



Shropshire County Pension Fund Climate-Related Disclosures

December 2020



Introduction to the TCFD

The Taskforce on Climate-related Financial Disclosures (TCFD) was commissioned in 2015 by Mark Carney in his remit as Chair of the Financial Stability Board. In 2017 the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies with respect to how climate-related risks and opportunities are being managed. Official supporters of the TCFD total 930 organisations representing a market capitalisation of over \$11 trillion. Disclosure that aligns with the TCFD recommendations currently represents best practice.

The recommendations are based on the financial materiality of climate change. The four elements of recommended disclosures (see Figure 1 below) are designed so as to make TCFD-aligned disclosures comparable, but with sufficient flexibility to account for local circumstances. Examples of pension funds that have been early adopters of the TCFD recommendations include AP2, NEST, PGGM, RPMI Railpen, The Pensions Trust, and Environment Agency Pension Fund.

Figure 1

Core Elements of Recommended Climate-Related Financial Disclosures



Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

The Fund supports the TCFD recommendations as the optimal framework to describe and communicate the steps the Fund is taking to manage climate-related risks and incorporate climate risk management into investment processes. As a pension fund we are long-term investors and are diversified across asset classes, regions and sectors, making us "universal owners". It is in our interest that the market is able to effectively price climate-related risks and that policy makers are able to address market failure. We believe TCFD-aligned disclosure from asset owners, asset managers, and corporates, is in the best interest of our beneficiaries.



About this report

The Fund has received an in-depth review of the Fund's climate risks under different climate change scenarios across all asset classes from the Fund's pooling company, LGPS Central Limited. The Fund is currently using the findings of this report to develop a more detailed Climate Strategy taking into account the characteristics of the Pension Fund and the Fund's policy of engaging with companies to encourage the development of climate-resilient business strategies.

Ahead of the publication of the Climate Strategy, this *Climate-related Disclosures* report describes the way in which climate-related risks are managed currently. The Fund will update this report after the Climate Strategy has received approval from the Pension Fund Committee.

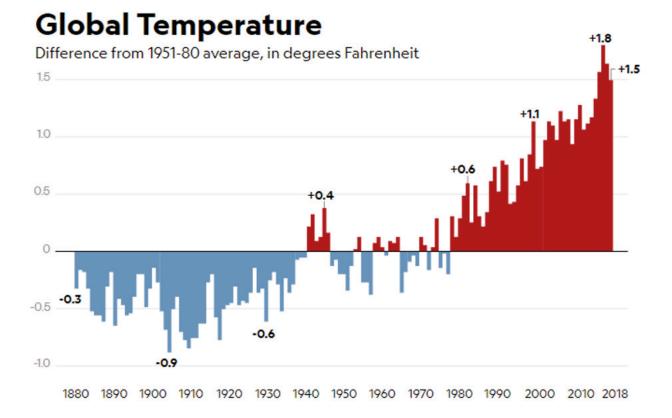
In the interests of being transparent with the Fund's beneficiaries and broader stakeholder base, this report also discloses the results of some recent Carbon Risk Metrics Analysis and Climate Scenario Analysis undertaken on the Fund's assets. We expect to update our Carbon Risk Metrics on an annual basis.

Climate-related risks

Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels. Most of this warming has occurred in the past 35 years, with the five "warmest" years on record taking place since 2010. Between the years 2006-2015, the observed global mean surface temperature was 0.87°C higher than the average over the 1850-1990 period. The overwhelming scientific consensus is that the observed climactic changes are the result primarily of human activities including electricity and heat production, agriculture and land use change, industry, and transport.



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



In order to mitigate the worst economic impacts of climate change, there must be a large, swift, and globally co-ordinated policy response. Despite this, the majority of climate scientists anticipate that given the current level of climate action, by 2100 the world is estimated to be between 2°C and 4°C warmer, with significant regional variations. This is substantially higher than the Paris Climate Change Agreement, which reflects a collective goal to hold the increase in the climate's mean global surface temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C.



Figure 3: Selected extracts from the Paris Agreement on climate change. Source: UNFCCC.

