MANCHESTER 1824
The University of Manchester

Mercer

Investment Portfolio Climate Change Report

For the year ended 31 July 2023

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1 Introduction

The University of Manchester supports the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) as a framework to help manage and report on the actions being taken to identify climate change-related risks and opportunities in the University's investment portfolio. **Currently the University does not report more widely across all its activities under the TCFD framework. This report solely relates to the University's investment portfolio.**

The University's investment portfolio is made up of endowment funds; gifts from donors intended to be held on trust to generate a return, usually for specific purposes within the University. The University invests these funds across a range of asset classes including equities, property, bonds and diversified growth funds.

This report explains how we, the University's Board of Governors, have established and maintain oversight and processes to satisfy ourselves that the relevant climate-related risks and opportunities are considered appropriately by all stakeholders involved in the day-to-day management of the University's endowment investment assets.

Climate change is the most important issue facing the world today, and the University recognises the climate emergency declared by the UK Parliament and other nation states. The University fully supports the climate targets and ambition agreed in the 2015 Paris Agreement. As an institution, the University has aligned itself with the City of Manchester 2038 zero carbon target outlined in *Manchester Zero Carbon Framework 2020-2038* and embedded this target into the University's new strategy *(Our future)*.

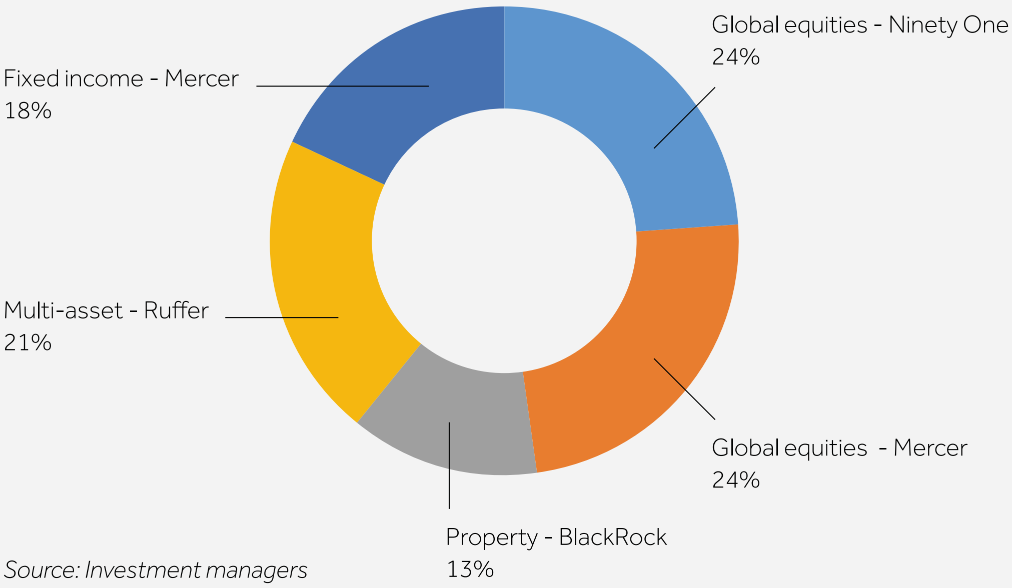
Consistent with this, the University explicitly commits in its *Policy for Responsible Investment* to actively decarbonise its investments so that its investment portfolio reaches net zero carbon in 2038. The chosen target is ambitious in comparison to national level targets and actions of other organisations, and ensures that the University investment portfolio will undergo a significant transformation over the coming years as a result. This transition will be a key focus of the Board of Governors.

As actions to deliver on the UK's climate change goals accelerate, the University expects carbon measurements and carbon monitoring methodologies for investors to significantly improve in terms of coverage, accuracy and insight. Meanwhile, the University recognises the current state of practice and commits to periodically review the suitability of its approach that at present uses carbon intensity, rather than absolute carbon dioxide emissions, as an indicator.

Furthermore, the University will review the carbon budgeting approach and any ratchet mechanisms applied to climate mitigation at the national level (for example, prompted by outcomes from annual UNFCCC Conference of Parties meetings) and consider alignment with national targets if such ambition was to exceed the current 2038 commitment.

We recognise that climate issues can be more relevant and readily implementable for some parts of the portfolio than others. This report outlines where governance of climate risk and opportunities has been applied in relation to the University's investment portfolio. We will seek to expand the remit of this reporting to cover the entirety of the portfolio as and when the ability to monitor these risks becomes more achievable via improved availability of data.

Chart 1. The University's investment portfolio at 31 July 2023



Source: Investment managers

At 31 July 2023, the University's investment portfolio was valued at £210 million. As shown in the chart above, the investments are spread between investment managers and across different asset classes. The objective of the portfolio is to support the activities of the University, particularly in the specific areas defined by the donors of the endowment funds.

The University believes that its investments should be consistent with its values and that environmental, social, and governance (ESG) issues can affect the performance of companies and assets in which the University invests. The University works with its investment advisers and managers to ensure that investments meet the requirements of its *Policy for Responsible Investment*. The assessment of climate change risks and opportunities is embedded in the University's investment decision making processes and this will continue to evolve.

