South Tyneside Council

Local Pension Board

Date: 21st December 2021

Responsible Investment Update

(for information and discussion)

Report of the Head of Pensions

Purpose of Report

1. This report has as an attachment, a report to Pensions Committee on 30th November 2021. At this meeting the Committee agreed the Fund's first Climate Change Policy, a Net Zero Carbon target date of 2050 or sooner and interim targets on carbon emissions reductions of 30% to 35% by 2025 and 50% to 60% by 2030. In addition, it was agreed that the Fund would develop a Roadmap to achieve these targets.

2. The report has been shared with the Board to ensure it is also kept up to date on this high profile issue. Regular reports on this issue are part of the Local Pension Board work plan for the year.

Recommendation

3. The Local Pension Board is recommended

   - to note the approval of the Climate Change Policy and Net Zero targets

   - to discuss the content of this report and offer views on the approach the Fund is taking in response to Climate Change.

Contact Officer: Ian Bainbridge, Head of Pensions – Tel. 424 4112

South Tyneside Council

Pensions Committee

Date: 30th November

Climate Change Policy and Net Zero Target
(for decision)

Report of the Head of Pensions

Purpose of Report

1. The Service Plan for 2021/22 – 2023/24 includes a number of actions which related to responsible investment and climate change.

2. Two of the key actions in the Service Plan are the development of a Climate Change Policy and the establishment of a Net Zero carbon emissions target date. This report focusses on these actions.

3. The Committee is recommended

   - to approve the Climate Change Policy

   - to agree a Net Zero target commitment and interim carbon emission reduction targets

   - to note the development of a Roadmap to achieve the commitments stated in the Climate Change Policy

Contact Officer: Ian Bainbridge, Head of Pensions – Tel. 424 4112

Climate Change Policy

4. Climate change is a material financial risk to the Pension Fund. The focus and emphasis on this risk has increased substantially over the past couple of years and it is now considered appropriate to develop a standalone Climate Change Policy rather than incorporating this in the Fund's other policy documents

5. In developing this policy the Fund has undertaken a significant amount of research and worked closely with the Fund's Investment Advisor, Hymans Robertson and its Investment Managers in particular Border to Coast and Legal and General and sought the views of peers at other pension funds.

6. As this work has progressed the Committee and the Local Pension Board have received a range of presentations and reports from the Officers, Hymans Robertson and external speakers from other pension funds.

7. The result of this work is the development of the Fund's first Climate Change Policy which is attached at Appendix A.

8. The Policy sets out how the Fund is responding to the challenges posed by climate change and how this links to the Investment Strategy Statement and Responsible Investment Policy.

9. It includes actions already implemented by the Fund including the move into the Legal and General Future World funds and increased allocations to assets with a focus on climate solutions such as Infrastructure.

10. The Policy also covers the Fund's views in terms of risk management and climate risks and the approach to issues such as carbon offsetting, engagement, and potential exclusions. It reflects the progress made by the Fund's investment managers in developing their approach to climate change and how this is being implemented in terms of investment decisions and company engagement.

11. The Policy has been aligned to the Fund's Investment Beliefs, which underpin the overall approach to investment. The full range of Investment Beliefs are included in the Investment Strategy Statement which can be found in the previous report on the agenda. Those Investment Beliefs that are considered to relate to climate change are included on the front page of the Climate Change Policy.

Service Plan - Climate Change Actions

12. The Fund approved a Service Plan at its meeting in February 2021. This covered a number of actions in relation to ESG and climate change.

13. A summary of these actions is noted below

- To continue to develop the Fund's approach to ESG (Environmental, Social and Governance) issues and Responsible Investment
- The development of a standalone Climate Change Policy
- Consider the need to undertake a carbon footprint on the Fund.
- To review the measurement of transition risk and the implications of setting targets, including the potential to set a zero-carbon target
- Assessing the role of private markets in managing climate risk
- Implications of an exclusion policy if engagement is not working
- To actively engage with managers to ensure that they are appropriately addressing the climate related risks, opportunities and threats
- Prepare for the implementation of the reporting disclosure for the Taskforce on Climate Related Financial Disclosures (TCFD).

The Focus of this Report

14. Extensive reports on the progress against all of the actions, noted above, have been presented to Committee in both June and September 2021.

15. This report is specifically limited to the development of the Fund's first Climate Change Policy and sets out the rationale for the establishment of a Net Zero carbon emissions target. The report also sets out a range of other commitments, high level interim targets and the approach towards developing a Climate Action Plan or Roadmap.

Net Zero Investment Framework

16. In considering setting targets the Fund will be using the Net Zero Investment Framework established by the Institutional Investor Group on Climate Change (IIGCC). Attached at Appendix B is the Asset Owners Commitment included in the Framework to achieve net zero greenhouse gas emissions (GHG) by 2050 or sooner which has been incorporated into the Fund's own Climate Change Policy.

17. The Mission of the IIGCC “is to support and enable the investment community in driving significant and real progress by 2030 towards a net zero and resilient future. This will be achieved through capital allocation decisions, stewardship and successful engagement with companies, policy makers and fellow investors.” This does not mean that investors should set a Net Zero carbon emissions target of 2030, but that real and demonstrable progress needs to be made by 2030. We are in full support of this.

18. As part of this Framework, organisations are asked to commit to transitioning investments to achieve a Net Zero Carbon Fund by 2050, or sooner. Once this commitment is made, organisations are required to develop a Climate Action Plan or Roadmap setting out a range of objectives and interim targets, within one year of making the commitment in order to deliver against it.

Task Force for Climate Related Financial Disclosures (TCFD)

19. The TCFD is a holistic framework for the disclosure of climate-related risks and opportunities. Whilst this is currently a voluntary framework utilised to various degrees largely by corporate entities, a government consultation is expected before the end of 2021, setting out proposed regulations to make this mandatory for funds in the Local Government Pension Scheme (LGPS).

20. The TCFD will set out a range of requirements in relation to governance, strategy, scenario analysis, risk management, metrics and targets.

21. Any Climate Action Plan or Roadmap developed will need to state how progress will be measured and reported on, in line with the requirements of the TCFD, which the Fund will be required to adopt following the forthcoming government consultation.

22. For these reasons it is not appropriate to be too prescriptive over the full range of potential interim targets and metrics at this stage, as a number of these will be determined by central government through the regulations in relation to TCFD.

23. It is anticipated that LGPS funds will follow a similar timeline to the private sector for introducing TCFD reporting, which would suggest at the latest reporting on 2022/23 by December 2023. The exact timescales will not however, be known until the consultation is launched.

Carbon Foot Printing / Carbon Metrics

24. Data provided by each investment manager has been included in previous reports and presentations to the Committee. This has

summarised the position of existing managers' carbon emissions versus the benchmark or market in which they operate.

25. This information along with an explanation of the position and an update on the top three carbon emitters in each portfolio has now been included in a separate report on this agenda – Climate Change Manager Monitoring. This will now become a regular quarterly report.

26. The Fund commissioned Hymans Robertson, through their partnership with MSCI, to produce a whole Fund carbon footprint. This type of analysis and detail is still relatively new to the LGPS and the Fund was the first Hymans LGPS client to request this level of information.

27. At the training session on the 15th September 2021 Hymans Robertson presented their initial high level findings. A summary of these results was also presented to a climate change session on 25th November, ahead of the Committee meeting. A copy of final report has now been attached at Appendix C.

28. The Hymans analysis shows the Fund's carbon footprint as at March 2021 and goes back to March 2019 to provide a baseline to demonstrate how the recent strategy changes have impacted upon the carbon exposures. Further analysis was also undertaken to take the baseline back to 2010 to give a longer term perspective and to see how the Fund has decarbonised over this period.

29. As previously reported the availability of good and reliable carbon data is extremely limited. Therefore, the approach taken involved using estimates and assumptions where more accurate data was not available. In particular, the March 2010 results involved a higher level of estimates and assumptions and hence less reliance is placed upon these figures. For this reason, the March 2019 results will be used as the baseline for future carbon reduction targets as they provide a more robust position.

30. The carbon footprint work undertaken shows that the Fund has already made good progress in reducing Weighted Average Carbon Intensity (WACI) with a 15% reduction over the two year period, from 2019 to 2021. In addition, using the results calculated for March 2010 shows there has been a 29% reduction in carbon emissions from the Fund from this date through to March 2021. As at March 2021 the Fund is also 36% below the benchmark level of emissions based upon WACI.

