MINUTES of the meeting of the **SURREY PENSION FUND COMMITTEE** held at 10.30 am on 16 June 2023 at Council Chamber, Woodhatch Place, 11 Cockshot Hill, Reigate, Surrey, RH2 8EF.

These minutes are subject to confirmation by the Committee at its next meeting.

Elected Members:
* Present

*	Nick Harrison (Chairman)
*	David Harmer
*	Trefor Hogg (Vice-Chairman)
*	Robert Hughes
*	George Potter
*	Richard Tear

Co-opted Members:

	Robert King, Borough & Districts
*	Steve Williams, Borough & Districts
*	Kelvin Menon, Employers
*	Philip Walker, Employees

In attendance

Tim Evans, Chairman, Surrey Local Pension Board

The Committee agreed to a change in the order of agenda items.

25/23 APOLOGIES FOR ABSENCE AND SUBSTITUTIONS [Item 1]

Apologies were received from Robert King for absence and Robert Hughes for lateness. Robert Hughes joined the meeting at 11.32am in time for item 10 – Company Engagement and Voting.

26/23 MINUTES OF THE PREVIOUS MEETING - 10 MARCH 2023 [Item 2]

The Minutes were approved as an accurate record of the previous meeting.

27/23 DECLARATIONS OF INTEREST [Item 3]

There were none.

28/23 QUESTIONS AND PETITIONS [Item 4]

There were four supplementary questions:-

1. Jennifer Condit asked Kevin Clarke's supplementary question: She asked if the Committee would consider asking managers to make them aware if they are investing in UK operated water companies whether directly or indirectly. The Chairman explained that this was

a complex area to establish but would ask officers to consult with Border to Coast.

2. Lindsey Coeur-Belle stated that she was pleased to hear the Fund's commitment to the interdependency between SDGs and climate change action and would the Fund take account of this issue in 2024. The Chairman responded positively in that SDGs were pertinent to investments.
3. Jenifer Condit asked what the Committee thought of what Shell had to say at its AGM on Wednesday and whether it was inspiring the Committee to take any further steps on the escalation process and if so, what that might be. The LGPS Senior Officer stated that the Fund would consider this matter consistent with its RI policy.
4. Lindsey Coeur-Belle asked Lucianna Cole's supplementary question. She asked Whether the Fund knew if it had met its 2030 target as it had divested considerably over the last few years. The Head of Investment & Stewardship reported that when the next TCFD report would give a clearer picture but Border to Coast had seen reductions already below the 2030 target.

29/23 THE SURREY PENSION TEAM 3 YEAR STRATEGIC PLAN [Item 6]

Speakers:
Neil Mason, LGPS Senior Officer
Nicole Russell, Head of Change Management

Key points raised during the discussion:

1. The Head of Change Management presented slides that gave a precis of the background to the transformation programme, the vision and mission, the four key areas that would be focussed on in the three-year plan and pension team resources. She explained some of the initial work to be undertaken under each key area, the pathway to becoming industry leaders and measuring success.
2. In response to a member question regarding recruitment in a difficult employment market, the Head of Change Management explained that the workforce strategy gave more detail about workforce experience and steps being taken to develop the team. There was also work being undertaken to review communications and the team was open to views from members.
3. In response to a member question regarding identifying the skills gap, the Head of Change Management explained that this was detailed in the workforce strategy and would be happy to explain in further detail at a future committee.
4. There was discussion about the Committee receiving communications that were sent out by the team and the best way for members to receive this.
5. A Member asked if the benchmarking results, which were scheduled for January 2024, could be brought forward. The Head of Change Management explained that it was still very early phase in benchmarking but that she would be happy to hear the Committee's views on what would be helpful for them to understand from a benchmarking perspective.

6. The Chair asked for the backlog remediation work to be brought forward in the 3-year Plan.

Actions/ further information to be provided:
That the LGPS Senior Officer review how members are informed of communications sent to employers and others.
That the LGPS Senior Officer review how the scheduling of the backlog remediation programme can be advanced in the 3-year Plan.

Resolved:
That the Pension Fund Committee endorsed the 3-year Strategic Plan.

30/23 ACTION TRACKING AND WORKPLAN [Item 5]

Speakers:
Chairman
Neil Mason, LGPS Senior Officer

Key points raised during the discussion:

1. The LGPS Senior Officer explained that an action from the previous meeting, regarding defining engagement consequences, was not listed in the tracker but was covered in Responsible investment report later in the agenda.

Actions/ further information to be provided:
None.

Resolved:
The Committee noted the Action Tracker and Forward Plan.