2 The TCFD Framework

The Financial Stability Board, an international body established by the G20 that monitors and makes recommendations about the global financial system, created the Task Force on Climate-related Financial Disclosures (TCFD) in 2017. TCFD was created to improve and increase reporting of climate-related financial information that can promote more climate-informed investments. This report has been drafted with reference to the TCFD recommendations and uses the framework suggested by the TCFD as described below. Our aim is that staff, students, and other stakeholders can better understand the climate-related risks and opportunities the University has from its ownership of companies and other investments.

TCFD recommendations are categorised under four pillars:

1. Governance

The organisation's governance around climate-related risks and opportunities.

2. Strategy

The actual and potential impacts of climate-related risks and opportunities on the organisation's business strategy and financial planning.

3. Risk management

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

4. Metrics and targets

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

Asset owners like the University sit at the top of the investment chain and, therefore, have an important role to play in influencing the organisations through which they invest (such as asset managers) and companies in which they ultimately invest to provide better climate-related financial disclosures. Disclosure of climate-related risks and opportunities by asset owners allows beneficiaries and other audiences to assess the asset owner's investment considerations and approach to climate change.

3 Climate-related risks

Human activities are estimated to have caused over 1.1°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 climatic changes are primarily the result of human activities including electricity and heat production, agriculture and land-use change, industry, and transport.

To mitigate the worst economic impacts of climate change, there must be a large, swift, and globally co-ordinated policy response. Despite this, most 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.

Given its contribution to global greenhouse gas emissions, the energy sector is expected to play a significant role in the long-term decarbonisation of the economy. It is important to recognise however 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 is as important as their publicly-traded counterparts. The issue faced by diversified investors is not limited to the oil and gas and power-generation sectors, but also to supply chains and downstream sectors. Investors focusing exclusively on primary energy suppliers could fail to identify material climate risks in other sectors.

The University recognises that climate-related risks can be financially material, and that the due consideration of climate risk falls within the scope of the fiduciary duty of those tasked with overseeing the investment of University asset including endowments. Given the long-dated nature of the University's investments and the timeframe in which climate risks could materialise, a total approach to risk management covering all sectors and all relevant asset classes has been taken.

4 Governance

TCFD recommendation – describe the Board's oversight of climate-related risks and opportunities.

The Board of Governors, as Trustee, has the ultimate responsibility for ensuring effective governance of climate-related risks and opportunities within the University's investment portfolio. The Board maintains a *Policy for Responsible Investment*, which details the key beliefs, risks and approach to responsible investment and climate change. This is reviewed on a biennial basis or more frequently as required.

The Board's overall investment beliefs on sustainability are:

1. ESG factors can have a material impact on long-term risk and return outcomes, and these should be integrated into the investment process.

2. Taking a broader and longer-term perspective on risk, including identifying sustainability themes and trends, is likely to lead to improved risk management and new investment opportunities.

3. Climate change poses a systemic risk, and investors should consider the potential financial impacts of both the associated transition to a low-carbon economy and the physical impacts of different climate change outcomes.

4. Stewardship (or active ownership) helps the realisation of long-term shareholder value by providing investors with an opportunity to enhance the value of companies and markets.

The Board, through its Finance Committee and Investment Sub Committee, takes independent investment advice to help assess climate risks and opportunities, and looks to ensure that any decisions continue to be integrated into a coherent investment strategy that supports the University's ability to utilise the investment assets to further their cause.

The Board meets at least four times a year (and more frequently, if required). Investment performance and risk management are delegated to the Finance Committee and its Investment Sub-Committee, who review climate-related risks within the investment portfolio. The Investment Sub-Committee meets at least twice per year and formally reports to Finance Committee and the Board. Wider climate change governance for the University is delegated by the Board to Planning and Resources Committee and the Environmental Sustainability Committee, which review and monitor the University's zero carbon pathway to 2038. Carbon emissions for the University's investment portfolio are considered as Scope 3 emissions for the wider University.

Research into how climate-related risks and opportunities impact financial markets is constantly evolving and expanding. Investment Sub-Committee members carry out training on a regular basis to keep up to date with developments in this space.

Investment Sub-Committee receives quarterly ESG reports, which summarise the stewardship activity carried out on its behalf by the investment managers. The Committee also receives an Annual Responsible Investment Report, detailing adherence to the Policy for Responsible Investment, which sets out decarbonisation targets for the University's investment portfolio and expectations of investment managers around investment selection and stewardship. The University's Responsible Investment Policy is refreshed every two years and is considered and approved by the Board of Governors.

TCFD recommendation – Describe management's role in assessing and managing climate-related risks and opportunities.

The implementation of the management of climate change-related risk with respect to specific securities is delegated to the University's investment managers. Accordingly, the Board has delegated to the Investment Sub-Committee the management of the risks and opportunities associated with ESG considerations. The Committee selects industry leaders in investment management who are committed to the UN-supported *Principles for Responsible Investment* (PRI) (as they apply to the sector in which the manager invests or the strategy pursued by the manager) and against criteria which include ESG considerations.

The Vice-President for Social Responsibility and the Chief Financial Officer of the University are both members of Investment Sub-Committee. Any proposed amendments to the *Policy for Responsible Investment*, including decarbonisation targets, are considered by the University's Senior Leadership Team before being approved by Investment Sub-Committee, Finance Committee and the Board.

Mercer provides advice to the Investment Sub-Committee on the investment strategy and investment manager appointments (where relevant). This includes advice on managing and monitoring investment-related risks, such as climate change, from a strategic asset allocation perspective and with the appointed investment managers. The University works with Mercer to ensure that the investment managers adopt a consistent approach to governance and reporting of climate change risks and opportunities.

