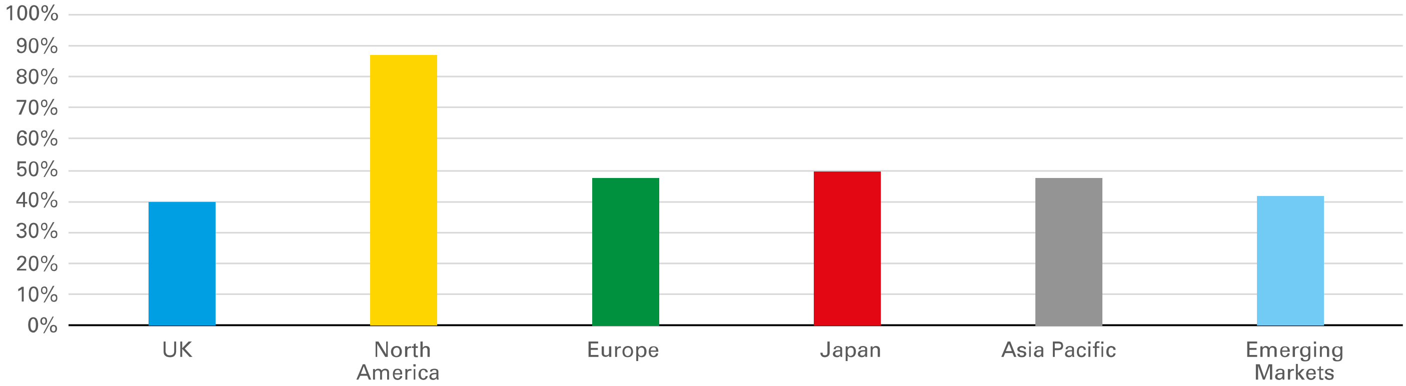
VOTING TOTALS

Proposal category	For	Against	Abstain	Total
Anti-takeover Related	59			59
Capitalisation	684	36		720
Directors Related	1832	236	56	2124
Non-salary Compensation	339	184		523
Reorganisations and Mergers	440	131		571
Routine/Business	875	72	2	949
Shareholder Proposal - Compensation	6	1		7
Shareholder Proposal - Corporate Governance		81		81
Shareholder Proposal - Directors Related	15	187		202
Shareholder Proposal - General Economic Issues				
Shareholder Proposal - Health/Environment	1	4		5
Shareholder Proposal - Other/Miscellaneous	4	4		8
Shareholder Proposal - Routine/Business	9	93		102
Shareholder Proposal - Social/Human Rights	1	1		2
Shareholder Proposal - Social	2	6		8
Total resolutions	4267	1036	58	5361
No. AGMs	272			
No. EGMs	362			
No. of companies voted	622			
No. of companies where voted against management /abstained on at least one resolution	285			
% no. of companies where at least one vote against	46%			

Number of companies voted for/against/abstentions



% of companies with at least one vote against (includes abstentions)



Global Engagement Summary

Number of companies engaged with **267**

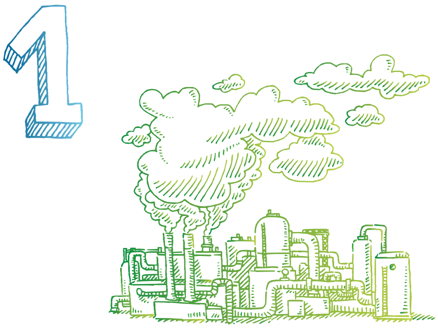
330 total engagements during the quarter Including:

146 engagement meetings or calls

184 engagement emails or letters

Number of engagements on environmental topics:	Number of engagements on social topics:	Number of engagements on governance topics:	Number of engagements on other topics (e.g. financial and strategy):	% of engagements on environmental and social topics:
96	138	164	47	67%

Top five engagement topics:



Climate Change

Diversity

Governance Score

Social Score

Remuneration

CONTACT US FOR MORE INFORMATION

For further information on anything you have read in this report or to provide feedback, please contact us at corporategovernance@lgim.com. Please visit our website www.lgim.com/corporategovernance where you will also find more information including frequently asked questions.

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LGPS Central Limited

Quarterly Stewardship Report

THIRD QUARTER, 2019-20 (OCTOBER-DECEMBER 2019)

CHESHIRE PENSION FUND

Derbyshire Pension Fund

Leicestershire County Council PENSION FUND

Nottinghamshire County Council

SHROPSHIRE COUNTY PENSION FUND

Staffordshire Pension Fund Local Government Pension Scheme

West Midlands Pension Fund

Worcestershire Pension Fund

Responsible Investment & Engagement

LGPS Central's approach

LGPS Central's approach to Responsible Investment & Engagement carries two objectives:

OBJECTIVE #1

Support the Company's investment objectives

OBJECTIVE #2

Be an exemplar for RI within the financial services industry & raise standards across the marketplace

These objectives are met through three pillars:

*Our **Selection** of assets*

*Our **Stewardship** of assets*

*Our commitment to **Transparency and Disclosure***

This report covers Central's stewardship activity. Our stewardship efforts are supplemented by global engagement and voting services provided by Hermes Equity Ownership Services (Hermes EOS). For more information please refer to Central's Responsible Investment & Engagement Framework and UK Stewardship Code Compliance Statement.

ADDITIONAL DISCLOSURES

Responsible Investment & Engagement Framework

Stewardship Code

Voting Principles

Voting Disclosure

Signatory of:

PRI Principles for Responsible Investment

LGPS ADVISORY BOARD CODE OF TRANSPARENCY

01 Introduction and Market Overview

Regulation is shaping "Sustainable Finance" across markets and the whole investment chain is under renewed scrutiny to live up to new, yet evolving standards

When the EU introduced its *Action Plan on Sustainable Finance* in March 2018 one might have expected a relatively slow policy-making process. However, regulatory initiatives are being rolled out including new climate benchmarking and disclosure regulations which follows a recommendation from a Technical Expert Group on sustainable finance set up to assist implementation of the plan. At the core of the *Action Plan* lies a goal of creating a common language for companies and their investors on what can be considered "future fit", and through that enhance transparency and minimise the risk of greenwashing. That common language and understanding is being captured in a sustainable taxonomy which, starting with climate mitigation and adaptation activities, will set out what can or cannot legitimately be considered a sustainable economic activity. This should spur better dialogue between companies and investors and allow investors to compare "apples with apples" when assessing for instance same-sector companies on a given sustainability parameter. During the last quarter, the EU took a major step towards internationalising this work by launching an *International Platform on Sustainable Finance* (IPSF). The IPSF is aiming for considerable global political clout and has already assembled a number of heavyweight international organisations as 'observers'.

Country members will be represented by national authorities at finance/treasury ministry, central bank or supervisor level, and must be responsible for developing environmentally sustainable finance policies and initiatives in their respective jurisdiction. It is interesting to note that founding members are, alongside the EU countries, largely found outside of the OECD and include Argentina, Canada, Chile, China, India, Kenya and Morocco.

In tandem with clearer and higher regulatory expectations, we see that asset owners are asking more of their asset managers and are increasingly ready to call out managers that do not deliver genuine ESG integration. During the last quarter, ShareAction published a report that examines how 57 of the world's largest asset managers voted on 65 shareholder resolutions linked to climate change. According to the report US asset managers are clear laggards in terms of proxy voting on climate, while European asset managers lead the way. A number of CA100+ investor signatories fail to support resolutions at CA100+ focus companies. However, disclosure resolutions such as resolutions on corporate lobbying and climate-related disclosures seem to have entered the mainstream and gather more support. Resolutions on targets and transition planning filed by retail shareholders on the other hand, have received fewer votes than those filed by institutional investors in 2019. In December 2019 a group of shareholders put forward a resolution to BlackRock asking for a review of their 2019 proxy voting record and an evaluation of the company's proxy voting policies and guiding criteria related to climate change. The resolution also asks that a summary report on this review and its findings shall be made available to shareholders and be prepared at reasonable cost, omitting proprietary information. Larry Fink (BlackRock CEO) has placed climate change at the centre of his January 2020 letters to CEOs and shareholders, and we are discussing engagement action with peers both in Europe and in the US in order to build on this momentum.

The banking sector is also facing greater scrutiny. In the UK, banks are now stress-tested for climate risk. During the last quarter, The Bank of England (BoE) published its ground-breaking new framework to stress test the largest UK banks and insurers for climate risks. The BoE will ask firms to model their exposures to three climate scenarios: The catastrophic business-as-usual scenario where no further climate action is taken; a scenario where early policy action delivers an orderly transition to the targets set in Paris; and a third where late policy action leads to a disorderly and disruptive transition. It will build on the improved reporting of climate risks prompted by the Taskforce on Climate-related Financial Disclosure (TCFD). Last quarter also saw signatory banks of the Principles for Responsible Banking make a collective commitment on climate. The 36 banks in question committed to align their portfolios to reflect and finance the low-carbon, climate-resilient economy required to limit global warming to well-below 2, striving for 1.5 degrees Celsius. In Sections 3 and 4 below we touch on examples from the banking sector where LGPS Central has either co-filed or voted in favour of a climate-related shareholder resolution. Just as we expect Paris-alignment from corporations in their strategies and operations, we expect banks to define and disclose targets to reduce exposure to fossil fuel assets across sectors in line with the climate goals of the Paris Agreement.

Technology sector companies continue to be under scrutiny from regulators who are increasingly concerned with the dominance of the large internet players. Companies like Google, Apple and Facebook could be held to higher standards of proof in cases concerning anti-competitive behaviour. The EU anti-trust chief, Margrethe Vestager, is considering the proposal that digital platforms suspected of anti-competitive behaviour be required, in certain cases, to demonstrate clear gains for their users, rather than the EU having to prove the damaging effects on consumers. Vestager suggested in an FT interview that companies such as Google should bear extra responsibilities because they are so dominant that they have become "de facto regulators" in their markets. Beyond anti-trust, investors are continuing to express concern over a lack of social media content control. After nearly a year of engagement with big tech companies on this issue (following the Christchurch attack in March 2019, part of which was live streamed on Facebook), success has been mixed. However, the number of investors taking part in this collaborative effort has grown to nearly 100. That number is testament to an investor concern which we predict will not go away until we see real change both at governance and operational levels to effectively prevent and remove objectionable content on social media (see further detail in Section 3 below).

02 Engagement

This quarter our engagement set[1] comprised 1561 companies with 2876 engagement issues[2]. There was engagement activity on 754 engagement issues and achievement of some or all engagement objectives on 678 occasions. Most engagements were conducted through letter issuance or company meetings, and we or our partners mostly met or wrote to the Chair or a member of senior management.

In order to use our resources efficiently, our engagement work focusses mainly on key stewardship themes that have been identified in collaboration with our partner funds. These themes are touched on in more detail under Section 3 below. We continue, however, to employ a broad stewardship programme – beyond just our targeted themes – covering issues like fair remuneration, board composition, diversity, and human rights, to name but a few. We also employ a diverse range of engagement tools including filing of shareholder resolutions when this ties in with our overall engagement effort.

EXPRESSION OF CORE CORPORATE GOVERNANCE EXPECTATIONS

During the last quarter we have initiated dialogue with several companies following our shareholder voting over contentious ESG issues, including core corporate governance standards. This allows us the opportunity to explain to companies the rationale for our voting decisions and to express expectations for the next proxy season. It is one way of making sure that voting matters and to signal that we will persist on issues that are of critical importance to shareholders. In one case, we are engaging a UK-registered bank on their remuneration policy and practices. Our concern is that their Long-Term Incentive Plan (LTIP) allows for overly generous awards in certain 'good leaver' circumstances, and that this could be treated as a standard application, rather than under genuinely exceptional circumstances. We are furthermore concerned by the

[1] This includes engagements undertaken directly, in collaboration, and via our contracted Stewardship Provider. This quarter's total includes 726 companies written to as part of the International Mining and Tailings Initiative collaboration.

[2] There can be more than one engagement issue per company, for example board diversity and climate change.

fact that pension arrangements for executive directors are set at a level which is significantly higher than the wider workforce. Since the 2019 AGM where the remuneration policy was met with substantial opposition from shareholders, the company has decided to halve total executive pension awards with effect from January 2020. We will however continue to probe the company on how the pension award is calculated. The UK Corporate Governance Code states that only basic salary should be pensionable. There is some room for interpretation on what "basic salary" is and we will seek further clarity from the company on whether their calculation is in line with best practice.

With two other companies, one in the energy sector and one in the automotive sector, we have expressed concern over lack of independence as well as relevant skills and experience on their boards. In our Voting Principles we acknowledge that the most effective boards include a diversity of skills, experiences and perspectives. Both companies have expressed a willingness to engage on this and other issues, including climate change-related targets and corporate lobbying. In the case of the automotive company, their shareholder structure is such that more than 90% of shares are held among three shareholders which causes a lack of independence for board members who represent a majority shareholder. We aim to encourage the company to continue internal discussions around the advantages of having a more independent board. The company has set targets to move up the female contingency at all levels of the company and its Board currently has 30% gender diversity.

TRANSPARENCY IN CORPORATE LOBBYING

As a long-term, diversified investor we want to see companies well in control of both direct and indirect lobbying through industry associations. This requires a combination of good governance, oversight and transparency on the part of the company. Policy and regulation greatly influence how companies operate and on an issue like climate change, negative lobbying works against the creation of necessary regulation that will support the transition to a low-carbon economy. We are concerned that companies across sectors and markets do not always disclose their lobbying activities (direct and indirect) and that, in many instances, the industry associations of which a company is a member advocate in a manner which is not aligned with sustainability strategies and targets set by the corporation itself. With our long-term investment horizon, we would like as much certainty as possible from policy makers around e.g. climate policy, and if companies lobby in a negative manner we view it as an investment risk. During the last quarter we co-filed shareholder resolutions at three US companies; Honeywell Inc., Citigroup and Eli Lilly. While the three companies are in different sectors; aerospace, banking and pharma respectively, the common denominator is that they are currently not sufficiently transparent about their lobbying activities. The resolutions we co-filed were of the same wording, asking each company to provide a report, updated annually, disclosing expenditures, policies and procedures governing lobbying, both direct and indirect, and grassroots lobbying communications. While negative climate lobbying is an underlying concern to us, the resolutions are worded to encompass lobbying in other policy areas where there may be misalignment with the long-term sustainable growth of the company and with the company's stated public policy and corporate responsibility positions. We have collaborated with US investor peers in filing the resolutions and are seeking dialogue with the above companies leading up to respective AGMs this spring.

03 Stewardship Themes

In order to be efficient and targeted in our engagement, we prioritise specific Stewardship Themes

In collaboration with our Partner Funds, we identified four themes at the start of the current financial year which are given particular attention in our ongoing stewardship efforts.

These are:

- Climate change
- Single-use plastics,
- Fair tax payment and tax transparency
- Technology and disruptive industries

Identifying core themes that are material to our investment horizon helps direct engagement and it also sends a signal to companies of the areas we are likely to be concerned with when we meet them. Given that engagement requires perseverance and patience, we expect to pursue the same themes over a one to three-year horizon, and in some cases – like with climate change – a longer time period. In our Annual Stewardship Plan (ASP) we have adopted a strategy of seeking to combine collaborative engagement alongside direct engagement with companies. We also aim to encourage the establishment and promotion of best practice standards through industry standard setting or regulation.

CLIMATE CHANGE

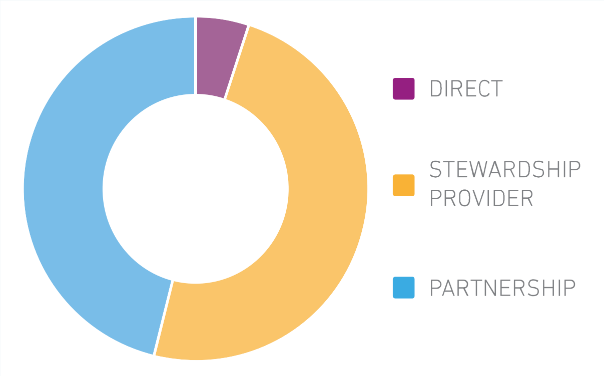
This quarter our climate change engagement set comprised 319 companies with 377 engagements issues[1] . There was engagement activity on 175 engagement issues and achievement of some or all engagement objectives on 137 occasions.

Since inception, LGPS Central has been an active member of the Climate Action 100+ initiative (CA100+), alongside the Transition Pathway Initiative (TPI) and the Institutional Investor Group on Climate Change (IIGCC). We are currently co-leading or in the focus group of ongoing engagements with eight companies that are part of the CA100+ initiative. The majority of these engagements are with oil & gas, and mining companies. We met the Chair, Company Secretary and Head of Sustainability of a major mining company during this quarter to discuss scope 1 and 2 GHG targets alongside scope 3 GHG assessments. While scope 3 emissions remain a particular challenge, not least in relation to steel making whose carbon intensity is 'hard to abate', the company is actively exploring low-carbon metallurgical innovation in collaboration with an academic institution in one of their key markets. We will continue this engagement and expect the company to explain further how it will revise scope 1 and 2 targets and continue its scope 3 assessments as well as their TCFD reporting during Q1 of 2020.

Also, as part of the CA100+ collaboration and led by Hermes EOS, we met the CEO alongside Head of Environment and Company Secretary at a UK-listed utility company. The discussion centred around how climate is embedded in the purpose, vision and strategy of the company, and how the company is managing the pace of activity/investment in low carbon solutions. While the company has already reduced its own carbon emissions by 26% and is now setting a new 10-year target for a further 35% reduction, most of the company's emissions are associated with its customers' use of energy, rather than its own operations. We are encouraged by the company's ongoing and increasing focus on how customers can lower their carbon footprint, for instance through pilot projects for "Zero CO2 homes". The company has set a 25% customer emissions reduction target by 2030 on a 2015 baseline, which we welcome, but we would like a clearer demonstration that it has undertaken detailed scenario analysis to understand the business and customer implications of limiting climate change to below 2°C.

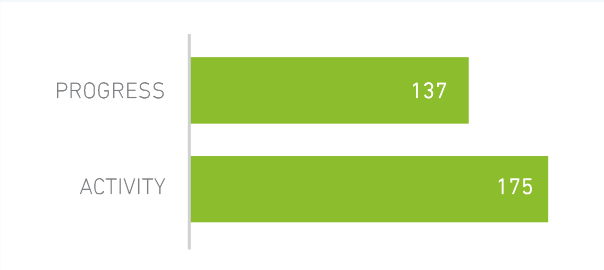
Together with 10 other investors LGPS Central co-filed a shareholder resolution at Barclays Plc asking the company to disclose targets to phase out the provision of finance to energy and utility companies that are not aligned with Paris goals. The resolution aligns with LGPS Central's responsible investment beliefs on climate change as a materially impactful trend. What we ask of companies outside the banking sector is that they manage financially material climate risks in line with the Paris goals. With this resolution, we want to send the same signal to banks, whose loan books could face similar risks. Responsibility for the timeline and details of the phase out would be at the Board's discretion and the company would be required to start disclosing in 2021. We are seeking dialogue with Barclays together with the other co-filers following the submission of the proposal and it is clear that the company is willing to have a constructive dialogue. We will emphasise to Barclays that energy and utility companies that do align their businesses with the Paris goals would not be included in the scope of the phase out. We view, therefore, the resolution as a request for good risk management by Barclays, and not as a shareholder-enforced divestment request.

ENGAGEMENT VOLUME BY TYPE



- 377 engagements in progress
- Majority of engagements undertaken via CA100+
- First climate-related resolution filed at European bank

ENGAGEMENT VOLUME BY OUTCOME



[1] There can be more than one climate-related engagement issue per company.