31/23 SUMMARY OF THE LOCAL PENSION BOARD REPORT [Item 7]

Speakers:
Chairman of Surrey Pension Board Tim Evans (online)
Neil Mason, LGPS Senior Officer
Tom Lewis, Head of Service Delivery

Key points raised during the discussion:

1. The Chairman of Pension Board thanked the Committee Chairman and the LGPS Senior Officer for their summary of committee activity to the Board. He explained that:
   - the Pension Board had been focussed on understanding the impact of changing to Unit 4 from SAP.
   - The Board had noted the progress on the backlog.
   - The Board had welcomed the new Head of Change Management and was pleased with the dynamic approach to change.
   - The Chair also expressed support for the increased emphasis on training.
2. In response to a member question on whether the implementation of the new system was happening, the LGPS Senior Officer reported that transition to Unit 4 had commenced, although there were still live risks,

especially around payroll, which the pension team was working with the council to resolve.

3. In response to a member question about dealing with the 10 month backlog for deferred members and whether there had been a high number of complaints, the Head of Service Delivery reported that an additional team were being recruited to deal with the backlog, further details would be reported to the Board and Committee.

Actions/ further information to be provided:
None.

Resolved:
That the Committee noted the support of the Pension Board.

32/23 INVESTMENT MANAGER PERFORMANCE AND ASSET/LIABILITIES UPDATE [Item 8]

Speakers:
Neil Mason, LGPS Senior Officer
Lloyd Whitworth, Head of Investment & Stewardship
Steven Scott – Hymans Robertson

Key points raised during the discussion:

1. The Head of Investment & Stewardship introduced the submitted report and highlighted the sharp improvement in the funding level over the course of the year and is now at 127% of the liabilities. The returns over the quarter were just over 3% and generally the equity and bond funds did relatively well and there was a bit of drag from private and property markets. The real estate market had gone through some difficulties, but it was hoped that a floor had been reached in that market. The three-year number was looking healthy with a 10% annualised return, outperforming benchmark.
2. In response to a member question about whether 115% was a more realistic figure, the Head of Investment & Stewardship explained that assumptions were made and that 115% could be in the middle range.
3. Hymans added that it was right to look at the figures with a degree of caution as they were based on assumptions. However, he confirmed that the numbers were accurate and based on the 70% probability level it was now expected the Fund to achieve higher returns in the future than what was assumed in the 2022 valuation. However, no decisions were being taken on the back of this updated funding position.
4. There was discussion around the Listed Alternatives Fund being disappointing. The Head of Investment & Stewardship pointed out the negative aspects of this and reported that a review with the portfolio manager was to take place in July.

Actions/ further information to be provided:
None.

Resolved:
That the main findings of the report in relation to the Fund's valuation and funding level, performance returns and asset allocation be noted.

33/23 2022 VALUATION [Item 9]

Speakers:
Steven Scott – Hymans Robertson

Key points raised during the discussion:

1. Hymans reported that the 2022 valuation was now complete. It had been signed off and submitted on time and employers were now paying the new rates. In terms of feedback on the process Hymans stated that:
    - Data received for the valuation was provided on time and to a very high standard
    - In terms of the assumption setting process advice was provided to the fund very early
    - Training was provided to the Committee which enabled members to agree the assumptions proposed with a good level of challenge.
2. In response to a member query regarding item 13 on the dashboard included in the submitted report, Hyman's reported that the Government actuary department are required to carry out their own assessment of the 2022 valuations. A consistent approach was taken across all of the LGPS funds.

Actions/ further information to be provided:
None.

Resolved:
1. That the completion of the actuarial work for the 2022 triennial valuation including the report from the actuary be noted.
2. That the up-to-date Rates and Adjustments schedule be approved.

Robert Hughes arrived at this point of the meeting.

34/23 COMPANY ENGAGEMENT & VOTING [Item 10]

Speakers:
Lloyd Whitworth, Head of Investment & Stewardship
Milo Kerr, Border to Coast

Key points raised during the discussion:

1. The Head of Investment & Stewardship presented highlights of a summary report on Environmental, Social & Governance (ESG) engagements and voting outcomes that the Surrey Pension Fund (the Fund), Local Authority Pension Fund Forum (LAPFF), Robeco, and Border to Coast Pensions Partnership (BCPP) have been involved in. The report also gave links to the Quarterly Engagement Report from LAPFF and the Active Ownership Reports from Robeco and Legal & General Investment Management (LGIM). He highlighted the following:
    - There had been a high number of engagements from LAPFF on climate change
    - No management resolutions failed, as a result of Surrey voting.

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2. A Member stated that the level of engagement was pleasing to see and welcomed the approach of engagement with consequences.
3. A Member stated that with much backsliding last year he had hoped to see more robust engagement and asked at what point is action taken and go beyond talking where engagement is not working. The Head of Investment & Stewardship responded that all managers have an escalation policy and that it was difficult to tell if change was happening due to engagement. He went on to state that:
    - He thought engagement was having an impact
    - There had been an escalation of voting this time
    - Increasing negative votes were being taken more seriously
    - Escalation was included in the Responsible Investment Policy and in Border to Coast's policy
    - There was an expectation that managers would use the escalation policy.
4. There were further opinions put forward from members regarding the escalation and whether it was having real consequences.