Mercer provides climate-related scenario analysis, advice and training on the selection of climate-related metrics for the University to monitor. Mercer has assisted the University in producing this climate change-related disclosures report.

The University monitors its investment managers on a regular and ongoing basis, including with respect to stewardship activities. The criteria for ongoing selection and retention of investment managers includes the integration of sustainability measures. The University reviews how its investment managers assess, manage and integrate climate risks into the University's portfolio construction.

The University or Mercer, acting on behalf of the University, will engage with underlying investment managers where they are perceived to be lagging their peers in terms of ESG integration and climate risk management, and to ensure the investment managers are voting and engaging with the investee companies in line with the University's engagement priorities.

The University expects all advisors to act with integrity and diligence in fulfilling the set objectives, and uses meetings with the advisors to assess and challenge them.

5 Strategy

TCFD recommendation – Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long-term.

As a long-term investor, the University recognises the risks and opportunities arising from climate change are diverse and continuously evolving. The University has considered the following short-, medium- and long-term drivers of risk in relation to its investment portfolio:

Over the short-term (from now to 2027), risks may present themselves through rapid market re-pricing relating to climate transition as:

- Scenario pathways become clearer. For example, if a well-below 2°C scenario becomes more likely, this will drive rapid transition risk.
- Market awareness grows. For example, the cost and impacts of the transition suddenly influence market pricing.
- Policy changes unexpectedly surprise markets. For example, if a carbon price or significant regulatory requirement are introduced across key markets to which the portfolio is exposed, at a sufficiently high price to impact behaviour.
- Market sentiment is shocked. Falls in markets could create a downward spiral where economic sentiment worsens and asset values fall.
- Perceived or real increased pricing of greenhouse gas emissions/carbon.
- Substitution of existing products and services with lower emission alternatives may impact the part of the portfolio.
- Litigation risk relating to dangerous warming becoming more prevalent.
- Increases in the energy/heat efficiency of buildings and infrastructure.

As well as risks associated with these drivers, there could also be opportunities. For example, investing in climate solutions as policy support strengthens.

Although physical risk is more significant over the medium to long-term, it is recognised that the physical impact of climate change is already being felt across the world, for example through heatwaves, forest fires and flooding.

The University's ability to understand these short-term changes can position it favourably, for example taking advantage of the climate transition by avoiding and reducing investment in high-emitting carbon sensitive businesses that do not support the transition to a low carbon economy.

Over the medium term (2027-2037), risks are likely to be more balanced reflecting both transition and physical risk. Over this period, the transition pathway will unfold and the level of physical damage to expect will become much clearer. While the full extent of the physical damage is unlikely to have occurred, markets are likely to be allowing for it to a large degree in asset pricing.

The University's ability to understand these changes and evolve the portfolio as the pathway develops should help to control risk and potentially enhance returns. The University seeks to select managers and choose indices that can identify potential emergence of low carbon opportunities and the decline of some traditional sectors.

Over the long-term (post-2038), physical risks are expected to come to the fore. This includes the impact of natural catastrophes leading to physical damages through extreme weather events. Availability of resources is expected to become more important if changes in weather patterns (such as temperature or precipitation) affect the availability of natural resources such as water. The impact of global heating on productivity, particularly in areas closer to the equator, will also be a key driver.

This could eventually become an important factor in investment strategy. For now it is supporting evidence of the validity of the University's engagement policies to support an effective transition alongside and as part of wider investment industry campaigns.

TCFD recommendation – Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning. Asset owners should describe how climate-related risks and opportunities are factored into relevant investment strategies.

Over the short term, the University has identified the inter-related risks of climate transition and asset repricing as being most relevant risks to the investment strategy. Over this period opportunities are most likely to occur in transition-related investment such as climate solutions.

Over the medium term, the University has concluded that both transition risk and physical risk (particularly in the form of asset repricing to allow for future physical damage) could be material.

Over the long term, the University has identified physical risk as the key driver.

The University has investigated the potential impacts of these risks and opportunities in the scenario analysis that follows.

TCFD recommendation – Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2˚C or lower scenario.

Climate change scenario analysis was undertaken on the University's strategic investment asset allocation as of 31 July 2022 to assess the potential implications of climate change.

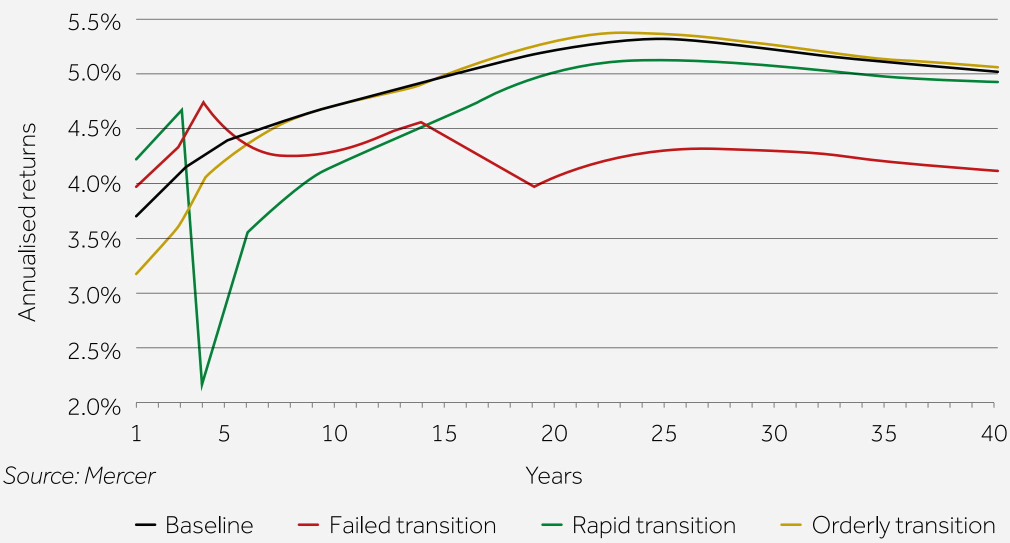
TCFD guidance is that this scenario analysis is updated at least every three years and in the event of material changes in strategy or the scenarios. The analysis has not been updated for this year's report as it would not give materially different outputs or lead to materially different conclusions.

