

The NMR Pension Fund

# Climate Impact Report

For the period 1 October 2022 to 31 March 2023





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# 1. Introduction and Chair Foreword

## 1.1 A message from the Chair of the Trustee of The NMR Pension Fund (the Fund) and the Chair of The Pensions Responsible and Sustainable Investment Committee (PRSIC)

On behalf of the Fund, we are excited to present our first climate change report, displaying some of the important work the Trustee has undertaken over the past few years.

The Trustee believes climate change can have a material financial impact on investment outcomes, and investing responsibly is a key part of successful outcomes for our members. This applies to all elements of the Fund's funding strategy, be it the Fund's investments, benefits promised to members or the financial support the Sponsor provides to ensure those benefits are paid.

We established the PRSIC in 2021 to consider how the Trustee responds to Environmental, Social and Governance (ESG) issues in relation to the Fund. It also considers other ESG developments and how the Trustee may wish to respond to the constantly changing landscape. We feel that this has improved the capacity of the Trustee to provide an appropriate focus on ESG issues such as climate change, regularly looking at high level statistics alongside individual managers and holdings within the Fund.

We understand that the way pension schemes report on climate

change is constantly evolving as the investment industry looks to establish best practice. Although we continue to work hard to improve the quality of data we have, we acknowledge that there are significant limitations around some of the information reported. Our expectations are that the quality of data will improve over time as the industry collectively forms better practice, there will be an increasing level of minimum requirements and we expect to evolve our approach accordingly. Notwithstanding this uncertainty, we are proud of the number of actions that we have already taken to help manage the climate change risks of the Fund.

The Trustee has targeted a reduction in the carbon footprint of the Fund's investment portfolio to net-zero by 2050 or sooner, with an interim 50% reduction by 2030. We recognise the limitations of focusing on a single climate metric and so monitor a range of statistics as part of our ongoing management. These are considered on an annual basis and provide the PRSIC with the data to further challenge any aspects or exposures within the portfolio.

Although since inception the PRSIC has made great progress, the Committee continues to improve its education, monitoring and reporting of climate change and the wider area of Responsible Investment (RI). We look forward to sharing details of further progress with you next year.

### **Andrew Didham**

Chair of the Trustee Board

### **Christopher Coleman**

Chair of the PRSIC

## 1.2 Executive Summary

### Our objectives



- Net zero carbon emissions by 2050
- 50% reduction by 2030 (relative to a 31 December 2021 baseline)

### Our actions



- Established a dedicated ESG focussed sub-committee
- Developed and published our Responsible Investment Policy
- Worked closely with our Sponsor to align our approach, where possible
- Challenged our investment managers on portfolio investments
- Invested in climate solutions

### Our plans



- Closely monitor our progress and report to you annually
- Continue to challenge our advisers and managers
- Seek further climate-related investments consistent with our strategic objectives

## 1.3 Introduction

The Trustee of the Fund presents its annual report under the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the Regulations) for the period ended 31 March 2023. The principal employer of the Fund is N M Rothschild & Sons Limited. The Fund has defined benefit and defined contribution sections.

The Fund is now subject to the requirement to provide disclosures in line with the recommendations of the Task Force on Climate Related Disclosures (TCFD). The aim is to improve and increase reporting of climate-related financial risks and opportunities.

The Trustee welcomes this opportunity to set out in more detail a summary of the significant effort that has been undertaken over the past 2-3 years to enhance its understanding of the risks and opportunities that climate change presents to the Fund. We have set an objective of ensuring that the Fund has net zero carbon emissions by 2050, with a 50% reduction to be achieved by 2030 and will use future updates of this report to demonstrate the progress being made to achieve this – we see this goal as being one that is in the best interests of our members as well as wider society and we have a clear focus on delivering it.

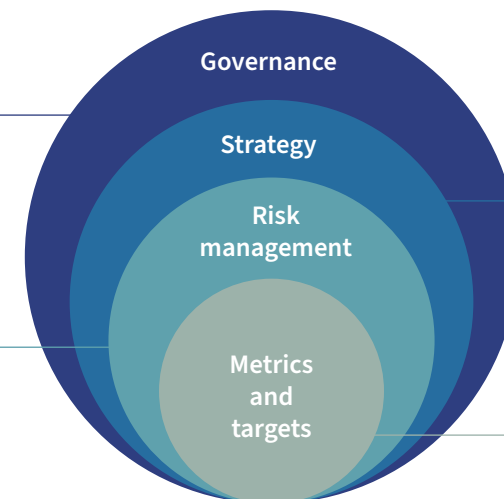
The TCFD framework requires disclosures in four broad categories. This report sets out the Trustee's approach to compliance in each of these areas:

**Governance:** around climate-related risks and opportunities.

**Risk management:** how the Fund identifies, assesses, and manages climate-related risks.

**Strategy:** the actual and potential impact of climate-related risks and opportunities on the strategy and financial plans of the Fund.

**Metrics and targets:** the metrics and targets used to assess and manage climate-related risks and opportunities.

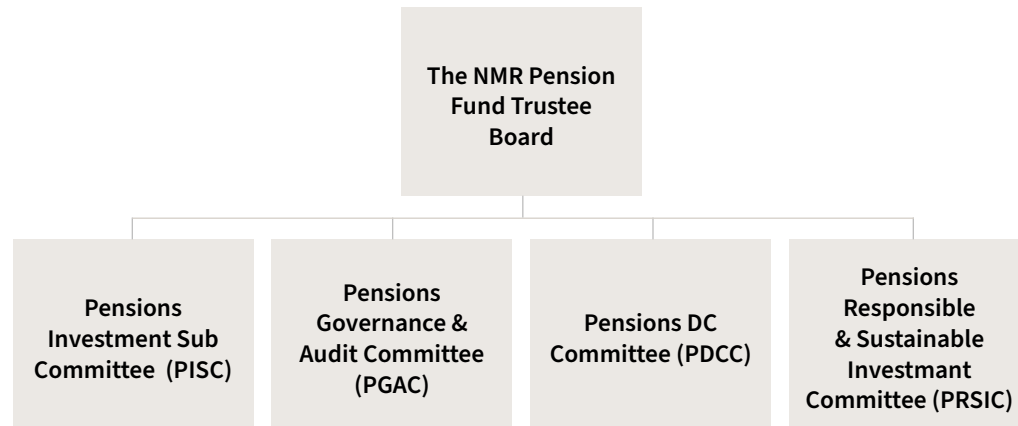


## 2. Governance

### 2.1 Overall governance of Responsible Investment matters

The Trustee is ultimately responsible for overseeing all investment-related matters, including climate-related risks and opportunities. However, to ensure sufficient focus on key areas of Fund governance, the Trustee has set up a number of committees with remits to consider specific areas of importance in greater levels of detail.

During 2021 the PRSIC was established, with the responsibility of developing the Trustee's approach to responsible investment (RI) (including the oversight of climate-related risks and opportunities) and to prepare a formal policy in this area. The PRSIC meets on a quarterly basis, reporting on matters discussed and makes recommendations to the Board following each meeting.



The establishment of the PRSIC reflects the Trustee's view that proper integration of RI considerations is important to all aspects of the Fund's investment process in order to ensure better outcomes for members and to manage associated risks. The Trustee has set itself the overall aim of exhibiting good practice relative to peers in the area of RI and seeks to maintain this position over time through the work undertaken by the PRSIC.

During 2021, the Trustee agreed and published its Responsible Investment Policy, which can be found [here](#). As part of this policy, the Trustee set out five key principles that will guide its approach to RI:

Alignment

Where practical and consistent, the Trustee will look to align its policies with those of the Sponsor. The Trustee expect that the Fund's investment managers have a formal ESG policy and that the investment managers adhere to the UN Principles of Responsible Investment (PRI) or a recognised equivalent standard.

Integration

Aiming to integrate sustainability considerations throughout the investment process. The Trustee has agreed a set of investment beliefs relating to sustainability and reviews them on an annual basis. The Trustee monitors ESG and climate risks within the Fund's portfolio and sets targets for the improvements of key metrics over time. The Trustee leverages the investment consultants' research and expects them to monitor each manager's approach to sustainability.

Impact

The Trustee invests mindful of real-world impacts, and therefore requires the investment managers to consider impact throughout key stages of the investment process (including strategy selection and overall portfolio review). The Trustee receives recommendations and analysis from the investment advisers to allow them to consider impact when making investment decisions.

Stewardship

The Trustee considers proper stewardship to be a key responsibility, recognising the role the Fund can play as an active asset owner. However, the Trustee does not have the resources to exercise all of its duties directly. As such, the Trustee will seek to ensure its stewardship responsibilities are being effectively implemented through the Fund's investment managers.

Monitoring and reporting

The Trustee will regularly monitor and report on the sustainability of its portfolios and strategy to relevant stakeholders.

## 2.2 Activity of the PRSIC

The PRSIC operates under a formal Terms of Reference set by the Trustee Board. The key responsibilities of the PRSIC are:



### Policy

- Conduct a beliefs exercise every three years with the full Board to document the Trustee's evolving views in this area.
- Develop and maintain a RI policy for the Fund.
- Set out and monitor the Trustee's stewardship priorities.