Limitations of Carbon Metrics

31. Whilst it is encouraging to see the positive progress made to date in reducing carbon emissions there are still a number of challenges to achieving the Net Zero carbon emissions target. As mentioned above the

accuracy and coverage of data remains a concern although this will improve as industry standards and mandatory TCFD reporting are established. There are also limitations around data in fixed income and alternative assets, however, significant progress is now being made in these areas. Finally, as explained in the Policy, Scope 3 emissions are not currently included in any data and are likely to have a material impact on the overall level of carbon emissions reported. Once available Scope 3 data could easily move a low carbon company, assessed against Scope 1 and 2 into a high carbon company under Scope 3. (Note: There is a definition of Scope, 1, 2 and 3 in the Climate Change Policy, which is attached to this report)

32. It is important to recognise this is a complex and rapidly evolving issue both in terms of carbon measurement metrics and climate solutions. The Fund has a role to play in supporting efforts to address Climate Change risk but will have to adapt to developments as they arise which may well lead to changes in the approach, actions taken and targets.

Climate Assessment of Property Portfolio

33. In addition to the carbon footprint analysis the Fund has also commissioned Abrdn, the UK Commercial property manager, to undertake a complete climate assessment of our direct property holdings. Property is a unique asset in terms of its impact on climate change and the range of solutions which may be available. This report will be available in early 2022.

Setting a Net Zero Carbon Target for the Fund's Administrative Operations

34. South Tyneside Council and most if not all of the councils in the Tyne and Wear Pension Fund have made a pledge to achieve Net Zero carbon emissions in their own operations by 2030.

35. It has also recently been announced that the Leader of South Tyneside Council has signed up to the UK:100 Pledge. The Pledge seeks to set ambitious Net Zero carbon emissions targets for council operations by 2030, while striving towards net zero area wide emissions by 2045. The UK:100 is a group of local authority leaders which seek to devise and implement plans for the transition to clean energy.

36. These targets are both reasonable and ambitious for councils and the areas in which they operate.

37. In terms of the day to day administrative operations of the Pension Fund a commitment to be Net Zero by 2030, is included in the Climate Change Policy. This is in line with the ambitions set by the councils in the Fund.

Setting a Net Zero Carbon Target for the Fund's Investment Portfolio

38. It needs to be recognised however, that delivering a Net Zero carbon emissions target for the investment portfolio of pension fund, that invests globally across a wide range of sectors and different asset classes is materially more difficult than setting a target for an individual organisation.

39. The majority of developed economies have identified 2050 as their Net Zero target. A number of larger emerging economies have targets in excess of this, such as, China 2060 and India 2070. These later targets make achieving Net Zero Carbon by 2050 for a globally diversified pension fund extremely difficult.

40. As a global investor in all these markets it is believed that setting a Net Zero 2050 target is challenging and ambitious but will avoid a number of material market exposure risks that may arise from setting an earlier target. A key element of the Fund's approach will be the setting of interim targets which will ensure the objectives of managing climate risk are met.

41. As noted at the recent COP 26 Conference in Glasgow, even with the current level of global commitments the planet is currently on target for a temperature rise in excess of 2 degrees and a Net Zero date around 2100. This trajectory is clearly not appropriate and action needs to be taken, but this reflects the level of the challenge.

42. It is believed that by setting a 2050 Net Zero target we are supporting "Paris aligned" ambitions to achieve the 1.5 degrees target.

43. The general consensus in the industry is that delivering a 2050 Net Zero target, whilst maintaining an adequate level of investment return and continuing to provide capital support to well managed companies, as they decarbonise will be extremely challenging. Hymans and the Officers agree with this.

44. Another advantage of adopting a 2050 target would be the alignment with the Border to Coast Climate Change Policy. In the longer term it is anticipated that the majority of the Fund's assets will be managed by Border to Coast alongside the other partner funds and so a consistent approach would be advantageous.

45. To target anything materially shorter than 2050, does potentially impact on the fiduciary duty of the Committee to act in the best financial interests of the members and employers in the scheme.

46. Therefore, following an assessment of the risks the Officers and Hymans Robertson are proposing to the Committee that the Fund should set a Net Zero target of 2050 or sooner to align with the ambitions of the UK and

most developed Governments. This also reflects the similar targets set by Border to Coast and Legal and General along with a number of the Fund's other investment managers.

Interim Targets to Reduce Carbon Emissions

47. As 2050 or sooner is proposed as the long term Net Zero carbon emissions target, the Fund is also committing to two high level interim targets to reducing the carbon emissions (as measured by WACI) by 30% - 35% by 2025 and by 50% - 60% by 2030 based upon the 2019 baseline.

48. Given that the Fund is already 36% below the benchmark (the global investment market) in terms of carbon emissions as measured by WACI, this level of reductions in target emissions will be extremely challenging.

49. Further interim targets around exposure to fossil fuels and green revenues (revenues derived from product/services in specified low carbon technology areas) are also likely to be set, and these will be determined once the requirements of TCFD are known. The final range of interim targets will be included in the Roadmap that will be in accordance with the IIGCC Net Zero Investment Framework.

Climate Action Plan or Roadmap and Triennial Review of Targets

50. All of the commitments required under the Framework have been incorporated into the draft Climate Change Policy attached, including producing a Climate Action Plan or Roadmap to achieve these goals within the next year.

51. It is important to recognise that 2050 is the date being targeted by the global community to achieve the "Paris aligned" ambitions. The Fund will support this ambition but will also look to achieve Net Zero sooner than 2050 where this is considered possible within the Fund's fiduciary obligations.

52. It is therefore proposed that we further commit to undertake a triennial review of the long and medium term targets along with the Roadmap to ensure that they remain appropriate and challenging, given the ever changing, economic, environmental and technological environment. The review will look for opportunities to bring forward the Net Zero target where this is considered possible.

53. However, there are significant risks in attempting to decarbonise too far ahead of the economies in which the Fund invests and these could lead to poor investment decisions and ultimately lower returns which will affect the affordability of the Fund.

Other Potential Net Zero Carbon Targets

54. Whilst a 2050 target is proposed, the Committee could consider alternative dates to achieve Net Zero.

55. One option would be to go for a longer date of 2060, as it could be argued this is more realistic in terms of the current trajectory of emissions reductions. This would also align more closely with some of the world's emerging economies such as China and India, which will form a materially larger part of the global economy by 2050 to 2060. While this is an option, it has largely been discounted as not being suitably ambitious and would expose the Fund to increased climate risk.

56. Another option is a target date of 2045, which is the date set by the Environment Agency Pension Fund. This option would be viewed as making a more ambitious statement of intent to the market and the industry. The Officers and Hymans Robertson believe a target date of 2045 could be delivered alongside the Fund's existing objectives, but it would come with additional risks.

57. It should be noted that should a 2045 target be adopted there would need to be a greater focus on climate objectives. This is likely to impact upon the short or medium term investment decisions and other carbon reduction activities of the Fund and could lead to additional costs and risks to investment performance, especially in the short to medium term. However, Officers and Hymans would not at this stage propose any changes to the interim target ranges noted above.

58. If 2045 was selected as the target date, it would be on the assumption that global policymakers take additional action in order to bring forward global targets and the resulting changes can be delivered in practice to reduce carbon emissions. This therefore, adds additional risk into the commitment as neither of these can be taken for granted.

59. An earlier target would also restrict the potential for the Fund to bring forward the target date at some point in the future and increases the risk that the target date may even be put back. However, it should be recognised that this would not be expected to happen for a number of years into the future. For this reason, if a 2045 target date is selected, it may be appropriate to remove the reference to "or sooner" in the commitment.

60. Any date earlier than 2045 is considered to be unrealistic and could impact on the fiduciary duty of the Committee to act in the best financial interests of the members and employers in the scheme. It could also limit the ability of the Fund, acting as a Responsible Investor, to provide capital support to companies as they implement their decarbonisation plans, and

in turn hamper the delivery of the Net Zero targets of the economies in which the Fund invests.

