

Nationwide Pension Fund Climate Risk Report

Nationwide
Pension Fund

Nationwide Pension Fund

Climate Risk Report

1st April 2022 - 31st March 2023

A note from the Chair of the Investment and Funding Committee

The Trustee of the Nationwide Pension Fund (NPF) believes that climate change is one of the most significant global challenges of this century. Markets are not adequately pricing in the risks associated with climate change and companies which are exposed to the risk of stranded assets are not equipped to find other means to replace the potential revenue loss from a transition to a low-carbon economy.

Regarding these risks, we are particularly focused on a 20-year time horizon as this is the period when the Trustee is most reliant on investment returns. However, it should be noted that the Fund is not making new investments at this time, so the ability to seek alternative investments is reduced. This does not change our concerns about climate change and the impacts it could have on the Fund.

We believe we can practically prepare for the risks associated with climate change, and we have a duty to help drive positive change within our existing portfolio of investments. We aim to support the United Kingdom’s and the world’s transition to a low carbon economy by actively engaging on climate change issues with like-minded investors.

We are backed by a conscientious sponsor who also has a climate change strategy and, where possible and appropriate, we will work with Nationwide to address these issues.

This report aims to explain in depth our exposure to climate risk, and steps we are taking to manage climate change-related risks. We review this report every year and look to improve our efforts in this area on an ongoing basis.

For the 2023/24 financial year, we will investigate the feasibility of a net zero target following discussions about the endgame of our portfolio. From this position we will be able to understand how our portfolio will change over various time horizons, and how our emissions could be managed. A net zero target would align with NPF’s values and the values of our sponsor.



Mark Hedges
Chair of the Investment and Funding
Committee of the Nationwide Pension Fund



| Governance

Roles within the Nationwide Pension Fund

The Trustee believes that markets are not adequately pricing in the risks of climate change and as such, a committed level of resource is required to protect the Fund and its members from the risks of climate change. Given the Trustee’s concerns, climate risks and opportunities continue to be discussed and considered at every level of the Nationwide Pension Fund (NPF). This is the NPF’s second Climate Risk Report and the Trustee has focused significant time and resource in order to drive commitments, and also discussions with investment managers.

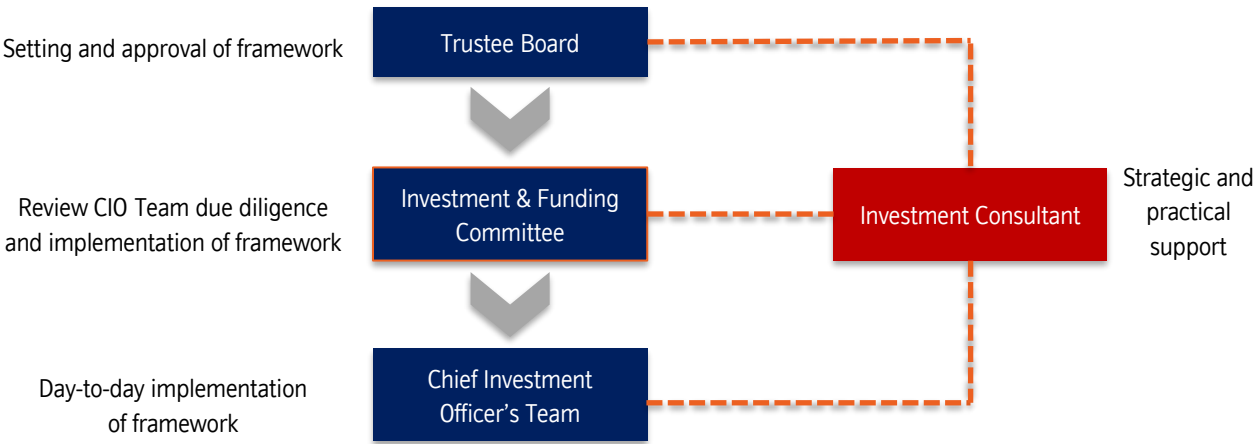
The NPF is made up of two sections, the Nationwide section and the Cheshire & Derbyshire (C&D) section which has been a part of the NPF since 2010, after the Cheshire and Derbyshire building societies were merged with Nationwide Building Society in 2008.

The Trustee Board of the NPF is collectively responsible for oversight of all strategic matters related to both sections of the Fund, and at times they may delegate responsibility to sub-Committees for approval of governance and framework matters.

The Investment and Funding Committee (IFC) is a sub-Committee of the Trustee board and one of its key remits is to review investment performance. Governance and framework matters relating to ESG and climate risks/opportunities has been delegated to the IFC by the Trustee board.

The Chief Investment Officer’s Team (CIO Team) manages the Fund’s investment portfolio and is responsible for day-to-day implementation of certain frameworks and governance matters

The Trustee’s Investment Consultant is Aon, and they provide strategic and practical support to both the Trustee and CIO Team across all of the Fund’s activities.



Oversight and Management of Climate Related Risks and Opportunities

The below describes how the roles of Nationwide Pension Fund (NPF) contribute towards the oversight and management of climate-related risks and opportunities and matters relating to Environmental, Social and Governance (ESG) considerations. All committees of NPF meet on a quarterly basis.

Trustee Board	Investment & Funding Committee (IFC)	Chief Investment Officer’s Team (CIO Team)
<p>The Trustee maintains a Responsible Investing Policy which is available on the NPF website. This policy details the Fund’s overarching approach to managing ESG considerations with asset managers. It is reviewed and (re)approved annually by the Board. The policy also includes the Climate Risk Mission Statement (CRMS) which outlines:</p> <ul style="list-style-type: none">➤ That climate change presents significant challenges to society and risks are not adequately priced into assets by markets.➤ That the risks from climate change may materially impact Fund investment performance.➤ A commitment to focus on low carbon investments and assets aligned with a transition to a low carbon economy.➤ That the Trustee Board has overall responsibility for setting the Fund’s climate change risk management framework and it will be reviewed annually with progress monitored against objectives at least bi-annually.➤ That day-to-day implementation is delegated to the CIO Team who are supported by the Investment Consultant. <p>The Board also receives regular training on climate related issues. Planned training currently includes a refresh on climate risk given recent changes in strategy and an introduction to biodiversity. This training is provided as verbal presentations with written materials.</p>	<p>Investment, funding and covenant responsibilities are delegated to the IFC, which is a sub-committee of the Trustee Board. One of its key remits is to review investment performance and consider new investment proposals. Prior to exercising its mandate of approving/declining new investments, the IFC seeks to ensure any investment decisions appropriately consider climate-related risks and opportunities within the context of the Fund’s portfolio and gives due consideration to the CRMS.</p> <p>Where appropriate, the Trustee Board may delegate responsibility to the IFC for approval of governance and framework matters relating to ESG and climate risk and opportunities.</p> <p>The IFC monitors and reviews progress against the Fund’s climate change risk management framework on an annual basis.</p> <p>Given the delegation to the IFC, this sub-committee also receives training on climate related issues. In 2022/23, the sub-committee engaged with advisers to learn about setting a net zero target. This training was in the form of an oral presentation. The committee also receives written reports on climate risks and opportunities. IFC members also attend conferences which focus on ESG risks and opportunities.</p>	<p>As set out in the CRMS, the Trustee Board has delegated the day-to-day implementation of its climate risk framework to the CIO Team. Implementation is detailed later in this report, but key activities include:</p> <ul style="list-style-type: none">➤ Reviewing investment opportunities aligned to a low carbon economy and the transition thereto.➤ Ensuring investment proposals explicitly consider the impact of climate risks and opportunities when presented to the IFC.➤ Engaging with existing investment managers to understand how climate risks are considered in their investment approach.➤ Working with investment managers to disclose relevant climate-related metrics as set out in the TCFD recommendations.➤ The Fund’s Investment Consultant, Aon, provides strategic and practical support to both the Trustee and CIO Team in addressing climate-related risks and opportunities. The Fund’s legal advisers, Sackers, helps to ensure compliance with the Occupational Pension Schemes Regulations 2021 on Climate Change Governance and Reporting. <p>The Fund’s investment strategy has recently changed and currently no new investments are being made in private markets. Investments are focused on hedging and rebalancing areas of the portfolio. ESG is duly considered in these activities.</p>

Overview of the Chief Investment Officer’s Team

Day-to-day implementation of the Trustee’s climate risk framework is delegated to the Chief Investment Officer’s Team (CIO Team). The CIO Team provides recommendations (with input from Aon) to the Trustee and implements decisions on their behalf, it also manage relationships with NPF’s investment managers (further detail of how these relationships are governed can be found on slide 26). In order to feel comfortable with the recommendations, the Trustee will question and challenge where appropriate. The CIO Team also takes part in training, evaluation and succession planning to give the Trustee further comfort of their abilities.



Training

The Trustee needs to ensure that the CIO Team has suitable knowledge and training to advise them on how to manage climate risk. On an ongoing basis, members of the CIO Team receive training on climate risk from the Investment Consultant and other external advisers. For example, in 2022/23, the team received training on managing climate risk from a third party advisor (Deloitte).

Additionally, members of the team attend conferences to further their knowledge. In 2022/23, one such conference provided education on active equity management, sustainable debt, alternative opportunities and biodiversity. This has helped with the CIO Team’s ability to understand and challenge managers. The CIO is also a member of the Occupational Pensions Stewardship Council which facilitates a sharing experience of best practice and research. In 2022/23, this has assisted the CIO Team in understanding how NPF might set a net zero target.



Evaluation

On an annual basis, the CIO Team is evaluated by NPF’s Investment Consultant and this is presented to the Investment and Funding Committee (IFC) on an annual basis. The competence and capabilities of the CIO Team are assessed and discussed.

Additionally, each member of the CIO Team is involved in the Sponsor’s employee evaluation process, ensuring a focus on their individual performance.



Succession

To ensure a continuation of support for the Trustee, the CIO prepares an annual succession plan that reflects the possible future of the CIO Team based on current resource and requirements of the Fund.