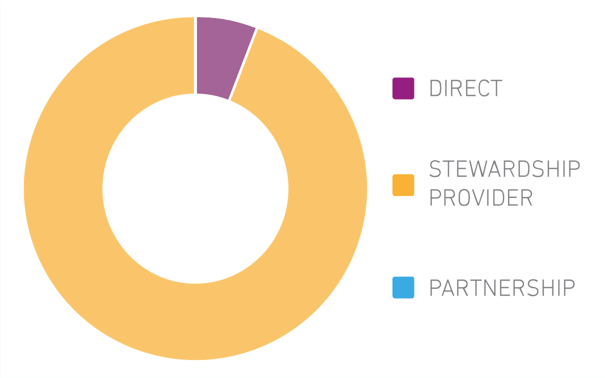
SINGLE-USE PLASTICS

This quarter our single-use plastics engagement set comprised 24 companies with 33 engagements issues. There was engagement activity on 17 engagements and achievement of some or all engagement objectives on seven occasions.

Together with a group of other investors, and led by Hermes EOS, we met the Head of Packaging Campaigns alongside the Investor Relations Director and Senior Investor Relations Manager at a large UK retailer. Our aim was to understand the current plans to reduce packaging, including plastics packaging. The company has a central packaging reduction plan and strategy to remove, reduce, reuse and recycle packaging. The company works along their value chain, including with commercial teams, customer teams, suppliers and buyers in order to achieve strategic alignment from their value chain. A key ask from us is that the company sets clear targets for reduction. The company explained that they, in principle, would like to see 100% reduction where possible, because a lower target may not incentivise some suppliers to aim high. Alongside engagement on the company's packaging strategy, we have also signalled an interest in discussing their ambitions relative to two specific industry standard initiatives that LGPS Central actively supports: Plastic Pellet Management and "Ghost Gear" (lost and abandoned fishing equipment), respectively.

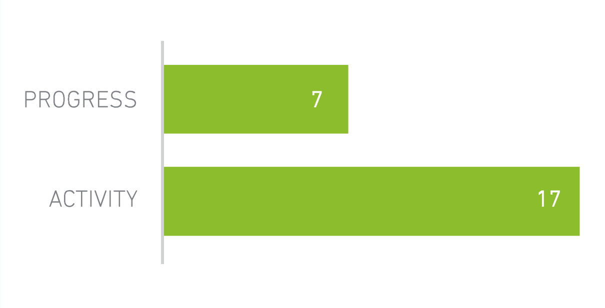
We have initiated a dialogue with a multinational food manufacturing company headquartered in the US to discuss how the company oversees the management of environmental, reputational and regulatory risks stemming from plastic pollution across its product development, operations and value chain. In this engagement, we are working alongside five other investors, the majority of whom are European based whereas one is based in the US. We aim to discuss with the company how environmental risk in the company's packaging strategy are managed and how that risk affects decisions for new products and technologies. We would also like to explore how the company is working to minimize negative impacts and how it introduces environmentally friendly, decomposable packaging for all products and regions. As an example, the company currently sells individually packaged portions of cereal which come in a plastic tub with a plastic lid. From a long-term investment perspective, we are concerned with both environmental risks and reputational risks stemming from changing consumer awareness and behaviour that the company carry by continuing to bring such products to market. The company has responded positively in the first instance and is agreeable to engage on the issues we have raised with them.

ENGAGEMENT VOLUME BY TYPE



- 33 engagements during the quarter
- Productive engagement with large UK retailer on reduction of packaging, including plastics packaging
- Collaborative engagement initiated with US food manufacturer

ENGAGEMENT VOLUME BY OUTCOME



FAIR TAX PAYMENT AND TAX TRANSPARENCY

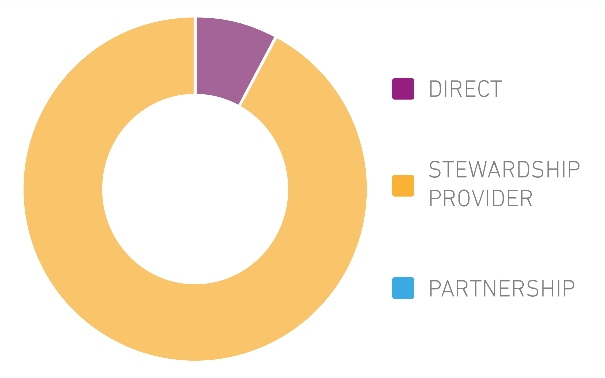
This quarter our tax transparency engagement set comprised 10 companies with 13 engagements issues. There was engagement activity on four engagements and achievement of some or all engagement objectives on one occasion.

On the tax theme, we have joined a recently established investor-collaboration and are initiating engagements both directly and through the initiative. For our direct engagements we have contacted a selection of UK companies that are among our largest holdings and that operate in sectors we view as vulnerable to this theme. These include amongst others, pharmaceuticals, banks and technology companies. For example, we have initiated dialogue with a pharmaceutical, multinational company asking them to explain their tax strategy and policy, and their current level of transparency around corporate value generation across countries. Recent best practice standards, such as OECD's Base Erosion and Profit Shifting (BEPS) project (launched in 2015) aims to ensure that multinational enterprises are by 2020 taxed where their economic activities take place, and value is created. We have expressed to the company that we would expect them to strive for that practice. We have also encouraged the company to consider if and how it might attain the Fair Tax Mark[4]. The company has given an initial, positive response and is agreeable to engage with us.

Responsible tax behaviour is a relatively new theme for both investors and companies. We therefore actively seek collaboration with likeminded investors and have in this quarter formed a collaboration with four other, European investors. Through this collaboration we aim to engage not only the obvious laggards but also companies that are already being more transparent. This is in order to increase our own learning and to better capture best practices in responsible tax behaviour as they evolve.

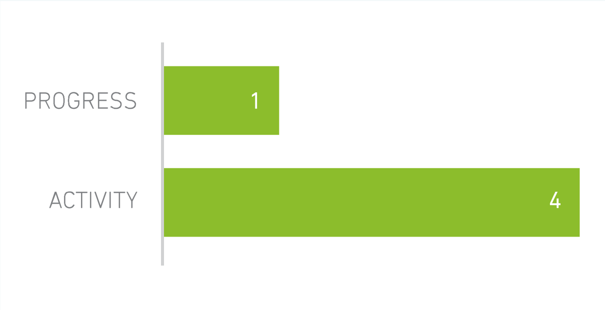
At the backend of this quarter, a new tax standard was launched by the Global Reporting Initiative (GRI). This is the first global standard to guide corporations on responsible tax behaviour and tax transparency. Whereas the existing OECD Base Erosion and Profit Shifting (BEPS) project asks companies to report to tax authorities, the new GRI standard asks companies to report on their tax behaviour to stakeholders including investors. The standard is voluntary and asks companies to disclose their approach to tax (including tax havens), their tax governance, control and risk management, their stakeholder engagement, and to provide a country-by-country reporting. The latter will shed light on whether profits are reported where economic activity takes place. This level of reporting will allow investors the ability to appraise a company's tax strategy and how that ties in with the overall business strategy and planning.

ENGAGEMENT VOLUME BY TYPE



- 13 engagements during the quarter
- Engagement initiated with UK companies in vulnerable sectors
- Global Reporting Initiative launches new standard for responsible tax behaviour

ENGAGEMENT VOLUME BY OUTCOME



[4] https://fairtaxmark.net/getting-the-mark/criteria-and-standards/

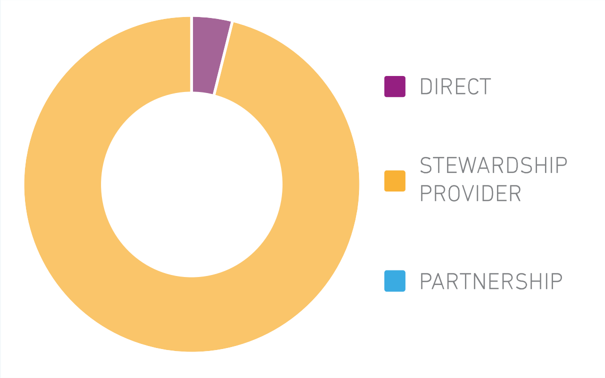
TECHNOLOGY AND DISRUPTIVE INDUSTRIES

This quarter our technology and disruptive industries engagement set comprised 43 companies with 82 engagements issues. There was engagement activity on 25 engagement issues and achievement of some or all engagement objectives on 11 occasions.

We have this quarter continued our collaborative engagement, led by the New Zealand Crown-owned investors, aiming for social media companies to strengthen controls around the live streaming and distribution of objectionable content. The engagement is targeting Alphabet, Facebook and Twitter. The initiative started following the Christchurch terror attacks in March 2019, which were initially streamed live on Facebook. While each quarter so far has seen some progress, we are currently discussing ways of ramping up the engagement to see stronger action by all companies and more willingness to engage the full group of concerned investors. Through a separate investor initiative, albeit partially interlinked, we are asking Alphabet to establish a Human Rights Risk Oversight Committee of the Board of Directors, composed of independent directors with relevant experience. We are concerned about the various human rights-related risks that technology sector companies face, such as weak human and labour rights in technology supply chains, workforce displacement through automation, content management, data privacy and malicious political interference. If these risks are not managed well, they could translate to investment risks in our portfolios. Alphabet has not responded, and a shareholder proposal has been put forward to the company regarding this issue. We will continue engagement on the issue of human rights risk oversight and management and expect to support the resolution if it is admitted to the AGM.

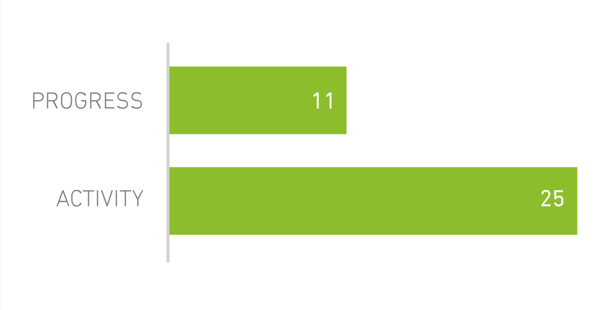
On our behalf, Hermes EOS engages technology companies on a broad spectrum of vulnerabilities via its Social as well as its Strategy, Risk & Communication themes. As an example, Hermes EOS engaged a large-cap technology company on various ESG issues, including workforce related issues, and how best to report on these to investors. The company sought Hermes EOS' views on a range of ESG ratings and benchmarks in its efforts to prioritise those that are more valued by investors. Focusing on the most relevant public disclosures should prove more time efficient and also give fairer access to information for all stakeholders, who may not be able to pay for subscriptions to privately disclosed information. The company was encouraged to participate in the Workforce Disclosure Initiative (WDI), an initiative with 137 investor signatories which asks companies to disclose how they manage workers in their direct operations and supply chains. Hermes EOS will continue to engage the company on workforce related issues, including corporate governance, child labour risks alongside risks linked to cobalt supply chains and also carbon emissions reduction targets.

ENGAGEMENT VOLUME BY TYPE



- 82 engagements in progress
- Collaborative engagement with social media companies (Alphabet, Facebook and Twitter) on content control
- Human rights including workers' rights continue to be on our radar for tech company engagements

ENGAGEMENT VOLUME BY OUTCOME



04 Voting

POLICY

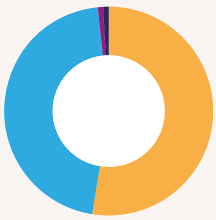
For UK listed companies, we vote our shares in accordance with a set of bespoke UK Voting Principles. For other markets, we consider the recommendations and advice of our third-party proxy advisor.

COMMENTARY

On behalf of our clients, we continued to vote shares at company meetings between October and December 2019[5].

[5] The data presented here relate to voting decisions for securities held in portfolios held within the company's Authorised Contractual Scheme (ACS)

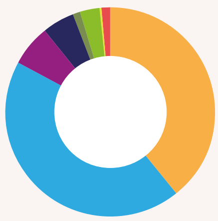
GLOBAL



- Total meetings in favour **52.6%**
- Meetings against (or against AND abstain) **46.0%**
- Meetings astained **0.7%**
- Meetings with management by exception **0.7%**

Over the last quarter we made voting recommendations at 285 meetings (2,269 resolutions). At 131 meetings we recommended opposing one or more resolutions. We recommended voting with management by exception at two meetings and abstaining at two meetings. We supported management on all resolutions at the remaining 150 meetings.

GLOBAL VOTES AGAINST AND ABSTENTIONS BY CATEGORY

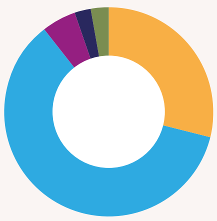


- Board Structure **39.2%**
- Remuneration **43.7%**
- Shareholder resolution **6.4%**
- Capital structure and dividends **4.8%**
- Amend articles **1.3%**
- Audit and accounts **2.9%**
- Poison pill/Anti-takeover device **0.3%**
- Other **1.3%**

UK

We made voting recommendations at 59 meetings (616 resolutions) over the last quarter. We recommended voting against or abstaining on 38 resolutions over the last quarter.

- Total meetings in favour **69.5%**
- Meetings against (or against AND abstain) **30.5%**



- Board Structure **28.9%**
- Remuneration **60.5%**
- Shareholder resolution **5.3%**
- Capital structure and dividends **2.6%**
- Poison pill/Anti-takeover device **2.6%**

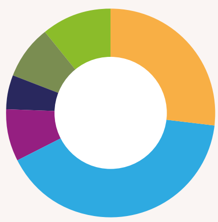
At the AGM of mining company BHP Group, we supported a shareholder resolution asking the company to suspend memberships of industry associations whose record of advocacy since 2018 demonstrates, on balance, inconsistency with the Paris goals. This is in line with recommendations from LAPFF and from our service provider, Hermes EOS. Negative lobbying works against the creation of the necessary regulatory environment to support the transition to a low-carbon economy. While BHP is taking leadership in climate change action and disclosure, we believe it is warranted to ask the company to go a step further in avoiding climate-negative industry association lobbying. The shareholder resolution received 22% support at the BHP Group Plc's AGM in London on 17 October, which is a substantial level of support.

We voted against a new remuneration policy for Whitbread Plc, a hotel and restaurant group, at the company's last AGM. Whitbread disposed of Costa to The Coca-Cola Company in January 2019 and hence revised its business plan to focus more on its hotel business. The new remuneration policy put to the AGM, is in response to this revised business plan. The new policy replaces a performance-based long-term incentive structure with a non-performance based one. This leads to higher certainty of consistently high level of pay regardless of performance. While under the new remuneration policy there will be no further awards made under the existing Long-Term Incentive Plan, that reduction is in our view not sufficient to justify the higher certainty of pay through the new plan. As explained in our Voting Principles we have a high regard for Remuneration Committees willing to explore alternatives to the traditional LTIP structures, which are often poorly designed and overly complex. However, on this this occasion we voted against the Restricted Share Plan which forms part of the new remuneration policy, for the same reasons as stated above.

EUROPE EX-UK

We made voting recommendations at 41 meetings (290 resolutions) over the last quarter. We recommended voting against or abstaining on 37 resolutions over the same quarter.

- Total meetings in favour **56.1%**
- Meetings against (or against AND abstain) **43.9%**



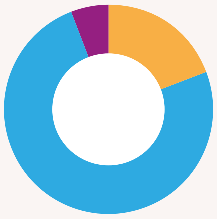
- Board Structure **27.0%**
- Remuneration **40.5%**
- Capital structure and dividends **8.1%**
- Amend articles **5.4%**
- Audit and accounts **8.1%**
- Other **10.8%**

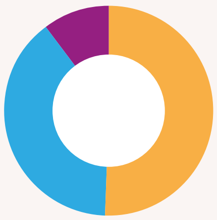
At the Greek retail company Jumbo SA's AGM we voted against the election of board directors because all board member elections were presented under one item. We consider board elections as important items for shareholders and we view it as good practice that directors should be elected individually, so that there is individual accountability. Since it is current market practice in Greece to elect a single slate of directors the bundling into one vote, this element may not be a determining factor alone to opposing board elections in this market. However, in the case of Jumbo, it is an additional concern to us that the proposed board is not at least one-third independent.

We voted against management at approximately half of the AGMs held in Europe ex UK this quarter. In the majority of these cases we expressed concern over a combination of core corporate governance practices including remuneration which is not appropriate relative to performance, issuance of equity with the risk of diluting existing shareholders as well as lack of board diversity and commitment. These are issues which we continue to raise both in voting and engagement with companies not just in the European market but across geographies.

NORTH AMERICA

We made voting recommendations at 36 meetings (417 resolutions) over the last quarter. We recommended voting against or abstaining on 69 resolutions over this quarter.





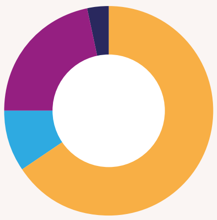
At the AGM of Cisco Systems, we voted for the CEO's pay although it is around 1.4x the peer median. The company has performed exceptionally well on a 1 and 3-year Total Shareholder Return basis relative to peers. More than 75% of long-term pay for the CEO is performance-conditioned, so a below-target shareholder return would substantially reduce the pay in the future. Ahead of the AGM, Cisco increased shareholding requirements for the CEO and Non-Executive Officers (NEOs). We generally take a view that significant executive shareholdings in the company helps align interests of executives and shareholders. In addition, Cisco extended clawback policies to performance shares as well as other forms of pay, which allow recall of pay awards under certain circumstances such as misconduct. This is a major shift in policy and a substantial new protection against malpractice given that the vast bulk of CEO/NEO pay is through performance-based shares. We voted for a shareholder resolution requiring that the CEO and Chair roles be split because we consider that general best practice, and also given the complexity of this business and the disruption inherent to the technology sector. The latter resolution, although it did not pass, received nearly 30% support from shareholders.

At Microsoft's AGM we voted against the ratification of the executive compensation (advisory vote). While acknowledging the company's long-term performance, we are concerned about the significant increase in the CEO base salary this year which include elements that are not strongly performance based. Our concerns are centred around the amount and timing of share buybacks (the re-acquisition by a company of its own stock) that the company has completed. These buybacks coincided with the share price peak, which was shortly followed by the increase in CEO base pay, without any company disclosure on efforts to mitigate the effect of buybacks on share price. We did not support a shareholder resolution asking the company to report on the company's global median gender pay gap, policies and related risks.

DEVELOPED ASIA

We made voting recommendations at 28 meetings (192 resolutions) over the last quarter. We recommended voting against or abstaining on 32 resolutions over this quarter.

- Total meetings in favour **60.7%**
- Meetings against (or against AND abstain) **39.3%**



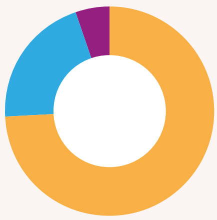
- Board Structure **65.6%**
- Remuneration **9.4%**
- Capital structure and dividends **21.9%**
- Amend articles **3.1%**

At Hong-Kong registered company New World Development (an investment holding company), we voted against several governance-related resolutions that were put to the AGM during last quarter. We voted against the re-election of two board members. In one case the board member has too many board commitments and in the other case the board member has failed to attend at least 75 percent of board and committee meetings without a satisfactory explanation. Per LGPS Central's Voting Principles, the capacity of a board director to make a full commitment to their appointment is an important aspect of board composition. We also voted against a proposal that sought to approve the issuance of shares without applying rights of pre-emption (i.e. without allowing existing investors first opportunity to buy a new issue of stock). Whilst companies require flexibility to manage their share capital without undue constraint, our concern is that this proposal will dilute the rights of existing shareholders. The resolution sought approval to disapply pre-emption rights on new issuances of a value up to 20% of share capital but, mindful of the UK's Pre-Emption Group guidelines, we believe a 10% limit is more appropriate.

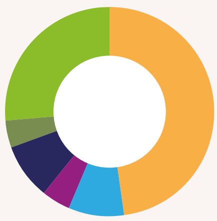
One third of the meetings we voted at in this market were at Japanese companies. While dialogue between investors and Japanese companies has improved in recent years, there are some ongoing challenges relating to key corporate governance standards including board composition. In more than half of the cases where we this quarter voted against management of a Japanese company, it related to inadequate board composition, either a lack of independence, or of diversity. Even companies that operate internationally and derive a majority of revenues from overseas often have boards comprised solely of Japanese nationals, who are typically over a certain age – late 50s upwards. Given this, and the large number of executive directors, boards tend to lack diversity of experience, skills and age. This issue will continue to stay on our radar for voting and engagement with Japanese companies.