### Governance

- Monitor the performance of the investment advisers appointed to advise the Trustee on RI matters.
- Manage the selection process for new investment managers where required.
- Review the policies and processes of the Fund's investment managers in relation to RI and climate change and challenge these managers where appropriate.



### Regulatory

- Ensure the Trustee complies with its TCFD reporting obligations.
- Prepare an annual PRI submission.
- Monitor new regulations and consider how to address these.



### Impact

- Ongoing assessment of the Trustee's RI training requirements.
- Review and make recommendations to the Board on additional codes and/or initiatives where appropriate.

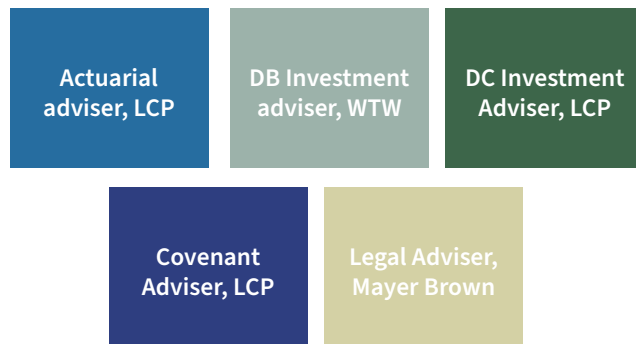
The PRSIC is made up of several members of the Trustee Board, with representatives from the Rothschild & Co Pensions Team in attendance at each meeting. The PRSIC is advised by the Fund's investment advisers. For the Defined Benefit (DB) Section this is WTW and for the Defined Contribution (DC) Section this is Lane Clark & Peacock (LCP). It also draws on other resource and expertise (both internal to the Sponsor and external) as required in order to fulfil its duties.

Over the course of the year, the key focus of the PRSIC was to ensure the Trustee was able to meet its climate risk management and reporting requirements. This resulted in extensive training and Fund analysis being provided to the PRSIC and the Trustee on these subjects to ensure that the Trustee was suitably qualified to discuss and take decisions about the Fund's overall approach to managing the risks and opportunities climate change presents.

The Trustee has explicitly identified climate change, alongside diversity and inclusion, as themes that the PRSIC will focus on as part of its engagement and voting activities. These themes were identified after a number of discussions at Trustee meetings, acknowledging that it is important for the PRSIC to identify a small number of priorities in order to focus attention on the areas they consider to be of greatest importance.

## 2.3 Service providers

The Trustee has prepared a “Statement on governance of climate change risk and opportunities”, which formally documents the roles and responsibilities of the Trustee and the Trustee’s investment advisers in relation to climate change. This document identified the following key service providers and sets out the expectations of the Trustee in relation to the services they provide to the Fund:



As part of its ongoing governance processes, the Trustee regularly undertakes assessments of each adviser’s capabilities, including the incorporation of climate change risks and opportunities into the advice provided. In addition to this, the Trustee has set formal objectives for the Fund’s DB and DC investment advisers, which incorporate considering the risks and opportunities associated with all RI matters, including climate change. The investment advisers are assessed against these objectives on an annual basis by the Trustee.

The Trustee expects the Fund’s investment managers to have integrated RI considerations (including those relating to climate change) into their investment processes and decision making. The Trustee has delegated responsibility for stewardship to its investment managers, subject to oversight by the PRSIC.

To ensure that its policies are being followed, the PRSIC reviews each managers’ approach to RI annually, which includes the investment advisers’ assessment of each manager’s RI capabilities alongside a bespoke questionnaire to understand recent developments in more detail. The report also sets out the Fund’s exposures to areas excluded by the Sponsor’s policies. This provides the Trustee with a framework to monitor the managers and highlight any areas that may need further investigation.

At all PRSIC meetings over 2022, climate was the sole or primary focus. Topics covered over the year included:

- Formalising the Fund’s approach to governance in respect of climate risks and opportunities.
- A review of the Trustee’s practices compared with other, similar schemes, as identified by its investment advisers, in relation to climate change management, alongside other RI issues.
- A review of the Fund’s investment managers’ approaches to climate change.
- A review of the implications of climate change on the Sponsor’s covenant.
- Identification of risks and opportunities through climate scenario analysis and a suite of climate metrics.
- Consideration of the Fund’s Carbon Journey Plan.

### Case study – DB Section

During 2021, the PRSIC identified that a portfolio held by the Fund investing in Asian assets (principally debt) held an interest in a coal powerplant in India. The Committee took a number of actions in order to better understand the rationale for this, including:

- Asking the Fund’s investment consultant to discuss the investment with the investment manager in more detail to understand the background to the holding, the expected holding period and how the asset aligned with the managers Responsible Investment policy.
- Asking the manager to present to the PRSIC to set out its position on the holding in more detail along with its approach to Responsible Investment.

Following these discussions, the investment manager was asked to provide regular reporting to the Committee on the asset in question. This reporting showed that the holding in the investment was reduced during Q1 2022 and fully sold by Q2 2022. The manager has since indicated that it does not expect to make investments in this sector in the future.

## 3. Strategy

We firmly believe that the purpose of embedding climate risk considerations into investment decisions is twofold – improving investment outcomes for members, as well as positively impacting the world they live in. Climate change is a financially material risk to the Fund, and merits significant attention.

As part of its analysis around the climate risk faced by the Fund, the Trustee identified and defined the following elements of this risk:

- **Transition risks.** This relates to the risks and opportunities arising from efforts made to transition towards a net-zero economy (both domestically and globally) to limit climate change. The financial impact of these risks and opportunities is generally expected to occur in the medium term, with some perhaps occurring in the short term. Risks arising could include regulatory or societal changes rendering parts of the business of invested companies worthless – for example, fossil fuels ‘in the ground’ which become economically unviable to extract due to a lack of a suitable market or due to regulations preventing their extraction. Opportunities include early investment in assets, which are likely to benefit from climate change adaptations, such as green energy providers.
- **Physical risks.** This relates to the direct effects of climate change on the Fund and its members. Whilst these comprise both acute or short-term risks (e.g., extreme weather or wildfire events), and chronic or long-term risks (e.g., rising sea levels), the main financial effects are expected to be longer term in nature. An increased number and magnitude of extreme events may cause changes to the physical landscape, which could lead to assets being devalued or destroyed. This would directly impact asset classes such as property or infrastructure, as well as the value of a company’s equity and bonds if they own assets that are affected or if physical events impact their business model. Changing temperatures is also expected to have a long-term impact on the life expectancy of members.

Alongside these, there are also **Litigation Risks** and **Reputational Risks**, resulting from failure to account for physical and transitional risks, and legislation and regulation. These risks are likely to be experienced simultaneously over various time horizons and asset types and sectors. The Trustee believes that these primary risks will impact the performance of Fund assets in various interrelated ways:

- **Stranded Assets** – Investment in organisations that rely wholly or extensively on fossil fuels and carbon intensive activities for their earnings may not be able to practically transition to the conditions of a low carbon economic environment. As a result, their capital value is likely to be significantly diminished during a transitional phase and could be completely eroded over time;
- **Rising Operating Costs** – A large proportion of investee organisations will experience increased operating costs because of both the transitional and physical effects of climate change, which is likely to reduce income generation, have a negative effect on capital value and could also have a resulting negative effect on the organisations’ credit ratings;
- **Inflation Risk** – For example, rising operational costs, products and services supply issues, increased taxes and tariffs and increased sovereign spending in response to climate change issues could all result in elevated inflation. This may devalue certain inflation sensitive assets as well as create wider economic issues that could negatively affect the Fund’s assets, as well as increase members’ cost of living in retirement. There are also plausible climate scenarios in which inflation falls;
- **Interest Rate Risk** – For example, rising inflation is often managed by central banks by increasing interest rates. Rising and high inflation rates due to climate-related issues will likely create upward pressure on interest rates, which will affect some interest rate sensitive assets more than others and will likely create a drag on economic activity with corresponding negative effects on investment assets. There are also plausible climate scenarios in which interest rates fall;
- **Other Pricing Risk** – There is the potential for assets to be under/overvalued because climate-related risks have not been accurately priced into the valuation process on a forward-looking basis – either on a positive or negative basis. There is also potential for climate aware assets to be overvalued because climate-related opportunities have been overpriced, such as green bubbles; and
- **Opportunity Failure Risk** – There are and will be certain assets that will benefit from the transition to a low carbon economy and/or the development of products and services that mitigate the effects of climate change. As a result, there is a risk of failure to invest in such assets that might offset investment in other assets that may be negatively impacted by transitional and physical risks.



With the timing of the impact from climate change being uncertain, the Trustee believes that it is sensible to assess how the Fund may be affected by climate change according to different time horizons. In selecting these different time horizons, the Trustee has considered a range of factors impacting the DB and DC Sections of the Fund.