Recommendations

61. The Committee is recommended

- to approve the Climate Change Policy
- to agree a Net Zero target commitment and interim carbon emission reduction targets
- to note the development of a Roadmap to achieve the commitments stated in the Climate Change Policy

Reason for Recommendation

62. To develop the Funds approach to managing ESG and Climate Change Risks.

Appendix A

Tyne and Wear Pension Fund

Climate Change Policy

November 2021

Introduction

As stated in the Fund's Corporate Governance and Responsible Investment Policy, the Committee's fiduciary duty is to act in the best interests of the Fund's beneficiaries. This requires recognition that Environment Social and Governance (ESG) issues, including climate change, can positively and negatively impact on the Fund's financial performance.

The Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016 (LGPS Investment Regulations) require the Fund to set out its approach to ESG issues within its Investment Strategy Statement (ISS). Included within the ISS are the Fund's Investment Beliefs and summarised below are the beliefs relating to Climate Change:

- Well run companies will produce superior returns for shareholders over the long term. There should be a focus on governance and engagement over disposal.
- ESG issues can represent long term financial risks to the Fund and its holdings. Climate Change is one of the most significant of these risks, reflecting the changing nature of the world we live in. The investment strategy includes approaches to addressing these issues for both actively and passively managed assets.
- Effective Oversight of Responsible Investment requires monitoring of ESG and Climate Related Metrics.
- It is not just through the shareholding in public companies but also holdings in bonds, property and private market investments that can influence and effect improved outcomes over the longer term.
- Engagement with companies on climate related issues can be effective in creating change to protect shareholder value.
- Climate change provides investment opportunities as well as risks.
- Asset owners and managers have a responsibility to ensure there is effective engagement on climate related issues.

The Pension Fund views climate change risk as a materially important factor that could significantly impact its long-term investment performance given its systemic nature and the effects it could have on global financial markets and has therefore decided to produce this policy document on its approach to climate change.

The climate change policy will assist the Fund to develop its approach towards Governance, Investment Strategy, Risk Management and Metrics and Goals.

Implications of Climate Change

Climate change refers to long-term changes to climate patterns, such as changes to temperatures or precipitation. A significant element of climate change is global warming; the long-term rise in the average temperature of the Earth's climate system. Global warming has been demonstrated to have increased significantly over recent decades. The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report concluded, *"It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas (GHG) concentrations and other anthropogenic forcings together".*

The impacts of climate change are wide ranging and include more extreme temperatures, more natural disasters (flooding, fires etc), permanent loss of land due to rising sea levels, disruption to infrastructure networks (e.g. electricity, water supply), loss of ecosystems, and a severe impact on food supplies. There are also secondary impacts, such as on migration patterns. All of these have the potential to impact on both individual investments and financial markets more generally.

In 2015 the United Nations Climate Change Conference (COP21) was held in Paris. The agreement that was reached brought most of the world's nations together to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries. The central aim of the Paris Agreement is to keep a global temperature rise this century to below 2 degrees above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees.

In order to meet the Paris Agreement goals countries will have to take significant policy action. What these policies are and how they operate will be key drivers in how climate change mitigation impacts on investments.

It is acknowledged that irrespective of the action taken to reduce global warming some climate related impacts, such as rising sea levels, are already expected to occur due the greenhouse gas emissions to date.

Governance

South Tyneside Council is the administering authority of the Tyne and Wear Pension Fund. The Council has set up a Pensions Committee to control and resolve all matters relating to the Fund. The Council has also established a Local Pension Board to assist in the areas of governance and administration.

The Pensions Committee has responsibility for the direction of policy and has access to expert advice to support any decisions taken. Responsibility for the implementation of this policy lies with the Fund's Head of Pensions. Regular monitoring reports setting out how the policy is being implemented will be presented to the Committee and to the Local Pension Board.

The Fund is required by the LGPS Investment Regulations to invest its assets through one of the LGPS investment pools. In response to this requirement, the Fund, along with ten other local government pension funds, created its own Financial Conduct Authority (FCA) regulated investment management pooling company. This is a company called Border to Coast Pensions Partnership. The Fund is currently in the process of transitioning its assets to Border to Coast. This is a process that will take a number of years to complete. Until all assets have transitioned the Fund will maintain relationships with a number of other investment managers across a range of asset classes.

The requirement to invest assets through Border to Coast does not include those assets invested passively on behalf of the Fund. These assets have been specifically excluded and are currently under management with a company called Legal and General.

Whilst all of the Fund's investment managers including Border to Coast and Legal and General invest the assets on the Fund's behalf, the responsibility for responsible investment and ensuring the appropriate consideration of ESG issues remains with the Fund. The Fund expects all its investment managers to implement this policy on its behalf across all its investments; it will monitor implementation and require reports from them at least annually in order to fulfil its obligations under the LGPS Investment Regulations.

The Fund will require all of its investment managers to explain and report upon their approach to Climate Change and to consider the Fund's approach as set out in this policy. The Fund has supported its pool company, Border to Coast, in the development of its own Climate Change Policy and endorses the approach taken. We also expect all investment managers to provide information on carbon metrics and their ongoing engagement and voting activities which support this policy.

Carbon Metrics and Decarbonisation challenges

The Fund must remain focused on its primary obligation to pay benefits to its members, including consideration of any associated risks. It is recognised that decarbonising a Pension Fund which is invested globally, across many sectors is more challenging than decarbonising an individual organisation. In order to decarbonise the planet without causing grave damage to global economies and living standards will take many years and a balanced approached is required.

The world needs to decarbonise quickly, but without causing grave economic damage and widespread poverty. Decarbonising companies in certain key sectors will take time and require capital. Those companies require support and engagement from long-term investors like the Fund. It is important to recognise that Climate Change is already happening and so investments in adaptation and resilience are also an important part of the investment universe and can present opportunities in climate solutions.

The Fund has commissioned its own carbon footprint, as explained below, to measure future carbon reduction targets against. However, as the Fund has developed its approach to carbon footprint analysis it is important to recognise the existing limitations around the carbon metrics which have been produced. Many companies are not yet fully reporting carbon emissions and hence in some cases estimates are being used based upon geography and sector level experience. As the level of reporting increases this could affect the figures reported for individual portfolios and at the total Fund level. There is also a lack of consistency in terms of the methodology in producing metrics and the use of different metrics between sectors. Changes in the approach used will have a material impact upon the figures calculated.

In addition, some asset classes, primarily quoted equities, have made more progress in developing and reporting carbon metrics. Other asset classes such as Fixed Income and Private Markets have less developed reporting and so initial carbon footprint analysis has involved estimation to produce a whole Fund position.

Working with the Fund’s Investment Adviser, Hymans Robertson, a carbon footprint analysis has been produced to identify the current and past carbon exposures using a range of metrics including carbon emissions intensity and Weighted Average Carbon Intensity (WACI).

A total Fund position including all assets was calculated for WACI as at March 2010, March 2019 and March 2021. As explained above the approach taken involved using estimates and assumptions where more accurate data was not available. In particular, the March 2010 results involved a higher level of estimates and assumptions and hence less reliance is placed upon these figures. For this reason, the March 2019 results will be used as the baseline for future carbon reduction targets as they provide a more robust position.

The carbon footprint work undertaken shows that the Fund has already made good progress in reducing carbon emissions (WACI) with an 15% reduction over the two year period from 2019 to 2021. In addition, using the results calculated for March 2010 shows there has been a 29% reduction in carbon emissions from the Fund from this date through to March 2021.

Carbon metrics are often backward looking, and companies carbon disclosures can be up to two years out of date. There is the need therefore, to make use of forward-looking metrics to forecast expected carbon exposures and to align with the Fund's carbon reduction targets. Forward-looking climate metrics are important because they measure the credibility of companies plans to decarbonise and their commitment to deliver them. Engagement with companies and policy makers is a key part of the approach to secure commitments on emissions reduction targets and to improve reporting on progress made against climate strategies.

Currently, there are three widely accepted different categories for measuring carbon emissions as follows:

> Scope 1 – All Direct Emissions from the activities of an organisation or under their control. Including fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.
>
> Scope 2 – Indirect Emissions from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.
>
> Scope 3 – All Other Indirect Emissions from activities of the organisation, occurring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.

Currently most carbon metrics focus on Scope 1 and 2 emissions, as there is very little data available for Scope 3. Therefore, some companies may currently be assessed as a low carbon company, but once better reporting is available on Scope 3 emissions, this position may materially change.