Actions/ further information to be provided:
None.

Resolved:
1. That the Fund's belief, that the United Nations Sustainable Development Goals (UN SDGs) represent an appropriate foundation in terms of the Fund's overall Responsible Investment (RI) approach, be reaffirmed.
2. That ESG Factors are fundamental to the Fund's approach, consistent with the Mission Statement, be reaffirmed through:
   a) Continuing to enhance its own RI approach, its company engagement policy, and SDG alignment.
   b) Acknowledging the outcomes achieved for quarter ended 31 March 2023 by Robeco and LGIM in their Active Ownership approach and the LAPFF in its engagement with multinational companies.
   c) Noting the voting by the Fund in the quarter ended 31 March 2023.

35/23 ASSET CLASS FOCUS - EQUITY [Item 11]

Speakers:
Neil Mason, LGPS Senior Officer
Lloyd Whitworth, Head of Investment & Stewardship
Steve Tyson, Independent Advisor, MJ Hudson
Milo Kerr, Border to Coast
Joe McDonnell, Border to Coast

Key points raised during the discussion:

1. The Independent Advisor gave a precis of the submitted report which focussed on equity as an asset class. He highlighted:
   That Newton had seen performance improvement
   That BCPP had two funds reviewed –
    - there was an area of concern raised on the UK Alpha Fund regarding risk and was therefore a challenge made to Border to Coast
    - Border to Coast Global Alpha had performed well.

2. The LGPS Senior Officer reported that work continued to be undertaken with Border to Coast and other partner funds to address any issues.
3. Border to Coast gave further explanation of the issue around tracking errors and the possible actions that could have been taken. However, due to lower volatility they were of the opinion that it would work itself out within the next 12 months.
4. A Member explained that a year ago the decision was made to invest in LGIM's Future World Fund, and they offered a number of other funds and asked if it would be possible to find out how those funds had performed over the same period relative to the Future World Fund.
5. A Member stated that reports are not necessarily Surrey specific and asked if Border to Coast were looking to change that in the future. Border to Coast responded that reporting to partner funds was evolving and would take the comments into consideration going forward. However, the presentation was specific to Surrey.

Actions/ further information to be provided:
That comparison figures from other LGIM funds be circulated against LGIMs Future World Fund over the same period of time.

Resolved:
The Committee note the Fund's Equity holdings, respective funds' investment performance and review from the Fund's independent investment adviser.

36/23 RESPONSIBLE INVESTMENT UPDATE [Item 12]

Speakers:
Lloyd Whitworth, Head of Investment & Stewardship
Steve Turner, Mercer
David Crum and Thomas Bolger – Minerva (online)

Key points raised during the discussion:

1. There was some debate about the information contained in Part 2 of the agenda and whether that could be made public. The Chairman and Mercer stated that they would look again at the Part 2 information and determine whether any more could be made public.
2. Mercer gave a precis of the three parts to the report as being Net Zero, Responsible Investment Policy and Voting Policy. Each part would be discussed in turn.

Net Zero

3. Mercer highlighted that bringing the net zero date forward would mean a loss of diversification and increased risk – he gave detailed information regarding the research and analysis undertaken on this issue.

4. A Member raised several points which included:
   - Climate change posed a real material financial risk to the Surrey Pension Fund and action on climate change was necessary.
   - For the Surrey Pension Fund, a 2030 net zero investment scenario would mean limiting investment into just a few companies and heavily in corporate bonds of the same companies – this was very risky and gambling with Member's money.

- There was a fiduciary duty to make decisions on behalf of Members and the majority of Fund Members favoured a moderate United Nations Sustainable Development Goals based approach to responsible investment.
- The Surrey Pension Fund was well positioned to deliver net zero by 2050 without incurring massive transition costs and Border to Coast were focussed on delivering 2050 net zero or earlier.
- In the next 25 years many companies would have improved their position with regards to emissions and many of our current investments turning into net zero investment. We needed to remain partners and engage with those companies to make a positive future a reality.

3. A Member thanked officers and advisers for taking climate change seriously which was highlighted in debates, engagement reports and the massive reduction in carbon intensity of the portfolio. However, given the progress he thought that the Mercer report was unambitious:
    - It was thought that we had moved away from the idea that fiduciary duty and responsible investment were at opposite end of a spectrum with a simple trade-off between the two.
    - The Responsible Investment Policy was consulted on with stakeholders but they were not consulted on the net zero date.
    - Throughout Surrey and Surrey itself had declared a climate emergency and set a 2030 net zero date and wanted to see a net zero date consistent with that.
    - Once a date has been set there would be an urgent need to decide how often that is reviewed because even in a few years' time he thought the thinking would be that we could not wait for 2045/2050.
    - That a recorded vote be taken was requested.
4. Another Member seconded the request for a recorded vote and stated that he wanted to see a net zero date of 2040 as a minimum.