Time horizon	Key considerations in selecting time horizons
Short term – <i>through to 2025, or 5 years for DC investments</i>	<ul style="list-style-type: none"> <li>▪ Consistent with the three-year actuarial valuation and investment strategy review cycle for the DB Section.</li> <li>▪ Over this period, further developments in relation to the climate change regulatory environment and climate data quality are expected. On 5 January 2023, the Corporate Sustainability Reporting Directive (CSRD) came into force. The first companies subject to CSRD will have to apply the rules for the first time in financial year 2024, for reports due to be published in 2025.</li> <li>▪ 5 years is the duration of the final de-risking phase used in the DC Section's lifestyle investment strategies.</li> </ul>
Medium term – <i>through to 2030, or 10 years for DC investments</i>	<ul style="list-style-type: none"> <li>▪ Financial effects of “transition risk” are expected to dominate.</li> <li>▪ Consistent with the Fund's target to halve the carbon footprint by 2030.</li> <li>▪ Position of considerable maturity for the DB Section, with the majority of the members expected to have retired by 2030.</li> </ul>
Long term – <i>through to 2050, or 30 years for DC investments</i>	<ul style="list-style-type: none"> <li>▪ Financial effects of physical risk exposure are expected to be more pronounced.</li> <li>▪ Target to achieve carbon neutrality by 2050.</li> <li>▪ Vast majority of DB members will have reached retirement.</li> <li>▪ Reflects long-term impacts on retirement outcomes for the youngest cohort of DC Section members.</li> </ul>



## 3.1 Climate scenario analysis

In 2022, we carried out climate change scenario analysis for the DB and DC Sections, in partnership with WTW and LCP. The aim of this analysis was to help us review the potential impact of climate change on the Fund over different time horizons and then focus on possible actions to address the risks and opportunities presented.

Whilst there were a number of assumptions underlying the analysis, the work carried out has been based on the Fund-specific asset allocation and liabilities for the DB Section as at 31 March 2022 and member data for the DC Section as at 31 May 2022. Detailed discussions took place within the PRSIC around the methodologies employed. We recognise that there is a great deal of uncertainty around the assumptions used and the analysis is expected to be further refined as data and industry standards improve, and as the Fund's investment strategy evolves.

We have outlined on the following page the DB and DC analysis and the key findings around this.

While different sets of scenarios were used to analyse the DB and DC Sections, the investment advisers highlighted the broad commonality between the scenarios' descriptions, following the three described in the relevant statutory guidance. Each set of scenarios contained one scenario intended to model a 'business as usual' scenario, where policy responses to climate change emerge too slowly or fail, one modelling a smooth transition toward a net-zero orientated global economy, and one achieving a net-zero orientated global economy but following a delayed response from policymakers and markets. The DB section was also analysed against a fourth, 'optimistic' scenario, featuring more aggressive and effective policy action to maintain global temperatures at a lower level. The Trustee acknowledges that many alternative plausible scenarios exist but found these were a helpful set of scenarios to explore how climate change might affect the Fund in the future.



### 3.2 DB Section – scenario analysis

We investigated four climate scenarios which are in part defined through their success, or otherwise, in meeting the Paris Agreement target of a sub-2.0°C temperature rise. Different financial and economic assumptions underpin these four scenarios, whereas physical and transition risks are accounted for separately, from a timing and magnitude perspective.

The approach taken is consistent with the statutory guidance for pension schemes published by the Department for Work & Pensions. The scenarios are not exhaustive, and the analysis is expected to be further refined as data and methodologies improve. Furthermore, the Trustee hopes to incorporate input received from the covenant adviser into future analysis.

The key findings from the scenario analysis for the DB Section is shown opposite. The table sets out the key parameters that define each underlying scenario, as well as the financial impact that climate risk has on the DB Section.

	Least Common Denominator	Inevitable Policy Response	Global Coordinated Action	Climate Emergency
<b>Description</b>	A “business as usual” outcome where current policies continue with no further attempt to incentivise further emission reductions. Socioeconomic and technological trends do not shift markedly from historical patterns.	Delays in taking meaningful policy action result in a rapid policy shift in the mid/late 2020s. Policies are implemented in a somewhat but not completely co-ordinated manner resulting in a more disorderly transition to a low carbon economy.	Policy makers agree on and immediately implement policies to reduce emissions in a globally co-ordinated manner. Companies and consumers take the majority of actions available to capture opportunities to reduce emissions.	A more ambitious version of the Global Coordinated Action scenario where more aggressive policy is pursued and more extensive technology shifts are achieved, in particular the deployment of Negative Emissions Technologies at scale.
<b>Temperature rise</b>	<b>c. +3.5°C</b>	<b>c. +2.0°C</b>	<b>c. +2.0°C</b>	<b>c. +1.5°C</b>
<b>Transition risk level</b>	<b>Low</b>	<b>High</b>	<b>Low – Medium</b>	<b>Medium – High</b>
<b>Physical risk level</b>	<b>High</b>	<b>Low – Medium</b>	<b>Low – Medium</b>	<b>Low</b>
<b>Assumed impact on general life expectancy</b>	<b>Very Negative</b>	<b>Negative</b>	<b>Negative</b>	<b>Positive</b>
<b>Estimated impact on funding relative to expected position in:</b>	2029: +3.6% 2034: +7.8%	2029: -0.9% 2034: -5.2%	2029: -3.4% 2034: -7.9%	2029: -2.9% 2034: -5.8%

The analysis considered the impact on the position of the Fund in 2029 and 2034, which is in line with the time horizon over which the Trustee aims to achieve its funding objective. These dates are also consistent with the agreed short-medium term time horizons.

The analysis identified that three of the four scenarios considered might be expected to have a negative impact on the funding level relative to the expected position in 2029. The most pronounced impact was in the Global Coordinated Action scenario – a shortfall relative to the expected position of over 3%.

By contrast, it was identified that the funding level under a Least Common Denominator scenario might be around 3.6% higher than the base case over the same time period, with a reduction in longevity which more than offsets asset falls. Considered purely from a financial perspective, the lower life expectancy assumed within the liability projection in this scenario leads to a positive funding level impact.

The scenarios assume that all other factors are equal during the efforts to transition to a low carbon economy. This is very unlikely to occur in practice. Second-order effects, such as higher levels of investment, employment, and productivity-enhancing innovation, are hard to estimate and will likely offset some of the falls highlighted in the analysis, hence the climate scenarios cannot be the sole driver of investment strategy and risk management decisions. Furthermore, the scenarios assume that most sovereign bonds will not be materially impacted by climate risk over the time

horizons analysed. This assumption may not apply to all sovereign bonds equally, particularly those where the issuer is more exposed to climate change risk.

Ultimately, the Trustee believes that the DB Section's investment strategy is broadly resilient to the potential impacts of the climate scenarios considered. The funding level is strong and in each of the scenarios considered, the funding level is still expected to improve by the end of the decade. As the Fund matures and approaches the long-term strategy over time, the level of physical and transition risk is expected to fall and since carrying out the scenario analysis the Fund has continued to be de-risked. As such, we would expect future scenario analysis to exhibit a lower impact on the Fund's assets, as equities are typically more susceptible to the medium-term financial risks of climate change than other asset classes.

That said, climate risk continues to be a financially material risk to the Fund, which the Trustee remains proactive in addressing. The steps taken to evolve the Fund's portfolio over recent years are expected to materially contribute towards reducing this risk. Looking forward further engagement and portfolio action will be vital in helping achieve the Trustee's long-term target of net zero carbon emissions by 2050.



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### 3.3 DB Section – assessment of risk to the covenant arising from climate change

The Trustee sought independent advice from its covenant adviser, LCP, who prepared an initial report in 2022 considering how climate-related risks may impact upon the Fund's Sponsor covenant. This work was subsequently updated in 2023 in line with the Trustee's current framework to monitor the impact of climate-related risks on the Sponsor covenant on an annual basis.

LCP's report focused on Rothschild & Co SCA's (the Group's) exposure to climate risks and opportunities, with conclusions prepared for the Trustee in the context of the Fund's investment and funding risks. In the run up to LCP's 2023 review, the Fund's funding position improved considerably and it was observed that there remains a relatively low level of covenant reliance. However, there are no formal plans to enter into insurance transactions in order to remove covenant risk completely, and as such the period over which the Fund will need to rely on its covenant is uncertain. The Trustee is therefore mindful that it will need to continue to assess the risks that climate change could have on the Sponsor's covenant on a periodic basis.

In preparing its report, LCP considered information within the public domain (for example, the Group's sustainability report), independent ratings from organisations such as MSCI<sup>1</sup> and CDP<sup>2</sup> and answers to questions from senior employees at the Group. LCP's conclusions were therefore drawn from a diverse range of sources, which has further allowed LCP to assist the Trustee in its qualitative assessment of risks under various climate scenarios.