The Fund does not have a policy of divesting from specific sectors such as Oil and Gas and considers active engagement with companies a more productive approach to effecting change. Once the Fund divests, its ability to influence both the short-term and long-term direction of individual companies is severely curtailed. This policy of active engagement is strongly supported by the Fund's investment managers, including Border to Coast, Legal and General and the Investment Adviser, Hymans Robertson.

At present only one third of UK companies are currently aligned with Net Zero 2050 targets i.e. restricting temperature rises to 1.5 degrees. This means that there are a significant proportion of companies yet to make the necessary climate change commitments. The Fund believes active engagement with these companies is more likely to encourage companies to respond positively to this challenge rather than divestment.

A Paris aligned world requires significant changes to the global economy; this has significant societal implications in terms of employment, access to energy and the affordability of energy. The Fund supports the Just Transition, seeking to manage the social and economic impacts of the transition to a low carbon economy. The Fund supports the work of the Local Authority Pension Fund Forum (LAPFF) in this area and through company engagement will ensure decarbonisation plans consider the implications for communities, workers, consumers and supply chains.

Investment Strategy

We are aware that climate change will impact all asset classes over the lifetime of the Fund. As a result, many assets will be re-priced. The timing of this is uncertain and the impact will vary by asset class due to geography, liquidity and the underlying life of our assets. We recognise that there is uncertainty over the direction and speed of policy changes in this area. We aim to integrate climate change considerations into the Investment Strategy in a number of ways.

Climate Change has the potential to impact returns across all asset classes (not just individual companies or sectors) and therefore has very material financial implications. The Fund will expect all of its investment managers to:

- be aware of the investment risks and opportunities associated with climate change.
- incorporate climate considerations into the investment decision making practices and processes.
- monitor and review companies and assets in relation to their approach to climate change and
- consider the use of frameworks such as the Transition Pathway Initiative (TPI) to assess the progress made by companies towards limiting temperature rises to 1.5 degrees as part of the climate risk management process.

Asset Allocation and Investment Management Structure

We will consider a range of alternative investment approaches to manage risks and opportunities related to climate change. These may include active management of carbon risk which results in some reduction of exposure, such as a tilt towards low-carbon companies and assets, alongside company engagement and an increased allocation to low-carbon investment opportunities.

The Fund already has exposure to a range of low carbon investments through its existing strategy in areas such as fixed income (green bonds), infrastructure (renewable energy) and private equity (clean tech), and will look at increasing these in the forthcoming strategic review. The Fund will consider other low carbon investments but notes that many have limited capacity and due to competitive pricing, these could lead to adverse impacts on financial returns.

In July 2020 the Fund committed 6% of its assets (15% of the overall long term quoted equity allocation) to the Legal and General Future World regional equity funds. These funds use an ESG (Environmental, Social and Governance) framework to score companies to select the best performing. This framework includes a number of climate related metrics which means the overall exposure to companies with carbon reserves drops by around 47%. In addition, the Fund's investments in the Border to Coast UK Equity Fund and Global Equity Fund have benefitted from carbon emissions scores around 50% below the benchmark level.

Within our investment strategy the Fund has a 5% allocation to global infrastructure and these investments already include a range of renewable energy projects, electric vehicle charging and the manufacture of electric trains and buses. These projects are utilising new technologies to remove carbon emissions and will hopefully lead to widespread adoption of these solutions.

Border to Coast are currently exploring the possibility of launching a Climate Opportunities fund which the Fund is supportive of and will contribute towards its development.

Property is a significant asset class and we are aware that buildings are responsible for around one fifth of total greenhouse gas (GHG) emissions in the UK. For directly held properties, the Fund has commissioned its property manager to assess all of the Fund's UK commercial properties in terms of the impact of climate change and to establish the feasibility of a range of measures to minimise carbon exposures. The Fund will work with our property manager to improve energy management and to gather more data from occupiers to reduce carbon emissions, and we expect indirectly held property managers to do likewise.

Carbon Exposures

Through the carbon footprint analysis, the Fund has identified carbon metrics for each asset class and individual portfolios. This has enabled the Fund to understand the regions with higher carbon emissions such as Asia and the Emerging Markets and asset classes such as listed equities and corporate bonds. This information will be incorporated into the development of the Investment Strategy in line with our commitments set out below. The analysis has also shown the carbon emissions at portfolio level and this has facilitated discussions with the Investment Managers to explain the drivers behind these figures and helps in understanding the rationale for holdings in specific companies.

The carbon footprint analysis also produced other metrics around fossil fuel exposure and green revenues which will be incorporated into the Roadmap being developed to deliver the Fund's Net Zero commitments. This demonstrated the positive benefits of the Fund's investments in Infrastructure and Private Equity and also highlighted how the majority of the Fund's active equity managers are already well below the benchmark level of carbon emissions.

The impact of benchmarks on the carbon metrics has become an increasing focus for the Fund and is an area that will be investigated further. In order to achieve the commitments made in this policy the use of benchmarks which recognise the need to reduce carbon emissions in line with the Paris agreement will be considered. However, many of the recently constructed benchmarks have a very limited track record and it is important that the Fund fully appreciates the implications of any changes in benchmark before any decision is taken. This includes the risk and return expectations and particularly any unintended consequences such as an overweighting to certain low carbon sectors, as measured by scope 1 and 2 emissions, such as Financials and Technology which may be identified as having higher scope 3 emissions over time.

The Fund believes that blanket exclusion policies are not in the long term interests of the Fund's stakeholders and will not contribute to our shared ambition of global decarbonisation. It should be noted however, that the Fund does not invest in pure coal and tar sand companies in its investments with Border to Coast and the Future World series of funds with Legal and General. Any decision on divestment should be based upon investment criteria including climate risk at an individual stock level. If it is determined that a company is not making the necessary progress towards the energy transition and this raises concerns over the risk and return prospects of this company, it will not be held by the Fund. By taking this considered and balanced approach it is believed that the Fund can help drive global decarbonisation and meet the fiduciary duty of acting in the best financial interests of the members and employers.

The progress to carbon neutrality is unlikely to be linear for any company or sector. The pace and size of reduction will vary across portfolios, strategies and asset classes. There will also need to be different pathways to carbon neutrality depending on the starting point of each company, the sector in which it operates and the region/country in which it is located.

Carbon Offsetting

For a pension fund to hit net zero it needs not only to reduce emissions attributed to it because of the companies in which it invests but also to take out of the atmosphere any of the remaining emissions caused by its investments – also known as offsetting.

We do not plan to materially offset at Fund level at this stage. This is in line with the IIGCC Net Zero Investment Framework which currently advocates as a general principle, for investors to not use purchased offsets at the portfolio level to achieve emissions reduction targets. Instead the focus should be on reducing carbon emissions which will ultimately contribute towards the reduction in global warming.

Some companies which we invest in may offset and some may provide offsetting opportunities to others. Where offsetting is used, we think it should focus on proven nature-based solutions and use technology that is shown to be clean and viable. Whilst carbon offsetting is a reasonable tool for some companies or sectors, ultimately it does not solve the problem and it is believed that companies should not use this as an alternative to reducing carbon emissions.

Whilst the Fund has no plans to use financial offsets it expects that through its existing and new investments there will be positive carbon impacts which can be offset against its overall carbon emissions. This would include current assets in infrastructure and potential new areas of investment such as agriculture and forestry which could be considered as part of future investment opportunities.

Risk Management

Climate change is included within the Fund's risk register in the context of the risk of the investment strategy or investment managers underperforming. Relevant controls and mitigating actions are also documented. The risk register is reviewed quarterly by the Management Team and the Local Pension Board and annually by the Pensions Committee.

The systemic nature of climate change risk has the potential to reduce returns across all asset classes and will have a macro-economic impact that could affect the entire Fund. Equally, however, the need to transition to a low carbon economy and the innovation which that will require presents a number of potential investment opportunities.