EMERGING AND FRONTIER MARKETS

We made voting recommendations at 39 meetings (266 resolutions) over the last quarter. We recommended voting against or abstaining on 23 resolutions over this quarter.



- Total meetings in favour **74.4%**
- Meetings against (or against AND abstain) **20.5%**
- Meetings astained **5.1%**



- Board Structure **47.8%**
- Remuneration **8.7%**
- Shareholder resolution **4.3%**
- Capital structure and dividends **8.7%**
- Amend articles **4.3%**
- Audit and accounts **26.1%**

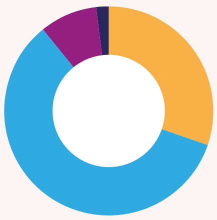
NWS Holdings Limited is a capital goods company and the conglomerate flagship of New World Development (see separate narrative in this Section under "Developed Asia"). At the AGM, we voted against the election of three board directors over concerns that they have too many other board commitments. Adding to our concern, two of these board directors serve on the company's audit committee which has allowed excessive non-audit fees without sufficient explanatory disclosures (we also voted against the approval of the company's external auditor). We also voted against a proposal that sought to approve the issuance of shares without applying rights of pre-emption (i.e. without allowing existing investors first opportunity to buy a new issue of stock). The resolution sought approval to disapply pre-emption rights on new issuances of a value up to 20% of share capital but, mindful of the UK's Pre-Emption Group guidelines, we believe a 10% limit is more appropriate.

Sasol Limited, an integrated chemicals and energy company, has seen project costs overrun by USD 4 billion since the 2014 inception of its Leak Charles Chemical Project (LCCP). At the news of this in May 2019, the company's share price fell by c. 13% and subsequently fell further (to c. 42%) leading up to the AGM last quarter. We voted against the election of the CFO Paul Victor given his direct accountability for material failure of controls in connection with LCCP and his position as a senior executive during the period in question. We also voted against the members of the Audit Committee, thus signalling that we hold them accountable for the internal control failings that have been identified at Sasol in connection with the LCCP. While the resolution to re-elect these board directors passed, they were met with significant opposition from shareholders (varying between c. 17% and 30% opposition).

AUSTRALIA & NEW ZEALAND

We made voting recommendations at 82 meetings (488 resolutions) over the last quarter. We recommended voting against or abstaining on 112 resolutions over the last quarter.

Total meetings in favour **40.2%**
Meetings against (or against AND abstain) **59.8%**



Board Structure **30.4%**
Remuneration **58.9%**
Shareholder resolution **8.9%**
Capital structure and dividends **1.8%**

We voted against Westpac Banking Corporation's recommendations on three resolutions at their AGM this quarter. We opposed the re-election of a board director who is also the Chair of the Audit Committee (AC) due to governance and risk failures identified at the Royal Commission and by Austrac. Austrac is the Australian government entity overseeing anti-money laundering and counter-terrorism financing laws. We also voted against the remuneration report, which allows for bonus payments of up to 55% of the maximum opportunity despite failing to meet key financial indicators. We supported a shareholder proposal asking Westpac to disclose its strategies and targets for reducing exposure to fossil fuel assets in line with Paris goals. These include the elimination of exposure to thermal coal in OECD countries by no later than 2030. None of the three resolutions went the way we had voted, but it is noteworthy that the re-election of the AC Chair and the Remuneration Report received 42% and 35.90% opposition respectively. The shareholder proposal received a substantial 16.9% support.

At the AGM of Australia & New Zealand Banking Group Ltd (ANZ) we cast our vote in support of two climate-related shareholder resolutions in line with advice from LAPFF. One resolution asks for disclosure on strategies and targets for managing exposure to fossil fuel assets in line with the climate goals of the Paris Agreement, and the other asks that any lobbying through industry associations be aligned with Paris goals. Owing to the vagaries of the company's current constitution the advisory resolutions were not put to vote at the AGM. However, ANZ's Chairman acknowledged shareholder concern around lobbying alignment and committed during the AGM to undertake a review of industry associations during 2020 and to report on the findings. We will continue to engage ANZ and other banks on the issues of managing their exposure to fossil fuel assets in line with the Paris goals. The same issue has been raised with Barclays Plc through a shareholder resolution that LGPS Central co-filed alongside 10 other investors in December 2019.

05 Industry Participation

LGPS Central is an active participant in the debate on good corporate and investor practice. We value collaboration with peer investors and with industry initiatives, which gives a stronger voice and more leverage in engagement.

The Securities and Exchange Commission (SEC) in the US is proposing changes to rules on shareholder proposals and proxy advisers that would introduce major impediments to effective investment stewardship and efficient engagement between minority shareholders and corporations on ESG issues. The changes significantly raise the ownership requirements for co-filing a resolution and the percentage support a proposal must receive to be resubmitted. This makes it more difficult to submit and sustain proposals. Over this quarter, the PRI has done extensive analysis of the implications of the proposed changes and concluded that hundreds of resubmitted ESG shareholder resolutions would now, if the changes are implemented, fail to make the ballot. Furthermore, hundreds of successful ESG related resolutions would now fail to make the ballot. This means that, if finalised, the SEC's proposed amendments would in many cases hinder discussion of emerging ESG issues before investors have the chance to analyse and incorporate the latest thinking into voting behaviour. The changes relating to proxy advisers, requiring proxy advisory firms to allow companies to review and comment on recommendations before investors even see them, will greatly limit investors' access to independent advice. There is a further risk that the SEC's proposed changes will undermine the independence of proxy advice and cause unwarranted delays in an already compressed process. As a universal investor with minority stakes in companies across sectors and markets, LGPS Central views the proposed SEC amendments with great concern. We have signed a PRI-coordinated letter that has been submitted to the SEC urging them to consider our concern and to preserve the existing framework. The letter was signed by 193 investors managing over $11.5tn USD in assets. LAPFF has also submitted comments to the SEC on behalf of its members, raising the same concerns as described above.

We regularly contribute to RI-related advisory committees and make select speaking appearances at investment conferences. During the last quarter we spoke at the following events (see table on the right).

Our stewardship manager taking part in a panel discussion on the topic of barriers to diversity in portfolio management at AIMSE Europe Annual Conference (November 2019)

CONFERENCE/EVENT	TOPIC
Local Government Pension Investment Forum	General ESG
AIMSE (Association of Investment Management Sales Executives) Europe Conference	Diversity
DB Strategic Investment Forum	Climate change
Green Equities Conference	Climate change
Financial/Pinsent Masons Breakfast briefing	Diversity

LGPS Central currently contributes to the following investor groups:

- Cross-Pool Responsible Investment Group
- UK Pension Fund Roundtable
- BVCA Responsible Investment Advisory Group
- PRI Listed Equity Integration Advisory Sub-Committee
- TPI Steering Committee & Technical Advisory Group
- Roundtable on Mining (Investor Mining and Tailings Safety Initiative)
- GFI Working Group on Data, Disclosure & Risk
- FRC Investor Advisory Group
- LAPF SIF Advisory Board
- IIGCC Shareholder Resolutions Sub-group
- IIGCC Paris Aligned Investment Steering Group

LGPS CENTRAL LIMITED'S

Partner Organisations

30% Club
GROWTH THROUGH DIVERSITY

BVCA British Private Equity & Venture Capital Association

CDP
DISCLOSURE INSIGHT ACTION

Climate Action 100+
Global Investors Driving Business Transition

HERMES
EOS

IIGCC
Institutional Investors Group on Climate Change

ICGN
International Corporate Governance Network

Local Authority Pension Fund Forum

PENSIONS FOR PURPOSE

PRI Principles for Responsible Investment

Transition Pathway Initiative

THE INVESTOR FORUM

All information is prepared as of **11.02.2020**.

This document is intended for **PROFESSIONAL CLIENTS** only.

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Registered Office: Mander House, Mander Centre, Wolverhampton, WV1 3NB

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Agenda Item No. 5 (d)

DERBYSHIRE COUNTY COUNCIL

PENSIONS AND INVESTMENTS COMMITTEE

4 March 2020

Report of the Director of Finance & ICT

FUNDING STRATEGY STATEMENT CONSULTATION

1 Purpose of the Report

To advise the Pensions and Investments Committee (Committee) of the outcome of Derbyshire Pension Fund's consultation exercise in respect of the proposed Funding Strategy Statement (FSS) and to seek approval for the draft Funding Strategy Statement attached as Appendix 1.

2 Information and Analysis

As part of the valuation process, the Fund reviews the funding strategy to ensure that an appropriate contribution plan and investment strategy is in place. The funding strategy is set out in the Funding Strategy Statement (FSS) which is the Fund's key governance document in relation to the actuarial valuation.

The FSS sets out the funding policies adopted, the actuarial assumptions used and the time horizons considered for each category of employer
The draft Funding Strategy Statement was presented to the Pensions and Investments Committee in December 2019, when it was noted that the Fund intended to consult with the Fund's stakeholders on the FSS.

The main changes to the FSS since the previous valuation are:

- increased likelihoods of reaching the funding target for all employers to allow for the potential impact of the McCloud judgement (court ruling that transitional protections awarded to some members of public service pension scheme when the schemes were reformed were unlawful on the grounds of age discrimination)
- a larger increase in the likelihood of reaching the funding target, and a reduction in the time horizon for Universities and Colleges to reflect changes in the assessment of the employer covenant for the sector
- increased clarity on risk sharing options
- the proposed treatment of exit credits
- increased clarity on pooling arrangements

The Consultation

The consultation on the FSS commenced on 6 January 2020 and closed on 2 February 2020. It was advertised on Derbyshire County Council's website under the 'Have Your Say' section and a link to the consultation was included on the landing page of the Pension Fund's website. Comments on the Funding Strategy Statement were invited from the Fund's employers and other stakeholders. An email was sent to all of the Fund's employers providing a link to the consultation and employers were also provided with a link to the consultation on their Draft Employer Results reports.

Hymans Robertson LLP, the Fund's actuary explained the main changes in the FSS to the 50 attendees, representing 70 scheme employers, who attended the Fund's Employer Valuation Seminar on 13 January 2020.

Response to the Consultation

Respondents to the consultation could submit comments either by email or by post. The Fund received one response to consultation from the University of Derby (the University).

Having registered that it wanted to comment on the FSS before the closing date of the consultation, the University was allowed extra time to make detailed comments as discussions between the Fund and the University were still ongoing.

The different approaches used for setting contribution rates for different categories of employers are set out in the FSS. The University and the two Further Education Colleges in the Fund are included in the same category of employer in common with the categorisation in many other LGPS funds.

The table below shows the approach to setting contribution rates for Universities and Colleges during this actuarial valuation compared to the approach during the 2016 valuation.

	2016	**2019**
Stabilised contribution rate	Yes	No
Maximum time horizon	19 years	15 years
Likelihood of success	70%	75%

The comments of the University have been noted and summarised as follows:

The University is:

- a key part of the future for the county of Derbyshire, and each year brings in large amounts of new income and residents from other counties and countries to the area
- a large employer which has made huge investments in the city of Derby and the county of Derbyshire
- in a competitive market and hence needs all the funds available to invest in its assets (both physical and human) to ensure the continued success of the University for the benefit of its students and its county

With respect to the Fund's approach to the University adopted in the FSS, the University notes:

- the assessment of the University in the same category as the Colleges is inappropriate
- a risk assessment should have been carried out on an individual employer basis rather than on a sector basis
- the 2019 MHCLG paper was only a consultation paper and the University could potentially guarantee open membership of the LGPS for at least the next 3 years until the next actuarial valuation
- the funding level of the University is marginally higher than the overall funding level of the Fund and local authorities and other schedule bodies are permitted to have stabilised contribution rates
- the University's income and surplus for investing in services for its customers (students) and employees has increased by a greater amount than any of the scheduled bodies
- the University's pension schemes are one of the attractions and retention tools for the University to obtain and retain the best quality employees
- the proposed extra amount to be paid by the University will have an effect on the amount invested in the services that the University can provide
- the University does not feel that it presents an enhanced risk of not meeting its funding obligations

The comments of the University have been summarised; the intention has been to represent the comments concisely and as accurately as possible.

Position of the Fund

Over recent years, the number and diversity of employers participating in the Pension Fund has increased and many of the employers have less access to financial support for their pension obligations than traditional local authority employers. If a deficit arises when an employer ceases to participate in the

Fund and it cannot be met by the employer or claimed from any bond, indemnity or guarantor, the liability would fall to the other employers in the Fund. Assessment of the employer covenant, which is the extent of the employer's legal obligation and financial ability to support the scheme now and in the future, is, therefore, necessary.

The Fund continues to develop its system to assess and monitor employer covenants which started with Employer Health Check Questionnaires being issued to all of the Fund's Tier 3 employers last year. The LGPS Scheme Advisory Board categorises Tier 3 employers as admitted and scheduled bodies that do not benefit from local or national tax payer backing or do not have a full guarantee or other pass-through arrangement with a body with such backing. [1] Examples of Tier 3 employers include universities, further education colleges, housing associations and charities.

The change in approach to the Universities and Colleges sector was due to a reassessment of the covenant of the sector which has led the Fund to adopt an increased level of prudence in the setting of employer contribution rates, over and above the increased level of prudence introduced for all employers to allow for the potential impact of the McCloud case.

Reasons for the reassessment of the covenant of the Universities and Colleges sector:

- confirmation from the government that universities and colleges should be treated at private sector bodies, together with the publication of insolvency regulations for colleges
- the May 2019 consultation paper from the Ministry for Housing, Communities & Local Government (MHCLG): Local Government Pension Scheme: Changes to the Local Valuation Cycle and the Management of Employer Risk which proposed removing the obligation on higher and further education corporations in England to offer new non-teaching staff access to the LGPS
- the outcome for university funding following the review of post-18 education (Augar Review) remains unclear

The reassessment of the covenant of the sector resulted in:

- the removal of the ability to participate in the stabilisation mechanism
- a reduction in the time horizon to achieve the funding target from 19 years to 15 years
- a slightly larger increase in the likelihood of reaching the funding target than the increase for all employers (which was to allow for the potential impact of the McCloud judgement)

[1] AON Tier 3 Employers in the LGPS September 2018

Stabilisation is a mechanism where employer contribution rate variations from year to year are kept within a pre-determined range, thus allowing those employers' rates to be relatively stable. Stabilisation can lead to employers paying less than their theoretical contribution rates and is, therefore, only suitable for those employers with a particularly strong covenant (tax raising powers/government guarantee) and who are expected to remain in the Pension Fund for a long period of time.

The University's acknowledgement of the LGPS as one of its best recruitment and retention tools is welcomed. However, it would be imprudent of the Fund not to reflect in the time horizon the fact that the MHCLG proposal would allow Universities and Colleges to cease offering access to the LGPS for new non-teaching staff at a time when the sector is under continuing funding pressures, exacerbated by the material increase in the cost of the Teachers' Pension Scheme.

The increase in the likelihood of reaching the funding target for the Universities and Colleges sector of 5% was not materially different to the increase of 4% for the Councils and Other Scheduled Bodies to reflect the potential impact of the McCloud judgement.

The potential financial impact of the proposed increase in contribution rates for the sector was recognised by the Fund which has been in discussions with the relevant employers about ways in which the increases could be implemented. The Fund has also requested further information from the University to support its covenant analysis. It should be noted that the proposed increase in contribution rates reflects an increase in the pace of funding not an increase in the eventual cost of funding.

The Funding Strategy Statement allows sufficient flexibility for the Fund to vary the approach for an employer in a particular category and to phase in contribution rate increases depending on the strength of the individual employer covenant. It is recommended the Fund should continue to utilise this flexibility and that the categorisation of the Universities and Colleges within the Funding Strategy Statement remains unchanged.

3 Other 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, prevention of crime and disorder and social values.

4 Officer's Recommendation

That Committee, having considered the response to the consultation, confirms that no changes to the proposed Funding Strategy Statement are required and approves the Funding Strategy Statement attached as Appendix 1.

PETER HANDFORD

Director of Finance & ICT

Derbyshire Pension Fund

Funding Strategy Statement

XXXXX 2020

Prepared in collaboration with Hymans Robertson LLP

Approved by Pensions and Investments Committee [XX XXXX] 2020

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1 Introduction

1.1 What is this document?

This is the Funding Strategy Statement (FSS) of the Derbyshire Pension Fund ("the Fund"), which is administered by Derbyshire County Council ("the Administering Authority").

It has been prepared by the Administering Authority in collaboration with the Fund's actuary, Hymans Robertson LLP, and after consultation with the Fund's employers and investment adviser. It is effective from [DATE POST CONSULTATION].

1.2 What is the Derbyshire Pension Fund?

The Fund is part of the national Local Government Pension Scheme (LGPS). The LGPS was set up by the UK Government to provide retirement and death benefits for local government employees, and those employed in similar or related bodies, across the whole of the UK. The Administering Authority runs the Derbyshire Fund, in effect the LGPS for the Derbyshire area, to make sure it:

- receives the proper amount of contributions from employees and employers, and any transfer payments;
- invests the contributions appropriately, with the aim that the Fund's assets grow over time with investment income and capital growth; and
- uses the assets to pay Fund benefits to the members (as and when they retire, for the rest of their lives), and to their dependants (as and when members die), as defined in the LGPS Regulations. Assets are also used to pay transfer values and administration costs.

The roles and responsibilities of the key parties involved in the management of the Fund are summarised in Appendix B.

1.3 Why does the Fund need a Funding Strategy Statement?

Employees' benefits are guaranteed by the LGPS Regulations, and do not change with market values or employer contributions. Investment returns will help pay for some of the benefits, but probably not all, and certainly with no guarantee. Employees' contributions are fixed in those Regulations also, at a level which covers only part of the cost of the benefits.

Therefore, employers need to pay the balance of the cost of delivering the benefits to members and their dependants.

The FSS focuses on how employer liabilities are measured, the pace at which these liabilities are funded, and how employers or pools of employers pay for their own liabilities. This statement sets out how the Administering Authority has balanced the conflicting aims of:

- affordability of employer contributions,
- transparency of processes,
- stability of employers' contributions, and
- prudence in the funding basis.

There are also regulatory requirements for an FSS, as given in Appendix A.

The FSS is a summary of the Fund's approach to funding its liabilities, and this includes reference to the Fund's other policies; it is not an exhaustive statement of policy on all issues. The FSS forms part of a framework which includes:

- the LGPS Regulations;
- the Rates and Adjustments Certificate (confirming employer contribution rates for the next three years) which can be found in an appendix to the formal valuation report;
- the Fund's policies on admissions, cessations and bulk transfers;
- actuarial factors for valuing individual transfers, early retirement costs and the costs of buying added service; and
- the Fund's Investment Strategy Statement (see Section 4)

1.4 How does the Fund and this FSS affect me?

This depends who you are:

- a member of the Fund, i.e. a current or former employee, or a dependant: the Fund needs to be sure it is collecting and holding enough money so that your benefits are always paid in full;
- an employer in the Fund (or which is considering joining the Fund): you will want to know how your contributions are calculated from time to time, that these are fair by comparison to other employers in the Fund, in what circumstances you might need to pay more and what happens if you cease to be an employer in the Fund. Note that the FSS applies to all employers participating in the Fund;
- an Elected Member whose council participates in the Fund: you will want to be sure that the council balances the need to hold prudent reserves for members' retirement and death benefits, with the other competing demands for council money;
- a Council Tax payer: your council seeks to strike the balance above, and also to minimise cross-subsidies between different generations of taxpayers.

1.5 What does the FSS aim to do?

The FSS sets out the objectives of the Fund's funding strategy, such as:

- to ensure the long-term solvency of the Fund, using a prudent long term view. This will ensure that sufficient funds are available to meet all members'/dependants' benefits as they fall due for payment;
- to ensure that employer contribution rates are reasonably stable where appropriate;
- to minimise the long-term cash contributions which employers need to pay to the Fund, by recognising the link between assets and liabilities and adopting an investment strategy which balances risk and return (**NB** this will also minimise the costs to be borne by Council Tax payers);
- to reflect the different characteristics of different employers in determining contribution rates. This involves the Fund having a clear and transparent funding strategy to demonstrate how each employer can best meet its own liabilities over future years; and
- to use reasonable measures to reduce the risk to other employers and ultimately to the Council Tax payer from an employer defaulting on its pension obligations.