The key conclusions from LCP's 2023 report are summarised below:

<b>Key findings</b>	
<ul style="list-style-type: none"> <li>The Group's climate risks and opportunities appear to be well-managed, with the main climate-related risks being in relation to transition risks (eg reputational and regulatory risks) rather than physical risk.</li> <li>The Group has robust governance processes throughout the business in order to manage these risks and has identified areas where they can take advantage of the many opportunities in the market.</li> <li>The Group aims to have an active role as a 'transition player' which will likely be viewed favourably by clients and other stakeholders.</li> <li>The Group is refining its strategy and is looking to integrate policies within individual business lines and is continuing to make progress towards limiting its own environmental impact and contributing towards a more sustainable economy. Success in these areas can be critical to preserve the Group's reputation and avoid issues such as staff dissatisfaction.</li> <li>The Group's operational climate metrics (such as total energy consumption) have worsened since 2021 as the impact of the pandemic unwinds and business operations return to normal levels. It is worth noting that these are still below pre-pandemic levels, but the direction of travel should continue to be monitored.</li> </ul>	
<b>Transition risk</b>	<b>Physical risk</b>
<ul style="list-style-type: none"> <li>The Group considers the transition risks of climate change as key non-financial risks that have a high potential business impact and are of high importance to its stakeholders.</li> <li>See below for an overview of the Group's key transition risks and opportunities, and the actions it has undertaken in this regard.</li> </ul>	<ul style="list-style-type: none"> <li>As the Group is a people-based business, exposure to physical risks of climate change are limited, albeit noting that that may not be true for its clients.</li> <li>The Group is geographically diverse and there are limited barriers to moving operations from one location to another, should this be needed. The Group considers these risks as part of their ongoing Business Continuity assessments.</li> </ul>

Horizon	Risks	Opportunities	Actions taken by the Group
Short to medium term	Increasing costs related to compliance with future disclosure regulations. Legal actions by investors or regulators for potential non-compliance with regulation.	Regulations will improve climate disclosure and create a level playing field. Business opportunities relating to supporting the Group's clients in adapting new regulations.	ESG/climate risks not deemed to be standalone, but integrated within the strategic risks facing the business and are managed in the same way as general strategic/ operational risks.
Short to medium term	Perceived lack of ambition and/or credibility can detrimentally impact client and talent retention. Insufficient ESG controls could also negatively impact the Group's reputation.	Good engagement with climate issues can lead to opportunities to support the businesses' value proposition and enhance client relationships. Taking a long-term perspective of climate related issues could reinforce the Group's market positioning.	The creation of a Responsible Investing Roadmap for 2022 to 2025. Supporting a number of industry initiatives eg supporting UN Global Compact and Carbon Disclosure Project.
Medium term	Challenges and increasing costs relating to the access of robust climate impact data. Increasing data reporting requirements.	Business and investment opportunities created by emerging technologies. Improved services to their clients based on more adequate data.	Potentially outsourcing increasing reporting requirements where a platform is provided to assist managing data collection.
Medium to long term	Poor management of climate-related investment risks and slow integration of climate factors into Group's services and products could lead to unanticipated losses in revenue and losses of opportunities.	Additional investment performance and resilience of "climate-supporting" investments. Development of offerings and services to clients to support the low carbon transition.	Products and services created to protect the Group's market position including advising on transactions relating to renewables/low carbon tech/energy transition solutions and helping clients operating in these areas to raise finance.

Given the inherent strength of the Fund's covenant and the Group's actions to mitigate against identified climate risks, we do not consider that climate related matters currently present a material risk to the probability of members receiving their full benefits.

<sup>1</sup>MSCI = Morgan Stanley Capital International

<sup>2</sup> "CDP" – Carbon Disclosure Project

### 3.4 Conclusions on covenant risk under different climate scenarios

Climate Scenario	Short term - 2 years (to 2025)		Medium term - 7 years (to 2030)		Long term - 27 years (to 2050)	
	Transition	Physical	Transition	Physical	Transition	Physical
Least Common Denominator	●	●	●	●	●	●
Inevitable Policy Response	●	●	●	●	●	●
Global Coordinated Action	●	●	●	●	●	●
Climate Emergency	●	●	●	●	●	●



The table above highlights the results of the Trustee’s assessment on how the Group’s exposure to transition and physical risks may vary depending on the different climate scenarios considered, and over different time periods.

The Group operates in an industry mainly exposed to transition risks rather than physical risks. Although rapid changes to regulation and/or technology could present risks to the business in the short-to medium-term, the Group appears well prepared to manage such risks and adapt over longer time horizons as it has a well-defined and diverse strategy to combat the potential impact of climate change, in turn reducing the exposure to these risks.

Based on the information that the Trustee has reviewed, they currently consider that even in scenarios where higher risk impacts could adversely affect the Group’s operations and financial performance, **it is unlikely that any adverse outcomes could reach the scale whereby residual covenant exposure could not be supported.** This conclusion is strengthened by the fact that no deficit contributions are currently due to the Fund given that it is in surplus on the technical provisions basis.

Informed by the independent covenant work it has commissioned, the Trustee has not considered it necessary to change the Fund’s overall investment strategy as a result of climate risks related to the employer covenant.

### 3.5 DC Section – scenario analysis

The Trustee has determined that the DC Section has two “popular” arrangements as defined in the Regulations<sup>3</sup>: both the default “NMR Retirement (Drawdown Focus)” lifestyle, and the NMR World (ex-UK) Equity Fund – Passive have more than 10% of DC assets invested. Together, these arrangements represent around 77% of total DC assets. No arrangement in the DC Section has more than £100m invested.

The Trustee is aware that the risks previously discussed in this section can directly impact the Fund’s assets. These risks also have indirect impacts on the Fund and its members, such as the possibility of increasing inflation, which could make living more expensive for members and increase the cost of services provided to the Fund. An orderly shift to low carbon solutions could lessen future risks, but it’s likely to bring about more immediate transition-related challenges.

The anticipated impact on members is expected to vary depending on multiple factors. These include the nature of their investments, the worth of their savings, their contribution level, and their closeness to retirement age.

The above risks and opportunities are based on the period to retirement. We note that increasingly members choose to remain invested during retirement and gradually sell their investments over time, depending on the level of income they need. As a result, many members will be exposed to the climate-related risks noted in this section for longer than suggested by climate scenario analysis.

Climate scenario analysis was carried out for each section’s popular arrangements and considered at the September 2022 PRSIC. The analysis is based on an underlying model which used scientific and macro-economic data as at 31 December 2021, calibrated to market conditions as at 31 March 2022. Demographic assumptions were based on member data provided by Fidelity, the DC Section administrator, as at 31 May 2022. The Trustee will carry out scenario analysis at least every three years and assess annually whether the next analysis should be carried out sooner as a result of a change in the membership profile or default investment strategy for the DC Section.

The Trustee has used the climate scenario analysis as a key tool for identifying, assessing and managing climate-related risks and opportunities. In particular, the Trustee has used the analysis to identify how the physical risks and transition risks associated with climate change could impact the DC Section over the three time horizons defined above, and whether its current investment strategies are likely to be resilient against these risks, or able to take advantage of any opportunities. The same time horizon periods were used for both the default strategy and the NMR World (ex-UK) Equity Fund. For simplicity, members were assumed to be invested in the same strategy in line with time periods set out above, assuming an expected retirement age of 65.

A summary of the scenarios used are outlined in the table opposite. Further details of the scenarios and outputs can be found in Appendix 1.

	Failed Transition	Disorderly Net Zero by 2050	Orderly Net Zero by 2050
Description	Global net zero carbon emissions not reached by 2050; only existing climate policies are implemented and temperatures rise significantly.	Same policy, climate and emissions outcomes as the Orderly Net Zero scenario, but financial markets are initially slow to react and then react abruptly.	Global net zero carbon emissions is achieved by 2050; rapid and effective climate action (including using carbon capture and storage), with smooth market reaction.
Temperature rise	Average global warming is about <b>2°C by 2050 and 4°C by 2100</b> , compared to pre-industrial levels.	Average global warming stabilises at around <b>1.5°C</b> above pre-industrial levels.	Average global warming stabilises at around <b>1.5°C</b> above pre-industrial levels.
Transition risk level	<b>Low</b>	<b>High</b>	<b>Low – Medium</b>
Physical risk level	<b>High</b>	<b>Medium</b>	<b>Medium</b>

<sup>3</sup> The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 define a popular arrangement for a DC pension scheme as Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021.

### 3.6 How resilient are the strategies used in the popular arrangements in these climate scenarios?

- In all of these scenarios, equity markets are significantly impacted by climate change, with lesser but still material impacts in bond markets. All three scenarios envisage, on average, lower investment returns and these result in lower retirement outcomes for members. These impacts are particularly acute for members invested in the NMR World (ex-UK) Equity Fund, since it is a 100% equity fund;
- For older members invested in the default strategy, the short-term risk of market shocks in a Disorderly Net Zero or Failed Transition is relatively small. This is true for both active and deferred members;
- The LCP base case scenario assumes the asset class assumptions detailed in the report remain constant over the period shown, meaning any climate transition impacts are not considered. Relative to the base case, members ten years from retirement are at risk of market shocks because of a Disorderly Net Zero transition. Members invested in the NMR World (ex-UK) Equity Fund are likely to be worse affected as at this stage in the default strategy members are invested in a substantially more diversified asset mix;
- For younger members, longer term impacts would be more significant as there is a risk of lower investment returns over an extended period. A longer term to retirement gives members more time to recover from a disorderly transition in the medium term. However, volatility in equity markets will also be a main concern for members as they approach their retirement age and look to crystallise their benefits. A Failed Transition leads to larger losses for those members further from retirement; and
- Climate scenario analysis was also conducted for deferred members. Overall, deferred members are expected to be more significantly affected under each scenario. This is because, unlike active members, deferred members no longer pay contributions into the Fund, which would help improve outcomes, particularly following a modelled market shock. We note that these members would likely be contributing to another pension scheme, which would serve to mitigate this impact.