Overview of the Investment Consultant

Aon acts as the Investment Consultant to the Trustee and makes recommendations and provides advice as required. These recommendations often involve in-depth discussions at committee meetings where the Trustee can provide challenge as appropriate.

As the Trustee is working with Aon and placing reliance on their ability to advise on responsible investing, it is important for the Trustee to understand Aon’s capabilities in this growing area of investment. In order to ensure Aon provides appropriate advice, one of their strategic objectives is to help the Trustee add value through the integration of Responsible Investment (including climate change).

Aon is a leading UK investment consultant and as such has access to large amounts of resource. Within the UK there is a dedicated team of specialists that helps schemes with ESG integration, engagement and stewardship, impact investing, and implementation of responsible investment strategies.

Aon stays abreast of the changing environment and provides support with regulatory and operational demands. Aon has demonstrated its commitment to responsible investing in a number of ways, some of which are outlined below.



Aon is a global signatory to the UN’s Principles for Responsible Investment (PRI), having helped to establish it in 2005



Aon is a member of the Investment Leaders Group, an investor-led initiative committed to advancing the practice of responsible investment



Aon is a founding member of ClimateWise, an insurance industry-led organisation. Their work has provided additional guidance on physical climate risks and opportunities



Aon has developed methodologies that apply behavioural science to responsible investment decision-making




Aon has created a Responsible Investment Network where ideas are exchanged such as Aon’s Global Perspectives on Responsible Investing


| Strategy

The background of the slide is a teal-colored image with wavy, rippling patterns, resembling water or a textured surface. The waves are more pronounced in the upper half and fade into a smoother gradient towards the bottom.

Climate-related risks and opportunities

The Trustee is exposed to climate risk in a number of ways, and it is important to determine the level of resilience in the portfolio, and identify where there also could be opportunities. The risks facing the portfolio can be broadly categorised into two areas:

 **Physical Risks:** The risks associated with the physical impacts of climate change, these can be split into acute and chronic risks. Acute risks are the severe and extreme events such as floods, storms and wildfires. Chronic risks are the incremental changes such as rising temperatures, and sea levels

 **Transition Risks:** The risks associated with the transition towards a low-carbon economy. This includes shifts in policies, technologies, market factors (such as increased costs of materials and changing consumer behaviours) and reputational risks.

The Trustee has identified risks across a 20 year time horizon, with the short term set as 1-3 years, the medium term set as 4-10 years, and the long term set as 11-20 years. This time horizon extends slightly further than the Trustee’s long-term objective for full funding on a solvency basis. The short-term time horizon is the same as NPF’s valuation cycle, and the medium-term selected as the bridge between the Fund’s triennial valuations and long-term objective.

The Cheshire and Derbyshire (C&D) section of NPF is expected to have a shorter time horizon than the Nationwide section. This is due to the portfolio being better funded and the fact that a large portion of the assets have been transferred to an insurer. This section is likely to be held solely as LDI and public credit, with a view to transfer the remaining assets within the next 10 years.

As a result of the Trustee’s assessment of climate-related risks, the Trustee has implemented a number of changes in the operations of the portfolio. This is evidenced by various activities that were completed during the scheme year:



Qualitative Risk Assessment

To assess the risks associated with climate change the Trustee has undertaken two activities, the first of these is a qualitative risk assessment. This is a best endeavours analysis of the assets within the portfolio to assess the physical and transition climate risk exposures. For this analysis, the portfolio has been considered in the following sections:

- Property and Infrastructure (including direct ownership)
- Private Equity
- Private Credit
- Public Credit
- Sovereign Bonds (UK Government Debt)
- Public Equities.

Each fund or investment has been analysed on an asset by asset basis to understand what physical or transition risks they are exposed to. A Red-Amber-Green (RAG) rating has been applied to each fund and an overall rating has been weighted to the size of each of our investments. The ratings are intended to provide a high-level overview of the climate-related risks faced by assets in the portfolio with red indicating a high risk to investments, amber a medium risk and green a low risk. Given the expected de-risking path and the diversified nature of the portfolio, the overall risk is not deemed to be high when looking at sections on the whole. However, individual investments do carry more or less risk, and these have been highlighted in the commentary. The Trustee refreshes this assessment on an annual basis.

Property and Infrastructure

For this asset class, the physical risks include damage as a result of extreme weather events, and transition risks include upgrading properties to be compliant with new building standards. Within this section of the portfolio the Fund is exposed to assets such as offices, hotels, data centres and logistical hubs. Some investments within the Fund are more exposed to physical risks, such as buildings in Asia and the Pacific region (the most disaster-prone regions of the planet). The hospitality section within this portfolio may be more exposed to market risks in the long-term if travel is restricted or consumer behaviour is affected. Some of the most resilient assets include projects focused on carbon capture and sequestration, as well as on-street electric vehicle charging infrastructure.

	Physical Risks		Transition Risks			
	Acute	Chronic	Policy & Legal	Technology	Market	Reputation
Short term (1-3yrs)						
Medium term (4-10yrs)						
Long term (11-20yrs)						

Physical Risks

Acute Chronic

Transition Risks

Policy & Legal Technology Market Reputation

Short term (1-3yrs)						
Medium term (4-10yrs)						
Long term (11-20yrs)						

Private Equity

This area of the portfolio is very diversified across geographies, markets and size of enterprise. The higher physical risks in the medium and long-term are driven by heightened physical risks in the Asia and Pacific regions as well as some areas of Latin America.

In general, US legislation on climate risk is less strict than in Europe; as such, there is an increased risk from a policy, legal and reputational perspective driven by US funds that may require more in-depth changes to operations or new requirements at a portfolio company level.

Market risks are relatively low-risk in this area of the portfolio due to the diversification of products and services. Many portfolio companies provide digital solutions which are less exposed to changes in consumer behaviour or a lack of raw materials.

Private Credit

The qualitative assessment of climate risk in credit funds is difficult due to lack of ownership from credit managers. The Trustee has analysed the lendee companies to assess the risk that their operations are exposed to and allocated a RAG rating across physical and transition risks.

For distressed and opportunistic managers, the risks are deemed higher as the Trustee is less likely to get capital back if assets fail as a result of serious climate events. In senior lending, the Trustee is more likely to see a return of capital due to being higher in the capital structure. The RAG ratings are assuming the companies could fail as a result of the climate risks they are exposed to.

Typically real estate debt funds have higher climate risk than those that lend to software companies and both of these areas are large parts of the private credit portfolio. Specific managers have small amounts of lending to transportation companies which create more of a transition risk in the long term.

Physical Risks

Acute Chronic

Transition Risks

Policy & Legal Technology Market Reputation

Short term (1-3yrs)						
Medium term (4-10yrs)						
Long term (11-20yrs)						

	Physical Risks		Transition Risks			
	Acute	Chronic	Policy & Legal	Technology	Market	Reputation
Short term (1-3yrs)						
Medium term (4-10yrs)						
Long term (11-20yrs)						

Public Credit

The NPF has a small exposure to public credit assets, having disinvested from the majority during 2022/23. This portfolio will continue to be wound down, and the remaining assets are focused in emerging markets, ABS, RMBS, CLOs and a small holding of insurance linked securities.

The physical risks associated with emerging markets are relatively high due to many of the countries being in higher risk areas for natural disasters. RMBS also has a greater physical risk, with the value of residential property being at risk due to flooding and other natural disasters.

Policy and legal risks are high for ABS, RMBS, and emerging markets as new legislation may require significant change and impact market pricing of these debt instruments.

Sovereign Bonds

Climate risk exposure for government bonds is assumed to be aligned to government bodies, and the NPF holds a large portion of assets in UK Gilts (conventional and inflation-linked) as a hedge for the Fund’s liabilities. For the UK, the impacts of physical and transition risks are expected to be less severe than for other G7 countries, but the Trustee is still cognisant of widespread impacts in the longer term.

UK emissions are predicted to decline consistently over the next 30 years towards a net zero target in 2050. The UK Carbon budget is set to be consistent with keeping temperature rises below 2 degrees Celsius. However, there are concerns over the credibility of these targets, and as such the Trustee believes there could be an elevated risk from a policy, legal and market perspective, should more stringent global measures be enforced. This may also have a knock on impact on long-term reputations of the UK, and as such UK Pension Funds.

	Physical Risks		Transition Risks			
	Acute	Chronic	Policy & Legal	Technology	Market	Reputation
Short term (1-3yrs)						
Medium term (4-10yrs)						
Long term (11-20yrs)						

	Physical Risks		Transition Risks			
	Acute	Chronic	Policy & Legal	Technology	Market	Reputation
Short term (1-3yrs)						
Medium term (4-10yrs)						
Long term (11-20yrs)						

Public Equities

Only the C&D section of the NPF holds public equities, and it is a very small holding in the MSCI World Index. This index has over 1500 constituents, the largest 20% includes assets such as Apple, Microsoft, Amazon, Nvidia, Alphabet, Meta, and Tesla. All of these assets are very large technology corporations. Market risks are higher due to the possibility of resource scarcity in technology products (such as cobalt and nickel). Corporations of this size are arguably more exposed to policy and legal impacts as a result of climate change due to their global reach and impacts. This globalisation reduces the exposure to physical risks to some extent due to the ability to continue operations.

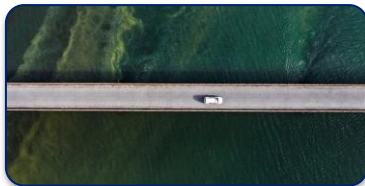
Opportunity Assessment

In the 2022/23 financial year, the funding level of the Nationwide Pension Fund improved and as a result the Fund is currently not making new investments in private markets. Activity is now focused on risk and liquidity management, and rebalancing the portfolio. However, the CIO Team continues to monitor ESG focused opportunities. Below are the details of a few opportunities that the CIO Team has looked into, but not invested in. The CIO team stays abreast of opportunities such as these via voluntary attendance at industry conferences, and via existing relationships with investment managers and placement agents:



Nature-based Real Assets

- Portfolio of timber plantations and conservation areas, carbon and conservation finance projects, agriculture, timber processing and infrastructure.
- Investing across Australia, the USA, Indonesia, Malaysia, this fund channels finance into strategies and companies that protect and restore ecosystems.
- Focused in three areas, the first is Nature-based solutions which focuses investments in forests and land for a climate-positive and nature-positive future.
- There is also a focus on shared prosperity, which seeks to contribute and build sustainable communities in the areas they operate.
- The final focus is a circular bioeconomy which seeks to provide wood fibres for a low-carbon economy, changing the way we construct and use materials.