Paris Agreement Article 2(1)a

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

Paris Agreement Article 2(1)c

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

Paris Agreement Article 4(1)

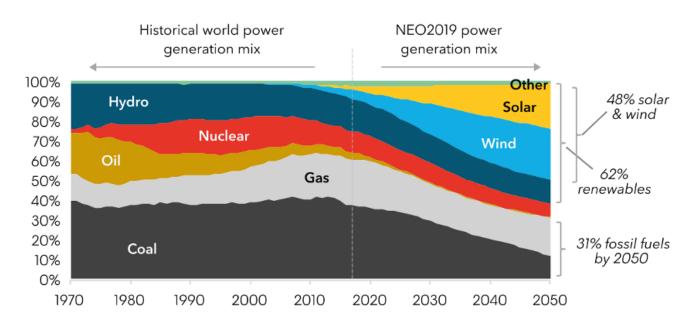
In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best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

Given its contribution to global GHG emissions, the energy sector is expected to play a significant role in the long-term decarbonisation of the economy. Figure 4 suggests that in one climate scenario the proportion of coal, oil, and gas in the global power generation mix will shrink to 31% of total by 2050. However, it is important to recognise that not only is the supply of energy expected to be a factor in global decarbonisation, but the demand for energy plays a crucial role too. In addition, the behaviour of private and state-owned energy companies (not commonly invested in by UK pension funds) is as important as their publicly traded counterparts.

The issue faced by diversified investors (such as pension funds) is not only limited to the oil & gas and power generation sectors, but also to downstream sectors. Investors focussing exclusively on primary energy suppliers could fail to identify material climate risks in other sectors. Research suggests that the oil & gas sector is not homogeneous with regards to climate risk: were climate policies to affect the oil price, those companies with assets lower down the cost curve are less likely to be financially compromised by those companies with higher cost assets. Investors that assume each fossil fuel company bears an equal magnitude of climate-related risk could be led towards sub-optimal decision-making.



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







Governance

TCFD Recommended Disclosure

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

Roles and responsibilities at the Fund are set out clearly in the Fund's *Governance Compliance Statement*. Overall responsibility for managing the Fund lies with Shropshire Council which has delegated the management and administration of the Fund to the Shropshire County Pension Fund Committee.

The Pension Committee ('the Committee') is responsible for preparing the Investment Strategy Statement (ISS), which includes the Fund's Responsible Investment Beliefs. The Committee meet four times a year, or otherwise as necessary. The Committee includes quarterly engagement reports from both their investment managers and their engagement provider as a standing item on the Pension Committee agendas. Both the Committee and the Pension's Board have received regular training on responsible investment topics. The Committee going forward will receive training on responsible investment, including climate change, every quarter.

The Fund sets aside time at each year's Annual General Meeting (AGM) for presentations on responsible investment, and environmental, social and governance issues generally. These presentations are made public by the Fund on their website.

In order to support good decision-making, the Fund applies the Myners Principles. Disclosure against the Myners Principles is made annually (please see Appendix A of the Fund's Investment Strategy Statement).

In September 2020 the Pension Committee received a Climate Risk Report which will support the formation of the Fund's climate strategy.

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



TCFD Recommended Disclosure

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

The Scheme Administrator and Head of Treasury & Pensions, in conjunction with our investment advisor, have primary day-to-day responsibility for the way in which climate-related investment risks are currently managed and provide updates to Pension Committee. As a primarily externally managed fund, the implementation of much of the management of climate-related risk is delegated onwards to portfolio managers. External portfolio managers are monitored on a regular basis by Officers and the Pension Committee.

The Pension Committee are supported in this monitoring by the Fund's investment adviser, Aon. Aon provides quarterly monitoring reports on the investment products that the Fund invest in outside of LGPS Central. These reports include ratings on key criteria such as risk management, investment process, performance analysis and ESG ratings where applicable.¹ Material developments in these areas are communicated to the Pension Committee, which considers whether further action is required.

In 2020 the Fund Officers and Pension Committee received a Climate Risk Report which will enable the consideration of climate change within strategy setting, including asset allocation and asset selection. Receipt of a Climate Risk Report is expected to occur annually.