The analysis shown below therefore continues to show the impact under three modelled scenarios: a **rapid transition** (1.5°C), an **orderly transition** (less than 2°C) and a **failed transition** (greater than 4°C). The analysis is based on scenarios developed by Mercer working with Ortec Finance.

- **Rapid transition** – Average temperature increase of 1.5°C by 2100. This scenario assumes sudden downward re-pricing across assets in 2025. This could be driven by a change in policy, consideration of stranded assets or expected costs. The shock is partially sentiment-driven and so is followed by a partial recovery. Physical damages are most limited under this scenario.
- **Orderly transition** – Average temperature increase of less than 2.0°C by 2100. Governments and wider society act in a co-ordinated way to decarbonise and to limit global warming to well below 2°C. Transition impacts do occur but are relatively muted.
- **Failed transition** – Average temperature increase above 4°C by 2100. The world fails to co-ordinate a transition to a low carbon economy. Global heating exceeds 4°C above pre-industrial levels. The impacts of this to 2100 would be catastrophic and range from environmental, natural and societal to financial and economic. The climate impacts significantly reduce economic productivity and have increasingly negative impacts including extreme weather events. By 2100 economic output could have been reduced by 80% relative to a scenario with no climate impacts. This impact would be expected to be felt in a very material reduction in asset values and likely financial crisis. These investment impacts are partially reflected in repricing in the late-2020s and late-2030s, but further damage to value would be expected beyond the time frame of the analysis shown in this report.

Avoiding a failed transition is an imperative.

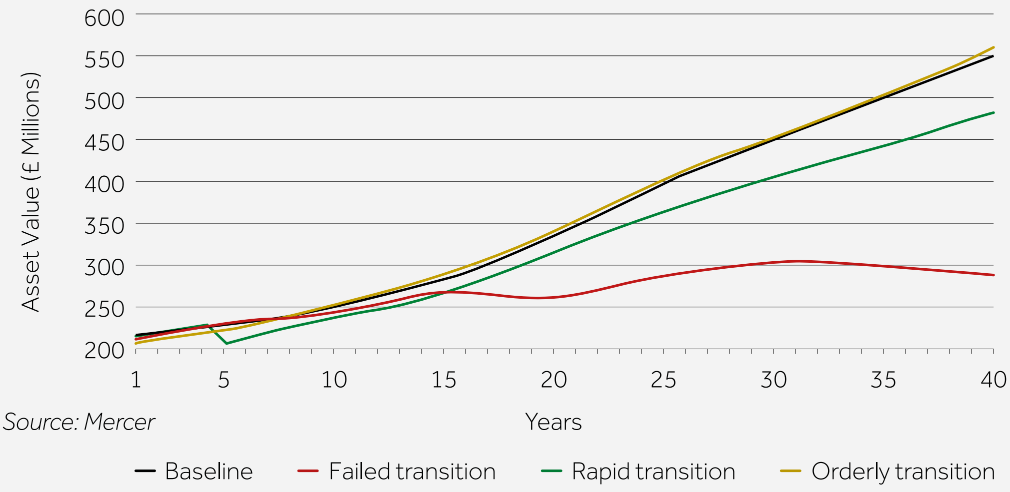
Chart 2. Annualised climate change impact on investment returns out to 2060 under different warming scenarios.



Source: Mercer

Short term (to 2027)	Over the short-term, transition risk dominates. The rapid transition shows a potential one-year fall in asset values of around 8% and up to 2.1% reduction in annualised return. The University is planning to further reduce the carbon intensity of its investments. This will reduce the exposure to transition risk.
Medium-term 2027 to 2038)	Over the medium-term the balance between the impacts of transition risk and the pricing of future physical impacts in a failed transition has switched with physical risk becoming more pronounced. The rapid transition would reduce returns by 0.3% per annum up to 2038 and the failed transition would reduce returns by 1.1% per annum up to 2038. Again, the decarbonisation path the University is on is expected to reduce transition risks.
Long-term (beyond 2038)	Over the long-term, physical risk dominates and the failed transition is by far the most impactful and worst scenario. This scenario reduces return to 2060 by 1% per annum. Further shocks reducing returns either at the end of the projection or beyond it could also be possible, for example driven by sovereign debt defaults. These are not explicitly modelled in the scenario analysis.

Chart 3. Projection of investment asset values to 2060 under different climate scenarios.