Infrastructure Assets Supporting a Transition to Net Zero

- Strategy dedicated to the energy transition space focused on ESG and sustainability. Aligned with EU SFDR “Dark Green” funds.
- Large fund with experience in implementing energy transition initiatives and achieving real world decarbonisation outcomes. Focused on a long-term emissions reduction objective
- Focus on four key areas of infrastructure assets: renewable power, electrification, low-carbon fuels and carbon capture.
- The strategy will take a long-term investment approach in which investors will be able to access a diverse group of assets and influence carbon reduction targets over the long-term. Often many strategies have a short-term approach and a fund’s ability to influence is lost after disposal.



Impact Investing in Private Equity

- Private Equity fund focused on measurable impact outcomes around: Improving health and wellness, Reducing environmental harm and resource use, Expanding access to quality education and financial services, Enabling technology to drive impact.
- Initial investments included software companies that service non-profits and mental health services.
- Diversified across a number of geographies and a long history in the sectors they’d be targeting.
- Use a two-pronged methodology to assess impact. Firstly a threshold score to determine what is acceptable in the fund, secondly an improvement score to track how the investments are improving over time.



Financing Renewables and Infrastructure to Fund the Energy Transition

- A large credit manager looking to provide senior loans to sustainable infrastructure projects and invest in sustainability linked loans. Helping to fund the carbon transition
- The fund already has a strong track record of investing in renewable energy and sustainable infrastructure, with financing provided to solar farms, battery storage companies, and businesses focused on improving energy efficiency.
- Measures ESG risks within portfolio companies and sets ESG targets for companies to achieve.
- Fund utilised green initiatives to reduce carbon emissions, enhance policies and support wider initiatives such as the UN PRI.

Opportunities outside of investments

Apart from looking at investment opportunities, the CIO Team stays abreast of industry events and Pension Fund requirements on behalf of the Trustee. It is involved in industry groups and has regular attendance at a variety of events throughout the year. Some of these are explained in more detail below:



Occupational Pensions Stewardship Council

The Occupational Pensions Stewardship Council is a council created by the Department for Work and Pensions. It provides schemes with a forum for sharing experiences, best practice and research.

Alongside other pension schemes, in 2022/23 the Council has discussed the challenges in setting net zero targets. This has facilitated the Trustee’s own understanding in setting a target.

There was also a session with the TPR to discuss industry-level on feedback on TCFD reports. This has been used to improve the Trustee’s Climate Risk Report for 2022/23.

The forum is very useful in facilitating discussion with market participants that the CIO Team would not speak to in the normal course of business. The CIO will continue to maintain this membership to ensure best practice is shared across the industry.



Meetings with Regulators and Investors

The CIO Team also engages in climate-related issues outside of the Occupational Pensions Stewardship Council to share ideas with other market participants.

In 2022/23, members of the CIO Team attended meetings with the DWP and other market participants to discuss the challenges surrounding capturing emissions data in financial derivatives.

This provided an opportunity to give invaluable feedback directly to policy-makers and learn from other market participants about best practice in a developing area.

Similar meetings also facilitated discussions around climate metrics in general and how they should be used to manage risks.



Conferences and Training

As a result of working in the Pensions Industry the CIO Team is invited to a number of events in which climate risk and ways of managing it are discussed. The CIO Team has attended sessions on:

- Green bonds and sustainable investing in fixed income markets
- Natural capital and how to protect against biodiversity loss
- Equity impact solutions via active management
- Energy transition opportunities
- Emerging market corporate sustainable bonds

The team also receive direct training from industry experts on ESG best practice and received thought pieces about the implications of future legislation such as the Sustainability Disclosure Regulations.

How Climate Risk is considered in the Nationwide Pension Fund

The impact of climate risk on the Fund’s business, strategy and financial planning has led to a number of changes in operations and processes.

Triennial Valuation

During the financial year, the Trustee completed the latest valuation of the Fund’s assets and liabilities. For the first time, due consideration was given to the risks of climate change within NPF’s valuation.

The actuary of the fund highlighted how market assumptions reflect the impact of climate change on future returns. Additionally mortality rates reflect the uncertainty around the adverse impacts of climate change such as extreme temperatures, food shortages, water scarcity and air pollution levels.

Update to the Responsible Investment Policy

During the year, the Trustee has reviewed and refreshed the Responsible Investing policy of the Fund, in line with best stewardship practices. Changes included adding explicit reference to the risk of biodiversity loss, and reflecting an updated annual due diligence process that captures a broader subset of sustainability initiatives and requests additional environmental metrics.

Refreshed Annual Due Diligence Process

Each year the Trustee writes to all of the investment managers within the Fund and

requests an update on their stewardship practices. In 2022/23, the Trustee refreshed this approach to capture a broader subset of initiatives and to capture more climate data (presented in more detail in the Metrics and Targets section).

In addition to this, the Trustee has rated all of the responses from managers using a traffic light system. If the Trustee believes that managers could do more, it has written formal letters outlining how managers could improve compared to their peers. This is outlined on page 33 of the report.



Disinvestments and Modelling Refresh

Following an improvement in the funding level and the need for increased liquidity, the Trustee disinvested from some liquid assets in the year. The Fund has sold more carbon intensive assets such as public equities and emerging market debt. These sales were combined with a change in

investment strategy that meant the Fund was not likely to make material new investments, as a result the Trustee commissioned the investment consultant to re-run scenario analysis. This gave a better picture of the climate risk that the Fund is exposed to (discussed more on the next page).

Integration of Climate Risk in Operations

The Trustee continues to give due consideration to climate risk in all facets of the pension fund:

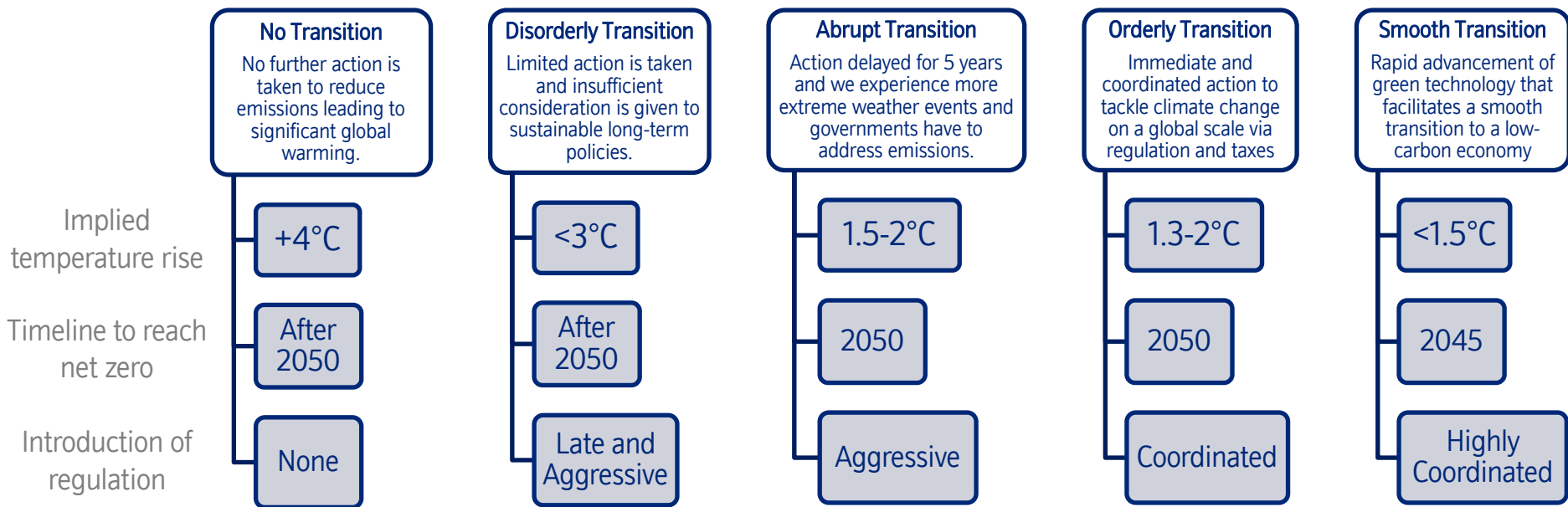
- During the year, the Trustee began a longevity hedging exercise. Part of the counterparty assessment involved an ESG review.
- The Trustee began a market tender exercise for the Investment Consultant, 10% of the scoring was attributed to ESG capabilities.
- The CIO Team performed an asset-by-asset risk assessment
- The Trustee has updated its Implementation Statement which provides more detail on the Trustee’s stewardship activities.
- ESG risks are included and discussed as a part of the Fund’s risk register.
- The Climate Risk Management Framework has been refreshed.
- The Trustee maintains ESG-tilted investments, such as debt managers who reward lendee companies for improving their ESG credentials.

Scenario Analysis: Introduction to the Scenarios

The Trustee recognises the importance of assessing the Fund’s resilience to climate-related risks across the short, medium and long-term. As such, the Investment Consultant (Aon) has performed scenario analysis on the Fund’s portfolio. This analysis was refreshed in 2022/23 due to significant changes in the Fund’s investment strategy and assets across the year. The Trustee has considered 5 scenarios compared to a base case. The base case uses Aon’s Capital Market Assumptions (CMAs) which are largely derived from what is currently priced into financial markets. It looks at carbon prices, net zero feasibility and implied temperature rises. The CMAs are updated with market movements, but at the time of modelling the market was assuming:



The 5 scenarios modelled consider these factors with varying severity as detailed below. All of them derived from the level of action taken by governments and market participants. The narratives and assumptions are translated into impacts on macroeconomic variables such as GDP, interest rates and inflation.