The risks and opportunities related to Climate Change are summarised below:

- Physical impacts – damage to land, infrastructure and property due to extreme weather events, rising sea levels and flooding
- Technological changes - technological innovations such as battery storage, energy efficiency, and carbon capture and storage will displace old technologies with winners and losers emerging
- Regulatory and policy impact - financial impairment due to policy and regulation changes such as carbon pricing or levies, capping emissions or withdrawal of subsidies.
- Transitional risk - financial risk associated with the transition to a low-carbon economy, also known as carbon risk. It may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change, creating investment opportunities as well as risks.
- Litigation risk - litigation is primarily aimed at companies failing to mitigate, adapt or disclose.
  [Source: Border to Coast Responsible Investment Policy 2021]

Attached at Appendix 1 is a summary of the climate change scenario analysis undertaken by the Fund's Investment Adviser, Hymans Robertson, as part of the strategy health check in 2021. The analysis suggest that the current investment strategy is reasonably placed in terms of the scenarios considered but it does highlight areas of concern which will be addressed as part of investment strategy review in 2022.

There are also significant risks in attempting to decarbonise significantly more quickly than the economies in which the Fund invests. This would require policymakers globally to take additional action to bring forward carbon reduction targets and for new technologies to be developed for these changes to be delivered in practice. This could result in additional market exposure risks and could lead to lower investment returns.

As set out above the Fund will continuously monitor and challenge all of its Investment Managers to support the Net Zero commitments made by the Fund. This will also include a review of the voting and engagement activities carried out in respect of climate change and the approaches used to assess progress against individual climate change plans such as the Transition Pathway Initiative.

Engagement and Collaboration

The integrated nature of Climate Change and its ability to impact most industries, means that the Fund chooses not to take a sector wide exclusion approach to its investments. Undoubtedly in every sector there will be best in class and worst in class companies, representing both investment risks and opportunities. The Fund chooses therefore, to engage with its investment managers, companies and where possible, policy makers, to influence them directly to move towards a sustainable financial strategy that ultimately provides long term value for its shareholders. Consistent with the Fund's investment strategy, engagement is also a long term approach with the goal for companies and economies globally to be carbon neutral by 2050 and to enable those companies to transition effectively to a carbon neutral economy.

The Fund has been a long-standing member of LAPFF which engages directly with companies on behalf of the LGPS on a range of ESG issues from executive pay and reliable accounts to a just transition to a net zero economy. The Forum has been engaging with major companies on climate risk, for many years and also works with other investors through initiatives such as Climate Action 100+ and 'Say on Climate'.

The Fund will use its shareholder rights to engage directly, collaboratively (including with LAPFF) and through our fund managers, with companies exposed to the greatest risks, to encourage them to adapt their business models to ones that are better aligned to a net zero-carbon economy. We further encourage companies to take account of the Financial Stability Board's Task-Force on Climate-Related Financial Disclosure (TCFD) recommendations. Company responsiveness to engagement is taken into account in voting activity and the Fund will co-file and support relevant shareholder resolutions where appropriate. Where possible, we extend this engagement to investee companies across all asset classes.

The Fund believes collaboration with other investors helps influence and improve market best practice standards as well as strengthening the voice of asset owners and their pension beneficiaries. Consequently, through our Investment Managers including Borders to Coast and by our membership of the LAPFF, we aim to support maximum 1.5 degree temperature rise scenarios through:

- engagement with companies to improve their approaches to climate change as well as encourage them to report on their actions for future business model scenarios;
- influencing policy makers;
- promotion of relevant research projects in areas such as developing standardised carbon intensity measures and investment initiatives that improve information flow and investment opportunities.

One of our investment managers, Legal and General has published a "Climate Change Pledge". This is a commitment to engage with the world's largest companies to address climate change, leading to voting and investment decisions. This is designed to effect positive change in the companies in which we invest. In some of their funds including the Future World series in which we are invested, where it is clear that the engagement is not working and companies continually breach the standards of the climate change pledge, this can result in Legal and General divesting. At the current time 13 companies have been divested from over concerns they are not appropriately engaging and addressing climate change risks. These companies range across a range of sectors and include oil companies such as Exxon Mobil and Rosneft.

Border to Coast has identified the Transition Pathway Initiative (TPI) as a means of assessing how individual companies are progressing and using this approach is likely to identify those companies that are not making sufficient progress. The Fund will continue to challenge Border to Coast in this area and support any climate related engagement at the companies within the portfolios.

Commitment and Targets

The Tyne and Wear Pension Fund commits to transitioning its investment portfolios to net-zero GHG emissions by 2050 or sooner and to the reduce emissions by 50% - 60% by 2030 based upon the 2019 baseline calculated in the carbon footprint analysis. In addition, a reduction of 30% – 35% will be targeted by 2025 and reporting against these targets will be published annually.

The Fund also commits to undertake climate based financial risk assessments and to report the results as part of an annual Task Force for Climate Related Financial Disclosures (TCFD) Report. This will require the Fund to develop a range of metrics and targets. However, at the current time the exact metrics to be used have not been established and won't be until central government issues a consultation on the approach to TCFD.

In order to ensure that the Fund achieves its targets we will undertake an annual carbon footprint analysis and regularly report on the progress being made.

In addition, we will undertake a triennial review of the medium and long term targets along with the Roadmap to ensure that they remain appropriate and challenging, given the ever changing, economic, environmental and technological environment. The review will look for opportunities to bring forward the Net Zero targets where this is considered reasonable.

The Fund also commits to working with other investors along with our Investment managers to promote the change necessary and to pursue efforts to limit the temperature increase to 1.5°C set out in the Paris Agreement. This includes our Pool Company, Border to Coast, who have made a similar commitment and we support their policy objectives.

The Fund supports the IIGCC Net Zero Investment framework and will utilise the approach set out in the framework to agree our actions and ensure our Investment Strategy has a focus on:

- decarbonising investment portfolios in a way that is consistent with achieving a global net zero GHG emissions by 2050.
- increasing investment in the range of 'climate solutions' needed to meet that goal.

During the next year the Fund will develop and publish a clear Roadmap which will cover how these commitments will be achieved in terms of the strategy, metrics and targets to be implemented and the governance arrangements which will oversee this plan. Actions which will be included in the Roadmap are set out in the table below along with indicative timescales:

Actions	Short-term	Medium-Term	Long-Term
Measuring climate risk	✓		
Pressuring managers to provide better climate data	✓	✓	
Strengthening climate engagement	✓	✓	
Reviewing investment strategy	✓	✓	✓
Altering current investment mandates		✓	
Reallocating capital to climate-focussed strategies	✓	✓	✓

The Fund will monitor and challenge the climate approach of all of its Investment Managers including their commitments to the IIGCC Net Zero Investor framework and publication of Climate Change policies. We also expect all of our Investment managers to support the UNPRI and to work towards the production of appropriate climate metrics to enable the Fund to monitor its overall position.

The Fund will continue to identify and invest in green solutions which will help build a clean, biodiverse and climate-resilient world. The Fund will determine a suitable metric (Green Revenues) to measure this ambition as part of our climate change roadmap and report progress against this metric as part of our annual reporting.

The Fund will seek to reach this Commitment through its investment activity as well as through advocating for, and engaging on, corporate and industry action for a low-carbon transition of economic sectors in line with science and under consideration of associated social impacts. This Commitment is made in the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met.

This commitment covers all investments made by the Pension Fund over all asset classes. The Pension Fund is aware that some asset classes are more progressed in the level of disclosure and transparency around climate risks and so may take longer to reach a point where assessment can be undertaken appropriately.

The Pension Fund also commits to achieving net-zero GHG emissions on its own operations by 2030 in line with target set by South Tyneside Council who are the Administering Authority of the Fund.

Appendix 1

Tyne and Wear Pension Fund

Climate Change Scenario Analysis 2021

Summary of Analysis Produced by Hymans Robertson

The 2021 health-check of the Investment Strategy undertaken by Hymans Robertson included some climate change scenario analysis which looked at how the investment strategy would perform under three different climate change scenarios:

- **Head in the Sand** – A range of outcomes resulting from a total lack of response to climate risk from global policymakers and asset owners: global crop failures, influx of new diseases, severe temperature fluctuations/extreme weather patterns, etc.

- **Challenging times** – Some adaptation is achieved: peak oil flow is reached constraining economies of the future, increasing fuel prices, constrained government finances, difficulty obtaining access to imported foods, etc.

- **Green revolution** – Rapid technological advances leading to positive adaption to climate change: healthier lifestyles prevail (walking, cycling, etc.), diets improve with less processed food consumption, homes protected against extreme temperatures etc.