 $^{^{\}scriptscriptstyle 1}$ More information on the Aon ESG Ratings process can be found here:

https://www.aon.com/getmedia/0b52d7ec-db77-41bc-bb45-9386034db392/AonCanada-Publication-Investment-GuideESGRatings.aspx



Strategy

TCFD Recommended Disclosure

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

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

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

Table 1: Example Short, Medium & Long-Term Risks

Timeframes of Risks:

Short term:

We expect these risks could principally cause impacts in 0-3 years from now. <u>Medium term:</u>

We expect these risks could principally cause impacts 3-10 years from now. Long term:

We expect these risks could principally cause impacts 10 years and beyond.



Short-term risks include stock price movements resulting from increased regulation to address climate change. Medium-term risks include policy and technology leading to changes in consumer behaviour and therefore purchasing decisions – the uptake in electric vehicles is an example of this. Long-term risks include physical damages to real assets and resource availability. Examples would include increase sea level rise for coastal infrastructure assets or supply chain impacts for companies as a result of severe weather events.

The Fund has received a Climate Risk Report and will use its findings to develop a Climate Strategy.

TCFD Recommended Disclosure

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

Although the Fund is diversified across asset classes, regions, and sectors, it is recognised that climate risk is systemic and is unlikely to be eliminated through diversification alone. The Fund is exploring options to further embed climate-related risks and opportunities into its investment strategy, including reviewing potential investments in sustainable asset classes where this supports the Fund's investment and funding objectives.

TCFD Recommended Disclosure

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

The Fund has engaged the expertise of an external contractor, Mercer LLC², to understand the extent to which the Fund's risk and return characteristics could come to be affected by a set of plausible climate scenarios. This includes an estimation of the annual climate-related impact on returns (at fund and assetclass level). All asset classes are included in this analysis. The climate scenarios considered are 2°C, 3°C and 4°C.

² Via LGPS Central Limited



Scenario	Timeline	Estimated climate impact on returns
2°C	2030	+0.05%
ñ	2050	-0.06%
C 3°	2030	-0.01%
ň	2050	-0.05%
4°C	2030	-0.06%
	2050	-0.10%

Table 2: Annualised climate change impact on portfolio returns – to 2030 and 2050³

According to the Climate Scenario Analysis in Table 2, the Fund's Asset Allocation appears to be relatively robust in all three climate scenarios. The drivers of this result are the Fund's diversification across asset classes which are modelled as performing differently in different climate scenarios, and a large allocation to fixed income (Unconstrained Bonds) which is relatively insensitive to the different climate scenarios.

Over the coming decade, a 2°C outcome is, according to the model used, the best climate scenario from a returns perspective (adding 0.05% in annual returns to the Asset Allocation on a timeline to 2030) while a 4°C outcome is the worst of the three considered (detracting by 0.06% annually over the same period).

Translating Climate Scenario Analysis into an investment strategy is a challenge because there is a wide range of plausible climate scenarios; the probability of any given scenario is hard to determine, and; the best performing sectors and asset classes in a 2°C scenario tend to be the worst performers in a 4°C and vice versa. Despite the challenges, the Fund believes in seeking out the best available climaterelated research in order to make its portfolio as robust as possible.

³ Extract above from Mercer Limited's (Mercer) report "Climate Change Scenario Analysis" dated August 2020 prepared for and issued to LGPS Central Limited for the sole purpose of undertaking climate change scenario analysis for Shropshire County Pension Fund. Other third parties may not rely on this information without Mercer's prior written permission. The findings and opinions expressed are the intellectual property of Mercer and are not intended to convey any guarantees as to the future performance of the investment strategy. Information contained herein has been obtained from a range of third party sources. Mercer makes no representations or warranties as to the accuracy of the information and is not responsible for the data supplied by any third party.



The Fund believes that climate risk is a materially financial risk for the Fund, and Climate Scenario Analysis is one of the many tools the Fund uses to assess this risk. The Fund remains conscious however that Climate Scenario Analysis requires by necessity the use of assumptions about an inherently unpredictable phenomena, and as such the results are viewed with these limitations in mind. Climate Scenario Analysis will be repeated on a biennial basis to complement the various other techniques and tools the Fund uses to assess climate risk.

Risk Management

TCFD Recommended Disclosure

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

The Fund seeks to identify and assess climate-related risks at the total Fund level and at the individual asset level. The Fund has received a Climate Risk Report which includes both top-down and bottom-up analyses to support this endeavour. The Fund recognises that the tools and techniques for assessing climate-related risks in investment portfolios are an imperfect but evolving discipline. The Fund aims to use the best available information to assess climate-related threats to investment performance.