1.6 How do I find my way around this document?

In Section 2 there is a brief introduction to some of the main principles behind funding, i.e. deciding how much an employer should contribute to the Fund from time to time.

In Section 3 we outline how the Fund calculates the contributions payable by different employers in different situations.

In Section 4 we show how the funding strategy is linked with the Fund's investment strategy.

In the Appendices we cover various issues in more detail if you are interested:

A. the regulatory background, including how and when the FSS is reviewed,

B. who is responsible for what,

C. what issues the Fund needs to monitor, and how it manages its risks,

D. some more details about the actuarial calculations required,

E. the assumptions which the Fund actuary currently makes about the future,

F. a glossary explaining the technical terms occasionally used here.

If you have any other queries please contact Dawn Kinley, Head of Pension Fund in the first instance at e-mail address (dawn.kinley@derbyshire.gov.uk).

2 Basic Funding issues

(More detailed and extensive descriptions are given in Appendix D).

2.1 How does the actuary calculate the required contribution rate?

In essence this is a three-step process:

1. Calculate the funding target for that employer, i.e. the estimated amount of assets it should hold in order to be able to pay all its members' benefits. See Appendix E for more details of what assumptions we make to determine that funding target;

2. Determine the time horizon over which the employer should aim to achieve that funding target. See the table in 3.3 and Note (c) for more details;

3. Calculate the employer contribution rate such that it has at least a given likelihood of achieving that funding target over that time horizon, allowing for various possible economic outcomes over that time horizon. See 2.3 below, and the table in 3.3 Note (e) for more details.

2.2 What is each employer's contribution rate?

This is described in more detail in Appendix D. Employer contributions are normally made up of two elements:

a) the estimated cost of benefits being built up each year, after deducting the members' own contributions and including an allowance for administration expenses. This is referred to as the "*Primary rate*", and is expressed as a percentage of members' pensionable pay; plus

b) an adjustment for the difference between the Primary rate above, and the actual contribution the employer needs to pay, referred to as the "*Secondary rate*". In broad terms, payment of the Secondary rate is in respect of benefits already accrued at the valuation date. The Secondary rate may be expressed as a percentage of pay and/or a monetary amount in each year.

The rates for all employers are shown in the Fund's Rates and Adjustments Certificate, which forms part of the formal Actuarial Valuation Report. Employers' contributions are expressed as minima, with employers able to pay contributions at a higher rate. Account of any higher rate will be taken by the Fund actuary at subsequent valuations, i.e. will be reflected as a credit when next calculating the employer's contributions.

2.3 What different types of employer participate in the Fund?

Historically the LGPS was intended for local authority employees only. However over the years, with the diversification and changes to delivery of local services, many more types and numbers of employers now participate. There are currently more employers in the Fund than ever before, a significant part of this being due to new academies.

In essence, participation in the LGPS is open to public sector employers providing some form of service to the local community. Whilst the majority of members will be local authority employees (and ex-employees), the majority of participating employers are those providing services in place of (or alongside) local authority services: academy schools, contractors, housing associations, charities, etc.

The LGPS Regulations define various types of employer as follows:

Scheduled bodies - councils, and other specified employers such as academies and further education establishments. These must provide access to the LGPS in respect of their employees who are not eligible to join another public sector scheme (such as the Teachers Scheme). These employers are so-called because they are specified in a schedule to the LGPS Regulations.

It is now possible for Local Education Authority schools to convert to academy status, and for other forms of school (such as Free Schools) to be established under the academies legislation. All such **academies (or Multi Academy Trusts)**, as employers of non-teaching staff, become separate new employers in the Fund. As academies are defined in the LGPS Regulations as "Scheduled Bodies", the Administering Authority has no discretion over whether to admit them to the Fund, and the academy has no discretion whether to continue to allow its non-teaching staff to join the Fund. There has also been guidance issued by the Ministry of Housing, Communities and Local Government (MHCLG) regarding the terms of academies' membership in LGPS Funds.

Designating employers - employers such as town and parish councils are able to participate in the LGPS via resolution (and the Fund cannot refuse them entry where the resolution is passed). These employers can designate which of their employees are eligible to join the scheme.

Other employers are able to participate in the Fund via an admission agreement, and are referred to as 'admission bodies'. These employers are generally those with a "community of interest" with another scheme employer – **community admission bodies** ("CAB") or those providing a service on behalf of a scheme employer – **transferee admission bodies** ("TAB"). CABs will include housing associations and charities, TABs will generally be contractors. The Fund is able to set its criteria for participation by these employers and can refuse entry if the requirements as set out in the Fund's admissions policy are not met. (NB The terminology CAB and TAB has been dropped from recent LGPS Regulations, which instead combine both under the single term 'admission bodies'; however, we have retained the old terminology here as we consider it to be helpful in setting funding strategies for these different employers.

2.4 How does the calculated contribution rate vary for different employers?

All three steps above are considered when setting contributions (more details are given in Section 3 and Appendix D).

1. The **funding target** is based on a set of assumptions about the future, (e.g. investment returns, inflation, pensioners' life expectancies). If an employer is approaching the end of its participation in the Fund then its funding target may be set on a more prudent basis, so that its liabilities are less likely to be spread among other employers after its cessation;

2. The **time horizon** required is the period over which the funding target is achieved. Employers may be given a lower time horizon if they have a less permanent anticipated membership, or do not have tax-raising powers to increase contributions if investment returns under-perform; and

3. The **likelihood of achieving** the funding target over that time horizon will be dependent on the Fund's view of the strength of employer covenant and its funding profile. Where an employer is considered to be weaker then the required likelihood will be set higher, which in turn will increase the required contributions (and vice versa).

For some employers it may be agreed to pool contributions, see 3.4.

Any costs of non ill-health early retirements must be paid by the employer, see 3.6.

Costs of ill-health early retirements are covered in 3.7 and 3.8.

2.5 How is a funding level calculated?

An employer's "funding level" is defined as the ratio of:

- the market value of the employer's share of assets (see Appendix D, section D5, for further details of how this is calculated), to
- the value placed by the actuary on the benefits built up to date for the employer's employees and ex-employees (the "liabilities"). The Fund actuary agrees with the Administering Authority the assumptions to be used in calculating this value.

If this is less than 100% then it means the employer has a shortfall, which is the employer's "deficit"; if it is more than 100% then the employer is said to be in "surplus". The amount of deficit or shortfall is the difference between the asset value and the liabilities value.

It is important to note that the funding level and deficit/surplus are only measurements at a particular point in time, on a particular set of assumptions about the future. Whilst we recognise that various parties will take an interest in these measures, for most employers the key issue is how likely it is that their contributions will be sufficient to pay for their members' benefits (when added to their existing asset share and anticipated investment returns).

In short, funding levels and deficits are short term, high level risk measures, whereas contribution-setting is a longer term issue.

2.6 How does the Fund recognise that contribution levels can affect council and employer service provision, and council tax?

The Administering Authority and the Fund actuary are acutely aware that, all other things being equal, a higher contribution required to be paid to the Fund will mean less cash available for the employer to spend on the provision of services. For instance:

- Higher Pension Fund contributions may result in reduced council spending, which in turn could affect the resources available for council services, and/or greater pressure on council tax levels;
- Contributions which Academies pay to the Fund will therefore not be available to pay for providing education; and
- Other employers will provide various services to the local community, perhaps through housing associations, charitable work, or contracting council services. If they are required to pay more in pension contributions to the LGPS then this may affect their ability to provide the local services at a reasonable cost.

Whilst all this is true, it should also be borne in mind that:

- The Fund provides invaluable financial security to local families, whether to those who formerly worked in the service of the local community who have now retired, or to their families after their death;
- The Fund must have the assets available to meet these retirement and death benefits, which in turn means that the various employers must each pay their own way. Lower contributions today will mean higher contributions tomorrow: deferring payments does not alter the employer's ultimate obligation to the Fund in respect of its current and former employees;
- Each employer will generally only pay for its own employees and ex-employees (and their dependants), not for those of other employers in the Fund;

- The Fund strives to maintain reasonably stable employer contribution rates where appropriate and possible. However, a recent shift in regulatory focus means that solvency within each generation is considered by the Government to be a higher priority than stability of contribution rates;
- The Fund wishes to avoid the situation where an employer falls so far behind in managing its funding shortfall that its deficit becomes unmanageable in practice: such a situation may lead to employer insolvency and the resulting deficit falling on the other Fund employers. In that situation, those employers' services would in turn suffer as a result;
- Council contributions to the Fund should be at a suitable level, to protect the interests of different generations of council tax payers. For instance, underpayment of contributions for some years will need to be balanced by overpayment in other years; the council will wish to minimise the extent to which council tax payers in one period are in effect benefitting at the expense of those paying in a different period.

Overall, therefore, there is clearly a balance to be struck between the Fund's need for maintaining prudent funding levels, and the employers' need to allocate their resources appropriately. The Fund achieves this through various techniques which affect contribution increases to various degrees (see 3.1). In deciding which of these techniques to apply to any given employer, the Administering Authority takes a view on the financial standing of the employer, i.e. its ability to meet its funding commitments and the relevant time horizon.

The Administering Authority is building an employer risk assessment framework using a knowledge base which will be regularly monitored and kept up-to-date. This database will include such information as the type of employer, its membership profile and funding position, any guarantors or security provision, material changes anticipated, etc.

For instance, where the Administering Authority has reasonable confidence that an employer will be able to meet its funding commitments, then the Fund will permit options such as stabilisation (see 3.3 Note (b)), a longer time horizon relative to other employers, and/or a lower likelihood of achieving their funding target. Such options will temporarily produce lower contribution levels than would otherwise have applied. This is permitted in the expectation that the employer will still be able to meet its obligations for many years to come.

On the other hand, where there is doubt that an employer will be able to meet its funding commitments or withstand a significant change in its commitments, then a higher funding target, and/or a shorter time horizon relative to other employers, and/or a higher likelihood of achieving the target may be required.

The Fund actively seeks employer input, including to its funding arrangements, through various means: see Appendix A.

2.7 What approach has the Fund taken to dealing with uncertainty arising from the McCloud court case and its potential impact on the LGPS benefit structure?

The LGPS benefit structure from 1 April 2014 is currently under review following the Government's loss of the right to appeal the McCloud and other similar court cases. The courts have ruled that the 'transitional protections' awarded to some members of public service pension schemes when the schemes were reformed (on 1 April 2014 in the case of the LGPS) were unlawful on the grounds of age discrimination. At the time of writing, MHCLG has not provided any details of changes as a result of the case. However it is expected that benefits changes will be required and they will likely increase the value of liabilities. At present, the scale and nature of any increase in liabilities are unknown, which limits the ability of the Fund to make an accurate allowance.

The LGPS Scheme Advisory Board (SAB) issued advice to LGPS funds in May 2019. As there was no finalised outcome of the McCloud case by 31 August 2019, the Fund Actuary has acted in line with SAB's advice and valued all member benefits in line with the current LGPS Regulations.

The Fund, in line with the advice in the SAB's note, has considered how to allow for this risk in the setting of employer contribution rates. As the benefit structure changes that will arise from the McCloud judgement are uncertain, the Fund has elected to allow for the potential impact in the assessment of employer contribution rates at the 2019 valuation by increasing the required likelihood of reaching the funding target.

Once the outcome of the McCloud case is known, the Fund may revisit the contribution rates set to ensure they remain appropriate.

The Fund has also considered the McCloud judgement in its approach to cessation valuations. Please see note (j) to table 3.3 for further information.

2.8 When will the next actuarial valuation be?

On 8 May 2019 MHCLG issued a consultation seeking views on (among other things) proposals to amend the LGPS valuation cycle in England and Wales from a three year (triennial) valuation cycle to a four year (quadrennial) valuation cycle.

The Fund intends to carry out its next actuarial valuation in 2022 (3 years after the 2019 valuation date) in line with MHCLG's desired approach in the consultation. The Fund has therefore instructed the Fund Actuary to certify contribution rates for employers for the period 1 April 2020 to 31 March 2023 as part of the 2019 valuation of the Fund.

3 Calculating contributions for individual Employers

3.1 General comments

A key challenge for the Administering Authority is to balance the need for stable, affordable employer contributions with the requirement to take a prudent, longer-term view of funding and ensure the solvency of the Fund. With this in mind, the Fund's three-step process identifies the key issues:

1. What is a suitably (but not overly) prudent funding target?
2. How long should the employer be permitted to reach that target? This should be realistic but not so long that the funding target is in danger of never actually being achieved.
3. What likelihood is required to reach that funding target? This will always be less than 100% as we cannot be certain of the future. Higher likelihood "bars" can be used for employers where the Fund wishes to reduce the risk that the employer ceases leaving a deficit to be picked up by other employers.

These and associated issues are covered in this Section.

The Administering Authority recognises that there may occasionally be particular circumstances affecting individual employers that are not easily managed within the rules and policies set out in the Funding Strategy Statement. Therefore the Administering Authority reserves the right to direct the actuary to adopt alternative funding approaches on a case by case basis for specific employers.

3.2 The effect of paying lower contributions

In limited circumstances the Administering Authority may permit employers to pay contributions at a lower level than is assessed for the employer using the three-step process above. At its absolute discretion the Administering Authority may:

- extend the time horizon for targeting full funding;
- adjust the required likelihood of meeting the funding target;
- permit an employer to participate in the Fund's stabilisation mechanisms;
- permit extended phasing in of contribution rises or reductions;
- pool contributions amongst employers with similar characteristics; and/or
- accept some form of security or guarantee in lieu of a higher contribution rate than would otherwise be the case.

Employers which are permitted to use one or more of the above methods will often be paying, for a time, contributions less than required to meet their funding target, over the appropriate time horizon with the required likelihood of success. Such employers should appreciate that:

- their true long term liability (i.e. the actual eventual cost of benefits payable to their employees and ex-employees) is not affected by the pace of paying contributions;
- lower contributions in the short term will result in a lower level of future investment returns on the employer's asset share. Thus, deferring a certain amount of contribution may lead to higher contributions in the long-term; and
- it may take longer to reach their funding target, all other things being equal.

Overleaf (3.3) is a summary of how the main funding policies differ for different types of employer, followed by more detailed notes where necessary.

Section 3.4 onwards deals with various other funding issues which apply to all employers.

3.3 The different approaches used for different employers

Type of employer	**Scheduled Bodies**				**Designating employers**	**Community Admission Bodies**		**Transferee Admission Bodies***
Sub-type	**Local Authorities, Police and Fire**	**Arms Length Management Organisations, Peak District National Park and Chesterfield Crematorium**	**Academies**	**Universities and Colleges**	**Town and Parish Councils (pooled)**	**Open to new entrants**	**Closed to new entrants**	**(all)**
Funding Target Basis used	Ongoing participation basis, assumes long-term Fund participation (see Appendix E)				Ongoing participation basis, assumes long-term Fund participation (see Appendix E)	Ongoing participation basis, but may move to "gilts exit basis" - see Note (a)		Ongoing participation basis, assumes fixed contract term in the Fund (see Appendix E)
Primary rate approach	(see Appendix D – D.2)							
Stabilised contribution rate?	Yes - see Note (b)	Yes - see Note (b)	Yes - see Note (b)	No	No	No	No	No
Maximum time horizon – Note (c)	19 years	19 years	19 years	15 years**	19 years	12 years	12 years	The lower of 12 years and the outstanding contract term
Secondary rate – Note (d)	Percentage of payroll and/or Monetary amount	Percentage of payroll and/or Monetary amount	Percentage of Payroll	Percentage of payroll and/or Monetary amount	Percentage of Payroll	Percentage of payroll and/or Monetary amount	Percentage of payroll and/or Monetary amount	Percentage of payroll and/or Monetary amount
Treatment of surplus	Covered by stabilisation arrangement	Covered by stabilisation arrangement	Covered by stabilisation arrangement	Reduce contributions by spreading the surplus over 15 years	Reduce contributions by spreading the surplus over 19 years	Preferred approach: contributions kept at Primary rate. However, reductions may be permitted by the Admin. Authority		Reduce contributions by spreading the surplus over the lower of 12 years and the outstanding contract term

Likelihood of achieving target – Note (e)	70%	70%	70%	75%	70%	85% (50% if gilts exit basis)	85% (50% if gilts exit basis)	75%
Phasing of contribution changes	Covered by stabilisation arrangement	Covered by stabilisation arrangement	Covered by stabilisation arrangement	3 years	3 years	3 years	3 years	None
Review of rates – Note (f)	Administering Authority reserves the right to review contribution rates and amounts, and the level of security provided, at regular intervals between valuations							Particularly reviewed in last 3 years of contract
New employer	n/a	n/a	Note (g)	n/a	n/a	Note (h)		Notes (h) & (i)
Cessation of participation: exit debt/credit payable	Cessation is assumed not to be generally possible, as Scheduled Bodies are legally obliged to participate in the LGPS. In the rare event of cessation occurring (machinery of Government changes for example), the cessation calculation principles applied would be as per Note (j).				Can be ceased. Exit debt/credit will be calculated on a basis appropriate to the circumstances of cessation – see Note (k).	Can be ceased subject to terms of admission agreement. Exit debt/credit will be calculated on a basis appropriate to the circumstances of cessation – see Note (j).		Participation is assumed to expire at the end of the contract. Cessation debt/credit calculated on the ongoing participation basis, unless the admission agreement is terminated early by the contractor or letting employer in which case the low risk exit basis may apply. Letting employer will be liable for future deficits and contributions arising. See Note (j) for further details

* Where the Administering Authority recognises a fixed contribution rate agreement between a letting employer and a contractor, the certified employer contribution rate will be derived in line with the methodology specified in the risk sharing agreement. Additionally, in these cases, upon cessation the

contractor’s assets and liabilities will transfer back to the letting employer ordinarily with no crystallisation of any deficit or surplus. Further detail on fixed contribution rate agreements is set out in note (i).

** The time horizon for universities and colleges has been reduced from that used at the 31 March 2016 valuation as a means of recognising the potential shortening of these bodies’ lifetimes within the Fund. In addition, the Fund reserves the right to use a different likelihood of success for these bodies than stated in the table above if there are concerns in relation to their individual circumstances.

Note (a) (Gilts exit basis for CABs and Designating Employers closed to new entrants)

In the circumstances where:

- the employer is a Designating Employer, or an Admission Body but not a Transferee Admission Body, and
- the employer has no guarantor, and
- the admission agreement is likely to terminate, or the employer is likely to lose its last active member, within a timeframe considered appropriate by the Administering Authority to prompt a change in funding,

the Administering Authority may set a higher funding target (e.g. based on the return from long-term gilt yields) by the time the agreement terminates or the last active member leaves, in order to protect other employers in the Fund. This policy will increase regular contributions and reduce, but not entirely eliminate, the possibility of a final deficit payment being required from the employer when a cessation valuation is carried out.

The Administering Authority also reserves the right to adopt the above approach in respect of those Designating Employers and Admission Bodies with no guarantor, where the strength of covenant is considered to be weak but there is no immediate expectation that the admission agreement will cease or that the Designating Employer will alter its designation.

Note (b) (Stabilisation)

Stabilisation is a mechanism where employer contribution rate variations from year to year are kept within a pre-determined range, thus allowing those employers' rates to be relatively stable. In the interests of stability and affordability of employer contributions, the Administering Authority, on the advice of the Fund Actuary, believes that stabilising contributions can still be viewed as a prudent longer-term approach. However, employers whose contribution rates have been "stabilised" (and may therefore be paying less than their theoretical contribution rate) should be aware of the risks of this approach and should consider making additional payments to the Fund if possible. This stabilisation mechanism allows short term investment market volatility to be managed so as not to cause volatility in employer contribution rates, on the basis that a long term view can be taken on net cash inflow, investment returns and strength of employer covenant.