The conclusions that Hymans have derived from this analysis, the Fund's investment strategy and the actions the Fund is already taking, are set out below:

- Climate change presents a significant risk to the Fund

- Depending on what path governments take in their policy responses to climate change, the Fund's funding position in 20 years' time could be significantly affected by climate change:

    - Green revolution – the current investment strategy remains suitable and the Fund is likely to remain fully funded in 20 years' time. Lower returns from equities and credit over the first few years are expected as the costs of transition are taken on, but these are recouped over the long-term

- Challenging times – some concerns – the funding level is expected to fall below 100% in 20 years' time, driven by lower investment returns over the long-term. It is likely under this scenario that some de-risking and a commensurate increase in contributions will be required to remain fully funded.

- Head in the sand – whilst this is the best scenario for short-term returns as the world is able to continue operating as it currently does and not take on the costs of transition, over the longer-term there are significant negative impacts of the lack of action on investment returns. Under this scenario it is unlikely that the Fund would remain fully funded after 20 years with the current investment strategy and would likely need to significantly de-risk and increase contribution rates

The Fund's current strategy is well positioned for the Green Revolution scenario, but the Fund should consider what changes could be made to make the strategy more resilient in the event the other scenarios unfold. These could include:

- Progressively reducing the allocation to equities, focusing on those companies most at risk to climate change.

- Maintaining a material allocation to equities and income assets to provide protection against higher levels of expected inflation, but doing so selectively (e.g. climate resilient infrastructure, companies least at risk of climate change including those providing climate risk mitigation/adaptation solutions)

- Taking advantage of any short-term increase in real yields to lock in further protection

There is a material risk of de-risking too quickly as growth assets may do well in the short-term even in the downside scenarios and we don't yet know how policymakers are going to respond.

Overall, the health check has endorsed the Fund's current investment strategy approved by Committee in September 2019. It has also identified a number of areas to review in advance and as part of the next full asset liability modelling exercise, which will run alongside the 2022 valuation.

The climate change scenario analysis highlights the financial risks to the Fund, especially if sufficient action is not taken by policy makers, organisations and individuals to address these risks. The report, however, confirms that the actions the Fund has identified to address these risks are appropriate. Although the Fund still needs to deliver against these actions.

Glossary

IIGCC	Institutional Investor Group on Climate Change: membership body for investor collaboration on climate change, comprising 330+ members, mainly pension funds and asset managers responsible for €39+ trillion in assets under management
ESG	Environmental, Social and corporate Governance
Responsible Investment	The integration of ESG factors into investment decision making and asset stewardship practices
Scope 1 emissions	GHG emitted directly by the company in conducting its operations
Scope 2 emissions	GHG emitted in the generation of energy consumed by the company
Scope 3 emissions	Indirect GHG emissions arising from a company's supply chain and use/disposal of its products
Transition pathways	Technologically achievable, scientifically-derived, decarbonisation roadmaps which are being developed for high-emissions sectors
TCFD	Taskforce on Climate-Related Financial Disclosures. Standards are expected to be adopted by MHCLG by 2022/23 for all LGPS
Material sectors	Companies undertaking activities material to the transition to net zero, specifically NACE code categories A-H and J-L

Appendix B

Extract from the Net Zero Investment Framework Implementation Guide

11.3. Appendix C: The Paris Aligned Investment Initiative Net Zero Asset Owner Commitment

Commitment

As asset owners with millions of beneficiaries around the world, we reiterate our full support for the Paris Agreement and strongly urge governments to implement the actions that are needed to achieve the goals of the accord, with utmost urgency.

Recognising the need to address the risks that investors and their beneficiaries face from climate change, investors are taking action, but we acknowledge that there is an urgent need to accelerate the transition towards global net zero greenhouse gas emissions and do our part in helping deliver the goals of the Paris Agreement.

In this context, my institution commits to the following consistent with our fiduciary obligations:

1. Transitioning our investments to achieve net zero portfolio GHG emissions by 2050, or sooner
2. Implementing this commitment with the aim of achieving real economy emissions reductions and undertaking a comprehensive set of actions available to investors, drawing on the Paris Aligned Investment Initiative's Net Zero Investment Framework
3. Setting objectives and targets, including an interim target for 2030 or sooner for reducing Scope 1, 2 and 3 emissions associated with our portfolios and setting a target for increasing investment in climate solutions, consistent with a fair share of the 50% global reduction in CO2 identified as a requirement in the Intergovernmental Panel on Climate Change special report on global warming of 1.5°C
4. Where offsets are necessary where there are no technologically and/or financially viable alternatives to eliminate emissions, investing in long-term carbon removals.
5. Ensure any direct and collective policy advocacy we undertake supports policy and regulation relevant for achieving global net zero emissions by 2050 or sooner
6. Implementing a stewardship and engagement strategy, with clear voting policy that is consistent with an objective for all assets in the portfolio to achieve net zero emissions by 2050 or sooner
7. Engaging with asset managers, credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers to ensure that funds, products and services available to investors are consistent with achieving global net zero emissions by 2050 or sooner.
8. Setting a target and reducing our operational (Scope 1 and 2) emissions in line with achieving global net zero emissions by 2050, or sooner.
9. Disclosing objectives and targets, and publishing a clear Investor Climate Action Plan for achieving these goals as soon as possible, no later than one year from making this commitment, and reviewing and updating targets every five years or sooner.
10. Reporting annually on the strategy and actions implemented and progress towards achieving objectives and targets, and in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Our institution's commitment recognises that investors across the globe have different opportunities, constraints and starting points for achieving net zero emissions and there are a range of methodologies and approaches available to investors to set targets and implement strategies. In some asset classes or for some investment strategies, agreed net zero methodologies do not yet exist. We will, therefore, work to address these challenges, including through the Paris Aligned Investment Initiative.

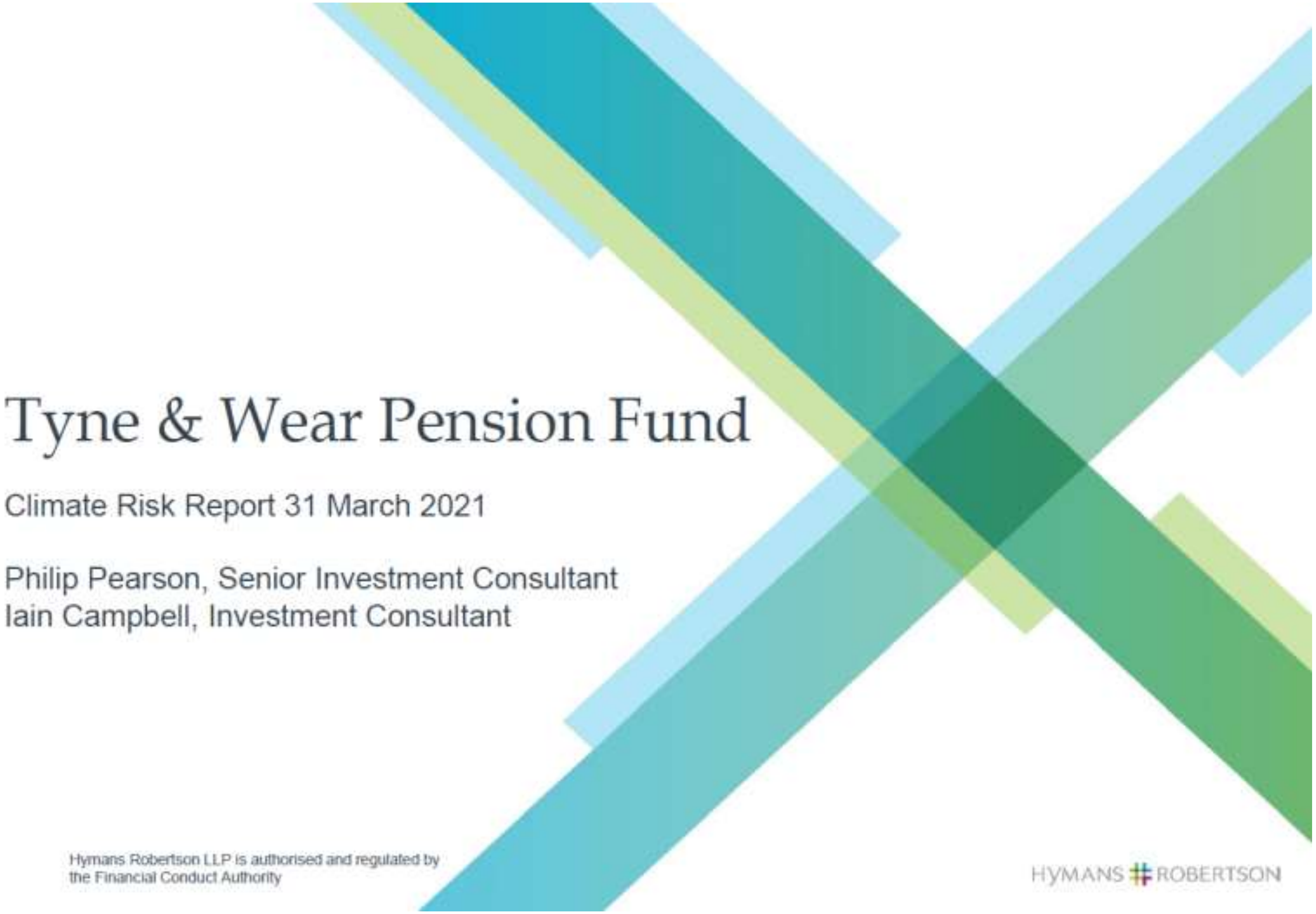
Our commitment is based on the expectation that governments and policy makers will deliver on their commitments to achieve the 1.5°C temperature goal of the Paris Agreement, and in the context of fulfilling our fiduciary obligations.