Rewording of Responsible Investment Policy

5. The Head of Investment & Stewardship introduced this section of the submitted report and stated that following consultation there was a slightly higher proportion of answers that were in neutral territory when it came to thinking about engagement with consequences and that data was reviewed independently by the team at Surrey who suggested that maybe the wording was not clear enough on that section. There was also a request by the Committee at its last meeting to add the current exclusions by managers. The Responsible Investment Sub Committee reviewed the suggested wording change.
6. A Member suggested that 'our expected outcomes' should be more transparent as to what those expected outcomes are so that engagement with consequences could happen, and people could see those consequences being exercised. He also stated that an example should be made of certain companies that do not engage.
7. The Head of Investment & Stewardship referred to the priorities from the Responsible Investment Policy one of which was to engage with managers to ensure alignment and identify where there was no alignment. This was the next step, and it may be useful to have some case studies where companies have gone through the process; for example, there were 14 company exclusions with LGIM where they had gone through the process. It was pointed out that those exclusions were not permanent, and could be revoked if positive progress is made.

Voting Policy

8. The Head of Investment & Stewardship introduced this section of the submitted report and explained that the policy was long overdue for an update. This was an extensive assignment and Minerva was praised for their excellent work on this. The new policy would give a clearer picture on having sets of rules and how the Fund is voting for or against.

Further request

9. A Member proposed that subsequent to this debate and comments made by members that the Committee commits to review the net zero date and engagement with consequences on an annual basis. Another Member requested this annual review be added to the workplan.
10. There was a detailed discussion on how and when this request could be achieved.
11. Minerva explained that in terms of the Responsible Investment Policy there was a section that related to Surrey's RI policies and priority 2 made a commitment to achieving net zero in terms of investments. Therefore, regarding the RI implementation report coming back to the committee every year it could be that Minerva provide an update in that report so then members could express an opinion as to whether they thought progress had been satisfactory or not. The Member making the proposal stated that this would satisfy him if the report contained some commentary on changes in the investment universe. The Chairman said he thought a full re-examination of the policy was not appropriate annually but agreed to add a review task to the on the workplan. It would then be up to the Committee to extend the work or not.

Actions/ further information to be provided:

- To provide information on the LGIM exclusion list and whether other Surrey managers are invested in these companies, and to provide engagement case studies.
- That the workplan be updated to include an annual review of RI progress towards Net Zero.

Resolved:

1. That the recommendation of the Responsible Investment Sub Committee (RISC), that the Net Zero date for the Fund's investments should be 2050 or sooner, be accepted.

   (Voted for: Philip Walker, Richard Tear, Robert Hughes, Kelvin Menon, David Harmer, Trefor Hogg and Nick Harrison. Voted against: George Potter and Steve Williams.)

2. That the re-wording of the 'engagement with consequences' section of the RI policy be approved. The vote was unanimous.

3. That the updated voting policy be approved. The vote was unanimous.

George Potter left the meeting at 13.14pm.

Subsequent to the meeting Mercer were asked to look at the information in Part 2 of their report to see what information could be made public.

2

An amended version of their report was circulated and included as an annex to these minutes.

37/23 LGPS UPDATE (BACKGROUND PAPER) [Item 13]

Speakers:
Neil Mason, LGPS Senior Officer
Sandy Armstrong, Technical Manager

Key points raised during the discussion:

1. The Chairman highlighted the change in the deadline date for the dashboard.

Actions/ further information to be provided:
None.

Resolved:
That the report be noted.

38/23 EXCLUSION OF THE PUBLIC [Item 14]

Resolved: That under Section 100(A) of the Local Government Act 1972, 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 under the relevant paragraphs of Part 1 of Schedule 12A of the Act.

The Committee took an 11 minute break and reconvened again at 13.29pm

David Harmer left the meeting at 13.18pm

PART TWO – IN PRIVATE

39/23 INVESTMENT MANAGER PERFORMANCE AND ASSET/LIABILITIES UPDATE [Item 15]

Key points raised during the discussion:

1. The Committee noted the Part 2 annex to item 8.

Actions/ further information to be provided:
None.

Resolved:
That the Part 2 annex to item 8 be noted (see minute 32/23)

40/23 RESPONSIBLE INVESTMENT UPDATE [Item 16]

Key points raised during the discussion:

1. The Committee noted the Part 2 annex to item 12.

Actions/ further information to be provided:
None.