1.	2.	3.	4.	5.	6.	7.
Introduction and Chair Foreword	Governance	Strategy	Risk Management	Metrics & Targets	Appendices	Glossary

## 4. Risk Management

We consider that climate change is both a key risk and opportunity for the Fund and it therefore receives particular focus within the Trustee's ongoing risk management processes. There are three ways in which we integrate climate change considerations into our decision making:

### 1. Top-down analysis

We undertake climate change scenario analysis on the Fund on at least a triennial basis, with more frequent reviews occurring if there has been a material change to the Fund's underlying investment allocation or long-term strategy. This is to provide an overview of the potential impact of climate change across assets, liabilities and covenant and how this might impact the achievement of the Trustee's long-term objectives.

The Trustee undertakes an annual review to analyse the high-level impact of climate change on the Fund's covenant. This allows us to understand the impact that different climate change scenarios might have on the ongoing strength of the Sponsor.

The Trustee has selected climate change as one of its stewardship priorities. As a consequence, in addition to the assessments of its managers' competence in addressing climate risks, the PRSIC will focus greater attention on the Fund's investment managers' voting and engagement activity on climate issues. As such, it will encourage its investment managers to introduce

or enforce policies that limit or reduce the impact of climate change on the planet.

### 2. Bottom-up analysis

A second approach we take to assess the risks and opportunities associated with climate change is through a deeper analysis of the attributes of the underlying investments. This analysis includes:

**Security analysis** – Our investment advisers calculate various climate change related metrics linked to the underlying securities within the portfolio. These include metrics such as carbon footprint, exposure to climate opportunities, Climate Transition Value at Risk (CTVaR) and Paris Agreement alignment. In aggregate, these metrics provide us with a more detailed understanding of the Fund's exposures and the overall characteristics of each mandate within the portfolio.

Following a review of this analysis, the PRSIC may engage with the Fund's managers to understand in more detail the nature and rationale for certain exposures within their portfolio (see the case study opposite) and to obtain an understanding of the manager's engagement plans with some of the companies we invest in.

For the DB Section, the PRSIC monitors the exposure the Fund has to certain sectors that are either excluded by the Sponsor under its group-wide policy or identified as 'red flags'

under the policy of the wealth management business. Whilst the Trustee has not explicitly adopted either policy, we understand that it is important to monitor these exposures to ensure their inclusion in the Fund is understood and appropriate. Where possible, we look to engage with the Fund's investment managers to understand the rationale behind any holdings in these areas and if possible or appropriate, encourage the investment manager to reduce the holding.

**Manager analysis** – Our investment advisers also conduct an annual review of all the Fund's underlying investment managers, providing an assessment of their policies, processes and actions in the area of RI, which includes a focus on climate change. Again, where areas of particular concern are identified then the PRSIC will engage with the relevant investment managers to challenge as appropriate.

### 3. Identifying new strategies and managers

In line with the overall objective to achieve net-zero emissions intensity across the Fund's portfolio by 2050, the Trustee will explicitly consider both the emissions characteristics, climate change opportunities and manager sustainability assessments when assessing new strategies for the portfolio.

Recognising the Trustee's overall objectives in this area, the Fund's investment advisers are expected to focus on managers and strategies that are highly rated for their RI characteristics.



### Case study – DB Section

In 2021 the Trustee agreed to make a commitment within the Fund's private markets portfolio to a strategy seeking to develop the electric vehicle charging infrastructure within the UK. The Trustee identified this as a good opportunity to benefit from an anticipated transition towards electric vehicles, providing support for the necessary infrastructure to decarbonise transport in the UK.

Whilst the strategy remains at a relatively early-stage compared to its planned 10-year life, the Fund has already benefitted significantly from the investment through an early disposal made at a significant profit. The Trustee expects the mandate to continue to deliver strong returns over its remaining life, whilst contributing to the charging infrastructure within the UK.

## 4.1 Managing climate risk – DB Section

The Trustee has set a “Carbon Journey Plan” with a target of reaching net zero carbon emissions intensity by 2050 with a 50% reduction in emissions by 2030. The Trustee has selected these as targets as they align with the Paris Agreement and the UK Government’s climate pledge. The Fund’s progress will be assessed using the carbon footprint metric. Whilst the Trustee acknowledges that there are some limitations to using this metric, carbon footprint is the most comparable metric across pension schemes of different sizes. Additionally, it provides a normalised emissions figure that identifies efficient investment managers rather than those that just produce the lowest total emissions.

Whilst the Trustee is pleased with the progress of the Fund’s net zero journey, we acknowledge that the strategic decisions and market movements have had a significant impact over the year. As such, we recognise that there is still significant work to be done over the coming years for the Fund to reach its 2030 and 2050 targets.

There are a number of ways in which the Trustee expects to achieve the Carbon Journey Plan objective over time.

### Engagement



The Trustee will aim to reduce emissions associated with the Fund’s portfolio through changing the behaviour of the companies it invests in. This is principally achieved through the PRSIC’s engagement activities, with the investment managers appointed by the Fund and through the work of the Fund’s investment advisers. The Trustee considers this to be one of the most effective methods of mitigating the investment risk associated with climate change.

### Impact



As set out above, the Trustee will regularly assess the RI characteristics of new investments, with a view to identifying strategies that might benefit from the tailwinds of the global move to net zero.

### Mandate changes including disinvestment



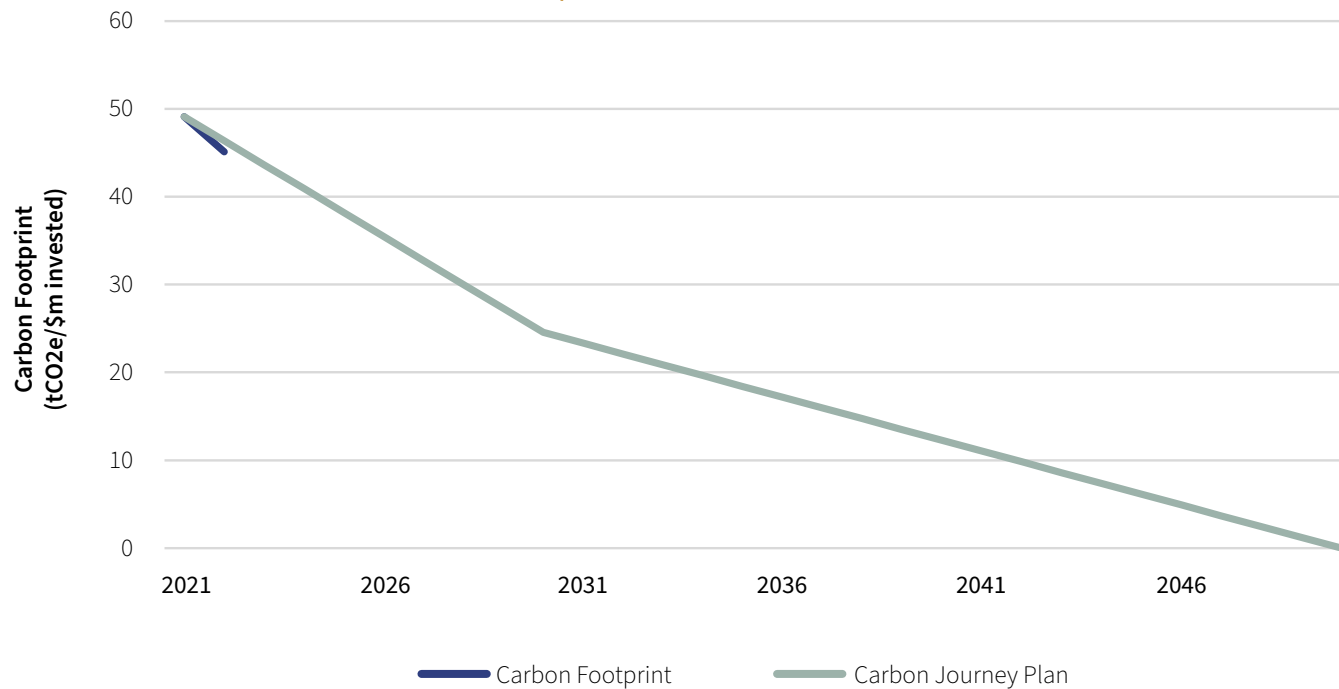
Over time the Trustee expects to review mandate guidelines and restrictions, particularly in relation to disproportionately emitting strategies. Where investment managers are unable or unwilling to evolve their approach, this may ultimately result in the Fund selling assets if deemed necessary to do so.

### Free rider



Recognising common goals across the investment industry, the Trustee expects the Fund to benefit from the actions and efforts of other participants through a decline in the emissions associated with all asset classes.

To provide a more visual representation of the Fund's Carbon Journey Plan, the graph below shows the progress of the Fund's Carbon Footprint versus the carbon journey plan. The yellow line shows the year 2030, where the Trustee have set the Fund's interim target of a 50% reduction in Carbon Footprint.



**Notes to the Carbon Journey Plan:**

The Carbon Journey Plan initially covers Scope 1 and 2 emissions, with the expectation that Scope 3 emissions will be reported in future years when data availability and accuracy improve.