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

As a primarily externally-managed pension fund, the identification and assessment of climate-related risks is also the responsibility of individual fund managers appointed by the Fund. Existing fund managers are monitored on a regular basis.

Engagement activity is conducted with investee companies through selected stewardship partners including LGPS Central Limited, EOS at Federated Hermes, BMO and LAPFF (see below). The Fund is, based on a Climate Risk Report, devising a Climate Stewardship Plan in order to focus engagement resources on the investments most relevant to the Fund.

The Fund will continue to monitor and consider both existing and emerging regulatory requirements relating to climate change.



TCFD Recommended Disclosure

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

The prioritisation of risks is determined based on the level of perceived threat to the Fund which, for climate-related risk, will likely depend on analyses including Climate Scenario Analysis and Carbon Risk Metrics. The Fund's approach to climate risk management will be further developed in its forthcoming Climate Strategy.

Although the Fund's Climate Strategy will involve more than just engagement and shareholder voting, stewardship activities will remain an important aspect of the Fund's approach to managing climate risk. The Fund expects all investee companies to manage material risks, including climate change, and the Fund believes that climate risk management can be meaningfully improved through focussed stewardship activities by investors.

The Fund supports the engagement objectives of the Climate Action 100+ initiative, namely that companies: adopt the appropriate governance structures to effectively manage climate risk; decarbonise in line with the Paris Agreement, and; disclose effectively using the TCFD recommendations.

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



Table 3: The Fund's Stewardship Partners

Organisation	Remit
LGPS Central Limited	The Fund is a 1/8th owner of LGPS Central Limited. Climate change is one of LGPS Central's stewardship themes, with quarterly progress reporting available on the website. The Responsible Investment Team at LGPS Central engages companies on the Fund's behalf, including via the Climate Action 100+ initiative.
Federated F Hermes	EOS at Federated Hermes is engaged by LGPS Central to expand the scope of the engagement programme, especially to reach non-UK companies. In 2019, EOS conducted engagements on 238 climate change issues across its company universe.
Local Authority Pension Fund Forum	The Fund is a member of the Local Authority Pension Fund Forum (LAPFF). LAPFF conducts engagements with companies on behalf of local authority pension funds. In 2019 LAPFF conducted over 150 engagements on climate change.
BMO 🖄	BMO Global Asset Management provides engagement services for the Fund's Global Equity portfolios. In 2019, BMO conducted engagements on 93 climate change issues across its company universe.



The instruction of shareholder voting opportunities is an important part of climate stewardship. The Fund's votes are executed by its fund managers and its asset pool (LGPS Central) according to a set of *Voting Principles*, to which the Fund contributes during the annual review process. LGPS Central's *Voting Principles* incorporate climate change, for example by voting against companies that do not meet certain thresholds in the Transition Pathway Initiative (TPI) scoring system. LGPS Central has co-filed shareholder resolutions that relate to climate change. LGPS Central recently co-filed climate-related shareholder resolutions at the meetings of BP Plc, Barclays Plc, and Citigroup.

The Fund employs BMO Global Asset Management (BMO) to provide a responsible engagement overlay service to its Global Equity portfolios. On behalf of the Fund, BMO enters into constructive discussions with companies on their impacts on the environment and society in general.

The results of engagement and voting activities from the investment managers and the Fund's engagement provider, BMO, are reviewed by the Pension Committee quarterly. LGPS Central's activities are reported in *Quarterly Stewardship Updates* which are available on the LGPS Central website.

Based on its Climate Risk Report, the Fund will develop a Climate Stewardship Plan which, alongside the widescale engagement activity undertaken by LGPS Central, EOS at Federated Hermes, BMO and LAPFF, will include targeted engagement at investee companies of particular significance to the Fund's portfolio.