Resolved:
That the Part 2 annex to item 12 be noted (see minute 36/23)

41/23 INVESTMENT STRATEGY REVIEW - EMPLOYER STRATEGIES, FIXED INCOME WEIGHTS & INVESTMENT STRATEGY STATEMENT [Item 17]

Speakers:
Lloyd Whitworth, Head of Investment & Stewardship
Steve Turner, Mercer
Sandy Dickson, Mercer

Key points raised during the discussion:

1. The Committee considered a Part 2 report that explained the Pension Fund was reviewing its Investment Strategy in accordance with the 2022 valuation, taking into account its investment core beliefs and in line with the asset offerings of Border to Coast Pensions Partnership (BCPP). This paper presented an analysis on alternative employer strategies, fixed income weights and Investment Strategy Statement.

Actions/ further information to be provided:
None.

Resolved:
1. That the review by the Investment Consultant of the employer strategies, fixed income positioning and Investment Strategy Statement be noted.
2. That the asset allocation targets for each of the employer strategies be accepted.
3. That officers, consultants and investment managers be approved to execute resultant asset allocation shifts by the most efficient means possible.
4. That the new Investment Strategy Statement be approved.

42/23 REAL ESTATE UPDATE [Item 18]

Speakers:
Neil Mason, LGPS Senior Officer
Steve Turner, Mercer

Key points raised during the discussion:

1. The Committee considered a Part 2 report that detailed how Border to Coast Pension Partnership (BCPP) was developing a range of Real Estate funds for Partner Funds to invest in. Government guidance required LGPS to use pooling when products were available.
2. The LGPS Senior Officer informed the Committee that the matter was being considered again because the current Border to Coast offering had a different risk/return parameter (lower return with a lower level of risk) to the funds considered previously and it was therefore appropriate to bring it

back. He also explained the reasons for the additional recommendation submitted in an amended report that was circulated prior to the meeting.

Actions/ further information to be provided:
None.

Resolved:
The Committee accepted the revised recommendations that had been distributed and published as a Part 2 supplement to the agenda prior to the meeting.

1. That the review by the investment consultant of the BCPP Global Real Estate funds be noted.
2. That the target asset allocation weight for real estate be maintained.
3. That a geographic split within the real estate exposure of 75% UK and 25% Global be approved.
4. That a switch from CBRE to BCPP Core for global real estate be agreed, on the basis that the Committee accepts the change in risk and return dynamics, and subject to meeting necessary conditions prior to launch.
5. That delegation of authority be given to the Director of Corporate Finance and Commercial, in consultation with the Assistant Director – LGPS Senior Officer and Chair of the Pension Fund Committee, to transition the global real estate portion of the Surrey Pension Fund portfolio to the BCPP national pool when its design has been established to the satisfaction of officers and Fund advisors and assuming that the "necessary conditions" of governance have been satisfied.

43/23 BORDER TO COAST PENSIONS PARTNERSHIP UPDATE [Item 19]

Speakers:
Neil Mason, LGPS Senior Officer
Milo Kerr, Border to Coast
Joe McDonnell, Border to Coast

Key points raised during the discussion:

1. The Committee considered a Part 2 report which gave an update of current activity being undertaken by the Border to Coast Pensions Partnership (BCPP).

Actions/ further information to be provided:
None.

Resolved:
1. That compliance with the "necessary conditions" of governance for the BCPP Emerging Market equity investment proposition, and that a commitment consistent with the Surrey Pension Fund target asset allocation to Emerging Market Equity can commence, be noted.

2. That the background and progress of BCPP activity be noted, including details of the following:
   a) BCPP Joint Committee (JC) meeting of 21 March 2023.
   b) The schedule of activity of BCPP since the last Committee meeting of 10 March 2023 until the end of the calendar year.

44/23 PUBLICITY OF PART 2 ITEMS [Item 20]

Resolved:

That the LGPS Senior Officer be requested to consult with Mercer to ensure that all that can be made public, from their reports, is made publicly available.

45/23 DATE OF NEXT MEETING [Item 21]

The next meeting of the Surrey Pension Fund Committee will be on 8 September 2023.