Scenario Analysis: Introduction to the Scenarios

To understand the impact of the climate scenarios on the portfolio it is important to understand how the Fund is assumed to develop across the next 20 years. A snapshot of the portfolio was taken as at the 31st December 2022 and the scenarios then consider changes to the allocations over the projected time horizons. The initial allocation of both sections was as follows:

	Nationwide Section	Cheshire and Derbyshire Section
<i>Liability Driven Investments</i>	54.2%	73.7%
<i>Public Equities</i>	0%	17.1%
<i>Synthetic Credit</i>	0%	1.2%
<i>Public Credit</i>	1.7%	0%
<i>Corporate Bonds</i>	1.9%	8.0%
<i>Matching Assets</i>	9.8%	0%
<i>Private Equity</i>	12.8%	0%
<i>Private Credit</i>	10.4%	0%
<i>Private Infrastructure</i>	5.5%	0%
<i>Private Real Estate</i>	3.6%	0%

How might this change?

Within the Nationwide Section, the private assets are expected to decrease over time as investments mature. The Fund is not currently committing to new private market investments. Matching assets are assumed to remain constant and LDI is expected to increase. This is a natural path as the Fund becomes better funded and needs to de-risk. If circumstances change and the Fund is required to commit to new investments, the Trustee may use the outputs of this analysis to inform strategic asset allocations. Furthermore, the Trustee has processes in place to ensure that ESG is duly considered in the process of due diligence of investment managers.

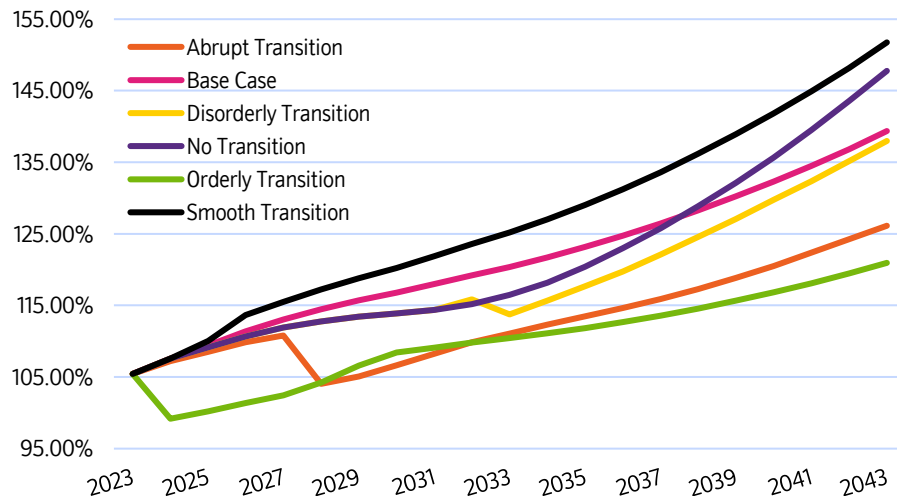
The Cheshire and Derbyshire section is already well funded, and holds most of its assets in LDI. It is expected that there would be relatively small changes to this asset allocation as the Fund matures. An asset not included in the above is an insurance policy that covers a proportion of member liabilities. This annuity policy decreases over time as the number of members covered also reduces. The insurer’s ESG credentials were assessed as a part of the tender process.

Scenario Analysis: Impacts on the Portfolio (Funding Level)

This section considers the impact of the scenarios on the funding level, this is effectively the ratio of the Fund’s assets to the Fund’s liabilities. The Funding level of both sections of the NPF is strong and the portfolio is hedged against changes in interest rates and inflation, as such the Fund is quite resilient to most climate scenarios. A further breakdown of the movement of assets and liabilities can be found on the next two pages.

Nationwide Section

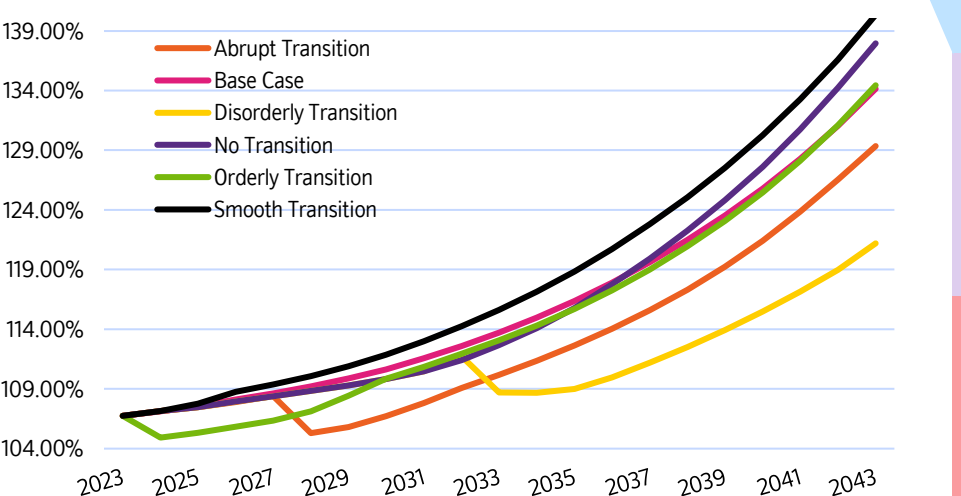
- Due to the diversification of assets and the high levels of hedging, the fund exhibits high levels of climate resilience.
- Private market assets are thought to be the most impacted by climate change in terms of valuation. As the investment strategy is not expected to include any more investments within private markets, the largest impacts are in the Orderly Transition and the Abrupt Transition, where the impacts of climate risk manifest in the near-term.
- In the worst impact, the funding level deteriorates to around 99%, and then improves to c.120% funded by the end of the projection period, by which time the Section is very well funded having steadily improved.



Source: Aon Solutions UK Limited

Cheshire and Derbyshire Section

- The Cheshire and Derbyshire (C&D) section of NPF has a relatively narrow range of outcomes across the scenarios given the low-risk starting position of this section of the Fund.
- The investment risk of this section increases gradually due to the steady decrease of the annuity policy. As such later stage impacts of climate risk are more pronounced such as within the Disorderly transition.
- In the worst impact, the funding level deteriorates to around 104%, and then improves to c.120% funded by the end of the projection period, by which time the Section is very well funded having steadily improved.



Source: Aon Solutions UK Limited

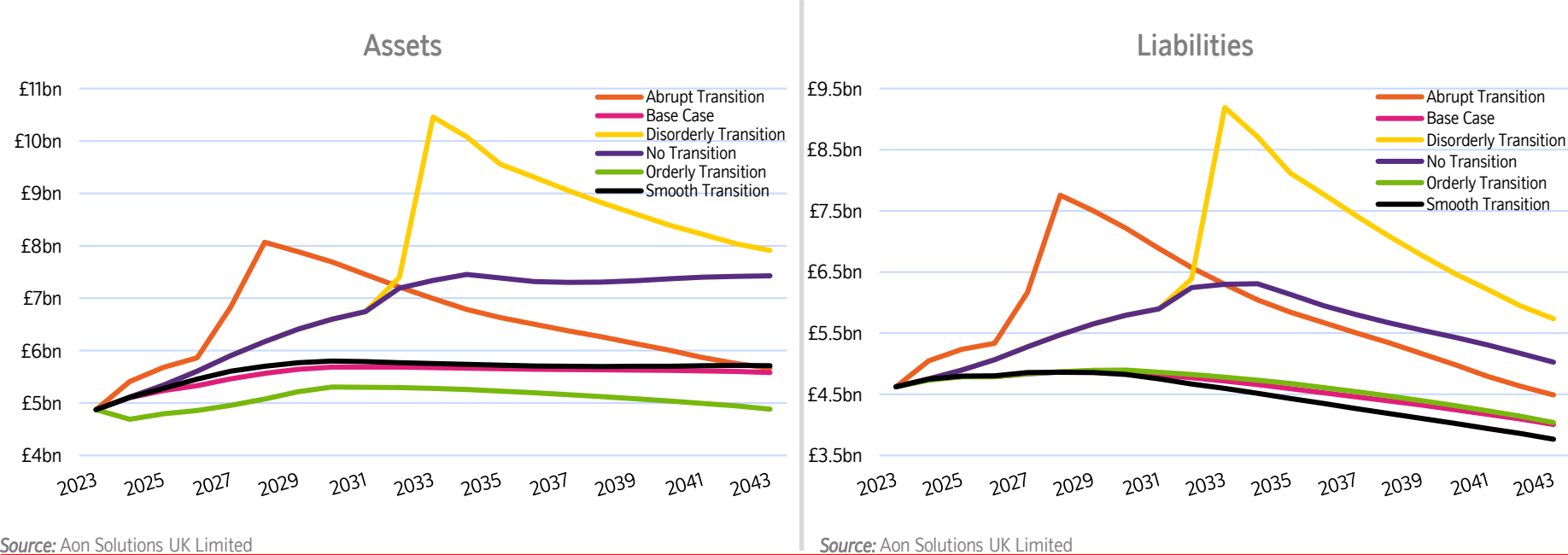
Scenario Analysis: Impacts on the Portfolio (Assets and Liabilities of the Nationwide Section)

The graphs below show how the assets and liabilities of the Nationwide section perform under each of the scenarios. In these graphs we can see how the impacts in some scenarios have been more pronounced, but the movement in assets and liabilities are similar due to the hedging in place. The impacts of climate risk are demonstrated in the market by shocks to interest rates, GDP and inflation. The impact of these movements on the Funding level are limited due to hedging and asset diversification.

In general, liabilities of the Nationwide section increase in the first 10 years and then steadily decrease. Liabilities are modelled on a low dependency basis.

The assets of this section increase steadily and then remain relatively stable after 10 years. Growth assets (thought to be most impacted) would be in run-off over the next 10 years, leaving hedging assets which perform well under negative yield shocks.