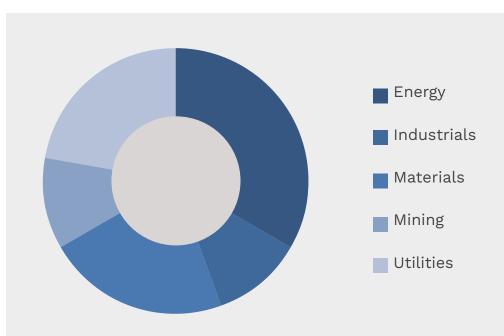


Figure 5: Sectors included in proposed Climate Stewardship Plan



Engagement Example 1 (LGPS Central): Barclays Plc

Background

Together with 10 other investors, LGPS Central co-filed a shareholder resolution at Barclays Plc asking the company to disclose targets to phase out the provision of finance to companies, starting with those in the energy and utility sectors, that are not aligned with the Paris climate change goals. The resolution aligns with LGPS Central's responsible investment beliefs on climate change as a materially financial risk. LGPS Central engaged Barclays leading up to the Annual General Meeting (AGM) on 7 May 2020.

Outcomes

Following multiple meetings with investors, Barclays – close to the AGM – announced an ambition to become a "net-zero bank" covering emissions across Barclays' own operations and those of its clients. LGPS Central view this as a reflection of positive engagement pressure, and the bank's willingness to listen. As was the case with BP Plc in 2019, Barclays' board sponsored a resolution to its AGM that captured this commitment. Barclays has invited investor scrutiny and dialogue as they work to establish metrics and nearerterm targets that correspond meaningfully to the long-term net-zero ambition.

Next Steps

LGPS Central are keen to see evidence that all of Barclays' lending activities, including those that bear the most climate risk, will be addressed with Paris agreement urgency. The Company has signalled that further updates on its climate strategy will be published before the end of 2020.



Engagement Example 2 (BMO): BP

Background

BMO has engaged BP over a number of years on climate change, including making a public statement at the 2017 AGM calling for the company to take a leadership position on climate disclosure and strategy. In 2019 and 2020, this engagement intensified as BMO joined the group of investors tasked with engaging BP within the global Climate Action 100+ initiative. As part of that group, BMO had three meetings with new CEO Bernard Looney in 2020.

Outcomes

Following concerted investor pressure, one of Bernard Looney's first announcements on taking up the role in February 2020 was to announce a net zero emissions ambition for the company. BMO responded with recommendations on how to turn this ambition into a credible strategy, and in August BP announced an implementation plan which included specific actions and targets including a business restructuring and a ten-fold increase in investment in clean technologies.

Next Steps

The combination of ambitious long-term targets and a set of concrete implementation actions represent a significant shift in strategy for the business. Unlike the ill-fated 'Beyond Petroleum' strategy of the late 1990s, this time the changes appear to be integral to the company's purpose and objectives; BP's partnership announced recently on offshore wind with Equinor and hydrogen with Ørsted are early signs of progress. With BP remaining still a company dominated by its fossil fuels business, however, BMO sees it as vital that investors continue to engage in order to hold the company to account and press for urgency in the pace of transition.



Engagement Example 3 (BMO): Royal Dutch Shell

Background

Like BP, BMO has engaged Royal Dutch Shell for many years on climate change and on wider social and environmental issues. The company was an early adopter of scenario analysis in its Shell Scenarios, but in BMO's meetings with the Board and senior management they did not see a strong link between this work and the company's core strategy. BMO became part of the Climate Action 100+ investor group engaging with Royal Dutch Shell to escalate its approach, also and supported a statement at the 2019 AGM.

Outcomes

Like BP, Royal Dutch Shell has now also set a net zero ambition. Through Climate Action 100+ BMO had several follow-up meetings with the CEO and Chair to emphasise the importance of a credible plan to implement this goal, as well as a more in-depth call later with the company's Projects & Technology Director. Through these meetings BMO fed in its expectations of what a credible plan should include, with particular emphasis on how capital expenditure plans need to urgently shift toward clean technologies. Shell's implementation plan is expected to come out in early 2021.

Next Steps

BMO's engagement with companies calls for both long-term net zero aligned ambitions, and shorter-term targets and implementation plans. So far Shell has shown progress on the former, but not the latter. Once details of strategy emerge, BMO will engage further to give feedback and monitor how the company is progressing.

TCFD Recommended Disclosure

c) Describe how processes for identifying, assessing and managing climaterelated risks are integrated into the organisation's overall risk management.

Both 'mainstream' risks and climate-related risks are discussed by the Pension Committee. While specific macro-economic risks are not usually included in isolation, the Fund is considering the inclusion of climate risk on the Fund's Risk Register.