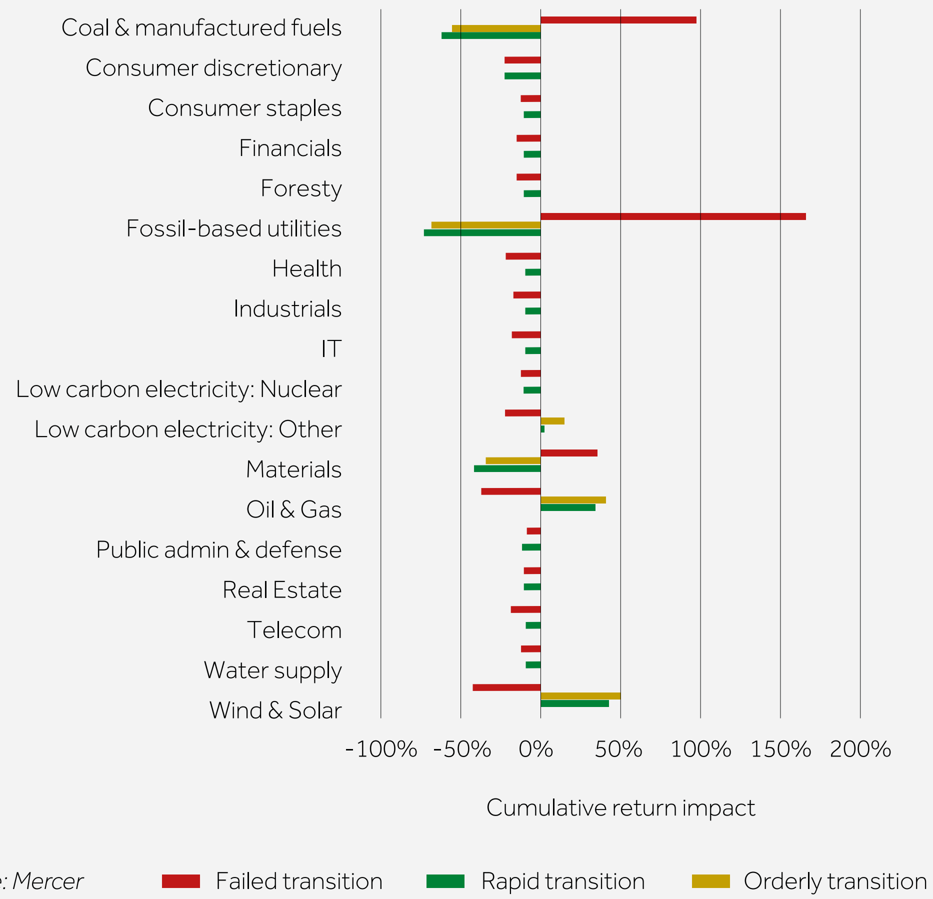


Source: Mercer

The chart shows a projection of assets allowing for spending of £6 million per annum increasing at an annual rate of 2%. It shows that under a failed transition asset values could be reduced by 48%. This would have a material impact on the support the assets could provide to the University. **This conclusion provides strong support for the University's engagement activities aimed at bringing about a successful transition.**

Sector allocation is a key driver of climate risk.

Chart 4. Cumulative investment return impacts by equity sector and climate scenario.



Source: Mercer

Climate impacts are naturally sector-specific. This is illustrated by the chart above, showing the cumulative impact of each scenario on different equity sectors.

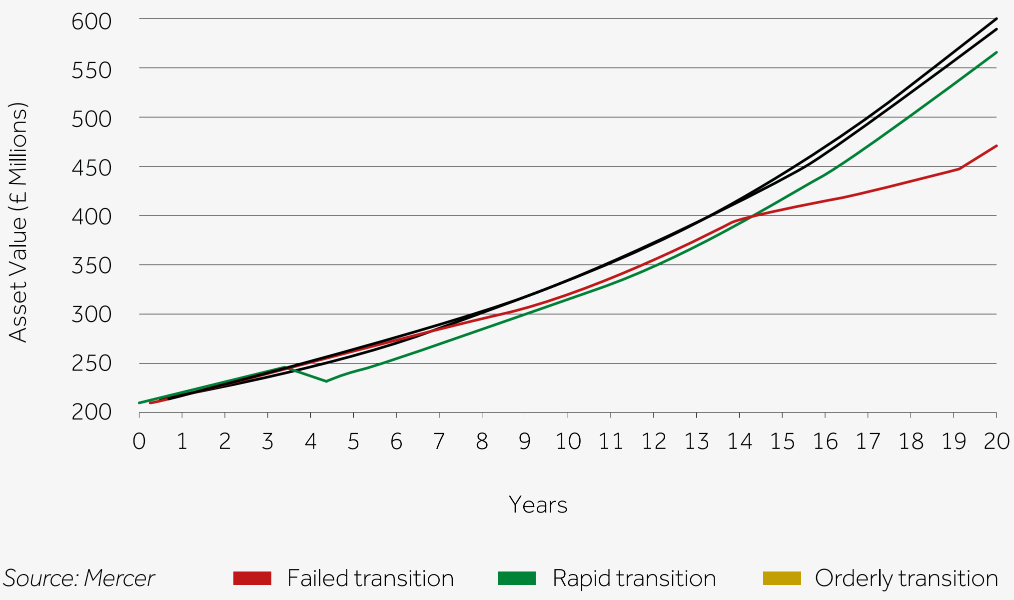
The impacts of a scenario can be driven by what is happening in the scenario. For example, the positive impact on wind and solar under the transition scenarios. Alternatively, the impacts can be driven by expectations that are priced in by the market but don't happen in a given scenario. For example, the positive impact on the fossil-based utilities sector as the failed transition implies more revenue than expected for these companies.