The emissions associated with UK Government bonds will not be included in the Fund's Carbon Journey Plan monitoring as the Fund is required to hold UK gilts to hedge its pension liabilities and as such disinvesting on sustainability grounds would be inappropriate from a fiduciary duty standpoint. The Fund also has limited capability to effectively engage with the UK Government. The emissions from the UK gilts will still be calculated and monitored separately and calculated as the tons of carbon emissions per £m of nominal GDP, similar to WACI.

The base-year for the calculations is 2021. The Trustee agreed this date as it reflects when carbon data was first reported.

## 4.2 DC Section specifics

Within the DC Section, the assets are invested in pooled, largely passive funds, for which it is not possible to easily implement exclusions. Therefore, the PRSIC works to ensure that the investment managers are addressing climate issues, for example by assessing companies' climate transition plans, and using effective stewardship to encourage companies with deficient plans to improve. The Trustee therefore undertakes an annual review specifically assessing its managers' approaches to climate, which encompasses managers' competence across areas such as stewardship, scenario modelling, and quality of climate expertise.

The Trustee has set a "Carbon Journey Plan" for the equity and corporate bond elements of the Fund's DC default investment strategy, with a target of reaching net zero carbon emissions intensity by 2050 with a 50% reduction in emissions by 2030.

2022 was the first year for which the Trustee monitored the climate metrics for the DC Section. Therefore, we have not provided any comparison with previous years in this report but will do so from next year onwards.

### Case study – DC Section

As a result of the climate scenario analysis and discussion around the metrics for the DC Section, and in particular the potential for low-carbon tilted equity funds to reduce the default strategy's exposure to transition risk, the PRSIC instructed the PDCC to investigate the investment options available to address climate risk in the default strategy. The PDCC is exploring a range of options for this purpose as part of the 2023 investment strategy review.



# 5. Metrics and Targets

## 5.1 Fund metrics and target

As part of the Trustee's commitment to net zero and the TCFD framework, the Trustee has selected a number of metrics and targets that will be monitored on an annual basis through future publications of this report.

These comprise the following:

- Absolute emissions:** Total Carbon Emissions (tCO<sub>2</sub>-e): This is an "absolute" metric providing an estimate of the total carbon emissions attributable to the Fund's assets. To compile the figure, where available, we have used MSCI data for direct and indirect (Scope 1 and 2) emissions associated with each company the Fund invests in. Where this information is not available, emissions have been estimated based on the country and industry sector of the company/asset in question. Although this latter approach is naturally more approximate, it does allow us to produce an emissions figure that encompasses the Fund's whole asset portfolio rather than only a proportion of it.
- Carbon Intensity:** Carbon Footprint calculated as the total carbon emissions per \$m invested (tCO<sub>2</sub>-e/\$m invested): This is a carbon emissions "intensity" metric, providing a figure that can be compared with other investors. The Trustee has set a long-term target to achieve net zero emissions intensity by 2050, with a 50% reduction by 2030. We will monitor our progress in reducing this metric as part of our 'Carbon Journey Plan', which is set out in the previous section.
- Alternative:** Data quality (percentage of data with issuer-specific data vs. percentage of data modelled using proxies): This aims to measure the proportion of the Fund's assets for which we have high quality data.
- Portfolio alignment:** Percentage of assets with SBTi or equivalent: The SBTi is a partnership between the Carbon Disclosure Project, the UN Global Compact, World Resources Initiative and the World Wildlife Fund for Nature. The Initiative provides an external mechanism for companies to have their carbon reduction plans validated as being in line with an objective to limit global warming to 1.5 degrees. Over time, the Trustee expects an increasing proportion of the Fund's investments to be aligned with this objective.

- Weighted Average Carbon Intensity ("WACI", tCO<sub>2</sub>-e/\$m of revenue):** This is a secondary carbon emissions intensity metric calculated as the level of emissions per million dollars of revenue for each holding in the portfolio. These figures are then averaged using the portfolio weights to produce the WACI figure. The Trustee agreed to monitor this to align the Fund's progress with the Company.

Metrics 1-4 have been selected in accordance with the TCFD framework. The Trustee chose Carbon Footprint as the intensity measure over WACI as this is recommended by the DWP in its guidance and will therefore allow for greater comparability across the industry. The Trustee regards data quality as an important metric as improving data accuracy and availability will make climate reporting a more useful and comparable exercise and will ultimately allow investors to better assess the climate risks and opportunities associated with an investment.

The TCFD reporting framework also requires the Trustee to define the scope of the emissions monitored, which are as follows:

Scope 1 Emissions	Scope 2 Emissions	Scope 3 Emissions
Direct emissions from a company's owned or controlled sources. This may include emissions from a firm's manufacturing processes or emissions from company vehicles.	Indirect emissions from the generation of purchased energy, such as heating for company facilities.	All other indirect emissions, including those of suppliers and customers. These may include emissions related to the transportation and distribution of goods and disposal of waste generated in operations.






## 5.2 DB Section reporting

The data for the metrics has been collated using a combination of manager-provided data, proxied data based on sector/geographical breakdowns, and relevant benchmark data. This data is then uploaded into the investment adviser's ESG tool (which uses MSCI underlying data) to determine the carbon related metrics the Fund is required by TCFD regulation to report.

Reflecting the above, the Fund's metrics for the DB Section have been presented below. Over the year to 30 September 2022, both a fall in asset size and strategic changes have caused a significant impact on the Fund's metrics.

NMR Pension Fund	30 September 2021	30 September 2022
<b>Total Assets</b>	£1,030.0m	£953.7m
<b>Total Carbon Emissions (tCO<sub>2</sub>e)</b>	336,927.5	239,009.4
<i>Of which UK Government Bonds accounts for:</i>	<i>N/A</i>	28,121.3
<b>Carbon Footprint (tCO<sub>2</sub>e/\$m invested)</b>	327.1	250.6
<i>Of which UK Government Bonds accounts for:</i>	<i>N/A</i>	148.2
<b>Data Quality</b>	46.3%	22.3%
<b>% of assets with SBTi targets</b>	15.5%	20.2%
<b>WACI (tCO<sub>2</sub>e/\$m revenue)</b>	446.6	446.4

Explanation of the movements in the metrics can be found below:

September 2021 vs September 2022		
Metric	Directional change	Explanation
Metric 1 – Carbon emissions		There was a significant decrease in total emissions over the year, driven by de-risking undertaken since last year as well as a fall in asset values.
Metric 2 – Carbon footprint		The Fund's carbon footprint has fallen by c.23.4% over the year. This has been driven by the reduction in the equity allocation over the year, which made up the majority of the intensity exposure last year, as well as the fall in intensity of the equity portfolio itself. This is partly due to the use of enterprise value including cash (EVIC) methodology in the 2022 analysis, whereby emissions are shared across equity, debt, and loans. This means emissions are not double counted across equity and debt.
Metric 3 – Data quality		<p>This metric captures the proportion of the Fund's assets modelled directly using company level data compared to that using a broad proxy. Data quality is typically highest for listed assets (particularly equities).</p> <p>The Fund's data quality metric has fallen over the year. This was driven principally by the de-risking activity, which has significantly reduced the value of the equity portfolio (high data quality), resulting in a larger allocation to Private Market assets (lower data quality). We show this graphically later in the report.</p>
Metric 4 – Alignment		The SBTi coverage has improved since September 2021. We believe the current level is reasonable.
Additional intensity metric – WACI		WACI across the portfolio has remained largely constant over the year.

## 5.3 DC Section reporting

2022 was the first year in which the PRSIC considered climate metrics in relation to the DC Section, and therefore an earlier comparator year has not been presented.