The current stabilisation mechanism applies if:

- the employer satisfies the eligibility criteria set by the Administering Authority (see below) and;
- there are no material events which cause the employer to become ineligible, e.g. significant reductions in active membership (due to outsourcing or redundancies), or changes in the nature of the employer (perhaps due to Government restructuring), or changes in the security of the employer.

On the basis of extensive modelling carried out for the 2019 valuation exercise the stabilised details are as follows:

Type of employer	Local Authorities, Police and Fire	Arms Length Management Organisations, Peak District National Park and Chesterfield Crematorium	Academies
Max cont increase	1%	1%	1%
Max cont decrease	0%	0%	-1%

The stabilisation criteria and limits will be reviewed at the next formal valuation. However, the Administering Authority reserves the right to review the stabilisation criteria and limits at any time before then, on the basis of membership and/or employer changes as described above.

Note (c) (Maximum time horizon)

The maximum time horizon starts at the commencement of the revised contribution rate (1 April 2020 for the 2019 valuation). The Administering Authority would normally expect the same period to be used at successive triennial valuations, but would reserve the right to propose alternative time horizons, for example where there were no new entrants.

Note (d) (Secondary rate)

For some employers where stabilisation is not being applied, the Secondary contribution rate for each employer covering the period until the next formal valuation will often be set as a percentage of salaries. However, the Administering Authority reserves the right to amend these rates between formal valuations and/or to require these payments in monetary terms instead, for instance where:

- the employer is relatively mature, i.e. has a large Secondary contribution rate (e.g. above 15% of payroll), or
- there has been a significant reduction in payroll due to outsourcing or redundancy exercises, or
- the employer has closed the Fund to new entrants.

Note (e) (Likelihood of achieving funding target)

Each employer has its funding target calculated, and a relevant time horizon over which to reach that target. Contributions are set such that, combined with the employer's current asset share and anticipated market movements over the time horizon, the funding target is achieved with a given minimum likelihood. A higher required likelihood bar will give rise to higher required contributions, and vice versa.

The way in which contributions are set using these three steps, and relevant economic projections, is described in further detail in Appendix D.

Different likelihoods are set for different employers depending on their nature and circumstances: in broad terms, a higher likelihood will apply due to one or more of the following:

- the Fund believes the employer poses a greater funding risk than other employers,
- the employer does not have tax-raising powers;
- the employer does not have a guarantor or other sufficient security backing its funding position; and/or
- the employer is likely to cease participation in the Fund in the short or medium term.

The Fund reserves the right to use a different likelihood of achieving target than is specified in the table in section 3.3 for any employer, to take into account its specific circumstances.

Note (f) (Regular Reviews)

Such reviews may be triggered by significant events including but not limited to: significant reductions in payroll, altered employer circumstances, Government restructuring affecting the employer's business, or failure to pay contributions or arrange appropriate security as required by the Administering Authority.

The result of a review may be to require increased contributions (by strengthening the actuarial assumptions adopted and/or moving to monetary levels of deficit recovery contributions), and/or an increased level of security or guarantee.

Note (g) (New Academy conversions)

At the time of writing, the Fund's policies on academies' funding issues are as follows:

i. The new academy will be regarded as a separate employer in its own right and will not be pooled with other employers in the Fund. The only exception is where the academy is part of a Multi Academy Trust (MAT) in which case the academy's figures will be calculated as below but can be combined, for the purpose of setting contribution rates, with those of the other academies in the MAT;

ii. The new academy's past service liabilities on conversion will be calculated based on its active Fund members on the day before conversion. For the avoidance of doubt, these liabilities will include all past service of those members, but will exclude the liabilities relating to any ex-employees of the school who have deferred or pensioner status;

iii. The new academy will be allocated an initial asset share from the ceding council's assets in the Fund. This asset share will be calculated using the estimated funding position of the ceding council at the date of academy conversion. The share will be based on the active members' funding level, having first allocated assets in the council's share to fully fund deferred and pensioner members. The assets allocated to the academy will be limited if necessary so that its initial funding level is subject to a maximum of 100%. The asset allocation will be based on market conditions and the academy's active Fund membership on the day prior to conversion;

iv. The new academy will pay contributions initially linked to the ceding Council's contribution rate;

v. At the next formal actuarial valuation, the new academy's calculated contribution rate will be based on the time horizon and likelihood of achieving funding target outlined for Academies in the table in Section 3.3 above;

vi. It is possible for an academy to leave one MAT and join another. If this occurs, all active, deferred and pensioner members of the academy transfer to the new MAT.

The Fund's policies on academies are subject to change in the light of any amendments to MHCLG and/or DfE guidance (or removal of the formal guarantee currently provided to academies by the DfE). Any changes will be notified to academies, and will be reflected in a subsequent version of this FSS. In particular, policies (iv) and (v) above will be reconsidered at each valuation.

Note (h) (New Admission Bodies)

With effect from 1 October 2012, the LGPS 2012 Miscellaneous Regulations introduced mandatory new requirements for all Admission Bodies brought into the Fund from that date. Under these Regulations, all new Admission Bodies will be required to provide some form of security, such as a guarantee from the letting employer, an indemnity or a bond. The security is required to cover some or all of the following:

- the strain cost of any redundancy early retirements resulting from the premature termination of the contract;
- allowance for the risk of asset underperformance;
- allowance for the risk of a greater than expected rise in liabilities;
- allowance for the possible non-payment of employer and member contributions to the Fund; and/or
- the current deficit.

Transferee Admission Bodies: For all TABs, the security must be to the satisfaction of the Administering Authority as well as the letting employer, and will be reassessed on a regular basis. See also Note (i) below.

Community Admission Bodies: The Administering Authority will only consider requests from CABs (or other similar bodies, such as section 75 NHS partnerships) to join the Fund if they are sponsored by a Scheduled Body with tax raising powers, who also guarantee their liabilities.

The above approaches reduce the risk, to other employers in the Fund, of potentially having to pick up any shortfall in respect of Admission Bodies ceasing with an unpaid deficit.

Note (i) (New Transferee Admission Bodies)

A new TAB usually joins the Fund as a result of the letting/outsourcing of some services from an existing employer (normally a Scheduled Body such as a council or academy) to another organisation (a "contractor"). This involves the TUPE transfer of some staff from the letting employer to the contractor. Consequently, for the duration of the contract, the contractor is a new participating employer in the Fund so that the transferring employees maintain their eligibility for LGPS membership. At the end of the contract the employees revert to the letting employer or to a replacement contractor.

Ordinarily, the TAB would be set up in the Fund as a new employer with responsibility for all the accrued benefits of the transferring employees; in this case, the contractor would usually be assigned an initial asset allocation equal to the past service liability value of the employees' Fund benefits. The quid pro quo is that the contractor is then expected to ensure that its share of the Fund is also fully funded at the end of the contract: see Note (j).

Risk Sharing

Employers which "outsource" have flexibility in the way that they can deal with the pension risk potentially taken on by the contractor. In particular there are three different routes that such employers may wish to adopt. Clearly as the risk ultimately resides with the employer letting the contract, it is for them to agree the appropriate route with the contractor:

i) Pooling

Under this option the contractor is pooled with the letting employer. In this case, the contractor pays the same rate as the letting employer, which may be under a stabilisation approach.

ii) Letting employer retains pre-contract risks

Under this option the letting employer would retain responsibility for assets and liabilities in respect of service accrued prior to the contract commencement date. The contractor would be responsible for the future liabilities that accrue in respect of transferred staff. The contractor's contribution rate could vary from one valuation to the next. It would be liable for any deficit (or entitled to any surplus) at the end of the contract term in respect of assets and liabilities attributable to service accrued during the contract term.

iii) Fixed contribution rate agreed

Under this option the contractor pays a fixed contribution rate throughout its participation in the Fund and on cessation does not pay any exit debt or receive an exit credit. In other words, the pensions risks "pass through" to the letting employer.

The Administering Authority is willing to administer any of the above options as long as the approach is documented in the Admission Agreement as well as the transfer agreement.

Alternatively, letting employers and Transferee Admission Bodies may operate any of the above options by entering into a separate Side Agreement. The Administering Authority would not necessarily be a party to this side agreement, but may treat the Admission Agreement as if it incorporates the side agreement terms where this is permitted by legislation or alternatively agreed by all parties.

Any risk sharing agreement should ensure that some element of risk transfers to the contractor where it relates to their decisions and it is unfair to burden the letting employer with that risk. For example the contractor should typically be responsible for pension costs that arise from:

- above average pay increases, including the effect in respect of service prior to contract commencement even if the letting employer takes on responsibility for the latter under (ii) above; and
- redundancy and early retirement decisions.

Note (j) (Admission Bodies Ceasing)

Notwithstanding the provisions of the Admission Agreement, the Administering Authority may consider any of the following as triggers for the cessation of an admission agreement with any type of body:

- Last active member ceasing participation in the Fund (NB recent LGPS Regulation changes mean that the Administering Authority has the discretion to defer taking action for up to three years, so that if the employer acquires one or more active Fund members during that period then cessation is not triggered. The current Fund policy is that this is left as a discretion and may or may not be applied in any given case);
- The insolvency, winding up or liquidation of the Admission Body;
- Any breach by the Admission Body of any of its obligations under the Agreement that they have failed to remedy to the satisfaction of the Fund;
- A failure by the Admission Body to pay any sums due to the Fund within the period required by the Fund; or

- The failure by the Admission Body to renew or adjust the level of the bond or indemnity, or to confirm an appropriate alternative guarantor, as required by the Fund.

On cessation, the Administering Authority will instruct the Fund actuary to carry out a cessation valuation to determine whether there is any deficit or surplus. Where there is a deficit, payment of this amount in full would normally be sought from the Admission Body; where there is a surplus, following the LGPS (Amendment) Regulations 2018 which came into effect on 14th May 2018, this will normally result in an exit credit payment to the Admission Body. If a risk-sharing agreement has been put in place (please see note (i) above) no cessation debt or exit credit may be payable, depending on the terms of the agreement.

As discussed in Section 2.7, the LGPS benefit structure from 1 April 2014 is currently under review following the Government's loss of the right to appeal the McCloud and other similar court cases. The Fund has considered how it will reflect the current uncertainty regarding the outcome of this judgement in its approach to cessation valuations. For cessation valuations that are carried out before any changes to the LGPS benefit structure (from 1 April 2014) are confirmed, the Fund's policy is that the actuary will apply a 1% uplift to the ceasing employer's total cessation liability, as an estimate of the possible impact of resulting benefit changes.

The Fund Actuary charges a fee for carrying out an employer's cessation valuation, and there will be other Fund administration expenses associated with the cessation, both of which the Fund may recharge to the employer. For the purposes of the cessation valuation, this fee will be treated as an expense incurred by the employer and will be deducted from the employer's cessation surplus or added to the employer's cessation deficit, as appropriate. This process improves administrative efficiency as it reduces the number of transactions required to be made between the employer and the Fund following an employer's cessation.

For non-Transferee Admission Bodies whose participation is voluntarily ended either by themselves or the Fund, or where a cessation event has been triggered, the Administering Authority must look to protect the interests of other ongoing employers. The actuary will therefore adopt an approach which, to the extent reasonably practicable, protects the other employers from the likelihood of any material loss emerging in future:

(a) Where a guarantor does not exist then, in order to protect other employers in the Fund, the cessation liabilities and final surplus/deficit will normally be calculated using a "gilts exit basis", which is more prudent than the ongoing participation basis. This has no allowance for potential future investment outperformance above gilt yields, and has added allowance for future improvements in life expectancy. This could give rise to significant cessation debts being required.

(b) Where there is a guarantor for future deficits and contributions, the details of the guarantee will be considered prior to the cessation valuation being carried out. In some cases the guarantor is simply guarantor of last resort and therefore the cessation valuation will be carried out consistently with the approach taken had there been no guarantor in place. Alternatively, where the guarantor is not simply guarantor of last resort, the cessation may be calculated using the ongoing participation basis as described in Appendix E;

(c) Again, depending on the nature of the guarantee, it may be possible to simply transfer the former Admission Body's liabilities and assets to the guarantor, without needing to crystallise any deficit or surplus. This approach may be adopted where the employer cannot pay the contributions due, and this is within the terms of the guarantee.

Under (a) and (c), any shortfall would usually be levied on the departing Admission Body as a single lump sum payment. If this is not possible then the Fund may spread the payment subject to there being some security in place for the employer such as a bond indemnity or guarantee.

In the event that the Fund is not able to recover the required payment in full, then the unpaid amounts fall to be shared amongst all of the other employers in the Fund. This may require an immediate revision to the Rates and Adjustments Certificate affecting other employers in the Fund, or instead be reflected in the contribution rates set at the next formal valuation following the cessation date.

As an alternative, where the ceasing Admission Body is continuing in business, the Fund at its absolute discretion reserves the right to enter into an agreement with the ceasing Admission Body. Under this agreement the Fund would accept an appropriate alternative security to be held against any deficit on the gilts exit basis, and would carry out the cessation valuation on the ongoing participation basis: Secondary contributions would be derived from this cessation debt. This approach would be monitored as part of each formal valuation and secondary contributions would be reassessed as required. The Admission Body may terminate the agreement only via payment of the outstanding debt assessed on the gilts exit basis. Furthermore, the Fund reserves the right to revert to the "gilts exit basis" and seek immediate payment of any funding shortfall identified. The Administering Authority may need to seek legal advice in such cases, as the Admission Body would have no contributing members.

3.4 Pooled contributions

From time to time, with the advice of the Actuary, the Administering Authority may set up pools for employers with similar or complementary characteristics. This will always be in line with its broader funding strategy. The current pools in place within the Fund are as follows:

- Schools generally are also pooled with their funding Council. However there may be exceptions for specialist or independent schools.
- Smaller Transferee Admission Bodies may be pooled with the letting employer, provided all parties (particularly the letting employer) agree.
- Town and Parish Councils Pre and Post 2001 Pools are generally pooled as a way of sharing experience and smoothing out the effects of costly but relatively rare events such as ill-health retirements or deaths in service.

The intention of the pool is to minimise contribution rate volatility which would otherwise occur when members join, leave, take early retirement, receive pay rises markedly different from expectations, etc. Such events can cause large changes in contribution rates for very small employers in particular, unless these are smoothed out for instance by pooling across a number of employers.

It is recognised that pooling can result in cross subsidies from one employer to another over time. This can arise from the different membership profiles of the different employers within a pool and from different experience. Over longer time periods, it would be expected that the experience will even out between employers and that each employer, will on average, pay a fair level of contributions. The pools will be reviewed at each valuation to determine if the membership remains appropriate.

On the other hand it should be noted that the employers in the pool will still have their own individual funding positions tracked by the Actuary. This may show that if they were a stand-alone employer then some employers would be much better funded, and others much more poorly funded, than the pool average. This therefore means that if any given employer was funding on a stand-alone basis, as opposed to being in the pool, then its contribution rate could be much higher or lower than the pool contribution rate.

It should also be noted that, if an employer is considering ceasing from the Fund, its required contributions would be based on its own funding position (rather than the pool average), and the cessation terms would also apply: this would mean potentially very different (and in particular possibly much higher) contributions would be required from the employer in that situation.

Those employers which have been pooled are identified in the Rates and Adjustments Certificate.

Employers who are permitted to enter (or remain in) a pool at the 2019 valuation will not normally be advised of their individual contribution rate unless agreed by the Administering Authority.

Community Admission Bodies that are deemed by the Administering Authority to have closed to new entrants are not usually permitted to participate in a pool.

3.5 Additional flexibility in return for added security

The Administering Authority may permit greater flexibility to the employer's contributions if the employer provides added security to the satisfaction of the Administering Authority.

Such flexibility includes a reduced rate of contribution, an extended time horizon, or permission to join a pool with another body (e.g. the Local Authority).

Such security may include, but is not limited to, a suitable bond, a legally-binding guarantee from an appropriate third party, or security over an employer asset of sufficient value.

The degree of flexibility given may take into account factors such as:

- the extent of the employer's deficit;
- the amount and quality of the security offered;
- the employer's financial security and business plan; and
- whether the admission agreement is likely to be open or closed to new entrants.

3.6 Non-ill health early retirement costs

It is assumed that members' benefits are payable from the earliest age that the employee could retire without incurring a reduction to their benefit (and without requiring their employer's consent to retire). (**NB** the relevant age may be different for different periods of service, following the benefit changes from April 2008 and April 2014). Employers are required to pay additional contributions ('strain') wherever an employee retires before attaining this age. The actuary's funding basis makes no allowance for premature retirement except on grounds of ill-health.

Strain costs would ordinarily be paid in full in the year in which the strain is incurred.

3.7 Ill health early retirement costs

In the event of a member's early retirement on the grounds of ill-health, a funding strain will usually arise, which can be very large. Such strains are currently met by each employer, although individual employers may elect to take external insurance (see 3.8 below).

To mitigate this risk, individual employers may elect to use external insurance, which has been made available by the Fund (see 3.8 below).

3.8 Ill health risk management

The Fund recognises ill health early retirement costs can have a significant impact on an employer's funding and contribution rate, which could ultimately jeopardise their continued operation.

The Administering Authority is currently reviewing its policy on managing ill health early retirement costs.

If an employer provides satisfactory evidence to the Administering Authority of a current external insurance policy covering ill health early retirement strains, then:

- the employer's contribution to the Fund each year is reduced by the amount of that year's insurance premium, so that the total contribution is unchanged, and
- there is no need for monitoring of ill health allowances versus experience (as typically required for some employers).

When an active member retires on ill health early retirement the claim amount will be paid directly from the insurer to the insured employer. This amount should then be paid to the Fund to allow the employer's asset share to be credited.

The employer must keep the Administering Authority notified of any changes in the insurance policy's coverage or premium terms, or if the policy is ceased.

3.9 Employers with no remaining active members

In general an employer ceasing in the Fund, due to the departure of the last active member, will pay a cessation debt or receive an exit credit on an appropriate basis (see 3.3, Note (j)) and consequently have no further obligation to the Fund. Thereafter it is expected that one of three situations will eventually arise:

a) The employer's asset share runs out before all its ex-employees' benefits have been paid. In this situation the other Fund employers will be required to contribute to pay all remaining benefits: this will be done by the Fund actuary apportioning the remaining liabilities on a pro-rata basis at successive formal valuations;

b) The last ex-employee or dependant dies before the employer's asset share has been fully utilised. In this situation the remaining assets would be apportioned pro-rata by the Fund's actuary to the other Fund employers.

c) In exceptional circumstances the Fund may permit an employer with no remaining active members and a cessation deficit to continue contributing to the Fund. This would require the provision of a suitable security or guarantee, as well as a written ongoing commitment to fund the remainder of the employer's obligations over an appropriate period. The Fund would reserve the right to invoke the cessation requirements in the future, however. The Administering Authority may need to seek legal advice in such cases, as the employer would have no contributing members.

3.10 Policies on bulk transfers

The Fund has a separate written policy which covers bulk transfer payments into, out of and within the Fund. Each case will be treated on its own merits, but in general:

- The Fund will not pay bulk transfers greater than the lesser of (a) the asset share of the transferring employer in the Fund, and (b) the value of the past service liabilities of the transferring members;
- The Fund will not grant added benefits to members bringing in entitlements from another Fund unless the asset transfer is sufficient to meet the added liabilities; and
- The Fund may permit shortfalls to arise on bulk transfers if the Fund employer has suitable strength of covenant and commits to meeting that shortfall in an appropriate period. This may require the employer's Fund contributions to increase between valuations.