Any institutional asset owner may sign the Net Zero Asset Owner Commitment and use the Net Zero Investment Framework. To be recognised and showcased as making a net zero commitment under the Paris Aligned Investment Initiative an asset owner must complete and submit a signatory form to one of the four regional investor networks (AIGCC, Ceres, IGCC, IIGCC) indicating their CEO has approved signing on.

Asset owners that are members of AIGCC, Ceres, IGCC, IIGCC will have access to activities to support implementation of the commitment provided by the networks.

A separate Q&A document is available upon request and will be updated as relevant to provide further explanation and clarification of the commitment.

Appendix C


Tyne & Wear Pension Fund
Climate Risk Report 31 March 2021
Philip Pearson, Senior Investment Consultant
Iain Campbell, Investment Consultant
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Whole Fund
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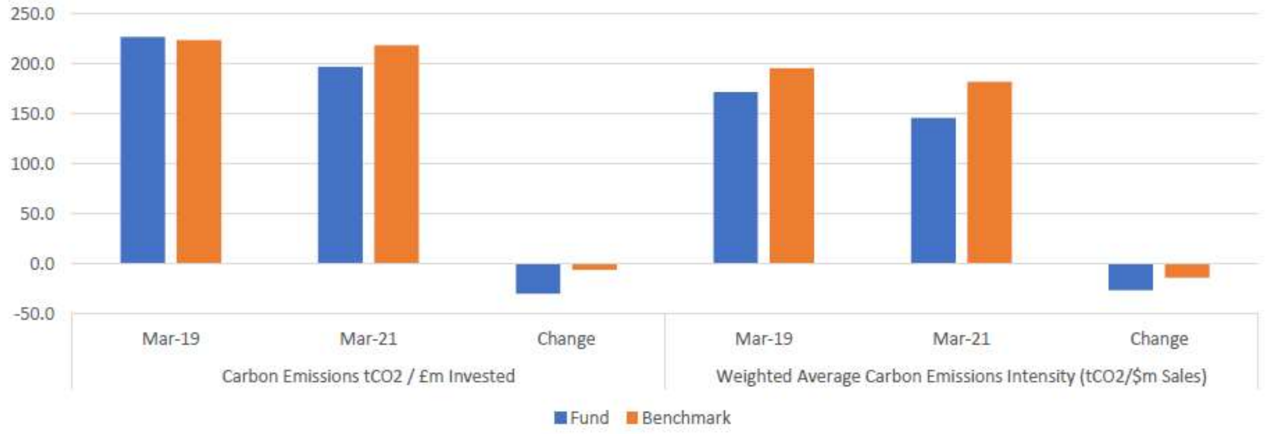
Whole Fund

Mandate	Carbon Emissions tCO2 / £m Invested*			Weighted Average Carbon Emissions Intensity (tCO2/$m Sales)**		
	Mar-19	Mar-21	Change	Mar-19	Mar-21	Change
Fund	226.4	196.8	-13.1%	171.6	145.7	-15.0%
Benchmark	223.5	218.2	-2.4%	195.5	181.9	-6.9%
Difference	2.8	-21.4		-24.0	-36.2	
Coverage of AUM	58.9%	48.9%		83.3%	85.7%	

* Analysis includes equity holdings only. ** Analysis excludes property, sovereign bonds, and cash for 2021, as well as infrastructure for 2019.



Key Takeaways

- Over the two-year period, the Fund has seen its carbon emissions and intensity reduce, and both have fallen by more than the benchmark

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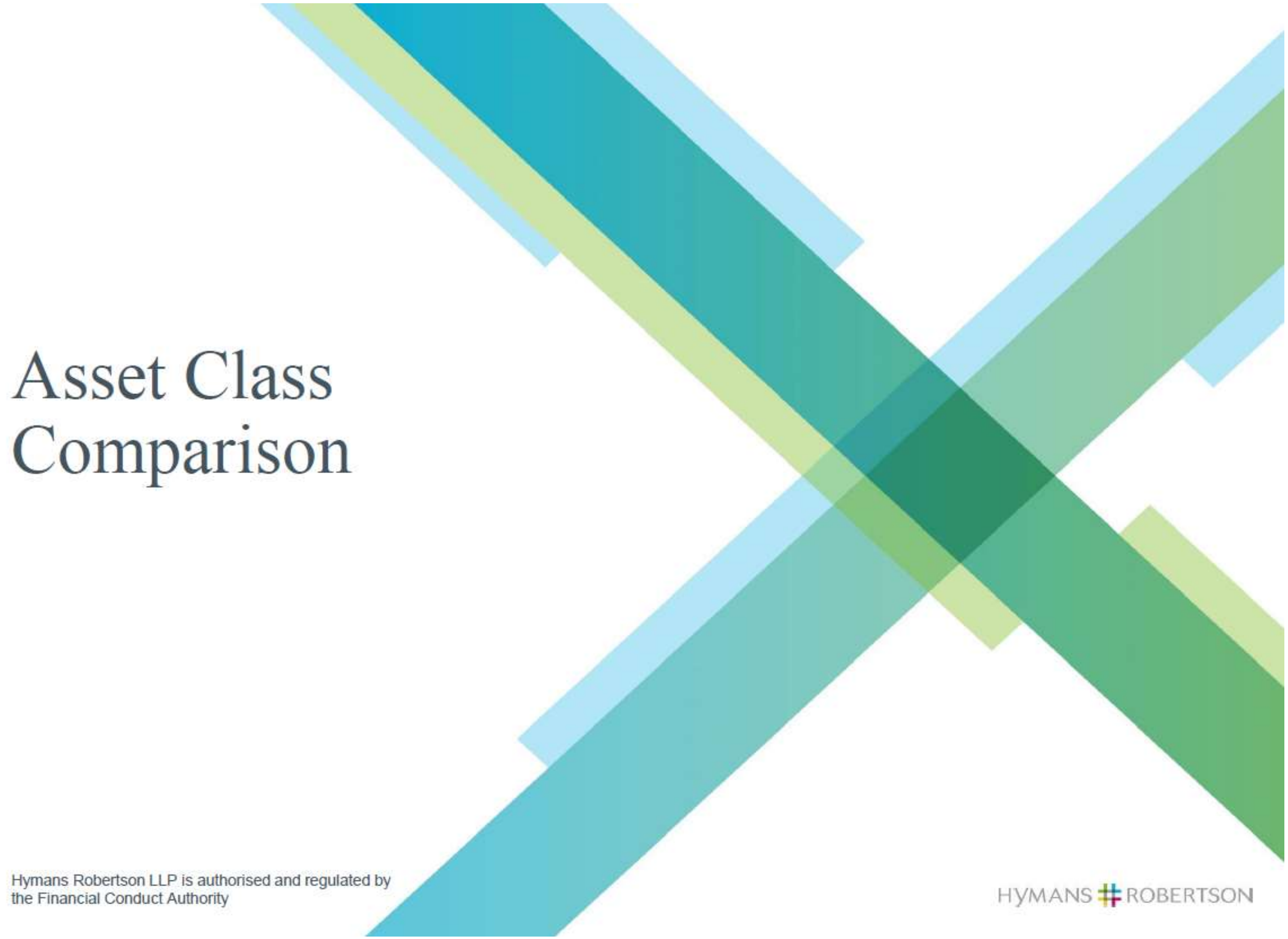
Asset Class
Comparison
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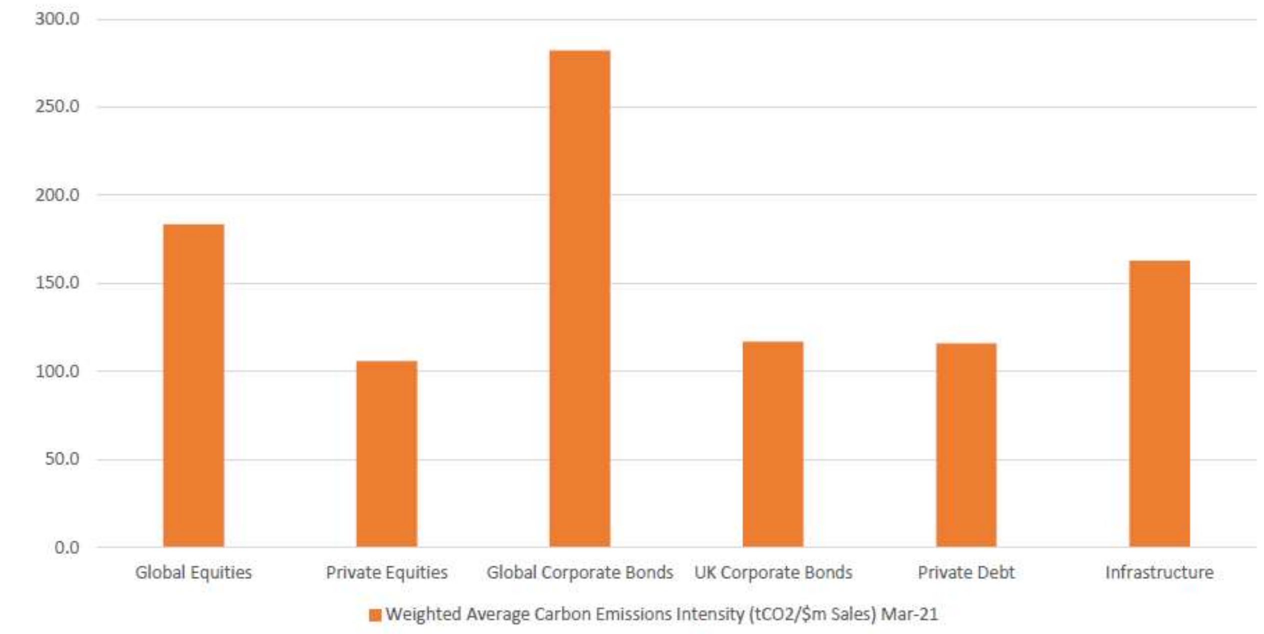
Asset class comparison