Climate risk will be further managed through the Fund's Climate Stewardship Plan.



Metrics & Targets

TCFD Recommended Disclosure

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

The Fund has recently received a report from LGPS Central on carbon risk metrics for its listed equities portfolios, which represent 47% of the Fund's total assets. The poor availability of data in asset classes other than listed equities prevents a more complete analysis at this time.

The carbon risk metrics analysis include:

- portfolio carbon footprints⁴
- weight of portfolios invested in companies with fossil fuel reserves
- weight of portfolios invested in companies with thermal coal reserves
- weight of portfolios invested in companies whose products and services include clean technology
- metrics assessing the management of climate risk by portfolio companies

The scope of the analysis comprises the total equities portfolios as at 31st March 2020 and covers 5 out of 5 equity strategies and 1,360 individual companies. Data coverage for the listed equities portfolios ranges from 97.8% to 100%⁵. The Portfolio Carbon Footprint is calculated as the weighted average (i.e. considering the weight in the portfolio) of the carbon footprints of all portfolio holdings.

Carbon risk metrics aid the Fund in assessing the potential climate-related risks to which the Fund is exposed, and identifying areas for further risk management, including company engagement and fund manager monitoring. The Fund additionally monitors stewardship data (see above).

⁴ Following TCFD guidance we use weighted average portfolio carbon footprints.

⁵This includes scope 1 and scope 2 emissions. We have chosen not to include scope 3 emissions in the portfolio carbon footprint metrics for two reasons: (1) the rate of scope 3 emissions disclosure remains insufficient to use reliably in carbon footprinting analysis (2) the inclusion of scope 3 emissions leads to double-counting at the portfolio level. To ensure fossil fuels companies are not unduly omitted from our analysis, we review three Fossil Fuels Exposure metrics.



TCFD Recommended Disclosure

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

In line with the TCFD guidance and following receipt of a report from LGPS Central Limited we provide below the carbon footprints of our equity portfolio⁶:

Table 4: Carbon risk metrics for the equity portfolio⁷

		Carb	on Foot	print	Weight in Fossil Fuel Reserves		Weight in Thermal Coal Reserves			Weight in Coal Power			Weight in Clean Technology			
Portfolio Name	Benchmark/ Comparator	PF	BM	% Diff	PF	BM	% Diff	PF	BM	% Diff	PF	BM	% Diff	PF	BM	% Diff
Total Equities	Total Equities Blended Benchmark	146.78	169.10	-13.20%	6.23%	7.26%	-1.03%	2.61%	2.66%	-0.05%	1.88%	2.03%	-0.15%	35.36%	35.25%	0.11%
Total Global Equities	FTSE All World	148.05	174.21	-15.02%	5.83%	6.45%	-0.62%	2.69%	2.58%	0.11%	2.08%	2.26%	-0.18%	36.11%	36.46%	-0.36%

⁶ Analysis undertaken on the listed equities portfolios within holdings data as of 31 March 2020. The information in Table 4 was provided to the Fund in a report authored by LGPS Central Limited. In LGPS Central Limited's Reports the Total Equities portfolio comprises the Majedie UK Equities, LGIM World Developed Equity and LGPS Central Global Equity Active Multi-Manager portfolios weighted according to their size in GBP. The Total Global Equitiesportfolio contains the LGIM World Developed Equity and the LGPS Central Global Equity Active Multi-Manager portfolio.

⁷ Certain information ©2020 MSCI ESG Research LLC. Reproduced by permission.



The Fund's Total Equities portfolio is c.13% more carbon efficient than the blended benchmark. This means that, on average, for every \$m of economic output companies produce, the Fund's investee companies emit 13% fewer GHG emissions than the companies in the blended benchmark. The Total Equities portfolio has a lower exposure to all three fossil fuel metrics – fossil fuels reserves, thermal coal reserves and coal power – than its blended benchmark.

The report received from LGPS Central Limited shows that Total Global Equities portfolio is more carbon efficient than the FTSE All World.

Whilst the Fund's carbon risk metrics results show the Fund already 'outperforms' its benchmarks, the Fund is proactively exploring ways to further embed climate risk management in its investment decision making. The Fund expects to update its carbon risk metrics data on an annual basis.