3.11 Policies on intra-fund transfers

Where members transfer between employers within the Derbyshire Pension Fund, the assets that will be transferred from the transferring employer's asset share to the receiving employer's asset share will depend on the circumstances of the member(s)' transfer. In particular:

- Note (g) to Table 3.3 explains how assets will be allocated to new academy schools when members transfer from the ceding employer at the academy conversion date;
- Note (i) to Table 3.3 explains how assets will be allocated to new transferee admission bodies when services are outsourced from a scheduled body;
- If an individual member changes his/her employment from one employer in the Fund to another employer in the Fund, assets equal to the individual's cash equivalent transfer value (using standard Club factors) will be transferred from the transferring employer to the receiving employer;
- For all other cases, the Fund's default approach will be to transfer assets equal to the transferring liabilities (assessed on the Fund's ongoing funding basis) from the transferring employer's asset share to the receiving employer's asset share, unless there are specific circumstances which would merit an alternative approach.

4 Funding strategy and links to investment strategy

4.1 What is the Fund's investment strategy?

The Fund has built up assets over the years, and continues to receive contribution and other income. All of this must be invested in a suitable manner, which is the investment strategy.

Investment strategy is set by the Administering Authority, after consultation with the employers and after taking investment advice. The precise mix, manager make up and target returns are set out in the Investment Strategy Statement, which is available to members and employers.

The investment strategy is set for the long-term, but is reviewed from time to time. Normally a full review is carried out as part of each actuarial valuation, and is kept under review annually between actuarial valuations to ensure that it remains appropriate to the Fund's liability profile.

The same investment strategy is currently followed for all employers.

4.2 What is the link between funding strategy and investment strategy?

The Fund must 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). To the extent that investment returns or income fall short, then higher cash contributions are required from employers, and vice versa

Therefore, the funding and investment strategies are inextricably linked.

4.3 How does the funding strategy reflect the Fund's investment strategy?

In the opinion of the Fund actuary, the current funding policy is consistent with the current investment strategy of the Fund. The actuary's assumptions for future investment returns (described further in Appendix E) are based on the current benchmark investment strategy of the Fund. The future investment return assumptions underlying each of the fund's three funding bases include a margin for prudence, and are therefore also considered to be consistent with the requirement to take a "prudent longer-term view" of the funding of liabilities as required by the UK Government (see Appendix A1).

In the short term – such as the three yearly assessments at formal valuations – there is the scope for considerable volatility in asset values. However, the actuary takes a long term view when assessing employer contribution rates and the contribution rate setting methodology takes into account this potential variability.

The Fund does not hold a contingency reserve to protect it against the volatility of equity investments.

4.4 Does the Fund monitor its overall funding position?

The Administering Authority will monitor the relative funding position, i.e. changes in the relationship between asset values and the liabilities value, on an annual basis. It will report this to the regular Pensions Committee meetings, and also to employers through newsletters and Employers Forums.

5 Statutory reporting and comparison to other LGPS Funds

5.1 Purpose

Under Section 13(4)(c) of the Public Service Pensions Act 2013 ("Section 13"), the Government Actuary's Department must, following each triennial actuarial valuation, report to MHCLG on each of the LGPS Funds in England & Wales. This report will cover whether, for each Fund, the rate of employer contributions are set at an appropriate level to ensure both the solvency and the long term cost efficiency of the Fund.

This additional MHCLG oversight may have an impact on the strategy for setting contribution rates at future valuations.

5.2 Solvency

For the purposes of Section 13, the rate of employer contributions shall be deemed to have been set at an appropriate level to ensure solvency if:

(a) the rate of employer contributions is set to target a funding level for the Fund of 100%, over an appropriate time period and using appropriate actuarial assumptions (where appropriateness is considered in both absolute and relative terms in comparison with other funds); and either

(b) employers collectively have the financial capacity to increase employer contributions, and/or the Fund is able to realise contingent assets should future circumstances require, in order to continue to target a funding level of 100%; or

(c) there is an appropriate plan in place should there be, or if there is expected in future to be, a material reduction in the capacity of fund employers to increase contributions as might be needed.

5.3 Long Term Cost Efficiency

The rate of employer contributions shall be deemed to have been set at an appropriate level to ensure long term cost efficiency if:

i. the rate of employer contributions is sufficient to make provision for the cost of current benefit accrual,

ii. an appropriate adjustment is made to that rate for any surplus or deficit in the Fund.

In assessing whether the above condition is met, MHCLG may have regard to various absolute and relative considerations. A relative consideration is primarily concerned with comparing LGPS pension funds with other LGPS pension funds. An absolute consideration is primarily concerned with comparing Funds with a given objective benchmark.

Relative considerations include:

1. the implied deficit recovery period; and
2. the investment return required to achieve full funding after 20 years.

Absolute considerations include:

1. the extent to which the contributions payable are sufficient to cover the cost of current benefit accrual and the interest cost on any deficit;
2. how the required investment return under “relative considerations” above compares to the estimated future return being targeted by the Fund’s current investment strategy;
3. the extent to which contributions actually paid have been in line with the expected contributions based on the extant rates and adjustment certificate; and
4. the extent to which any new deficit recovery plan can be directly reconciled with, and can be demonstrated to be a continuation of, any previous deficit recovery plan, after allowing for actual Fund experience.

MHCLG may assess and compare these metrics on a suitable standardised market-related basis, for example where the local funds’ actuarial bases do not make comparisons straightforward.

Appendix A – Regulatory framework

A1 Why does the Fund need an FSS?

The Ministry of Housing, Communities and Local Government (MHCLG) has stated that the purpose of the FSS is:

"to establish a ***clear and transparent fund-specific strategy*** *which will identify how employers' pension liabilities are best met going forward;*

to support the regulatory framework to maintain ***as nearly constant employer contribution rates as possible****; and*

to take a ***prudent longer-term view*** *of funding those liabilities."*

These objectives are desirable individually, but may be mutually conflicting.

The requirement to maintain and publish a FSS is contained in LGPS Regulations which are updated from time to time. In publishing the FSS the Administering Authority has to have regard to any guidance published by Chartered Institute of Public Finance and Accountancy (CIPFA) (most recently in 2016) and to its Statement of Investment Principles / Investment Strategy Statement.

This is the framework within which the Fund's actuary carries out triennial valuations to set employers' contributions and provides recommendations to the Administering Authority when other funding decisions are required, such as when employers join or leave the Fund. The FSS applies to all employers participating in the Fund.

A2 Does the Administering Authority consult anyone on the FSS?

Yes. This is required by LGPS Regulations. It is covered in more detail by the most recent CIPFA guidance, which states that the FSS must first be subject to "consultation with such persons as the authority considers appropriate", and should include "a meaningful dialogue at officer and elected member level with council tax raising authorities and with corresponding representatives of other participating employers".

In practice, for the Fund, the consultation process for this FSS was as follows:

a) A draft version of the FSS was published on Derbyshire County Council's website (with a link from the Fund's website) on 6th January 2020, with comments invited from all of the Fund's stakeholders; a link to the website was issued to all participating employers and members of the Derbyshire Pension Board;

b) Comments were requested by 2nd February 2020;

c) Following the end of the consultation period the FSS was updated where required and then published, in [DATE].

A3 How is the FSS published?

The FSS is made available through the following routes:

Published on the website

A copy sent by e-mail to each participating employer in the Fund;

A copy sent by e-mail to the members of the Derbyshire Pension Board.

A link to the FSS is included in the annual report and accounts of the Fund;

A copy sent by email to the Fund's independent investment adviser;

Copies made available on request.

A4 How often is the FSS reviewed?

The FSS is reviewed in detail at least every three years as part of the triennial valuation (which may move to every four years in future – see Section 2.8). This version is expected to remain unaltered until it is consulted upon as part of the formal process for the next valuation.

It is possible that (usually slight) amendments may be needed within the three year period. These would be needed to reflect any regulatory changes, or alterations to the way the Fund operates (e.g. to accommodate a new class of employer). Any such amendments would be consulted upon as appropriate:

- trivial amendments would be simply notified at the next round of employer communications,
- amendments affecting only one class of employer would be consulted with those employers,
- other more significant amendments would be subject to full consultation.

In any event, changes to the FSS would need agreement by the Pensions and Investments Committee and would be included in the relevant Committee Meeting minutes.

A5 How does the FSS fit into other Fund documents?

The FSS is a summary of the Fund's approach to funding liabilities. It is not an exhaustive statement of policy on all issues, for example there are a number of separate statements published by the Fund including the Investment Strategy Statement, Admissions, Cessations and Bulk Transfers policies, Governance Strategy and Communications Strategy. In addition, the Fund publishes an Annual Report and Accounts with up to date information on the Fund.

These documents can be found on the Fund's website: www.derbyshirepensionfund.org.uk

Appendix B – Responsibilities of key parties

The efficient and effective operation of the Fund needs various parties to each play their part.

B1 The Administering Authority should:-

1. operate the Fund as per the LGPS Regulations;
2. effectively manage any potential conflicts of interest arising from its dual role as Administering Authority and a Fund employer;
3. collect employer and employee contributions, and investment income and other amounts due to the Fund;
4. ensure that cash is available to meet benefit payments as and when they fall due;
5. pay from the Fund the relevant benefits and entitlements that are due;
6. invest surplus monies (i.e. contributions and other income which are not immediately needed to pay benefits) in accordance with the Fund's Investment Strategy Statement (ISS) and LGPS Regulations;
7. communicate appropriately with employers so that they fully understand their obligations to the Fund;
8. take appropriate measures to safeguard the Fund against the consequences of employer default;
9. manage the valuation process in consultation with the Fund's actuary;
10. provide data and information as required by the Government Actuary's Department to carry out their statutory obligations (see Section 5);
11. prepare and maintain a FSS and a ISS, after consultation;
12. notify the Fund's actuary of material changes which could affect funding (this is covered in a separate agreement with the actuary); and
13. monitor all aspects of the fund's performance and funding and amend the FSS and ISS as necessary and appropriate.

B2 The Individual Employer should:-

1. deduct contributions from employees' pay correctly;
2. pay all contributions, including their own as determined by the actuary, promptly by the due date;
3. have a policy and exercise discretions within the regulatory framework;
4. make additional contributions in accordance with agreed arrangements in respect of, for example, augmentation of scheme benefits, early retirement strain; and
5. notify the Administering Authority promptly of all changes to its circumstances, prospects or membership, which could affect future funding.

B3 The Fund Actuary should:-

1. prepare valuations, including the setting of employers' contribution rates. This will involve agreeing assumptions with the Administering Authority, having regard to the FSS and LGPS Regulations, and targeting each employer's solvency appropriately;
2. provide data and information as required by the Government Actuary's Department to carry out their statutory obligations (see Section 5);
3. provide advice relating to new employers in the Fund, including the level and type of bonds or other forms of security (and the monitoring of these);

4. prepare advice and calculations in connection with bulk transfers and individual benefit-related matters;
5. assist the Administering Authority in considering possible changes to employer contributions between formal valuations, where circumstances suggest this may be necessary;
6. advise on the termination of employers' participation in the Fund; and
7. fully reflect actuarial professional guidance and requirements in the advice given to the Administering Authority.

B4 Other parties:-

1. investment advisers (either internal or external) should ensure the Fund's ISS remains appropriate, and consistent with this FSS;
2. investment managers, custodians and bankers should all play their part in the effective investment (and dis-investment) of Fund assets, in line with the ISS;
3. auditors should comply with their auditing standards, ensure Fund compliance with all requirements, monitor and advise on fraud detection, and sign off annual reports and financial statements as required;
4. governance advisers may be appointed to advise the Administering Authority on efficient processes and working methods in managing the Fund;
5. legal advisers (either internal or external) should ensure the Fund's operation and management remains fully compliant with all regulations and broader local government requirements, including the Administering Authority's own procedures;
6. MHCLG (assisted by the Government Actuary's Department) and the Scheme Advisory Board, should work with LGPS Funds to meet Section 13 requirements.

Appendix C – Key risks and controls

C1 Types of risk

The Administering Authority has an active risk management programme in place. The measures that it has in place to control key risks are summarised below under the following headings:

financial;

demographic;

regulatory; and

governance.

C2 Financial risks

Risk	Summary of Control Mechanisms
Fund assets fail to deliver returns in line with the anticipated returns underpinning the valuation of liabilities and contribution rates over the long-term.	Only anticipate long-term returns on a relatively prudent basis to reduce risk of under-performing. Assets invested on the basis of specialist advice, in a suitably diversified manner across asset classes, geographies, managers, etc. Analyse progress at three yearly valuations for all employers. Inter-valuation roll-forward of liabilities between valuations at whole Fund level.
Inappropriate long-term investment strategy.	Overall investment strategy options considered as an integral part of the funding strategy. Used asset liability modelling to measure 4 key outcomes. Chosen option considered to provide the best balance.
Active investment manager under-performance relative to benchmark.	Quarterly investment monitoring analyses market performance and active managers relative to their index benchmark.
Pay and price inflation significantly more than anticipated.	The focus of the actuarial valuation process is on real returns on assets, net of price and pay increases. Inter-valuation monitoring, as above, gives early warning. Some investment in bonds also helps to mitigate this risk. Employers pay for their own salary awards and should be mindful of the geared effect on pension liabilities of any bias in pensionable pay rises towards longer-serving employees.

Risk	Summary of Control Mechanisms
Effect of possible increase in employer's contribution rate on service delivery and admission/scheduled bodies	An explicit stabilisation mechanism has been agreed as part of the funding strategy. Other measures are also in place to limit sudden increases in contributions.
Orphaned employers give rise to added costs for the Fund	The Fund seeks a cessation debt (or security/guarantor) to minimise the risk of this happening in the future. If it occurs, the Actuary calculates the added cost spread pro-rata among all employers – (see 3.9).
Effect of possible asset underperformance as a result of climate change	Climate change risk is monitored via the Fund's risk register. The impact of climate change on long term funding has been modelled and considered as part of the formal 2019 actuarial valuation.

C3 Demographic risks

Risk	Summary of Control Mechanisms
Pensioners living longer, thus increasing cost to Fund.	Set mortality assumptions with some allowance for future increases in life expectancy. The Fund Actuary has direct access to the experience of over 50 LGPS funds which allows early identification of changes in life expectancy that might in turn affect the assumptions underpinning the valuation.
Maturing Fund – i.e. proportion of actively contributing employees declines relative to retired employees.	Continue to monitor at each valuation, consider seeking monetary amounts rather than % of pay and consider alternative investment strategies.
Deteriorating patterns of early retirements	Employers are charged the extra cost of non ill-health retirements following each individual decision. Employer ill health retirement experience is monitored as part of each formal actuarial valuation, and insurance is an option.
Reductions in payroll causing insufficient deficit recovery payments	In many cases this may not be sufficient cause for concern, and will in effect be caught at the next formal valuation. However, there are protections where there is concern, as follows:

Risk	Summary of Control Mechanisms
	Employers in the stabilisation mechanism may be brought out of that mechanism to permit appropriate contribution increases (see Note (b) to 3.3). For other employers, review of contributions is permitted in general between valuations (see Note (f) to 3.3) and may require a move in deficit contributions from a percentage of payroll to fixed monetary amounts.

C4 Regulatory risks

Risk	Summary of Control Mechanisms
Changes to national pension requirements and/or HMRC rules e.g. changes arising from public sector pensions reform.	The Administering Authority considers all consultation papers issued by the Government and comments where appropriate. The Administering Authority is monitoring the progress on the McCloud court case and will consider an interim valuation or other appropriate action once more information is known. The government's long term preferred solution to GMP indexation and equalisation - conversion of GMPs to scheme benefits - was built into the 2019 valuation.
Time, cost and/or reputational risks associated with any MHCLG intervention triggered by the Section 13 analysis (see Section 5).	Take advice from Fund Actuary on position of Fund as at prior valuation, and consideration of proposed valuation approach relative to anticipated Section 13 analysis.
Changes by Government to particular employer participation in LGPS Funds, leading to impacts on funding and/or investment strategies.	The Administering Authority considers all consultation papers issued by the Government and comments where appropriate. Take advice from Fund Actuary on impact of changes on the Fund and amend strategy as appropriate.

C5 Governance risks

Risk	Summary of Control Mechanisms
Administering Authority unaware of structural changes in an employer's membership (e.g. large fall in employee members, large number of retirements) or not advised of an employer closing to new entrants.	The Administering Authority has a close relationship with employing bodies and communicates required standards e.g. for submission of data. The Actuary may revise the rates and Adjustments certificate to increase an employer's contributions between triennial valuations Deficit contributions may be expressed as monetary amounts.
Actuarial or investment advice is not sought, or is not heeded, or proves to be insufficient in some way	The Administering Authority maintains close contact with its specialist advisers. Advice is delivered via formal meetings involving Elected Members, and recorded appropriately. Actuarial advice is subject to professional requirements such as peer review.
Administering Authority failing to commission the Fund Actuary to carry out a termination valuation for a departing Admission Body.	The Administering Authority requires employers with Best Value contractors to inform it of forthcoming changes. Community Admission Bodies' memberships are monitored and, if active membership decreases, steps will be taken to minimise the risk of the employer leaving behind an unpaid debt if it were to exit.
An employer ceasing to exist with insufficient funding or adequacy of a bond.	The Administering Authority believes that it would normally be too late to address the position if it was left to the time of departure. The risk is mitigated by: Seeking a funding guarantee from another scheme employer, or external body, where-ever possible (see Notes (h) and (j) to 3.3). Alerting the prospective employer to its obligations and encouraging it to take independent actuarial advice. Vetting prospective employers before admission. Where permitted under the regulations requiring a bond to protect the Fund from various risks. Requiring new Community Admission Bodies to have a guarantor.

Risk	Summary of Control Mechanisms
	Reviewing bond or guarantor arrangements at regular intervals (see Note (f) to 3.3). Reviewing contributions well ahead of cessation if thought appropriate (see Note (a) to 3.3).
An employer ceasing to exist resulting in an exit credit being payable	The Administering Authority regularly monitors admission bodies coming up to cessation. The Administering Authority invests in liquid assets to ensure that exit credits can be paid when required.

Appendix D – The calculation of Employer contributions

In Section 2 there was a broad description of the way in which contribution rates are calculated. This Appendix considers these calculations in much more detail.

As discussed in Section 2, the actuary calculates the required contribution rate for each employer using a three-step process:

- Calculate the funding target for that employer, i.e. the estimated amount of assets it should hold in order to be able to pay all its members' benefits. See Appendix E for more details of what assumptions we make to determine that funding target;
- Determine the time horizon over which the employer should aim to achieve that funding target. See the table in 3.3 and Note (c) for more details;
- Calculate the employer contribution rate such that it has at least a given likelihood of achieving that funding target over that time horizon, allowing for various possible economic outcomes over that time horizon. See the table in 3.3 Note (e) for more details.

The calculations involve actuarial assumptions about future experience, and these are described in detail in Appendix E.

D1 What is the difference between calculations across the whole Fund and calculations for an individual employer?

Employer contributions are normally made up of two elements:

a) the estimated cost of ongoing benefits being accrued, referred to as the "Primary contribution rate" (see D2 below); plus

b) an adjustment for the difference between the Primary rate above, and the actual contribution the employer needs to pay, referred to as the "Secondary contribution rate" (see D3 below).

The contribution rate for each employer is measured as above, appropriate for each employer's assets, liabilities and membership. The whole Fund position, including that used in reporting to MHCLG (see section 5), is calculated in effect as the sum of all the individual employer rates. MHCLG currently only regulates at whole Fund level, without monitoring individual employer positions.

D2 How is the Primary contribution rate calculated?

The Primary element of the employer contribution rate is calculated with the aim that these contributions will meet benefit payments in respect of members' **future** service in the Fund. This is based upon the cost (in excess of members' contributions) of the benefits which employee members earn from their service each year.

The Primary rate is calculated separately for all the employers, although employers within a pool will pay the contribution rate applicable to the pool as a whole. The Primary rate is calculated such that it is projected to:

1. meet the required funding target for all future years' accrual of benefits*, excluding any accrued assets,
2. within the determined time horizon (see note 3.3 Note (c) for further details),
3. with a sufficiently high likelihood, as set by the Fund's strategy for the category of employer (see 3.3 Note (e) for further details).

* The projection is for the current active membership where the employer no longer admits new entrants, or additionally allows for new entrants where this is appropriate.