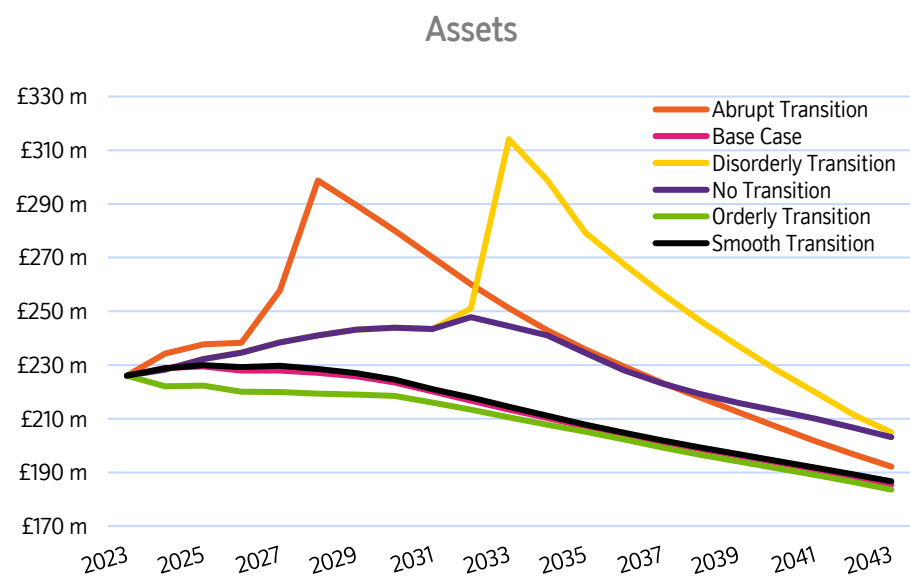
The most pronounced movement occurs under the Disorderly Transition. Under this scenario, there is a sharp fall in Gilt yields in 10 years time, as the economic backdrop weakens due to climate-related costs. This increases the liabilities of the fund, but the increase in the value of hedging assets more than offsets this rise.



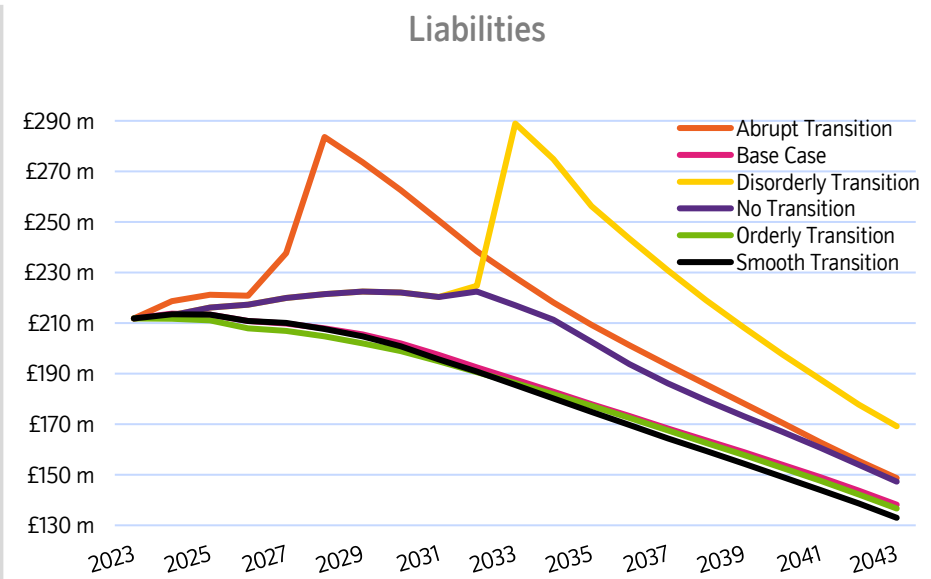
Scenario Analysis: Impacts on the Portfolio (Assets and Liabilities of the Cheshire and Derbyshire Section)

These graphs show how the assets and liabilities of the Cheshire and Derbyshire (C&D) section perform under each of the scenarios. In general for the C&D section, liabilities and assets are projected to fall across the next 20 years. Liabilities will fall due to the fact that the section is already relatively mature and assets will fall as the annuity policy modelled reduces over time in line with the liabilities that it matches. Liabilities are modelled on a low dependency basis.

Similar to the Nationwide section, the most pronounced movement can be seen in the Disorderly Transition due to a sharp fall in Gilt yields. As in the Nationwide section, this increases the liabilities of the fund, but the increase in the value of hedging assets more than offsets this rise.



Source: Aon Solutions UK Limited



Source: Aon Solutions UK Limited

Scenario Analysis: Limitations and Assumptions

The Trustee has commissioned Aon to perform a best endeavours exercise in this scenario analysis. These are stylised projections of plausible economic and market variables designed to illustrate the potential impacts of climate policy transitions. Aon uses internal and external research to create long-term projections based on historical data, current market characteristics, professional judgment and forward looking expectations. The future is inherently uncertain so there is material uncertainty in all aspects of these climate scenarios.

Any impact from abrupt global climate transitions or global widespread climate emergencies cannot be accurately quantified due to the fact that these events would be unprecedented. As such, Aon's efforts to illustrate these risks involves widespread use of subjective professional judgement on the timing and magnitude of regulatory developments, speed and effectiveness of technological advancements and behavioural responses of consumers/companies/governments. These scenarios are individual possible paths and the scenarios considered are by no means exhaustive.

A number of assumptions were made when considering these scenarios these include:

- Data from the latest actuarial valuations as at March 2022 is suitably appropriate. Analysis performed at the same time as a full actuarial valuation could produce materially different results, compared to this analysis performed as at the 31st December 2022.
- The model assumes a deterministic projection of assets and liabilities in which cashflows are discounted and projected by different parameters for the different scenarios.
- Approximate impacts of climate change scenarios on asset/liability values
- Investment risk is only captured in the deviance from the Base Case, but this is not the only risk that each section faces. Other risks include covenant risk (discussed separately later in the report), basis risks and operational risks. These risks have not been modelled.
- A model of the full yield curve to allow for an accurate treatment of liabilities and realistic modelling of the future distribution of interest rates and inflation. This allows for asset and liability sensitivities to interest and inflation rates.

The Trustee recognises that exploratory climate scenarios such as these are limited and have recently been under challenge for not fully considering key risks and opportunities that the climate transition will bring. In general, policy disruptions, the impacts of disruptive technologies, acute physical risks, geo-political shocks and large-scale migrations are not considered in exploratory climate scenarios.

The scenarios used by Aon and the Trustee go some way to address these issues by considering the pace of policy intervention, but it is not possible to model all anticipated economic and physical impacts of climate change with any certainty at this time. These scenarios are constantly being updated and the Trustee will consider refreshing this analysis once new or improved scenarios or modelling capabilities become available, or in the event of any material changes to the Fund's investment or funding strategy.

Scenario Analysis: Additional Information

Aon has also provided additional modelling on the impact of three climate scenarios on mortality projections. The three scenarios were the Disorderly Transition, Orderly Transition and No Transition. In general, as the human race discovers new technologies it is thought that life expectancy will improve and mortality will be lower, this would create higher liabilities for the Fund.

The impact of climate scenarios on mortality was relatively low, and therefore no further detail has been included. One thing of note is that the Orderly Transition created a worse funding position as better air quality and improved health conditions ultimately lead to higher longevity which increased the liabilities of the Fund.

Analysis of the sponsor

As a defined benefit pension scheme, the Trustee must consider how effective the Fund’s sponsor is at managing climate risk. If the sponsor is severely impacted by climate risk, this could pose a risk to the funding strategy of the NPF if further contributions from the sponsor are required that are unable to be paid. At this point in time the Fund is well funded and the chance of needing further contributions is low, however, it is still important to understand the climate resilience of the sponsor to fully understand all facets of climate risk that the Fund is exposed to.

The NPF is backed by Nationwide Building Society (“NBS”, “the Society”) who produce their own Climate-related Financial Disclosures. The 2023 iteration can be found at this address: [Climate-related Financial Disclosures 2023 | Nationwide](#)

Nationwide is a proactive and conscientious organisation with a mutual purpose to provide banking services for the good of society. It has a broad reach and is able to influence policy makers and form partnerships with key organisations.

NBS is committed to a net zero future and recognises the risk of climate change to its operations and its customers, the business is therefore committed to managing said risk and supporting progress towards a greener society.

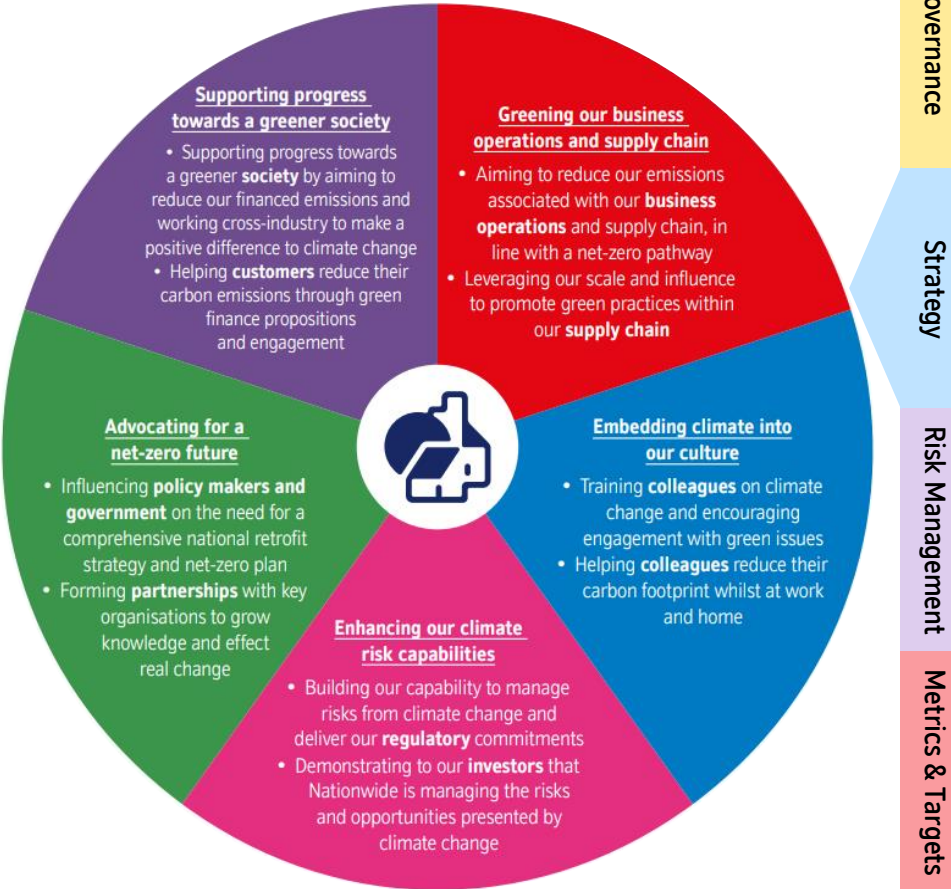
The Society follows a climate change strategy that reflects five pillars which are explained on the right.