Meeting ended at: 2.01 pm

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Chairman

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Mercer

Surrey Pension Fund

Net-Zero Investing

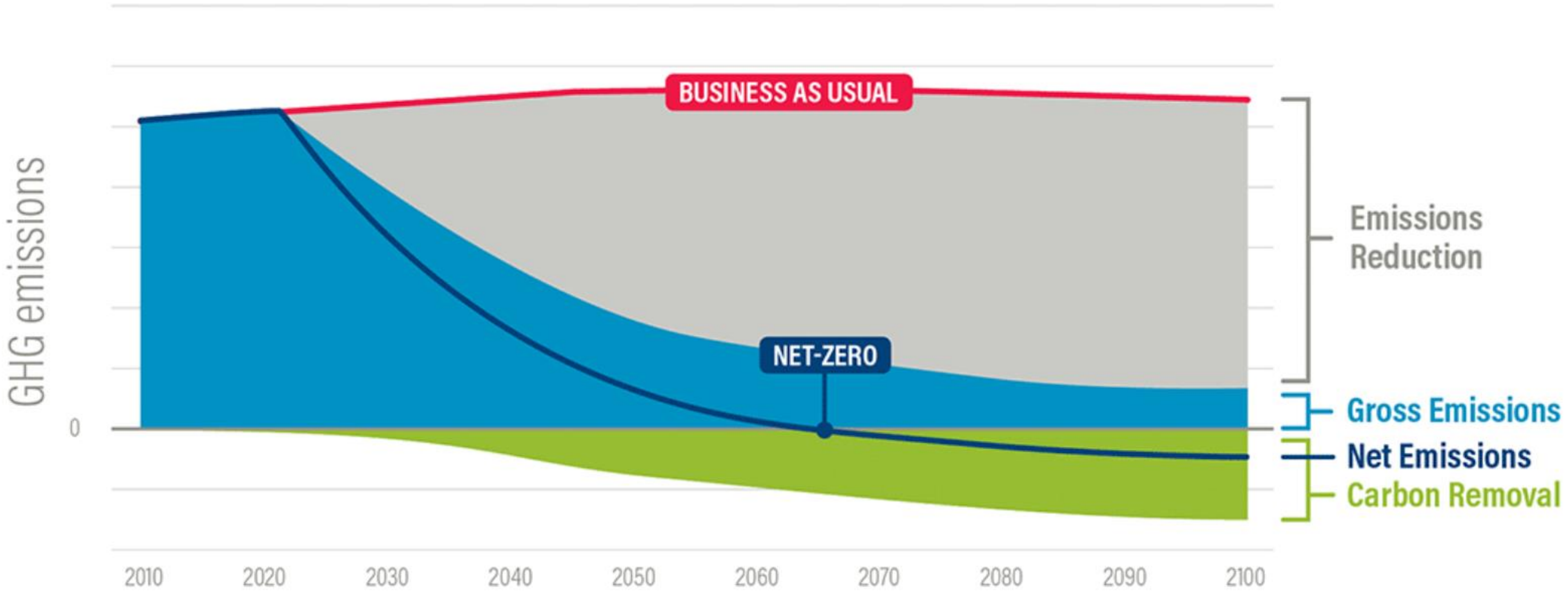
July 2023

welcome to brighter

Minute Item 36/23

How to get to net zero

- Net zero refers to a state in which there is a balance between the greenhouse gases going into the atmosphere and the amount removed from the atmosphere.
- Reaching net zero across an investment portfolio means greenhouse gas emissions associated with a portfolio's underlying holdings hit net zero.



Source: WRI www.wri.org/blog/2019/09/what-does-net-zero-emissions-mean-6-common-questions-answered

Key elements of analysis

Bottom up analysis: Identify opportunity set and asset class implications

Bottom up analysis informs top down analysis

Top down analysis: Climate Scenario Analysis of asset classes and total portfolio

Executive summary (i)

Legend for table below

Relatively disadvantageous from an investment perspective	Relatively neutral from an investment perspective	Relatively advantageous from an investment perspective

- Mercer has been commissioned by the Committee of the Surrey Pension Fund (the "Fund") to conduct analysis to support an understanding of the investment implications of setting a net-zero target date for the Fund's portfolio.
- The analysis – a combination of bottom up/top down and quantitative/qualitative – considers portfolios with net-zero target dates as at 2030, 2035, 2040, 2045 and 2050. The analysis considers inclusion of asset classes with low/no/net negative GHG emissions, including an allocation to forestry.
- Whilst modelled outcomes are relatively similar for all portfolios under a traditional financial analysis a wider assessment highlights the pros and cons of the different target dates. **Based on this analysis and taking into account the Fund's wider investment objectives, in our view, we consider that the net-zero 2045 or net-zero 2050 portfolios achieve a sweet spot between balancing portfolio decarbonisation and meeting fiduciary duty for the Committee at this time**. This may change in the future, for example, should more companies adopt earlier net-zero targets. Comparing 2050 to 2045 depends on the decarbonisation pathway, e.g. a 2045 target with a more gradual pathway may be preferable.

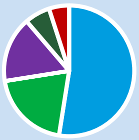
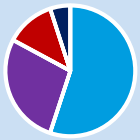
Consideration	Net zero by 2030	Net zero by 2035	Net zero by 2040	Net zero by 2045	Net zero by 2050	Headline comment
Traditional financial metrics						Under traditional portfolio analysis, the modelled outcomes are relatively similar
Portfolio diversification						The earlier the net-zero date, the smaller the investment universe, with implications for sectoral/regional/company diversification
Rapid transition*						The earlier the net-zero date, the better the portfolio performs under a Rapid Transition scenario over the short- to medium-term
Failed transition (short term)*						The earlier the net-zero date, the worse the portfolio performs under a Failed Transition scenario over the short-term
Financing the Transition						Opportunity for real-world impact through financing the transition increases as the net-zero target date is extended
Implementation implications						Feasibility to implement the portfolio increases as the net-zero target date is extended

* In terms of what is priced in today Mercer gives a 10% weight to a Failed Transition, 40% weight to an Orderly Transition,10% to a Rapid Transition and 40% weight to a range of low impact scenarios. Over the long-term a Failed Transition is expected to result in significant portfolio losses (regardless of the net-zero target date) resulting from the negative impacts associated with higher physical damages.