Based on this data, the University:

- Selects investment managers who allocate to companies and sectors taking into consideration the impact of climate sectors.
- Has updated allocations to remove fossil fuel companies and tilt towards sectors better positioned for the transition.

Investors should be aware of future pricing shock.

Chart 5. Projection of investment asset values for 20 years under climate scenarios.



Source: Mercer

Investors, and therefore the market, look to predict future events/impacts and allow for them in asset prices. As particular events become more likely, market pricing will change before events occur. This means that longer-term impacts, including transition impacts and particularly physical damages, could impact portfolios earlier than they occur.

The rapid transition includes a shock around 2025 pricing in (and overreacting to a degree) to transition costs. The failed transition includes shocks towards the end of the 2020s and 2030s pricing in future damage.

This informs the University's belief that climate factors are important considerations in current investment decisions.

6 Risk management

TCFD recommendation – Describe the organisation's processes for identifying and assessing climate-related risks. Asset owners should describe, where appropriate, engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks.

The University's Investment Sub-Committee (reporting to Finance Committee and then to the Board) considers quarterly ESG reports from investment managers at its meetings. The Investment Sub-Committee meets with investment managers on a biennial basis and would expect to discuss climate risks and how the manager integrates these into investment decisions and stewardship activity.

The University produces an *Annual Responsible Investment Report* which details some of the engagement and stewardship activity undertaken by its investment managers, including membership of the Institutional Investors Group on Climate Change (IIGCC), Climate Action 100+ and the Transition Pathway Initiative (TPI).

Consideration of climate risk and wider ESG factors is integrated into the University's approach to setting investment strategy and selecting investment managers.

In setting the targets within its *Policy for Responsible Investment*, the University consulted with experts from its Tyndall Centre for Climate Change Research and with investment advisors from Mercer.

The University is a signatory to the UN Principles for Responsible Investment (PRI) and utilises available research and data to inform investment decisions. The University also reviews the PRI and climate change/sustainability reports of its investment managers.

TCFD recommendation – Describe the organisation's processes for managing climate-related risks. Asset owners should describe how they consider the positioning of their total portfolio with respect to the transition to a low-carbon energy supply, production and use.

In relation to its investments, the University has set challenging decarbonisation targets and believes these will help to mitigate transition risks by investing in companies that are either less exposed to or well positioned for the transition. Carbon foot printing metrics are used to monitor progress against these goals.

The University has policies for stewardship and engagement to ensure it is an active owner and uses its influence to play its role as part of the investment community to bring about a successful transition and therefore mitigate the risks associated with temperature rise and physical damage.

The University has divested from fossil fuel companies, thereby reducing risks associated with potential stranded assets.

The University is considering investing in climate solutions to further support the transition and to provide the potential for outperformance in an accelerating transition – thereby offsetting transition risk in other parts of the portfolio.

The Board manages risk by prioritising those risks that it believes may be most financially material.

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

Both climate change-related risks and wider investment risks are considered as very important by the University. Where possible, climate change and wider investment risks such as demographic trends are treated in a holistic manner by recognising they are often interrelated.

Climate change and the University's zero carbon targets are monitored within the University's Risk Register. The Social Responsibility and Environmental Sustainability Team and the Finance Directorate work closely on the decarbonisation targets for the investment portfolio and the impact on the wider University zero carbon targets.

7 Metrics and targets

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

This report presents carbon data analysis for the University's investment mandates as at 31 July 2023.

Due to practical data availability, the University-level figures quoted in the report assume that companies not covered by the analysis are represented within the range of companies that have been covered in the analysis – the 'pro-rata approach' (it is not assumed that companies not covered have emissions of 0) in line with statutory guidance.

In this report, the University has looked at absolute emissions, carbon intensity ('carbon foot-printing') and implied temperature rise, in order to get a balance of 'where the portfolio sits today' and 'how we expect the portfolio to evolve over time'.

The carbon foot-printing metrics measures aid the University in assessing the potential climate change-related risks to which the University is exposed, and identifying areas for further risk-management, including company engagement and investment manager monitoring.

TCFD recommendation – Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

The University set a target to reduce the carbon intensity of the equity portfolio by 30% by 2023 (relative to the University's position in 2019, the "'base year'").

Following achieving the short-term targets, the University has set the below targets for 2027:

- Reduce exposure to carbon-intensive companies as measured by Weighted Average Carbon Intensity (WACI), an indicator of current climate-related risks, in the public equity allocation by 50% compared to the 'base year'.
- Reduce WACI within the investment grade credit allocation by 40% compared to the 'base year'.
- Reduce energy consumption within the property portfolio by 10% compared to the 'base year' and use 100% renewable energy by 2027.

The University notes that within property, measurement of carbon reduction is less developed at the time of writing and will work with their investment consultant in relation to this developing area over the medium-term.