As a part of its strategy, in 2021/22 the Society set intermediate (by 2030) science-based targets:

- A 42% reduction in absolute scope 1 carbon emissions.
- To continually source 100% renewable electricity (Scope 2)
- A 42% reduction in absolute scope 3 upstream carbon emissions.

Progress towards these targets is already ahead of schedule, with a 21% reduction in scope 1 emissions in 2022/23 and a 32% reduction in scope 3 upstream emissions. Electricity consumed was also 100% renewable.

NBS has also planned for enhanced scenario analysis in 2023, following the analysis in 2021 that indicated that the effects of climate change posed a limited threat to its business model.



Key activities of the sponsor in 2022/23

Across the year, the Society has completed a number of achievements in line with its climate change strategy. Some of these are explained below:



Nationwide collaborates across the industry and with the government to support the changes needed for a net zero economy. Nationwide will continue to work with government, policymakers and industry, to innovate its green finance propositions, to support further activity to address the industry-wide retrofitting challenges.



Nationwide has been providing green finance propositions since 2020. Customers receive preferential mortgages and additional borrowing to support green home improvements. £6.4m was provided for green home improvements this year



Nationwide has developed 239 EPC A-rated homes on a brownfield site in Swindon. This was opened to the public in December 2022. Properties have air source heat pumps and solar panels.



Nationwide has taken steps to build climate change considerations into its procurement and supply chain management processes. All large third parties are required to disclose scope 1 and 2 emissions and set reduction targets. Additionally, they have introduced a 10% minimum weighting for sustainability actions as a part of the supplier tendering process



Colleagues within the Society are encouraged to engage with green issues and make sustainable choices. Training has been provided for employees to help the understanding of the importance of sustainability. The default investment option of the DC pension scheme now invests in companies that adhere better to ESG principles.



Nationwide has been supporting nature and biodiversity at their head office in Swindon, creating a 5-year management action plan for a growing area of woodland around the office. Its aim is to increase the population of key plants and animals and work towards a healthy and resilient ecosystem.

| Risk Management

The background of the slide is a close-up photograph of numerous small, pink, unopened flower buds. The buds are arranged in clusters along thin, dark stems. The lighting is soft, creating a gentle gradient from a light pink at the top to a slightly darker pink at the bottom. The overall texture is delicate and organic.

Identifying and assessing climate-related risks

The Trustee has developed and adopted a Climate Risk Management framework which allows the Trustee to monitor and make risk informed decisions across the fund. This framework incorporates ESG risk and monitors this risk across short, medium, and long-term time horizons.

The Trustee’s approach to the identification and assessment of climate-related risks and opportunities comprises two elements. The first element is a qualitative assessment of climate-related risks and opportunities. This is prepared by the CIO Team and reviewed by the Fund’s Investment Consultant before being presented to the Trustee. The second element is quantitative in nature and is delivered through climate change scenario analysis. This is provided by the Trustee’s Investment Consultant with input from the CIO Team.

Both elements complement each other and give the Trustee a clear picture of the climate-related risks that the Fund is exposed to. The Trustee distinguishes between transition and physical risks and all risks and opportunities are assessed with reference to specific time horizons. In addition, the Trustee assesses the materiality of climate-related risks relative to the impact and likelihood of other material risks to the Fund to prioritise the management of risks that pose the most significant potential for loss. Due to the subjective nature of some of these risks, these assessments are performed at an individual asset class level.

Managing climate-related risks

As part of the Fund’s investment strategy, the Trustee acknowledges the long-term risks posed by climate change. As such, the Trustee takes the following steps, in line with the Fund’s Responsible Investing policy, to manage these risks:

Trustee Training

The Trustee completes periodic training on responsible investment to understand how ESG factors, including climate change, could impact the Fund’s assets and liabilities.

ESG Assessment for New Investments

All new investments are assessed on their ESG commitment. If these commitments are not inline with the Trustees requirement then new investments may not be completed at this point.

Investment Manager Due Diligence

Investment managers are requested to provide their responsible investment policy, details of how ESG is integrated within their decision-making process, and details of outstanding ESG issues within portfolios on an annual basis. Where managers are unable or unwilling to provide this information, the Trustee works with these managers to encourage these disclosures.

Integration of climate-related risks into NPF’s overall risk management framework

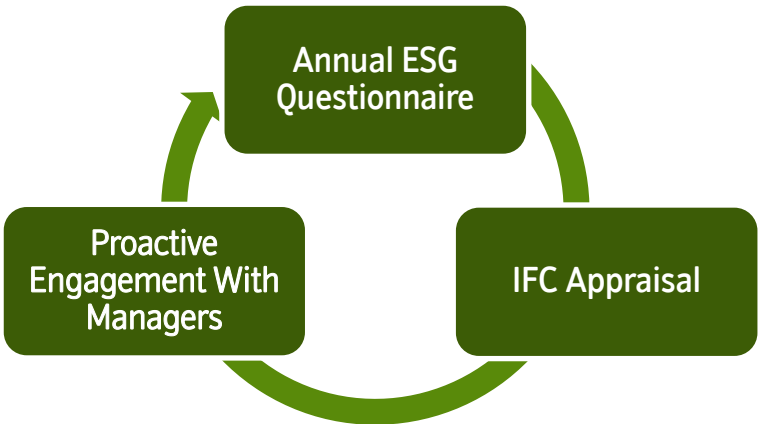
The Trustee has integrated the identification, assessment and management of climate related risks into NPF’s climate risk management framework through the below strategies.

Risk Tools	Outcomes
The risk that ESG considerations (including climate change) impact the value of the fund is considered within the NPF’s Risk Register.	The IFC will consider the Risk Register each quarter with any material movements within the categories discussed further and recategorised where necessary.
The NPF requires asset managers to provide feedback each year on their stewardship activities. This includes managers’ implementation of climate change related mitigation strategies.	The CIO Team collates the feedback from asset managers and categorises managers’ strategies using a Red, Amber, Green (RAG) status. Where a manager’s strategy is deemed insufficient, the manager will be contacted and advised why the strategy has been deemed insufficient so as to drive greater engagement by the manager.
ESG ratings will be assigned to any new potential investments. This assessment focuses on all elements of ESG, with “E” including a specific assessment of climate change risks.	Investment opportunities may be foregone in circumstances where the assigned ESG rating is not within NPF’s risk tolerance. This includes circumstances where climate change mitigation strategies drive the ESG score outside of tolerance.

Foreword
Governance
Strategy
Risk Management
Metrics & Targets

NPF's key climate risks

Through its risk management framework the Trustee has determined that a key climate related risk to the NPF is the environmental risks inherent within the Private Markets Portfolio (PMP). As the PMP makes up 36% of total NPF assets, mitigation of the climate related risks within this portfolio is of principal importance to the Trustee. Additionally, the Trustee is aware that driving sustainable change rather than merely divesting from assets is of greater consequence as this will drive sustainability whilst fulfilling the Fund's mandate. Therefore, the Trustee engages with PMP asset managers through the below process to encourage effective sustainability practices.



- **Annual Questionnaire** – Annually, fund managers are provided with an ESG questionnaire that covers their stewardship practices, requests emissions data, and level of alignment to the 2050 Paris Agreement.
- **IFC Appraisal** - The results of all questionnaires are summarised for an annual IFC meeting, with underperformers being highlighted and discussed.
- **Engagement** – This engagement takes place for all managers regardless of the results of the annual questionnaire. This engagement aims to drive completion of ESG questionnaires by all managers. Additionally, the NPF is looking to drive more dialogue between itself and fund managers with regards to climate change going forward.

A second major risk which the Trustee wishes to note is the risk that the NPF's Liability-Driven Investment (LDI) portfolio will not reach net zero by 2050. As the LDI portfolio solely consists of UK Government Gilts, it is reliant on the UK Government achieving net zero by 2050. It has previously been held that this will happen due to the Government's commitment to net zero but a House of Lords report¹ has highlighted that this commitment looks set to be missed. Therefore, it is the Trustee's view that net zero within the LDI portfolio is probable but not definite. Currently, NPF does not have any plans in place to mitigate this risk but has noted such a risk and will monitor the UK Government's commitment to net zero going forward.

Identification of new and emerging risks

The Trustee is aware that the identification of current risks is not sufficient to mitigate the impacts of climate change but that new and emerging risks must also be considered. Therefore, the CIO Team presents to the Trustee on a quarterly basis an assessment of potential future and emerging risks. Additionally, the NPF's Investment Consultant will advise the Trustee of any future governance requirements required with regards to climate change.

¹ House of Lords Industry and Regulators Committee, 2022, The net zero transformation: delivery, regulation and the consumer

Accomplishments and Challenges within risk management over the previous year

Over the most recent year the drive towards a more carbon neutral portfolio has become a more central tenet of the Trustee’s thinking. This has resulted in a number of accomplishments through the year but has also been offset by some challenges. The Trustee wishes to highlight the below accomplishments and challenges pertaining to the risk management processes for climate change throughout the previous year.