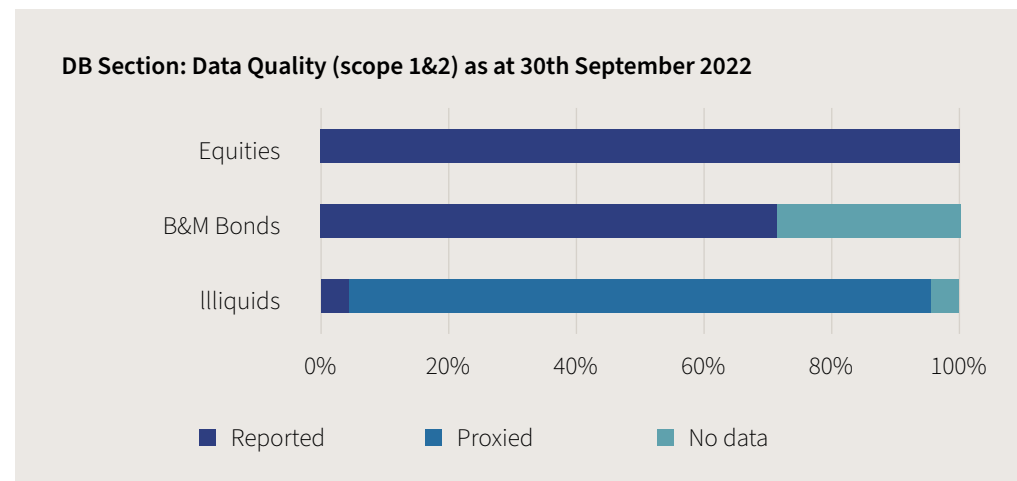
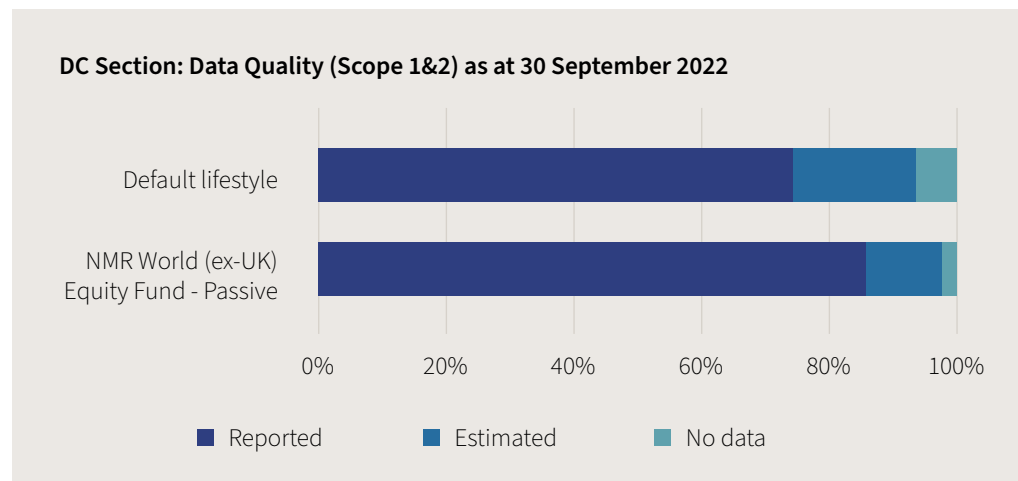
The data for the metrics has been collated using a combination of manager-provided data and relevant benchmark data. This data is then uploaded into the investment adviser's ESG tool, which uses MSCI underlying data, to determine the carbon related metrics the Fund is required by TCFD regulation to report.

Reflecting the above, the Fund's metrics for the DC Section have been presented below.

NMR Pension Fund DC Section	Default strategy 'NMR Retirement (Drawdown Focus) Lifestyle' 30 September 2022	NMR World (Ex-UK) Equity Fund – Passive 30 September 2022
<b>Asset value</b>	£101.7m	£24.6m
<b>(£, % of DC Section total)</b>	(69%)	(17%)
<b>Total Carbon Emissions (tCO2e)</b>	7,158.0	1,327.7
<i>Of which UK Government Bonds accounts for:</i>	820.7	N/A
<b>Carbon Footprint (tCO2e/\$m invested)</b>	68.2	49.1
<i>Of which UK Government Bonds accounts for:</i>	6.5	N/A
<b>Coverage</b>	94%	98%
<b>% of assets with SBT targets</b>	12.6%	34.3%



## 5.4 Data quality



**The default strategy** has high data quality. Around 81% of the assets invested in the default strategy are invested in the NMR Growth Fund, which over the year was comprised of 100% listed equity, an asset class which typically has the highest levels of coverage for emissions data. However, the NMR Balanced Fund and NMR Retirement Fund, which make up 18% and 1% of the assets invested in the arrangement respectively, have somewhat lower data quality. This is driven partly through allocations to corporate bonds, but the largest gaps in data arise from allocations to a diversified growth fund (DGF) (data coverage 64%) with underlying exposures to asset classes such as commodities and private credit, for which reliable data is significantly harder to obtain.

To address the quality of data for corporate bonds, the PRSIC has asked its investment adviser to engage with the data provider to encourage improved data coverage relating to a specific element of company valuations, which is the main driver of low coverage for these assets. The Trustee's investment adviser is also engaging with the DGF manager to encourage it to improve the data from its alternative assets.

**The NMR World (ex-UK) Equity Fund** is comprised of 100% listed equity and so has very high data quality, with the vast majority of underlying data (87%) being reported in companies' accounts, and data was only unavailable for 2% of the portfolio.

As identified above, the Fund's data quality has fallen between 2021 and 2022, moving directionally opposite to the Trustees target. This has primarily been driven by a change in the Fund's asset allocation. As part of the derisking undertaken over 2022, the Fund sold a material amount of the Fund's public equities, which tend to have higher quality data due to the transparency and required reporting associated with listed companies. Conversely, the Fund increased the allocation to illiquid assets such as secure income assets (SIAs) and liability driven investments (LDI), which tend to have lower quality data. As discussed earlier in the report, LDI and cash are treated as nil in the majority of the ESG reporting to limit the amount of double counting of emissions.

Our expectation is that in future years reports, the change in the data quality metric will be less driven by a change in the Strategic Asset Allocation and instead by material improvements in the data quality of the Fund's more illiquid assets, such as SIAs, Illiquid Credit and Private Markets.

## 6. Appendices

### Appendix 1: DC climate scenario analysis

#### *Scenarios considered and why the Trustee chose them*

The Trustee carried out climate scenario analysis as at 31 May 2022 with the support of LCP. The analysis looked at three possible scenarios:

Transition	Description	Why the Trustee chose it
Failed Transition	Global net zero carbon emissions not reached by 2050; only existing climate policies are implemented and temperatures rise significantly.	To explore what could happen to the Fund's finances if carbon emissions continue at current levels and this results in significant physical risks from changes in the global climate that disrupt economic activity.
Orderly Net Zero by 2050	Global net zero carbon emissions is achieved by 2050; rapid and effective climate action (including using carbon capture and storage), with smooth market reaction.	To see how the Fund's finances could play out if global net zero carbon emissions are achieved by 2050, meaning that the economy makes a material shift towards low carbon by 2030.
Disorderly Net Zero by 2050	Same policy, climate and emissions outcomes as the Orderly Net Zero scenario, but financial markets are initially slow to react and then react abruptly.	To look at the risks and opportunities for the Fund if global net zero carbon emissions is achieved by 2050, but financial markets are volatile as they adjust to a low carbon economy.

The Trustee acknowledges that many alternative plausible scenarios exist but found these were a helpful set of scenarios to explore how climate change might affect the Fund in future.

To provide further insight, the Trustee also compared the outputs under each scenario to a "climate uninformed base case", that makes no allowance for either changing physical or transition risks in future.

The scenarios' key features are summarised on the pages that follow.

These scenarios show that equity markets could be significantly impacted by climate change with lesser but still noticeable impacts in bond markets. All three scenarios envisage, on average, lower investment returns and these result in lower retirement outcomes for DC members.

## The climate scenarios considered by the Trustee

Scenarios as at 31 December 2021 – key features

Scenarios:	Failed Transition	Orderly Net Zero by 2050	Disorderly Net Zero by 2050
Low carbon policies	Continuation of current low carbon policies and technology trends.	Ambitious low carbon policies, high investment in low-carbon technologies and substitution away from fossil fuels to cleaner energy sources and biofuel.	
Paris Agreement outcome	Paris Agreement goals not met.	Global net zero achieved by 2050; Paris Agreement goals met.	
Global warming	Average global warming is about 2°C by 2050 and 4°C by 2100, compared to pre-industrial levels.	Average global warming stabilises at around 1.5°C above pre-industrial levels.	
Physical impacts	Severe physical impacts.	Moderate physical impacts.	
Impact on GDP	Global GDP is significantly lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be 50% lower than in the climate uninformed scenario.	Global GDP is lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be about 5% lower than in the climate-uninformed scenario.	In the long term, global GDP is slightly worse than in the Orderly Net Zero scenario due to the impacts of financial markets volatility.
Financial market impacts	Physical risks priced in over the period 2026-2030. A second repricing occurs in the period 2036-2040 as investors factor in the severe physical risks.	Transition and physical risks priced in smoothly over the period of 2022-2025.	Abrupt repricing of assets causes financial market volatility in 2025.

Source: Ortec Finance. Figures quoted are medians.

### Modelling approach

- The scenario analysis is based on a model developed by Ortec Finance and Cambridge Econometrics. The outputs were then applied to the Fund's assets and liabilities by LCP.
- The three climate scenarios are projected year by year, over the next 40 years.
- The results are intended to help the Trustee to consider how resilient the DC default strategy and NMR World (ex-UK) Fund are to climate-related risks.
- The Trustee discussed how future planned changes to the default investment strategy would change the analysis.
- The three climate scenarios chosen are intended to be plausible, not "worst case". They are only three scenarios out of many others which could have been considered. Other scenarios could give better or worse outcomes for the Fund.
- The results discussed in this report have been based on macro-economic data at 31 December 2021, calibrated to market conditions at 30 June 2022.

### Modelling limitations

- As this is a "top-down" approach, investment market impacts were modelled as the average projected impacts for each asset class. This contrasts with a "bottom up" approach that would model the impact on each individual investment held by the Fund's DB investment portfolio and DC default strategy. As such, the modelling does not require extensive scheme-specific data and so the PRSIC was able to consider the potential impacts of the three climate scenarios for all of the assets in the default strategy.
- In practice, the Fund's investments may not experience climate impacts in line with the market average.
- The asset and liability projections shown reflect the Fund's current strategic journey plan. No allowance is made for changes that might be made to the funding or investment strategy as the climate pathways unfold, nor for action to be taken in response to the Fund achieving its long-term funding target.
- Like most modelling of this type, the modelling does not allow for all potential climate-related impacts and therefore is quite likely to underestimate some climate-related risks. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.