Executive summary (ii)

Legend for table below

Relatively disadvantageous from an investment perspective	Relatively neutral from an investment perspective	Relatively advantageous from an investment perspective

	Net zero by 2030	Net zero by 2035	Net zero by 2040	Net zero by 2045	Net zero by 2050	*Current (comparator)*	Headline findings
Strategic Asset Allocation Listed Equities Corporate Bonds Private Markets Forestry Growth Fixed Income Gilts							
Traditional financial metrics							
Expected return (% p.a.)[1]	7.5%	7.6%	7.7%	7.8%	7.9%	8.1%	Portfolio efficiency modestly improves as target date is extended due to additional asset class diversification. **The risk numbers could be understated.**
Downside risk: 1 year 95% VaR (£m)	978	995	1,013	1,032	1,039	1,085	
Excess return / VaR (as % of assets)[2]	0.172	0.175	0.177	0.179	0.179	0.184	
Approximate chance of meeting discount rate[3]	74%	76%	77%	78%	78%	81%	
Concentration analysis[4] - Values omitted for the purposes of public disclosure, but colour coding retained.							
Number of companies in illustrative net zero equity universe							Investment universe diminishes as target date is brought forward with implications for portfolio diversification. Higher active risk introduces greater variability to achieving market index return.
Efficiency ratio of illustrative net zero equity portfolio							
Active total risk relative to parent index[5]							
Contribution to total portfolio risk of top 10 holdings (by risk)							

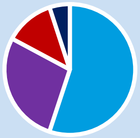
Analysis as at 31 Dec 2022. [1] Expected absolute return over 10 years. [2] Calculated as expected return minus a risk-free rate (4.2% p.a) divded by 1 year 95% VaR expressed as a percentage of assets (£5,074m). [3] Approximate calculation of the probabilty that the portfolio's annualised return over 10 years exceeds a discount rate of 6.2% p.a.. [4] Portfolios have been grouped by decade with results presented based on the earlier date (i.e. 2030 and 2040). [5] Relative to MSCI ACWI.

Mercer

Executive summary (iii)

Legend for table below

Relatively disadvantageous from an investment perspective	Relatively neutral from an investment perspective	Relatively advantageous from an investment perspective

	Net zero by 2030	Net zero by 2035	Net zero by 2040	Net zero by 2045	Net zero by 2050	*Current (comparator)*	Headline findings
Strategic Asset Allocation Listed Equities Corporate Bonds Private Markets Forestry Growth Fixed Income Gilts							
Climate scenario metrics (relative to climate-aware baseline)							
Rapid transition impact (5 yr)[6]	0.1% p.a. / 0.7%	-0.1% p.a. / -0.4%	-0.3% p.a. / -1.4%	-0.5% p.a. / -2.5%	-0.8% p.a. / -3.5%	*-1.3% p.a. / -5.7%*	Portfolio performance under a Rapid Transition improves as the target date is brought forward.
Failed transition impact (5 yr)[6]	-0.3% p.a. / -1.4%	-0.3% p.a. / -1.2%	-0.2% p.a. / -0.9%	-0.2% p.a. / -0.7%	-0.1% p.a. / -0.5%	0.1% p.a. / 0.4%	
Failed transition impact (40 yr)[6]	-0.9% p.a. / -28.8%	-0.9% p.a. / -29.3%	-0.9% p.a. / -29.8%	-1.0% p.a. / -30.4%	-1.0% p.a. / -30.9%	*-1.1% p.a. / -34.0%*	
Qualitative assessment							
Opportunity to finance the transition through climate solutions	✗✗✗	✗✗	✗	✓	✓✓	✓✓	Opportunity for real-world impact increases as the target date is extended.
Current ability to implement portfolio and implied transaction costs	✗✗✗	✗✗✗	✗✗	✗	✓	✓✓	Feasibility of implementation increases as target date is extended.

Analysis as at 31 Dec 2022. [6] Analysis considers assets only. Return impact in nominal terms at year 5/40, expressed as annualised % and cumulative %. In terms of what is priced in today we give a 10% weight to a Failed Transition, 40% weight to an Orderly Transition, 10% to a Rapid Transition and 40% weight to a range of low impact scenarios.