Accomplishments

- In the previous financial year the Trustee published its first TCFD report. This report proved invaluable in allowing the Trustee to analyse its climate risk position.
- Following the LDI crisis in September the Trustee divested from the majority of the public credit portfolio. This portfolio was a highly carbon intensive section of the overall Fund and therefore disposal of this section has decreased the Fund’s actual carbon footprint.
- By working with PMP managers the Trustee has been able to increase the response rate to managers providing some form of emissions data from 24% in the previous year to 41% in the current year. This has exceeded the Trustee’s target of 40% and has allowed for more accurate climate risk analysis of the PMP portfolio.

Challenges

- The Gilts Market Crisis during September, which led to greater pressures on liquidity, created issues surrounding the Trustee’s ability to divest from certain carbon intensive funds. This has resulted in challenges around driving sustainable focuses among fund managers.
- Gaining accurate and up to date emissions data will remain a challenge for the Fund for the foreseeable future. More work will be required with fund managers, especially within the PMP portfolio, to drive knowledge and understanding around the need for emissions data to drive risk management.
- The allocation of time between risk management and risk reporting remains a concern for the Trustee. The Trustee is aware of the need for strong risk reporting to drive awareness of the challenges currently faced but is striving hard to balance the rigours of reporting with the implementation of change to decrease the overall risk.

Activities and discussions throughout the year

During the scheme year climate risk has been focused on by the Trustee through discussions about the setting of a net zero target by the NPF. The Trustee is aware that a key mitigation of climate risk is for emissions across the world to be reduced to net zero. The Trustee understands that the NPF can help contribute to net zero by investing its assets in a net zero aligned way. Therefore, the Trustee has had training throughout the year on what net zero entails and what actions would be required by the Trustee to move to a net zero aligned portfolio of assets. It is an aspiration of the Trustee to set a net zero target for the NPF and it will be investigating the feasibility of setting a target in 2023/24.

Risk management looking forward

The Trustee notes the accomplishments and challenges of the last year and has used these learnings to drive the future outlook of the NPF. The Trustee will continue to engage with stakeholders to drive a sustainability mindset and will also continue to analyse its current portfolio to ensure that climate risk is adequately provided for. The Trustee will drive for greater engagement from all stakeholders for emissions reporting to allow for a truly quantitative risk based assessment of its portfolio. The Trustee believes that the first steps have been made to de-risk the NPF from a climate change perspective and will drive forward with continued de-risking where possible.

Foreword
Governance
Strategy
Risk Management
Metrics & Targets

| Metrics and Targets

A surreal landscape featuring rolling red sand dunes. A dense forest of small, vibrant red trees grows along a central ridge, creating a stark contrast with the orange-red sand. The sky is a deep blue, dotted with stars and a bright, glowing sun or moon in the upper right. The overall scene has a dreamlike, ethereal quality.

Importance of metrics and targets

The Trustee is committed to the measurement of climate related risks and opportunities to help inform current and future investment decisions. The Trustee is aware of how climate change has the potential to adversely impact the future funding level of the NPF and therefore is committed to the gathering of high-quality data to drive high-quality decision making. Therefore, the Trustee has been working closely with its investment managers to drive increased participation in data gathering. This has been demonstrated through greater participation within the NPF’s annual emissions data gathering performed as part of the annual due diligence exercise.



Emissions data gathering

As part of the annual due diligence exercise the Trustee requests Scope 1, 2 and 3 Greenhouse Gas (GHG) emissions data as well as carbon footprint data. This data is used to help score the Investment Manager on commitment to climate risk and ESG.

Data Gaps

The availability and quality of emissions data varies manager by manager. Asset managers operate in different regulatory environments and with different mandates and therefore GHG emissions data has different priority levels. This can be seen specifically with those asset managers based in the US where the regulatory requirements around the tracking and reporting of emissions are much lower than those seen in the EU and UK.

In addition to differences based on geographical location, different asset classes have different abilities around obtaining emissions data from portfolio companies. For example, Private Debt funds may not be able to obtain emissions data from borrowers where this has not been explicitly stated within the loan documentation whereas Private Equity managers have a greater ability to request data from portfolio companies due to their ownership of a proportion of that company.

Overall, the Trustee is aware of limitations faced by different asset managers with the collection of emissions data but is also of the opinion that the collection of high-quality data is of the utmost importance for the NPF to manage the risk and opportunities associated with climate change. Therefore, the Trustee actively engages with asset managers to drive reporting of emissions data. The Trustee sees this as an iterative process and expects greater engagement year on year.

Driving Engagement

During the 2022 annual due diligence exercise, two Investment Managers have been noted as significantly lacking in their approach to climate change risk and emissions data gathering. These managers approach to ESG is at odds with the Trustee’s expectations of its Investment Managers and therefore, the Trustee has taken the decision to formally write to these managers to advise of the Trustee’s expectations as the custodians of NPF’s assets. The Trustee is currently awaiting a response from these asset managers but is hopeful that through this formal engagement with asset managers, the Trustee can drive a greater awareness of the need to factor environmental considerations into investment decisions and the day-to-day management of assets.

Climate Change Metrics

The Trustee uses several different metrics to help NPF measure and understand the impact of its investments on climate change. These metrics are qualitative and quantitative in nature. These have been chosen as they are more readily available from the NPF’s investment managers, and they allow for a quantifiable approach towards NPF’s contribution to climate change. The three metrics used by the Trustee are detailed further below.



Total Carbon Emissions is the total greenhouse gas (“GHG”) emissions associated with the portfolio. It is an absolute measure of carbon output from NPF’s investments and is reported as tonnes of CO2 emissions.



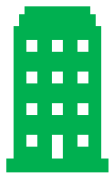
Carbon Footprint is an intensity measure of emissions that takes the total GHG emissions and weights it to take account of the size of the investment made. Carbon footprint is reported as tonnes of CO2 emissions per million pounds of investment.



Number of Investment Managers That Have Reported on Climate Data is the proportion of the portfolio that was able to provide high quality data. The Trustee has agreed that investment managers will only be considered to have provided high quality data if they were able to report data on 60% or more of their portfolio.

Scope 1, 2 and 3 Emissions Data

To accurately reflect the origination of emissions data inherent within its investment portfolio the NPF reports scope 1, 2 and 3 emissions data where this data is available.



Scope 1

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from their own buildings, facilities and vehicles.



Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation.



Scope 3

All other indirect emissions linked to the wider supply chain and activities of the organisation from outside its own operations – from the goods it purchases to the disposal of the products it sells.

Emissions Data

The table below details the emissions data reported by NPF's asset managers on an asset class basis.

	Proportion of the NPF (%) 2022/23	Proportion of the NPF (%) 2021/22	Scope 1 & 2 Emissions (tCO2e) 2022/23	Scope 1 & 2 Emissions (tCO2e) 2021/22	Scope 3 Emissions (tCO2e) 2022/23	Scope 3 Emissions (tCO2e) 2021/22	Total Emissions 2022/23	Total Emissions 2021/22
LDI	54.2%	47.0%	616,269	483,483	N/A	N/A	616,269	483,483
Public Equities	0.3%	12.8%	1,136	N/A	9,839	N/A	10,975	N/A
Public Credit	1.7%	9.9%	30,028	194,348	57,899	40,466	87,927	234,814
Corporate Bonds	1.9%	0.0%	406	N/A	N/A	N/A	406	N/A
Matching Assets	9.8%	9.8%	4,099	139	1,857	11,576	5,957	11,715
Private Equity	12.8%	8.6%	25,553	1,355	245,015	921	270,568	2,276
Private Credit	10.4%	5.7%	25,939	N/A	16,887	N/A	42,826	N/A
Private Infrastructure	5.5%	3.5%	17,677	73,154	66,903	15,796	84,580	88,950
Private Real Estate	3.6%	2.7%	1,147	496	14,635	3,507	15,782	4,003
			722,254	752,975	413,036	72,266	1,135,290	825,241

Sources: Various. Provided directly by NPF asset managers

Within the last year the NPF has seen its emissions significantly increase with total emissions increasing by 310,000 tonnes of CO2. The Trustee is aware of this increase and has noted that rather than this being driven by more carbon intensive operations, this is actually driven by a larger proportion of asset managers reporting CO2 emissions then during the 2021/22 iteration of the NPF report. This is seen in the below table where the total proportion of NPF assets where emissions data is available has increased from 61.6% to 75.8%. It should be noted that although Scope 1 & 2 emissions reduced during the year this was predominantly due to the disposal of the majority of the public credit portfolio which was a significant part of the NPF's emissions within the last scheme year.

	Proportion of the NPF Reporting in 2022/23 (%)	Proportion of the NPF Reporting in 2021/22 (%)
LDI	100.0%	100.0%
Public Equities	100.0%	0.0%
Public Credit	93.3%	63.6%
Corporate Bonds	100.0%	0.0%
Matching Assets	53.0%	46.9%
Private Equity	24.4%	11.6%
Private Credit	47.7%	0.0%
Private Infrastructure	51.3%	48.6%
Private Real Estate	52.4%	37.0%
	75.8%	61.6%



Carbon Footprint

The table below details the carbon footprint of the NPF's investments. The footprints reported are measured as the tonnes of CO₂ emitted within the reporting year per million pounds invested by the NPF.

	Scope 1 & 2 Carbon Footprint (tCO ₂ e/£m)	Scope 3 Carbon Footprint (tCO ₂ e/£m)	Total Carbon Footprint (tCO ₂ e/£m)	Carbon Footprint (tCO ₂ e/£m) 2021/22
LDI	195	N/A	195	146
Public Equities	66	574	640	63
Public Credit	307	592	899	148
Corporate Bonds	4	N/A	4	N/A
Matching Assets	7	3	10	38
Private Equity	34	329	364	16
Private Credit	43	28	71	N/A
Private Infrastructure	55	210	265	383
Private Real Estate	6	70	76	3

Sources: Various. Provided directly by NPF asset managers

Within the 2022/23 scheme year it has been noted by the Trustee that there have been some material changes within the reported carbon footprints for certain asset classes. This has generally been driven by either greater veracity within provided emissions data or the inclusion of scope 3 emissions data and therefore the Trustee has taken the decision to report separate carbon footprints for Scope 1 & 2 and Scope 3.