### Potential impacts under each scenario – DC Section

#### For a member invested in the NMR Drawdown Focus Lifestyle Strategy

Scenario	Member aged 30	Member aged 40	Member aged 50
<b>Orderly Net Zero by 2050 outcome</b>	-6.3%	-4.2%	-2.1%
<b>Disorderly Net Zero by 2050 outcome</b>	-8.8%	-8.3%	-4.4%
<b>Failed Transition outcome</b>	-27.4%	-16.5%	-5.0%

#### For a member invested in the NMR World (ex-UK) Equity Fund

Scenario	Member aged 30	Member aged 40	Member aged 50
<b>Orderly Net Zero by 2050 outcome</b>	-10.5%	-8.4%	-6.1%
<b>Disorderly Net Zero by 2050 outcome</b>	-12.9%	-12.6%	-11.2%
<b>Failed Transition outcome</b>	-34.3%	-31.5%	-13.2%

## Modelling approach for the DC Section – more details

- The scenario analysis for the DC Section is based on the ClimateMAPS model developed by Ortec Finance and Cambridge Econometrics and was then applied to the Fund's DC 'popular arrangements' by LCP. The three climate scenarios were projected year by year, over the next 40 years.
- The model output is supported by in-depth narratives that bring the scenarios to life to help the Trustee's understanding of climate-related risks and opportunities.
- ClimateMAPS uses Cambridge Econometrics' macroeconomic model which integrates a range of social and environmental processes, including carbon emissions and the energy transition. It is one of the most comprehensive models of the global economy and is widely used for policy assessment, forecasting and research purposes. The outputs from this macroeconomic modelling – primarily the impacts on country/regional GDP – are then translated into impacts on financial markets by Ortec Finance using assumed relationships between the macroeconomic and financial parameters.
- Ortec Finance runs the projections many times using stochastic modelling to illustrate the wide range of climate impacts that may be possible, under each scenario's climate pathway. LCP takes the median (i.e. the middle outcome) of this range of impacts, for each relevant financial parameter, and adjusts it to improve its alignment with LCP's standard financial assumptions.
- LCP use these adjusted median impacts to project the investment returns for members of different ages, over the short, medium and long-term to illustrate how the different scenarios could affect retirement outcomes. The modelling summarised in this report used scenarios based on the latest scientific and macro-economic data at 31 December 2021, calibrated to market conditions at 31 March 2022.
- Members' starting pot values were assumed to equal the average value for Fund members of their age, and member and employer contributions were assumed to be paid in line with the current DC contribution structure. No allowance was made for changes to the investment strategy or contributions in response to the climate impacts modelled.
- As this is a "top-down" approach, investment market impacts were modelled as the average projected impacts for each asset class, i.e. assuming that the Fund's investments are affected by climate risk in line with the market-average portfolio for the asset class. This contrasts with a "bottom up" approach that would model the impact on each individual investment held in the Fund's investment strategy. As such, it does not require extensive scheme-specific data and so the Trustee was able to consider the potential impacts of the three climate scenarios for both 'popular arrangements'.
- In practice, the Fund's investments may not experience climate impacts in line with the market average. The Trustee considers, on an ongoing basis, how the Fund's climate risk exposure differs from the market average using climate metrics (which are compared with an appropriate market benchmark) and its annual RI review which considers the investment managers' climate approaches.
- The Trustee notes that the three climate scenarios chosen are intended to be plausible, not "worst case", and the modelling is based on median outcomes. It therefore illustrates how the centre of the "funnel of doubt" surrounding DC asset projections might be affected by climate change. It does not consider tail risks within that funnel, nor does it consider how the funnel might be widened by the additional uncertainties arising from climate change. In addition, only three scenarios out of infinitely many have been considered. Other scenarios could give better or worse outcomes for the Fund.
- Uncertainty in climate modelling is inevitable. In this case, key areas of uncertainty relating to the financial impacts include how climate change might affect interest rates and inflation, and the timing of market responses to climate change. ClimateMAPS, like most modelling of this type, does not allow for all climate-related impacts and therefore, in aggregate, is quite likely to underestimate the potential impacts of climate-related risks, especially for the Failed Transition scenario. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.

## Appendix 2: Further information on climate-related metrics

### Listed equities and corporate bonds – DC Section

#### Notes for data sourced from MSCI

Emissions are attributed to investors using “enterprise value including cash” (ie EVIC, the value of equity plus outstanding debt plus cash).

The total GHG emissions figures omit any companies for which data was not available. For example, if the portfolio was worth £200m and emissions data was available for 70% of the portfolio by value, the total GHG emissions figure shown relates to £140m of assets and the portfolio’s carbon footprint equals total GHG emissions divided by 140. In other words, no assumption is made about the emissions for companies without data.

The science-based targets metric equals the % of portfolio by weight of companies that have a near-term carbon emissions reduction target that has been validated by the SBTi. The MSCI database does not distinguish between companies which do not have an SBTi target and companies for which MSCI does not check the SBTi status, so the coverage for this metric is equal to the % of the portfolio with an SBTi target.

### Emissions data coverage and quality

Where coverage of the portfolio analysed is less than 100%, this is because the MSCI database:

- Does not cover some holdings (e.g. cash, sovereign bonds, bonds that have recently matured, shares in companies no longer listed when the analysis was undertaken);
- Does not hold emissions data for some portfolio companies because the company does not report it and MSCI does not estimate it; and/or
- Does not hold EVIC data for some portfolio companies, so emissions cannot be attributed between equity and debt investors.
- The last of these reasons is usually the main explanation for the fairly low coverage of bond portfolios.

The MSCI database records whether emissions data is reported or estimated, and which estimation method has been used, but not whether companies’ reported emissions have been independently verified. Our investment adviser has asked MSCI to introduce this distinction. Where emissions data is estimated, MSCI uses one of three methods.

- For electric utilities, MSCI’s estimate of Scope 1 emissions is of direct emissions due to power generation, calculated using power generation fuel-mix data.
- For companies not involved in power generation, which have previously reported emissions data, MSCI starts with a company-specific carbon intensity model.
- For other companies, MSCI uses an industry segment-specific carbon intensity model, which is based on the estimated carbon intensities for 1,000+ industry segments.

MSCI is a leading provider of climate-related data, so we would expect the coverage to compare favourably with other data sources. Our investment adviser is engaging with MSCI to encourage them to improve EVIC coverage for debt issuers and to distinguish between companies which do not have an SBTi target and companies for which it does not check the SBTi status.

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## 7. Glossary

### Absolute Emissions

The total emissions attributable to the Fund's assets.

### Carbon Footprint

The total carbon emissions per \$ million invested (tCO<sub>2</sub>-e/\$m invested).

### Carbon Journey Plan

The Trustee's agreed plan to reach the Fund's carbon reduction targets by the target dates.

### CO<sub>2</sub>e

Carbon dioxide emissions or equivalent.

### CTVaR

Climate Transition Value at Risk. The loss or gain in the Fund's value as a result of the net zero transition, measured as an expected change in the current value of the Fund's assets.

### ESG

Environment, Social and Governance.

### EVIC Methodology

Enterprise Value including Cash methodology. Emissions are weighted across equity, debt and loans.

### Net Zero

The position of removing as many greenhouse gases as are emitted.

### Physical Risk

The direct effects of climate change on the Fund and its members.

### PDCC

The Pensions Defined Contribution Committee of The Fund.

### PGAC

The Pensions Governance and Audit Committee of The Fund.

### PISC

The Pensions Investment Sub Committee of the Fund.

### PRSIC

The Pensions Responsible and Sustainable Investment Committee of the Fund.

### Popular arrangement

The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 define a popular arrangement for a DC pension scheme as Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021.

### Portfolio Alignment

The percentage of the portfolio aligned with a particular net-zero initiative.

### Responsible Investment

Making investment decisions and engaging with companies in order to encourage a positive impact on the world.

### SBTi

The Science-Based Target Initiative. An organisation that defines and promotes science-based emissions reduction targets.

### Scope 1 Emissions

Direct emissions from a company's owned or controlled sources. This may include emissions from a firm's manufacturing processes or emissions from company vehicles.

### Scope 2 Emissions

Indirect emission from the generation of purchased energy, such as heating for company facilities.

### Scope 3 Emissions

All other indirect emission, including those of suppliers and customers. These may include emissions related to the transportation and distribution of goods and disposal of waste generated in operations.

### Sponsor

N M Rothschild & Sons Limited  
Rothschild & Co Continuation Limited  
Rothschild & Co Wealth Management (UK) Limited  
Five Arrows Managers LLP (DC Section only)  
Rothschild & Co Equity Market Solutions Limited (DC Section only)

### Transition Risk

Risks and opportunities arising from efforts made to transition towards a net-zero economy (both domestically and globally) to limit climate change.

### WACI

Weighted Average Carbon Intensity. The total carbon emissions per \$ million of revenue of each holding in the portfolio (tCO<sub>2</sub>-e/\$m revenue)



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