TCFD recommendation – Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

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Asset Class	Absolute emissions - Portfolio (tCO2e	Implied temperature rise	Current WACI - portfolio (tCO2e/£ million revenue)
Equities			
Ninety One – Global Equity	1,413	n/a**	109.5
Mercer – Passive Sustainable Global Equity	488	1.8	43.4
Ruffer – Multi-asset (equities only)	1,729	4.3	247.7
Fixed income			
Mercer – Absolute Return Fixed Income	1,038	2.7	119.4
Mercer – Short Duration Bond Fund	476	2.1	91.9
Total University (excluding property investment portfolio)	**5,144**	**2.2***	**92.2***

Source: investment managers

Notes:

**Shown as the weighted average of each metric if available and using the weight to Ruffer of its equity element only.*

***Manager unable to provide.*

1) *Mercer data as at 30 June 2023.*

2) *Ruffer multi-asset data covers 89.1% of the portfolio's equity holdings. As at July 2023 month end, equities comprised 16.1% of the University's portfolio. Therefore, the overall portfolio coverage of the statistics is 14.4%.*

3) *Coverage as follows: Ninety One Global Equity – 100%, Mercer Sustainable Equity – 99.8%, Ruffer – as above, Mercer Absolute Return Fixed Income – 83.1%, Mercer Short Duration Fixed Income – 93.8%.*

4) *Average coverage across the managers above (using the weighting to Ruffer of its equity element only) is 96.4%. Ninety One and Mercer WACI data converted using 31 July 2023 exchange rate of GBP:USD of 1:1.2867.*

5) *This chart and the charts on page 18 and 19 exclude the property investment portfolio which reports using different metrics (see page 19)*

Weighted Average Carbon Intensity (WACI) – measures the carbon emissions (in Metric tons) divided by sales (per £ million of sales). The contribution of each issue is weighted according to portfolio weights. This means that for the University, for example, a company with a very high carbon intensity but a low University weighting might contribute to the WACI measure to a lesser extent than a company with a lower carbon intensity but a higher weighting in the University.

Absolute emissions – represents the company's reported or estimated greenhouse gas emissions, where available. It includes various scopes of emissions:

- **Scope 1 'direct' emissions**: those from sources owned or controlled by the company (for example, direct combustion of fuel from vehicles); and
- **Scope 2 'indirect' emissions**: those caused by the generation of energy (for example, electricity) purchased by the company.

Implied temperature rise – represents the implied temperature trajectory of a company's operations expressed as ºC * portfolio weights. It allows for tilting of the portfolio towards companies with a <2ºC implied temperature rise, to show alignment with the Paris Agreement ambition.

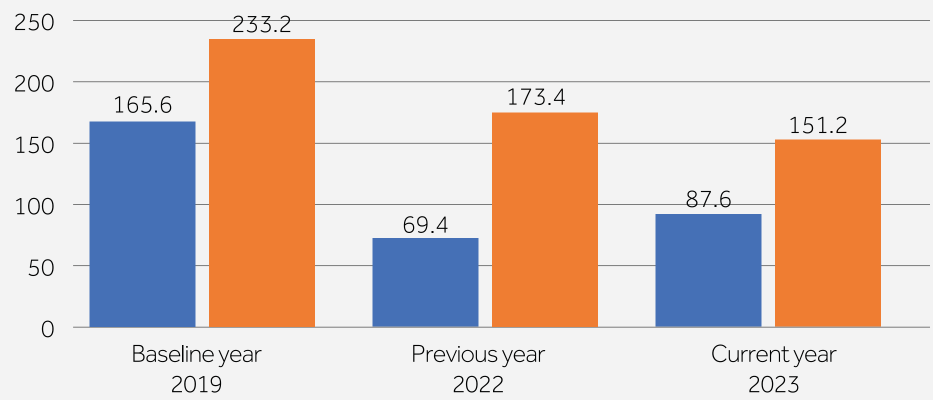
The Implied Temperature Rise, as based on MSCI metrics, analyses the 'warming potential' or the contribution of a company's activities towards climate change.

It provides a temperature value that signifies which warming scenario (For example, BAU, 3°C, 2°C, 1.5°C) the company's activities are currently aligned with. Thereafter, a "portfolio warming potential" is calculated as a weighted average of the company-level warming potential.

The Implied Temperature Rise of the portfolios listed above is over-stated, despite the sustainable equity funds being constructed in line with a Paris Aligned index benchmark. The methodology employed by the data provider does not take into account any future emissions commitments that companies may make. Not many companies are currently aligned with a net zero pathway. However, this is anticipated to change in the future.

Targets and progress to date.

Chart 6. WACI reduction in the equity portfolio of 50% compared to the base year (2019) by 2027.



Source: Investment managers, Mercer

Notes:

Baseline year based on 31 December 2019 information and converted using the exchange rate of GBP:USD 1:1.325.

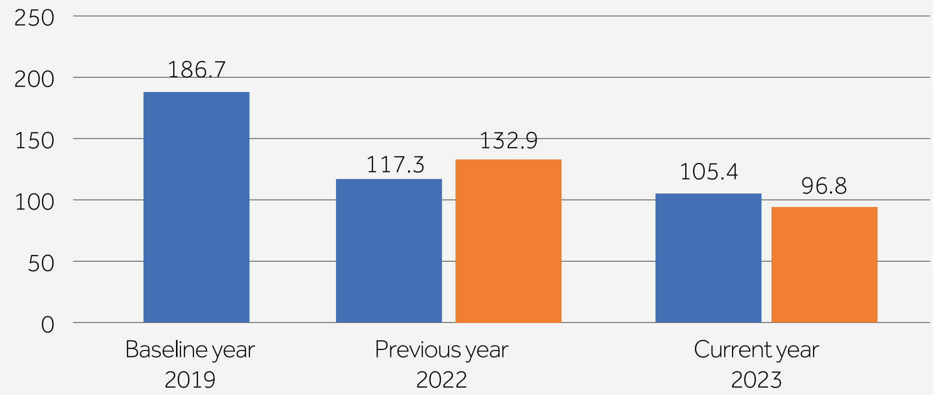
2022 WACI data has been converted using 31 July 2022 exchange rate of GBP:USD of 1:1.2169.