Key Takeaways

- Private equities appear to have lower carbon intensity that public equities
- Global corporate bonds are more carbon intensive than global equities, however UK corporate bonds are not
- Private debt is less carbon intensive than global corporate bonds, but similar to UK corporate bonds.

Global equities and global and UK corporate bond metrics based on indices. Private equity and debt and infrastructure based on actual mandates held by the Fund.

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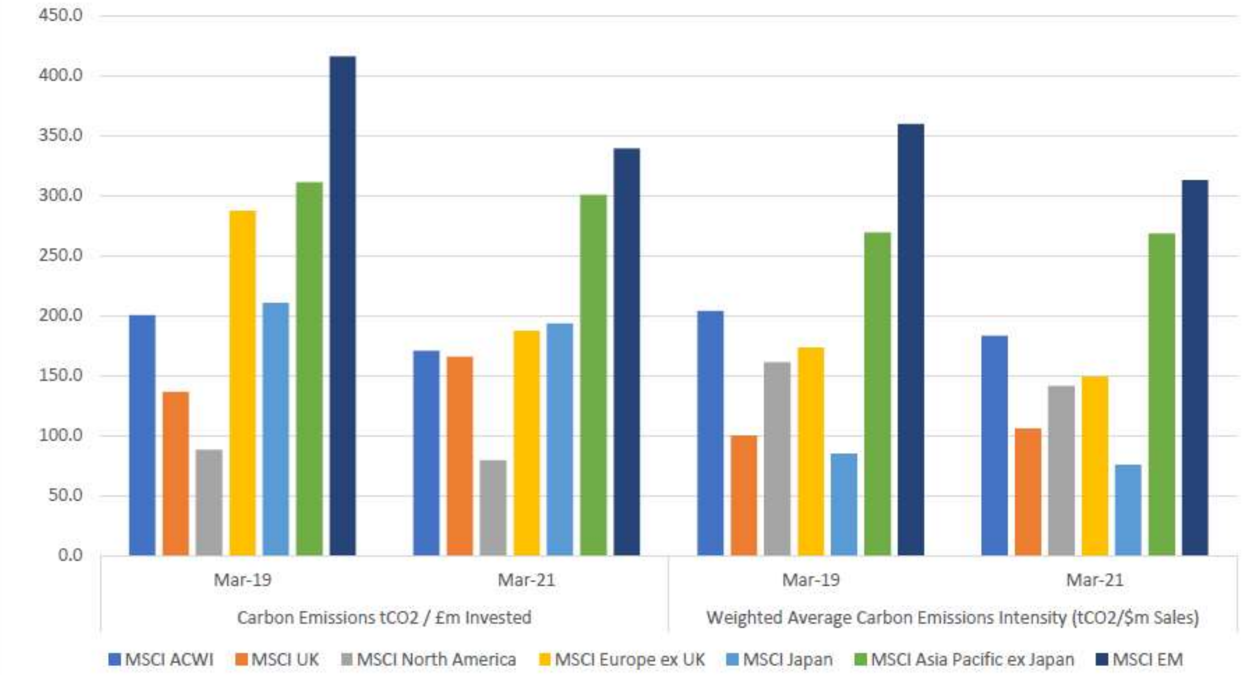
Equity regions



Key Takeaways

- The chart shows the carbon emissions and intensities of various equity regions at both 2019 and 2021.
- From an emissions perspective, North America is the "greenest" index, likely due to its high exposure to the technology sector. Unsurprisingly, Emerging Markets have the highest emissions.
- From an intensity perspective, Japan and the UK are the greenest regions, with Emerging Markets again the most intense emitters.

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Appendix

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Scope and third party disclaimer

- This presentation is addressed to Tyne & Wear Pension Fund ("the Fund"). This presentation is for the sole purpose of helping the Fund understand the Climate Risk metrics and ESG metrics of the Fund's holdings.
- This presentation is not intended for use for any other purpose.
- This presentation must not be released or otherwise disclosed to any third party except with our prior written consent, in which case it should be released in its entirety.
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- Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets. Exchange rates may also affect the value of an overseas investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.
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Appendix

8

Understanding the Climate Risk Metrics

Metric	Description/ Methodology
Carbon Emissions	This represents the portfolios estimated Scope 1 + Scope 2 greenhouse gas emissions. This is expressed in terms of thousand tons of CO2 equivalent emitted by the companies invested in by the portfolio, weighted by the size of the allocation to each company.
Weighted Average Carbon Intensity	A measure of a portfolio's exposure to carbon-intense companies. This is expressed in terms of tons of CO2 equivalent emitted per million dollars of revenue, weighted by the size of the allocation to each company. Is measured using scope 1 + scope 2 emissions. Scope 1 emissions are those from sources owned or controlled by the company, typically direct combustion of fuel as in a furnace or vehicle. Scope 2 emissions are those caused by the generation of electricity purchased by the company.

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Responsible Investment Update

The following is a list of the background papers (excluding exempt papers) relied upon in the preparation of the above report:

Background Paper	File Ref:	File Location
Responsible Investment Files		Investments Office, South Shields Town Hall
Managers' Monitoring Files		Investments Office, South Shields Town Hall

Contact Officer: Ian Bainbridge, Head of Pensions – Tel. 424 4112