The projections are carried out using an economic modeller (the “Economic Scenario Service”) developed by the Fund’s actuary Hymans Robertson: this allows for a wide range of outcomes as regards key factors such as asset returns (based on the Fund’s investment strategy), inflation, and bond yields. Further information about this model is included in Appendix E. The measured contributions are calculated such that the proportion of outcomes meeting the employer’s funding target (at the end of the time horizon) is equal to the required likelihood.

The approach includes expenses of administration to the extent that they are borne by the Fund, and includes allowances for benefits payable on death in service and on ill health retirement.

D3 How is the Secondary contribution rate calculated?

The Fund aims for the employer to have assets sufficient to meet 100% of its accrued liabilities at the end of its funding time horizon based on the employer’s funding target assumptions (see Appendix E).

The Secondary rate is calculated as the balance over and above the Primary rate, such that the total contribution rate is projected to:

1. meet the required funding target relating to combined past and future service benefit accrual, including accrued asset share (see D5 below)
2. at the end of the determined time horizon (see 3.3 Note (c) for further details)
3. with a sufficiently high likelihood, as set by the Fund’s strategy for the category of employer (see 3.3 Note (e) for further details).

The projections are carried out using an economic modeller (the “Economic Scenario Service”) developed by the Fund Actuary Hymans Robertson: this allows for a wide range of outcomes as regards key factors such as asset returns (based on the Fund’s investment strategy), inflation, and bond yields. Further information about this model is included in Appendix E. The measured contributions are calculated such that the proportion of outcomes meeting the employer’s funding target (at the end of the time horizon) is equal to the required likelihood.

D4 What affects a given employer’s valuation results?

The results of these calculations for a given individual employer will be affected by:

1. past contributions relative to the cost of accruals of benefits;
2. different liability profiles of employers (e.g. mix of members by age, gender, service vs. salary);
3. the effect of any differences in the funding target, i.e. the valuation basis used to value the employer’s liabilities at the end of the time horizon;
4. any different time horizons;
5. the difference between actual and assumed rises in pensionable pay;
6. the difference between actual and assumed increases to pensions in payment and deferred pensions;
7. the difference between actual and assumed retirements on grounds of ill-health from active status;
8. the difference between actual and assumed amounts of pension ceasing on death;

9. the additional costs of any non ill-health retirements relative to any extra payments made; and/or

10. differences in the required likelihood of achieving the funding target.

D5 How is each employer's asset share calculated?

The Administering Authority does not operate separate bank accounts or investment mandates for each employer. Therefore it cannot account for each employer's assets separately. Instead, the Fund Actuary must apportion the assets of the whole Fund between the individual employers. There are broadly two ways to do this:

1) A technique known as "analysis of surplus" in which the Fund actuary estimates the surplus/deficit of an employer at the current valuation date by analysing movements in the surplus/deficit from the previous actuarial valuation date. The estimated surplus/deficit is compared to the employer's liability value to calculate the employer's asset value. The actuary will quantify the impact of investment, membership and other experience to analyse the movement in the surplus/deficit. This technique makes a number of simplifying assumptions due to the unavailability of certain items of information. This leads to a balancing, or miscellaneous, item in the analysis of surplus, which is split between employers in proportion to their asset shares.

2) A 'cashflow approach' in which an employer's assets are tracked over time allowing for cashflows paid in (contributions, transfers in etc.), cashflows paid out (benefit payments, transfers out etc.) and investment returns on the employer's assets.

Until 31 March 2016 the Administering Authority used the 'analysis of surplus' approach to apportion the Fund's assets between individual employers.

Since then, the Fund has adopted a cashflow approach for tracking individual employer assets.

The Fund Actuary tracks employer assets on an annual basis. Starting with each employer's assets from the previous year end, cashflows paid in/out and investment returns achieved on the Fund's assets over the course of the year are added to calculate an asset value at the year end. The approach has some simplifying assumptions in that all cashflows and investment returns are assumed to have occurred uniformly over the course of the year. As the actual timing of cashflows and investment returns are not allowed for, the sum of all employers' asset values will deviate from the whole fund asset total over time (the deviation is expected to be minor). The difference is split between employers in proportion to their asset shares at each triennial valuation.

D6 How does the Fund adjust employer asset shares when an individual member moves from one employer in the Fund to another?

Under the cashflow approach for tracking employer asset shares, the Fund has allowed for any individual members transferring from one employer in the Fund to another, via the transfer of a sum from the ceding employer's asset share to the receiving employer's asset share. This sum is equal to the member's Cash Equivalent Transfer Value (CETV) as advised by the Fund's administrators.

Appendix E – Actuarial assumptions

E1 What are the actuarial assumptions used to calculate employer contribution rates?

These are expectations of future experience used to place a value on future benefit payments ("the liabilities") and future asset values. Assumptions are made about the amount of benefit payable to members (the financial assumptions) and the likelihood or timing of payments (the demographic assumptions). For example, financial assumptions include investment returns, salary growth and pension increases; demographic assumptions include life expectancy, probabilities of ill-health early retirement, and proportions of member deaths giving rise to dependants' benefits.

Changes in assumptions will affect the funding target and required contribution rate. However, different assumptions will not of course affect the actual benefits payable by the Fund in future.

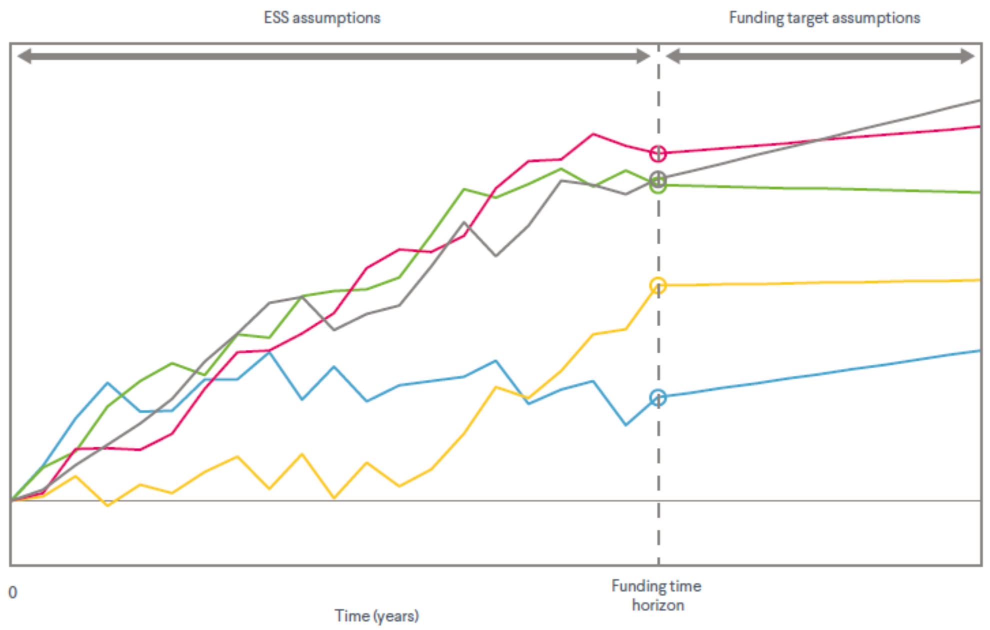
For instance, taking pension increases (which follow price inflation) as an example:

- a higher assumed rate of increase will give higher assumed costs and hence higher calculated contributions;
- the actual cost of pensions will vary by the rate of actual price inflation, not what had been assumed in the past.

The actuary's approach to calculating employer contribution rates involves the projection of each employer's future benefit payments, contributions and investment returns into the future under 5,000 possible economic scenarios. Future inflation (and therefore benefit payments) and investment returns for each asset class (and therefore employer asset values) are variables in the projections. By projecting the evolution of an employer's assets and benefit payments 5,000 times, a contribution rate can be set that results in a sufficient number of these future projections (determined by the employer's required likelihood) being successful at the end of the employer's time horizon. In this context, a successful contribution rate is one which results in the employer having met its funding target at the end of the time horizon.

Setting employer contribution rates therefore requires two types of assumptions to be made about the future:

1. Assumptions to project the employer's assets, benefits and cashflows to the end of the funding time horizon. For this purpose the actuary uses Hymans Robertson's proprietary stochastic economic model - the Economic Scenario Service ("ESS").
2. Assumptions to assess whether, for a given projection, the funding target is satisfied at the end of the time horizon. For this purpose, the Fund has two different funding bases – see E3 below.



Details on the ESS assumptions and funding target assumptions are included below (in E2 and E3 respectively).

E2 What assumptions are used in the ESS?

The actuary uses Hymans Robertson's ESS model to project a range of possible outcomes for the future behaviour of asset returns and economic variables. With this type of modelling, there is no single figure for an assumption about future inflation or investment returns. Instead, there is a range of what future inflation or returns will be which leads to likelihoods of the assumption being higher or lower than a certain value.

The ESS is a complex model to reflect the interactions and correlations between different asset classes and wider economic variables. The table below shows the calibration of the model as at 31 March 2019. All returns are shown net of fees and are the annualised total returns over 5, 10 and 20 years, except for the yields which refer to the simulated yields at that time horizon.

		Annualised total returns									
		Cash	Index Linked Gilts (medium)	Fixed Interest Gilts (medium)	UK Equity	Overseas Equity	Property	A rated corporate bonds (medium)	RPI inflation expectation	17 year real govt bond yield	17 year govt bond yield
5 years	16th %'ile	-0.4%	-2.3%	-2.9%	-4.1%	-4.1%	-3.5%	-2.7%	1.9%	-2.5%	0.8%
	50th %'ile	0.7%	0.5%	0.3%	4.0%	4.1%	2.4%	0.8%	3.3%	-1.7%	2.1%
	84th %'ile	2.0%	3.3%	3.4%	12.7%	12.5%	8.8%	4.0%	4.9%	-0.8%	3.6%
10 years	16th %'ile	-0.2%	-1.8%	-1.3%	-1.5%	-1.4%	-1.5%	-0.9%	1.9%	-2.0%	1.2%
	50th %'ile	1.3%	0.0%	0.2%	4.6%	4.7%	3.1%	0.8%	3.3%	-0.8%	2.8%
	84th %'ile	2.9%	1.9%	1.7%	10.9%	10.8%	7.8%	2.5%	4.9%	0.4%	4.8%
20 years	16th %'ile	0.7%	-1.1%	0.1%	1.2%	1.3%	0.6%	0.7%	2.0%	-0.7%	2.2%
	50th %'ile	2.4%	0.3%	1.0%	5.7%	5.8%	4.3%	1.9%	3.2%	0.8%	4.0%
	84th %'ile	4.5%	2.0%	2.0%	10.3%	10.4%	8.1%	3.0%	4.7%	2.2%	6.3%
	Volatility (Disp) (1 yr)	1%	7%	10%	17%	17%	14%	11%	1%		

E3 What assumptions are used in the funding target?

At the end of an employer's funding time horizon, an assessment will be made – for each of the 5,000 projections – of how the assets held compare to the value of assets required to meet the future benefit payments (the funding target). Valuing the cost of future benefits requires the actuary to make assumptions about the following financial factors:

- Benefit increases and CARE revaluation
- Salary growth
- Investment returns (the "discount rate")

Each of the 5,000 projections represents a different prevailing economic environment at the end of the funding time horizon and so a single, fixed value for each assumption is unlikely to be appropriate for every projection. For example, a high assumed future investment return (discount rate) would not be prudent in projections with a weak outlook for economic growth. Therefore, instead of using a fixed value for each assumption, the actuary references economic indicators to ensure the assumptions remain appropriate for the prevailing economic environment in each projection. The economic indicators the actuary uses are: future inflation expectations and the prevailing risk free rate of return (the yield on long term UK government bonds is used as a proxy for this rate).

The Fund has two funding bases which will apply to different employers depending on their type. Each funding basis has a different assumption for future investment returns when determining the employer's funding target.

Funding basis	**Ongoing participation basis**	**Low risk exit basis**
Employer type	All employers except closed Community Admission Bodies	Community Admission Bodies that are closed to new entrants
Investment return assumption underlying the employer's funding target (at the end of its time horizon)	Long term government bond yields plus an asset outperformance assumption (AOA) of 1.8% p.a.	Long term government bond yields with no allowance for outperformance on the Fund's assets

E4 What other assumptions apply?

The following assumptions are those of the most significance used in both the projection of the assets, benefits and cashflows and in the funding target.

a) Salary growth

After discussion with Fund officers, the salary increase assumption at the 2019 valuation has been set to be a blended rate combined of:

1. 2% p.a. until 31 March 2022, followed by
2. the retail prices index (RPI) thereafter.

This gives a single "blended" assumption of CPI plus 0.7%. This is a change from the previous valuation, which assumed a blended assumption of CPI plus 0.6%. The change has led to a reduction in the funding target (all other things being equal).

b) Pension increases

Since 2011 the consumer prices index (CPI), rather than RPI, has been the basis for increases to public sector pensions in deferment and in payment. Note that the basis of such increases is set by the Government, and is not under the control of the Fund or any employers.

At this valuation, we have continued to assume that CPI is 1.0% per annum lower than RPI. (Note that the reduction is applied in a geometric, not arithmetic, basis).

c) Life expectancy

The demographic assumptions are intended to be best estimates of future experience in the Fund based on past experience of LGPS funds which participate in Club Vita, the longevity analytics service used by the Fund, and endorsed by the actuary.

The longevity assumptions that have been adopted at this valuation are a bespoke set of “VitaCurves”, produced by the Club Vita’s detailed analysis, which are specifically tailored to fit the membership profile of the Fund. These curves are based on the data provided by the Fund for the purposes of this valuation.

Allowance has been made in the ongoing valuation basis for future improvements in line with the 2018 version of the Continuous Mortality Investigation model published by the Actuarial Profession and a 1.25% per annum minimum underpin to future reductions in mortality rates. This updated allowance for future improvements will generally result in lower life expectancy assumptions and hence a reduced funding target (all other things being equal).

d) General

The same financial assumptions are adopted for most employers (on the ongoing participation basis identified above), in deriving the funding target underpinning the Primary and Secondary rates: as described in (3.3), these calculated figures are translated in different ways into employer contributions, depending on the employer’s circumstances.

The demographic assumptions, in particular the life expectancy assumption, in effect vary by type of member and so reflect the different membership profiles of employers.

Appendix F – Glossary

Administering Authority	The council with statutory responsibility for running the Fund, in effect the Fund's "trustees".
Admission Bodies	Employers where there is an Admission Agreement setting out the employer's obligations. These can be Community Admission Bodies or Transferee Admission Bodies. For more details (see 2.3).
Covenant	The assessed financial strength of the employer. A strong covenant indicates a greater ability (and willingness) to pay for pension obligations in the long run. A weaker covenant means that it appears that the employer may have difficulties meeting its pension obligations in full over the longer term.
Designating Employer	Employers such as town and parish councils that are able to participate in the LGPS via resolution. These employers can designate which of their employees are eligible to join the Fund.
Employer	An individual participating body in the Fund, which employs (or used to employ) **members** of the Fund. Normally the assets and **funding target** values for each employer are individually tracked, together with its **Primary rate** at each **valuation**.
Funding basis	The combined set of assumptions made by the actuary, regarding the future, to calculate the value of the funding target at the end of the employer's time horizon. The main assumptions will relate to the level of future investment returns, salary growth, pension increases and longevity. More prudent assumptions will give a higher funding target, whereas more optimistic assumptions will give a lower funding target.
Gilt	A UK Government bond, ie a promise by the Government to pay interest and capital as per the terms of that particular gilt, in return for an initial payment of capital by the purchaser. Gilts can be "fixed interest", where the interest payments are level throughout the gilt's term, or "index-linked" where the interest payments vary each year in line with a specified index (usually RPI). Gilts can be bought as assets by the Fund, but are also used in funding as an objective measure of a risk-free rate of return.
Guarantee / guarantor	A formal promise by a third party (the guarantor) that it will meet any pension obligations not met by a specified employer. The presence of a guarantor will mean, for instance, that the Fund can consider the employer's **covenant** to be as strong as its guarantor's.
Letting employer	An employer which outsources or transfers a part of its services and workforce to another employer (usually a contractor). The contractor will pay towards the LGPS benefits accrued by the transferring members, but ultimately the obligation to pay for these benefits will revert to the letting employer. A letting employer will usually be a local authority, but can sometimes be another type of employer such as an Academy.

LGPS	The Local Government Pension Scheme, a public sector pension arrangement put in place via Government Regulations, for workers in local government. These Regulations also dictate eligibility (particularly for Scheduled Bodies), members' contribution rates, benefit calculations and certain governance requirements. The LGPS is divided into 100 Funds which map the UK. Each LGPS Fund is autonomous to the extent not dictated by Regulations, e.g. regarding investment strategy, employer contributions and choice of advisers.
Maturity	A general term to describe a Fund (or an employer's position within a Fund) where the members are closer to retirement (or more of them already retired) and the investment time horizon is shorter. This has implications for investment strategy and, consequently, funding strategy.
Members	The individuals who have built up (and may still be building up) entitlement in the Fund. They are divided into actives (current employee members), deferreds (ex-employees who have not yet retired) and pensioners (ex-employees who have now retired, and dependants of deceased ex-employees).
Primary contribution rate	The employer contribution rate required to pay for ongoing accrual of active members' benefits (including an allowance for administrative expenses). See Appendix D for further details.
Profile	The profile of an employer's membership or liability reflects various measurements of that employer's **members**, ie current and former employees. This includes: the proportions which are active, deferred or pensioner; the average ages of each category; the varying salary or pension levels; the lengths of service of active members vs their salary levels, etc. A membership (or liability) profile might be measured for its **maturity** also.
Rates and Adjustments Certificate	A formal document required by the LGPS Regulations, which must be updated at the conclusion of the formal **valuation**. This is completed by the actuary and confirms the contributions to be paid by each employer (or pool of employers) in the Fund for the period until the next valuation is completed.
Scheduled Bodies	Types of employer explicitly defined in the LGPS Regulations, whose employees must be offered membership of their local LGPS Fund. These include Councils, colleges, universities, academies, police and fire authorities etc, other than employees who have entitlement to a different public sector pension scheme (e.g. teachers, police and fire officers, university lecturers).
Secondary contribution rate	The difference between the employer's actual and **Primary contribution rates**. See Appendix D for further details.
Stabilisation	Any method used to smooth out changes in employer contributions from one year to the next. This is very broadly required by the LGPS Regulations, but in practice is particularly employed for large stable employers in the Fund.
Valuation	A risk management exercise to review the **Primary and Secondary contribution rates**, and other statutory information for a Fund, and usually individual employers too.

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Agenda Item No. 5 (e)

DERBYSHIRE COUNTY COUNCIL

PENSIONS and INVESTMENTS COMMITTEE

4 March 2020

Report of the Director of Finance & ICT

TREASURY MANAGEMENT STRATEGY

1 Purpose of the Report

To seek approval for the adoption of a Treasury Management Strategy for Derbyshire Pension Fund for 2020/21.

2 Information and Analysis

Derbyshire Pension Fund (the Fund) traditionally adopts the same Treasury Management Strategy as the County Council which places security of capital and liquidity ahead of investment return. Council approved the Treasury Management Strategy (the Strategy) attached at Appendix 1 on 5 February 2020. The Strategy covers both the County Council and the Pension Fund, and references to the County Council also apply to the Pension Fund unless separately identified. To the extent the Strategy covers matters specific to the County Council only, these have been removed for clarity as highlighted.

For operational purposes, the Fund predominantly uses the same list of counterparties as the County Council and has agreed a joint limit with the Council for each counterparty. Due to the Fund's differing liquidity requirements, it does not invest in Pooled Funds (other than Money Market Funds) for treasury management purposes.

The Fund's current benchmark allocation to cash is 2% (about £100m at current asset values). The Fund generally needs to retain a higher level of instant access funds than the County Council. A major buying opportunity in the market could require immediate access to significant sums of cash for investment. Equally, it may be desirable to hold a higher defensive cash allocation because market valuations have become stretched or cash is held in order to meet future commitment drawdowns. The Fund's actual cash allocation at 31 January 2020 was 6.4%, equating to £334m. Future commitments at 31 January 2020 totaled around £310m.