Further to the increase in efficacy of the data and increase in Scope 3 data the Trustee has also noted the below

- The carbon footprint of the LDI portfolio has increased by nearly 50 tCO₂e/£m. The LDI footprint is calculated as the ratio of tonnes of carbon emitted to the market value of Gilts in issuance. The market value of Gilts in issuance has markedly decreased in 2022 as a result of Government and financial policies. As a result the carbon footprint has increased. The estimated total emissions for the year has also increased slightly. The Trustee does not have much control over the movement in emissions or carbon footprint of the LDI portfolio, but it is a best endeavours exercise to include data relating to NPF's investment.
- The private infrastructure carbon footprint has decreased within the scheme year driven by divestment from a fund which was significantly more carbon intensive compared to other funds held within the asset class.
- The carbon footprint for matching assets has also decreased during the year due to a change in the data provided by the asset manager.

Emissions Data Methodologies

This scheme year the Trustee has endeavoured to obtain standardised emissions data from its asset managers through the use of the Pensions and Lifetime Savings Association Carbon Emissions Template (CET) and data specification. The CET has been designed to standardise the data set received by the trustee and therefore allow greater flexibility with the processing and disclosure of this data. The Trustee has seen take up of this template, but this has not been consistent across the entire NPF portfolio.

As described within the “Data Gaps” section of this report, the data received does not always align across managers, with different methodologies used by different managers, and even different portfolio companies of the same asset manager, to report emissions. Therefore, a description of the most common methodologies used for reporting of emissions data is included below.



Data Questionnaires: Data questionnaires are used by asset managers to collect and collate emissions data from portfolio companies. These questionnaires will specifically request emissions data and templates for asset managers have been provided by different third parties such as Insight ESG Outreach Solution.



Emissions Data Consultants: Asset managers may opt to use a third party consultant, such as Optera, to collect emissions data on their behalf. Such consultants will use their own methodologies for this, including the use of estimations and standardisations across industries.



Estimation and use of industry averages: Asset managers may also use estimation of emissions data for portfolio companies based on industry averages where direct emissions data is unavailable. Although this introduces risks around the under/over-estimation of emissions data, it does also allow for a quantitative approach to the calculation of emissions.



Direct Calculation: In certain limited circumstances an asset manager is able to directly calculate the emissions data produced by itself or a portfolio company. This will only relate to Scope 1 and 2 emissions and is very limited in application.

Data Quality

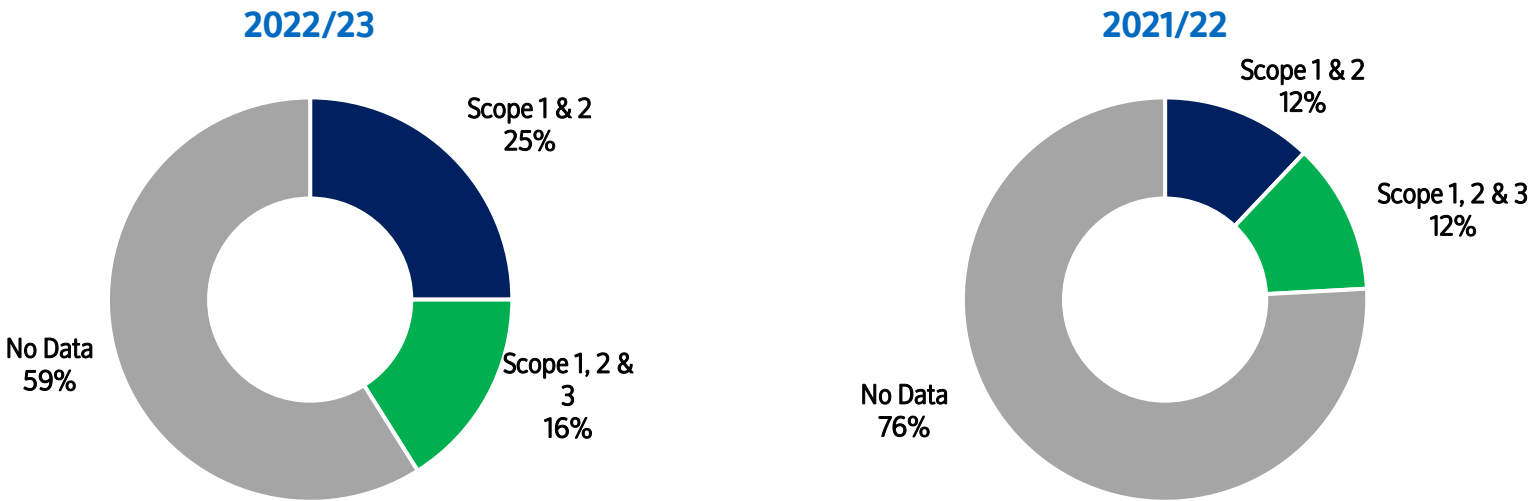
The Trustee works hard to ensure that all data reported is of the highest quality but is aware that the collection and reporting of emissions data is an emerging field within the financial services industry and therefore the data collated has been collated on a best endeavours basis. Therefore, the below points are relevant to this data.

LDI	Use Of Estimates and Models	Calculation Methodology Differences
<p>The emissions and carbon footprint calculated for the LDI portfolio are based on UK government emissions data as well as UK GDP. A number of assumptions have been made by the NPF LDI manager due to lack of granular data. This is expected to improve as data quality improves. The Trustee has little control over the movement of emissions data relating to its investment in LDI, but given that it is a large part of the NPF’s assets, data has been included as a best endeavours exercise.</p>	<p>Estimates and models have been used by asset managers to calculate emissions data where actual calculation is either not appropriate or not possible. Estimates and models includes the use of third party models, using location specific data to estimate emissions and approximating emissions based on industry profiles. Due to the use of estimates, actual emissions may be higher or lower than actually reported but it is understood that the need for reporting outweighs the need for 100% accuracy.</p>	<p>Currently there is no one standard approach to calculating emissions data and therefore there can be differences not only across asset managers but within asset managers due to different portfolio companies calculating emissions in different ways. The Trustee is aware that these inaccuracies exist but, as with the use of estimation, is of the opinion that disclosure outweighs the need for 100% accuracy. Additionally, the Trustee sees that with greater reporting of data, alignment will become more common place.</p>

The Trustee is aware that data quality will be a point of note going forward when it comes to reporting emissions. The Trustee does not believe that this should stop the reporting of emissions data but should rather be used as a tool to drive enhanced data collection in the future. Reporting of emissions data allows for comparability across the industry and therefore the Trustee will strive to continuously push for increased emissions data transparency and veracity from its asset managers.

Manager Responses

As noted earlier, the Trustee has seen an increase in the percent of NPF assets where emissions data is available. This is further demonstrated by the increase in responses from NPF’s asset managers. This year the Trustee has seen an increase in managers responding to 39% of all managers with this increase driven by a 14% overall increase in managers providing Scope 1 & 2 emissions data and a 1% increase in managers providing Scope 1, 2 & 3 emissions data.



Response rate target

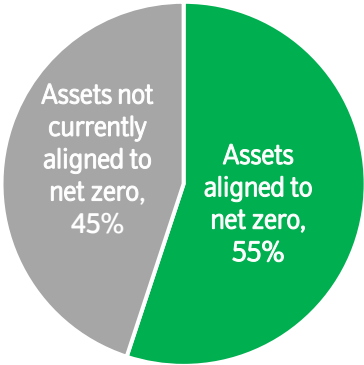
In NPF’s 2021/22 TCFD report the Trustee advised that a 40% response rate for asset managers providing emissions data was being targeted for the current climate risk report. The Trustee is pleased to note that with an increase in the response rate of 17% on the 2021/22 iteration, the overall response rate of 41% has exceeded this target. Additionally, the Trustee has been advised by approximately 17% of their asset managers that data is either currently being collected but is not available for the current iteration or that data is to be collected within the next 12 months. Therefore, the Trustee has set a further target of a response rate in excess of 50% for the 2022/23 iteration of this report. The Trustee is confident that this target will be exceeded due to the increased engagement with asset managers around emissions data reporting as described earlier in this section.

Portfolio Alignment with the Paris Agreement

The collection, collation and reporting of emissions data is beneficial to the NPF as a snapshot of the current emissions of those assets held by the Fund but for the Trustee to develop plans to reduce these emissions it is necessary for the Trustee to have simple, forward-looking metrics. Therefore, the Trustee has decided to measure the alignment of its assets with the Paris Agreement.

The Paris Agreement is a legally binding international treaty on climate change that was formulated and adopted at the UN Climate Change Conference in Paris in 2015. The overarching goal of the Paris Agreement is to limit the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. This is to be achieved through international cooperation on the reduction of global greenhouse gas emissions.

In order to measure alignment with the Paris Agreement the Trustee has requested that all asset managers provide the details of those assets which have a Science Based Targets initiative (SBTi) validated net zero target. These assets have been collated and the percentage of assets which are net zero aligned is presented below.



Overall, the Trustee has noted that greater than half of all assets currently held within the NPF are aligned with the Paris Agreement but the majority of this is driven by those assets held within the LDI portfolio. LDI assets are predominantly UK government bonds and these assets are seen as net zero aligned due to the UK governments legally mandated requirement to be net zero by 2050, in-line with the Paris Agreement.

Although greater than half of the NPF's assets are net zero aligned, the Trustee is concerned about those assets held outside of the LDI portfolio with a fraction of these assets aligned to net zero. The Trustee has noted that several managers are pushing forward with net zero targets but is aware that these managers appear to be in the minority. Therefore, the trustee will be requesting more in-depth information from its asset managers during the 2023/24 due diligence process with regards to net zero alignment in order to formulate a plan to drive greater commitment from its asset managers.