Current year (2023) benchmark WACI data is as at 30 June 2023 and converted using 31 July 2023 exchange rate of GBP:USD of 1:1.2867.

The University has reduced the WACI in the equity portfolio by c.47% relative to the 2019 position. The University has therefore hit its target of reducing WACI by 30% by 2023 and is on track to meet its 2027 target.

There has been an increase in WACI in the equity portfolio in comparison to 2022, this change is a result of the change in the mix of holdings leading to a higher WACI within the Ninety One and Ruffer funds, although this is offset slightly by a small reduction in WACI for the Mercer Equity Fund. Although we are still on track in our carbon plan, we are concerned this metric has moved in the wrong direction. Consequently, we are discussing this issue with the fund managers to ensure the position will reverse and that our ambition will continue to be met in 2027.

Chart 7. WACI reduction in fixed income assets by 40% compared to the base year (2019) by 2027.



Source: Investment managers, Mercer

Notes:

Baseline year based on 31 July 2019 information and converted using the exchange rate of GBP:USD 1:1.224.

2022 WACI data has been converted using 31 July 2022 exchange rate of GBP:USD of 1:1.2169.

Current year (2023) benchmark WACI data is as at 30 June 2023 and converted using 31 July 2023 exchange rate of GBP:USD of 1:1.2867.

Since the University was not invested in corporate bonds in 2019 it is using the WACI of a recognised global benchmark as the baseline. The University's portfolio has a WACI which is 44% lower than the baseline and is therefore ahead of its 2027 target.

Within fixed income, the 2022 numbers previously were scaled by the proportion of the particular issuer of the total portfolio (and any issuer without data was assumed to have zero WACI). The methodology has changed during 2023 so that this is scaled so that only issuers with coverage are included in the metric. This results in a higher WACI (and has increased the 2022 WACI). Overall Fixed Income WACI has reduced over the year to 31 July 2023.

Reduction in energy usage of 10% in the property investments by 2027 compared to the base year of 2019

The University also has a target for its property investments of a reduction in energy usage of 10% by 2027 (compared to the baseline year of 2019) and to use 100% renewable energy by 2027.

The percentage of landlord procured REGO backed renewable energy for 2023 was 100% (56% in 2022). Therefore, the University has now hit this target ahead of the 2027 date.

The reduction in energy usage within the property portfolio as at 2023 was c.+1.1% versus the baseline year (-1.3% versus baseline in 2022 and -7.8% versus baseline in 2021). The University is concerned that this metric has moved in the wrong direction over the last few years, consequently we are discussing this issue with our investment advisors and the property portfolio manager to ensure that the position will reverse and that our ambition will be met in 2027. The property portfolio manager has said that they are looking at new technologies, including a system that they have successfully trialled in 9 of their office properties, resulting in a reduction in energy consumption, and as such are looking to expand this across the remainder of their office portfolio.

8 Conclusions

The University has developed and maintains policies in relation to responsible investment. The University delegates management of security-specific climate risk to the investment managers. The University takes independent advice in relation to climate issues and monitors investment managers voting and engagement activity annually.

Strategy

The University has considered climate-related risk over the short-, medium- and long-term considering specific potential issues and risks related to these time frames. The University has a plan to reduce the carbon intensity of its investments therefore reducing the exposure to transition risk.

The University carried out scenario analysis in relation to its investments and the conclusions were as follows:

- **Avoiding a failed transition is an imperative** and would be beneficial to the University and all long-term investors. This supports the University's engagement and decarbonisation policies.

- **Sector allocation is a key driver of climate risk** – the University has updated benchmark allocations to remove fossil fuel companies and tilt towards sectors better positioned for the transition. Investment managers are selected based, in part, on how they consider the impact of climate on the sectors and stocks they invest in.

- **Climate impacts could cause market shocks** – this supports the University policy of getting ahead of future impacts in the policies set and the way the portfolio is constructed.

Risk-management

The University believes the ambitious decarbonisation targets set will help mitigate transition risks and has included climate risks and wider ESG factors in its approach for setting the investment strategy and selecting investment managers. The University uses scenario analysis in setting investment strategy and carbon foot printing-metrics to monitor against its goals.

The University has policies for stewardship and engagement and includes the risk of not meeting zero carbon targets on its risk register as part of its risk and controls framework.

Metrics and targets

With reference to the City of Manchester 2038 zero carbon target, the University has set a net zero target for the University's investments to be achieved by 2038.

The University has set the following targets for 2027:

- Reduce exposure to carbon-intensive companies as measured by Weighted Average Carbon Intensity (WACI), an indicator of current climate-related risks, in the public equity allocation by 50% compared to the 'base year'.

- Reduce WACI within the investment grade credit allocation by 40% compared to a benchmark in the base year.

The University is on track to achieve these targets and will update this report annually.