We acknowledge that under a failed transition, which we assume markets currently price in with a 10% probability, indiscriminate damages to economies will have negative impacts upon portfolio-wide asset returns.

Executive summary (iv)

- <u>Key takeaways from bottom up analysis based on illustrative equity portfolios</u>
  1. The **number of eligible companies/assets declines** as the net-zero date is brought forward. At the extreme, 126 companies in MSCI ACWI have zero projected gross GHG emissions (scope 1 + 2) by 2030, accounting for 12.4% of the total MSCI ACWI by market capitalisation. This number of companies falls to 35 if scope 3 emissions are included.
  2. Net-zero equity portfolios are expected to result in a **loss in diversification** relative to the parent index from a sectoral, regional and company perspective.
  3. Increasing diversification through the addition of other companies introduces residual emissions that would need to be offset in some form. The purchase of offsets or forgoing return associated with the Fund not selling offsets generated through its assets will act to **reduce return**. The offsetting market is a nascent market with a number of challenges for institutional investors to use within their portfolios at present.
- <u>Key takeaways from top down analysis of strawman portfolios with net-zero target dates of 2030, 2035, 2040, 2045 and 2050</u>
  1. Taking into account a broader set of metrics and the Fund's wider investment objectives, we consider that **the net-zero 2045 or net-zero 2050 portfolios achieve the sweet spot between balancing portfolio decarbonisation and meeting fiduciary duty** for the Committee at present.
- The findings in this report are from an investment perspective and do not explicitly consider the legal or reputational considerations associated with setting a net-zero target date for the Fund's portfolio.

Executive summary (v)

- Implementation considerations

1. By their nature, the net-zero portfolios presented are theoretical with the only design parameter being the net-zero date; in reality others factors will influence stock selection decisions.

2. To our knowledge there are very few investment strategies for listed equities (or other assets) that are currently systematically targeting net zero significantly in advance of 2050.

3. To be able to implement such a strategy new products will need to be developed by the investment industry, or on a bespoke basis for the Fund.

4. For a net-zero target to be credible, having a clear implementation plan will be key. We suggest discussing further with Border to Coast. Their "Net Zero Implementation Plan", launched in October 2022, sets out the steps they are taking to reduce its portfolio's carbon footprint to Net Zero by 2050 or sooner. This includes a 53% reduction and a 66% reduction in normalised financed emissions by 2025 and 2030 respectively (from a 2019 baseline) across listed equity and a proportion of fixed income assets.

5. Other issues that will need to be considered include: potential costs of change, additional complexity, legal opinion and alignment with the pool agenda.

Assumptions and limitations

- The bottom up and top down analysis in this report is subject to a number of assumptions and limitations. Relevant to the key findings, we would highlight:
  - Challenges associated with quantifying the risks resulting from a reduction in the investable universe based on a single criterion (i.e. net zero by a certain target date) over multiple time periods.
  - Constraints/feasibility associated with implementing certain net-zero portfolios, specifically in relation to Border to Coast.
  - Performance under climate scenarios should take into account the context and plausibility of a given scenario occurring.
- **Bottom up analysis**
  - Company projected emissions are based on assumptions and their realisation relies on companies meeting their climate-related commitments. Projected emissions data is also subject to change over time.
  - Scope 3 emissions have been ignored (due to limited reliability of data) unless otherwise stated. Inclusion of Scope 3 emissions is expected to increase company emissions and extend the date at which net zero is achieved.
  - Risk-return analysis at the sector level does not capture the impact of company-level concentration within sectors, which could have a material impact on overall portfolio performance.
  - The analysis considers the inclusion of carbon offsets. The voluntary carbon offset market is unregulated and global best practice is still emerging on what constitutes a "good" offset. A number of challenges exist when considering the inclusion of offsets in an investment strategy including credibility, additionality in respect of carbon reduction, lack of scale and reputational risk.

Results in this report should be considered in light of these assumptions and limitations.

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Assumptions and limitations

- **Top down climate scenario analysis**
  - Traditional financial analysis does not capture climate impacts and is based on broad asset class assumptions, which do not capture sector/company concentration. Risk and return numbers have been calibrated based on historical data. Past performance does not guarantee future results.
  - Climate Scenario analysis is subject to a number of limitations:
    - The further into the future you go, the less reliable any quantitative modelling will be.
    - There is a reasonable likelihood that physical impacts are grossly underestimated. Feedback loops or ‘tipping points’, like permafrost melting, are challenging to model particularly around the timing of such an event and the speed at which it could accelerate.
    - Financial stability and insurance ‘breakdown’ is not modelled. A systemic failure may be caused by either an ‘uninsurable’ 4°C physical environment, or due to the scale of mitigation and adaption required to avoid material warming of the planet.
    - Most adaptation costs and social factors are not priced into models. These include population health and climate-related migration.

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Results in this report should be considered in light of these assumptions and limitations.

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