TCFD Recommended Disclosure

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

The ability for diversified investors (such as pension funds) to set meaningful climate targets is inhibited by the paucity in credible methodologies and data currently available. Like most investors, the Fund is supportive of the development of target-setting methodologies, and of the increasing completeness of carbon datasets. The Fund wishes to explore options to further manage climate-related risks and work is underway to assess options within the limitations of currently available data. As part of the development of the Fund's Climate Strategy, the Pensions Committee is exploring ways to reduce the Fund's carbon footprint, particularly in the listed equities portfolios.



Appendix 1

TCFD Recommendations for Asset Owners (source: TCFD)

Governance

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

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

Strategy

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

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

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

Risk Management

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

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

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

Metrics and Targets

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

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

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



Appendix 2: Recommendations and Considerations from the Climate Risk Report

Category	Recommendation (R)/ Consideration (C)
Governance	
Policies	R: Develop a Climate Strategy. This should be consistent with the TCFD recommendations and include a Climate Stewardship Plan, monitored regularly by the Pensions Fund Committee*
Policies	R: Include a formal Investment Belief on climate change in the Investment Strategy Statement (ISS) at the point of next review
Policies	R: Integrate communications on climate risk into the Fund's Communications Strategy
Policies	C: Expand the Training Policy element in the Annual Report to include reference to climate change training received during the course of the year
Policies	C: Request climate risk advice in advisors' reports
Policies	 C: The ISS could be expanded to include details on the Fund's view on the risk and opportunities responsible investment, and in particular climate change, can bring engagement and voting providers for the global equity portfolios the roles of key governance committees, especially the Pension Fund Committee, in approving and monitoring responsible investment strategy Under investment risk, climate risk could be



Category	Recommendation (R)/ Consideration (C)
Governance	
Policies	C: As part of the Funding Strategy Statement (FSS) review, consider the extent to which climate risks could affect other risks noted in the FSS
Policies	C: Update the Governance Compliance Statement to explain how climate risks are governed
Policies	C: If deemed sufficiently significant, include climate risk on the Fund's Risk Register
Governance	R: Schedule agenda time at Pensions Fund committee meetings twice per year for discussion of progress on climate strategy.
Governance	R: Schedule one training session on general RI matters and one climate-specific training per year
Reporting	C: In the Annual Report expand the voting and engagement section to include activities from the LGPS Central portfolio and the LGIM World Developed Equity portfolio
Reporting	C: In the Annual Report include a summary of this Climate Risk Report in a manner consistent with the TCFD Recommendations.



Category	Recommendation (R)/ Consideration (C)			
Strategy				
Asset Allocation	R: Explore the potential for additional allocations to sustainable investments if evidence suggests there could be asymmetrical return profiles (i.e. with expected relative upside in a 2°C scenario and no meaningful relative downside)			
Asset Allocation	R: Attempt to monitor the likelihood of different climate scenarios*			
Asset Allocation	R: Scenario analysis should be considered every 2-3 years, or when reviewing asset allocation			
Asset Allocation	R: Discuss sector positioning with equity and corporate fixed income fund managers, focusing on those sectors most likely to be sensitive to climate risks and opportunities			
Asset Allocation	R: Discuss with Majedie (UK Equities portfolio) their positioning in the energy sector			
Policy Engagement	R: Consider offering public support for the Paris Agreement			
Policy Engagement	R: Join collaborations of like-minded institutional investors to collectively lobby for Paris-aligned climate policies*			
Policy Engagement	R: Seek through company engagement and voting (via fund managers and service providers) to reduce the amount of corporate lobbying that undermines the Paris Agreement*			



Category	Recommendation (R)/ Consideration (C)
Risk Management	
Manager Monitoring	R: Dialogue with and monitor listed equities managers using IIGCC's "Addressing climate risks and opportunities in the investment process"
Company Stewardship	R: Develop a Climate Stewardship Plan which monitors external fund managers and monitors progress at a shortlist of focus companies*
Metrics and Targets	
Metrics	R: Repeat Carbon Risk Metrics analysis annually
Metrics	R: Report annually on progress on climate risk using the TCFD framework

* The Fund may draw on the expertise of external resources to complete these recommendations



Appendix 3: Important Information

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

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