The recommended Strategy for 2020/21 includes the following requirements and comments:

- The Council's objective when investing money is to strike a balance between risk and return, minimising the risk of incurring losses from defaults and the risk of receiving unsuitably low investment income;
- The Pension Fund uses cash for liquidity rather than investment return;
- The maximum amount and duration by counterparty should be as per Table 2b on page 4 of the Strategy. This also notes that the Pension Fund may receive employer contributions in advance, and this could substantially increase the cash balances of the Pension Fund, pending a suitable investment opportunity. It is, therefore, requested that the limits on Banks are increased from £10m to £30m and on Local Authorities are increased from £20m to £30m with effect from 1 April 2020; and
- Investments should be limited by type in accordance with Table 3b on page 8 of the Strategy.

Borrowings are permitted only in exceptional circumstances and in accordance with the LGPS (Management and Investment of Funds) Regulations 2016. Borrowings are limited to the maximum amount required to meet the Fund's obligations, and should not exceed 90 days in duration.

3 Other 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, prevention of crime and disorder considerations.

4 Officer's Recommendation

That the Treasury Management Strategy attached to this report be approved.

PETER HANDFORD

Director of Finance & ICT

Appendix 1

Treasury Management Strategy Report 2020-21

1) Introduction

Treasury Management is the management of the Council's cash flows, borrowing and investments and the associated risks. The Council has borrowed and invested substantial sums of money and is therefore exposed to financial risks, including the loss of invested funds and the revenue effect of changing interest rates. The successful identification, monitoring and control of financial risk is therefore central to the Council's prudent financial management.

Treasury Risk Management at the Council is conducted within the framework of the Chartered Institute of Public Finance and Accountancy's *"Treasury Management in the Public Services: Code of Practice 2017 Edition"* (the CIPFA Code) which requires the Council to approve a Treasury Management Strategy before the start of each financial year. This report fulfils the Council's legal obligation under the Local Government Act 2003 to have regard to the CIPFA Code.

Investments held for service purposes or for commercial profit are considered in the Investment Strategy.

2) External Context

Economic background: The UK's progress negotiating its exit from the European Union (EU), together with its future trading arrangements, will continue to be a major influence on the Council's Treasury Management Strategy for 2020-21.

UK Consumer Price Inflation (CPI) was 1.7% year on year in September 2019, unchanged from the previous month. Core inflation, which excludes the more volatile components, rose to 1.7%, from 1.5% in August 2019. The most recent labour market data for the three months to August 2019 showed the unemployment rate was 3.9%, whilst the employment rate was 75.9%, just below recent record-breaking highs. The headline 3-month average annual growth rate for pay was 3.8% in August 2019, as wages continued to rise steadily. In real terms, after adjusting for inflation, pay growth increased by 1.9%.

UK GDP growth rose by 0.3% in the third quarter of 2019, from a fall of 0.2% in the previous three months. The annual rate fell further below its trend rate, to 1.0%, from 1.2%. Looking ahead, the Bank of England's Monetary Policy Report (formerly the Quarterly Inflation Report) forecasts economic growth to pick up during 2020 as EU exit-related uncertainties dissipate. It is expected that this will provide a boost to business investment, helping GDP reach a forecast 1.6% in Q4 2020, 1.8% in Q4 2021 and 2.1% in Q4 2022.

The Bank of England maintained its Bank Rate at 0.75% in November 2019, following a 7-2 vote by the Monetary Policy Committee (MPC). Despite keeping rates on hold, MPC members did confirm that if EU exit uncertainty extends for longer than predicted, or global growth fails to recover, they are prepared to cut interest rates as required. Moreover, the downward revisions to some of the growth projections in the Monetary Policy Report suggest the MPC may now be less convinced of the need to increase rates, even if there is an EU exit deal.

Growth in Europe remains soft, driven by a weakening German economy, which saw GDP fall by -0.1% in Q2, with a technical recession expected in Q3 (two successive quarters of negative growth). Euro zone inflation was 0.8% year on year in September 2019, well below the European Central Bank's (ECB) target of 'below, but close to 2%', leading to the ECB holding the main interest rate at 0%, whilst cutting the deposit facility rate to -0.5%. In addition to maintaining interest rates at ultra-low levels, the ECB announced it would recommence its quantitative easing programme from November 2019.

In the US, the Federal Reserve began easing monetary policy again in 2019, as a pre-emptive strike against slowing global and US economic growth, on the back of the ongoing trade war with China. At its last meeting the Fed cut rates to range from 1.50-1.75%. Financial markets expect further loosening of monetary policy in 2020. US GDP annualised growth slowed in Q3 to 1.9%, from 2.0% in Q2.

Credit outlook: Credit conditions for larger UK banks have remained relatively benign over the past year. The UK's departure from the EU was delayed three times in 2019 and whilst there remains some concern over a global economic slowdown, this has yet to manifest in any credit issues for banks. Meanwhile, the post financial crisis banking reform is now largely complete, with the new ring-fenced banks embedded in the market (the big four UK banking groups divided their retail and investment banking divisions into separate legal entities under ring-fencing legislation).

Looking forward, the potential for a "no-deal" EU exit and/or a global recession remain the major risks facing banks and building societies in 2020-21 and a cautious approach to bank deposits remains advisable.

Interest rate forecast: The Council's Treasury Management Adviser, Arlingclose, is forecasting that Bank Rate will remain at 0.75% until the end of 2022. The risks to this forecast are deemed to be significantly weighted to the downside, particularly the need for greater clarity on EU exit and the continuing global economic slowdown. The Bank of England, having previously indicated that interest rates may need to rise if an EU exit agreement was reached, stated in its November 2019 Monetary Policy Report and in its Bank Rate decision (7-2 vote to hold rates), that the MPC now believes this is less likely, even in the event of a deal.

Gilt yields have risen but remain at low levels and only some very modest upward movement from current levels are expected, based on Arlingclose's interest rate projections. The central case is for 10-year and 20-year gilt yields to rise to around 1.00% and 1.40%, respectively, over the time horizon, with broadly balanced risks to both the upside and downside. However, short-term volatility arising from both economic and political events over the period is a near certainty.

A more detailed economic and interest rate forecast provided by Arlingclose is attached at Appendix A.

For the purpose of setting the budget, it has been assumed that new Treasury Management investments will be made at an average rate of 1% over 1 year, and that new long-term loans will be borrowed at an average rate of 3.21% based upon an average term of 18 years.

3) Local Context

[Wording removed – not relevant to Pension Fund]

4) Borrowing Strategy

[Wording removed – not relevant to Pension Fund]

5) Investment Strategy

[Wording removed – not relevant to Pension Fund]

Objectives: The CIPFA Code requires the Council to invest its funds prudently, and to have regard to the security and liquidity of its investments before seeking the highest rate of return, or yield. The Council's objective when investing money is to strike an appropriate balance between risk and return, minimising the risk of incurring losses from defaults and the risk of receiving unsuitably low investment income. Where balances are expected to be invested for more than one year, the Council will aim to achieve a total return that is equal or higher than the prevailing rate of inflation, in order to maintain the spending power of the sum invested.

Negative interest rates: If the UK enters into a recession in 2020-21, there is a small chance that the Bank of England could set its Bank Rate at or below zero, which is likely to feed through to negative interest rates on all low risk, short-term investment options. This situation already exists in many other European countries. In this event, security will be measured as receiving the contractually agreed amount at maturity, even though this may be less than the amount originally invested.

Strategy: [Wording removed – not relevant to Pension Fund]

Business models: Under the IFRS 9 standard, the accounting for certain investments depends on the Council's "business model" for managing them. The Council aims to achieve value from its internally managed treasury investments by a business model of collecting the contractual cash flows and therefore, where other criteria are also met, these investments will continue to be accounted for at amortised cost.

Approved counterparties: The Council may invest its surplus funds with any of the counterparty types in Tables 2a and 2b below, subject to the cash limits (per counterparty) and the time limits shown.

Table 2a: Approved investment counterparties and limits (County Fund)

[Table removed – not relevant to Pension Fund]

Table 2b: Approved investment counterparties and limits (Pension Fund)

The Pension Fund uses cash for liquidity rather than investment return, hence it has shorter duration and fewer counterparty options than the County Fund.

A report is expected to be taken to the March 2020 Cabinet meeting to seek approval for the Council paying pension contributions to the Pension Fund in advance. If approval is granted, these advanced pension contributions will substantially increase the cash balances of the Pension Fund, pending a suitable investment opportunity. It is therefore requested that the limits on Banks are increased from £10m to £30m and on Local Authorities are increased from £20m to £30m with effect from 1 April 2020.

Credit Rating	Banks Unsecured	Banks Secured	Government
UK Govt	n/a	n/a	£ Unlimited 13 months
AAA	£30m 13 months	£30m 13 months	£30m 13 months
AA+	£30m 13 months	£30m 13 months	£30m 13 months
AA	£30m 13 months	£30m 13 months	£30m 13 months
AA-	£30m 13 months	£30m 13 months	£30m 13 months
A+	£30m 13 months	£30m 13 months	£30m 13 months
A	£30m 13 months	£30m 13 months	£30m 13 months

A-	£30m 6 months	£30m 13 months	£30m 13 months
Money Market Funds (MMF)	£30m per fund		

Operational bank accounts: The Council may incur operational exposures, for example though current accounts, collection accounts and merchant acquiring services, to any UK bank with credit ratings no lower than BBB- and with assets greater than £25 billion. The Bank of England has stated that in the event of failure, banks with assets greater than £25 billion are more likely to be bailed-in than made insolvent, increasing the chance of the Council maintaining operational continuity. These are not classed as investments, but are still subject to the risk of a bank bail-in, and balances will therefore be kept below:

County Fund: [Wording removed – not relevant to Pension Fund]

D2N2: [Wording removed – not relevant to Pension Fund]

Derbyshire Developments Ltd: [Wording removed – not relevant to Pension Fund]

Pension Fund: It is requested the existing additional overnight limit of £20m is increased to £30m.

Pension Fund Currency Accounts US$/€: It is requested that additional limits of US$1,000,000 and €1,000,000 are maintained for lower value currency receipts. Any receipts above these sums will be cleared to Nil by the following working day.

Pension Fund Custodian Accounts:

Northern Trust (In House Account): It is requested the existing limit of £30m is maintained.

Northern Trust (Wellington): It is requested the existing limit of 5% of assets under management (approximately £30m US$ equivalent) is maintained.

BNP Paribas: It is requested a limit of £1m for the previous custodian is retained for receipt of outstanding tax claim rebates.

BNY Mellon: It is requested a limit of £1m for the former custodian is retained for the receipt of outstanding tax claim rebates.

LGPS Central:

The Derbyshire Pension Fund joined the Local Government Pension Scheme (LGPS) Central Pool from 1 April 2018.

DCC Pension Fund re LGPS Central Trading Account: It is requested that a cash limit of 0.5% of assets under management (approximately £25m) is approved.

Credit rating: Investment limits are set by reference to the lowest published long-term credit rating from a selection of external rating agencies. Where available, the credit rating relevant to the specific investment or class of investment is used, otherwise the counterparty credit rating is used. However, investment decisions are never made solely based on credit ratings, and all other relevant factors including external advice will be taken into account.

Banks unsecured: Accounts, deposits, certificates of deposit and senior unsecured bonds with banks and building societies, other than multilateral development banks. These investments are subject to the risk of credit loss via a bail-in should the regulator determine that the bank is failing or likely to fail. See below for arrangements relating to operational bank accounts.

Banks secured: Covered bonds, reverse repurchase agreements and other collateralised arrangements with banks and building societies. These investments are secured on the bank's assets, which limits the potential losses in the unlikely event of insolvency and means that they are exempt from bail-in. Where there is no investment-specific credit rating but the collateral upon which the investment is secured has a credit rating, the higher of the collateral credit rating and the counterparty credit rating will be used to determine cash and time limits. The combined secured and unsecured investments in any one bank will not exceed the cash limit for secured investments.

Government: Loans, bonds and bills issued or guaranteed by national governments, regional and local authorities and multilateral development banks. These investments are not subject to bail-in and there is generally a lower risk of insolvency, although they are not zero risk. Investments with the UK Central Government may be made in unlimited amounts for up to 50 years.

Corporates: [Wording removed – not relevant to Pension Fund]

Registered providers: [Wording removed – not relevant to Pension Fund]

Non-Corporates: [Wording removed – not relevant to Pension Fund]

Pooled funds: [Wording removed – not relevant to Pension Fund]

Real Estate Investment Trusts (REITs): [Wording removed – not relevant to Pension Fund]

Risk assessment and credit ratings: Credit ratings are obtained and monitored by the Council's Treasury Management Adviser, who will notify changes in ratings as they occur. Where an entity has its credit rating downgraded so that it fails to meet the minimum approved investment criteria then:

- no new investments will be made;
- any existing investments that can be recalled or sold at no cost will be; and
- full consideration will be given to the recall or sale of all other existing investments with the affected counterparty.

Where a credit rating agency announces that a credit rating is on review for possible downgrade (also known as "rating watch negative" or "credit watch negative") so that it may fall below the minimum approved rating criteria, then only investments that can be withdrawn on the next working day will be made with that organisation until the outcome of the review is announced. This policy will not apply to negative outlooks, which indicate a long-term direction of travel rather than an imminent change of rating.

Other information on the security of investments: The Council understands that credit ratings are good, but not perfect, predictors of investment default. Full regard will therefore be given to other available information on the credit quality of the organisations in which it invests, including credit default swap prices, financial statements, information on potential government support, reports in the quality financial press and analysis and advice from the Council's Treasury Management Adviser. No investments will be made with an organisation if there are substantive doubts about its credit quality, even though it may otherwise meet the above criteria.

When deteriorating financial market conditions affect the creditworthiness of all organisations, as happened in 2008 and 2011, this is not generally reflected in credit ratings, but can be seen in other market measures. In these circumstances, the Council will restrict its investments to those organisations of higher credit quality and reduce the maximum duration of its investments to maintain the required level of security. The extent of these restrictions will be in line with prevailing financial market conditions. If these restrictions mean that insufficient commercial organisations of high credit quality are available to invest the Council's cash balances, then the surplus will be deposited with the UK Government via the Debt Management Office or invested in Government Treasury Bills for example, or with other Local Authorities. This will cause a reduction in the level of investment income earned, but will protect the principal sum invested.

Investment limits (County Fund): [Wording removed – not relevant to Pension Fund]

Investment limits (Pension Fund): The Pension Fund's cash balance is forecast to be £299.559m at 31 March 2020. In order to minimise risk in the case of a single default, the maximum that will be lent to any one organisation (other than the UK Government, Northern Trust (custodian) or Lloyds Bank operational bank accounts as previously detailed) will be £30m and capitalised interest. A group of banks under the same ownership will be treated as a single organisation for limit purposes. Limits will also be placed on fund managers, investments in brokers' nominee accounts, foreign countries and industry sectors as below. Investments in pooled funds and multilateral development banks do not count against the limit for any single foreign country, since the risk is diversified over many countries.

Liquidity management: The Council uses purpose-built cash flow forecasting software and Excel spreadsheets to determine the maximum period for which funds may prudently be committed. The forecast is compiled on a prudent basis to minimise the risk of the Council being forced to borrow on unfavourable terms to meet its financial commitments. Limits on long-term investments are set by reference to the Council's medium-term financial plan and cash flow forecast.

Table 3a: Investment limits (County Fund)

[Table removed – not relevant to Pension Fund]

Table 3b: Investment limits (Pension Fund)

	Cash limit
Any single organisation or group of organisations under the same ownership, except the UK Central Government	£30m each
UK Central Government	Unlimited
Operational Bank Account	£30m additional
Any group of pooled funds under the same management	£30m per manager
Negotiable instruments held in a broker's nominee account	£200m per broker
Foreign countries	£30m per country
Unsecured investments with building societies	£100m in total
Money market funds	£300m in total

6) Treasury Management Indicators

The Council measures and manages its exposures to Treasury Management risks using the following indicators.

Security: The Council has adopted a voluntary measure of its exposure to credit risk by monitoring the value-weighted average credit rating of its investment portfolio. This is calculated by applying a score to each investment (AAA=1, AA+=2, etc.) and taking the arithmetic average, weighted by the size of each investment. Unrated investments are assigned a score based on their perceived risk.

Credit risk indicator	Target
Portfolio average credit rating: County Fund Pension Fund	 A A

Liquidity (Option 1): – The Council has adopted a voluntary measure of its exposure to liquidity risk by monitoring the amount of cash available to meet unexpected payments within a rolling three month period, without additional borrowing.

Liquidity risk indicator	Target
County Fund: Total cash available within 1 month	 £10m
Pension Fund: Total cash available within 1 month	 £60m

Liquidity (Option 2) –:

[Wording removed – not relevant to Pension Fund]

The Pension fund must use Liquidity risk indicator (Option 1) as it does not borrow.

Maturity structure of borrowing: [Wording removed – not relevant to Pension Fund]

Principal sums invested for periods longer than a year: [Wording removed – not relevant to Pension Fund

Related Matters

The CIPFA Code requires the Council to include the following in its Treasury Management Strategy.

Financial Derivatives: Local authorities have previously made use of financial derivatives embedded into loans and investments, both to reduce interest rate risk (e.g. interest rate collars and forward deals) and to reduce costs or increase income at the expense of greater risk (e.g. LOBO loans and callable deposits). The general power of competence in Section 1 of the Localism Act 2011 removes much of the uncertainty over local authorities' use of standalone financial derivatives (i.e. those that are not embedded into a loan or investment).

The Council will only use standalone financial derivatives (such as swaps, forwards, futures and options) where they can be clearly demonstrated to reduce the overall level of the financial risks that the Council is exposed to. Additional risks presented, such as credit exposure to derivative counterparties, will be taken into account when determining the overall level of risk. Embedded derivatives, including those present in pooled funds and forward starting transactions, will not be subject to this policy, although the risks they present will be managed in line with the overall Treasury Risk Management Strategy.

Financial derivative transactions may be arranged with any organisation that meets the approved investment criteria. The current value of any amount due from a derivative counterparty will count against the counterparty credit limit and the relevant foreign country limit.

In line with the CIPFA Code, the Council will seek external advice and will consider that advice before entering into financial derivatives to ensure that it fully understands the implications.

Markets in Financial Instruments Directive: The Council has opted up to professional client status with its providers of financial services, including advisers, banks, brokers and fund managers, allowing it access to a greater range of services but without the greater regulatory protections afforded to individuals and small companies. Given the size and range of the Council's Treasury Management activities, the Director of Finance & ICT believes this to be the most appropriate status.

Financial Implications

[Wording removed – not relevant to Pension Fund]

Other Options Considered

The CIPFA Code does not prescribe any particular treasury management strategy for local authorities to adopt. The Director of Finance & ICT, having consulted the Cabinet Member for Council Services, believes that the above strategy represents an appropriate balance between risk management and cost effectiveness. Some alternative strategies, with their financial and risk management implications, are listed below.

Alternative	Impact on income and expenditure	Impact on risk management
Invest in a narrower range of counterparties and/or for shorter times	Interest income will be lower	Lower chance of losses from credit related defaults, but any such losses may be greater
Invest in a wider range of counterparties and/or for longer times	Interest income will be higher	Increased risk of losses from credit related defaults, but any such losses may be smaller
Borrow additional sums at long-term fixed interest rates	Debt interest costs will rise; this is unlikely to be offset by higher investment income	Higher investment balance leading to a higher impact in the event of a default; however long-term interest costs may be more certain
Borrow short-term or variable loans instead of long-term fixed rates	Debt interest costs will initially be lower	Increases in debt interest costs will be broadly offset by rising investment income in the medium term, but long-term costs may be less certain
Reduce level of borrowing	Saving on debt interest is likely to exceed lost investment income	Reduced investment balance leading to a lower impact in the event of a default; however long-term interest costs may be less certain

Appendix A

[Appendix removed – not relevant to Pension Fund]

Appendix B

[Appendix removed – not relevant to Pension Fund]

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