

Task Force on Climate-Related Financial Disclosures (TCFD) report

Zurich Financial Services UK Pension Scheme

Year ended 30 June 2025

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Introduction

Message from the Trustee Chair

Welcome to the annual TCFD report for the Zurich Financial Services UK Pension Scheme (“the Scheme”) for the year ended 30 June 2025.

This report aims to provide a clear understanding of the financial implications of climate change on the Scheme. It is structured to align with the TCFD’s recommendations, focusing on governance, strategy, risk management and metrics and targets. It is designed to assist the Trustee, Scheme members, and other stakeholders in understanding how climate-related risks and opportunities are being managed within the Scheme.

The key activities are outlined below:

Extension of the DC self-select fund range

In September 2025 the Trustee added two additional funds to the self-select range, a bond fund with carbon targets and a commitment to net zero and a Climate Focus World Equity Fund which creates a portfolio of investments aligned to the 1.5C target of the Paris Agreement.

DC Fund Range Metrics – This report includes the carbon emission metrics for the new default DC funds, the numbers show a significant improvement in the relevant carbon footprint measures, demonstrating the impact of the transition to the new fund range for this element of the Scheme which continues to receive new contributions.

Manager Selection – During the year the Trustee undertook an asset manager selection exercise for the Emerging Market equity portfolio. A key element of the selection process involved the assessment of each asset manager’s approach to the integration of ESG factors in their management process and the alignment of that approach to the asset restrictions, carbon reduction intensity targets and net zero ambition of the Scheme. The new asset manager demonstrated clear alignment.

Infrastructure Equity Funds – The asset manager selection activity above builds on the previous search for infrastructure equity fund managers where a similar approach has delivered two funds that include assets that can contribute positively to the Trustee’s net zero ambition.

Manager engagement – the Trustee recognises the importance of engaging with its asset managers to address climate-related risks and opportunities. The engagement is aimed at ensuring that the Scheme’s investments are aligned with its climate-related objectives and that asset managers are effectively managing climate-related risks and opportunities.

Increasing metric coverage – the Trustee has again increased the types of assets it is now disclosing metrics for, providing a more comprehensive understanding of the Scheme’s

environmental impact. This enhanced transparency allows for better tracking of progress towards sustainability goals and more informed decision-making.

Scheme's profile

The Scheme is managed by Zurich Financial Services UK Pension Trustee Limited ("the Trustee"). The Trustee has a legal duty to run the Scheme in accordance with the governing Trust Deed and Rules for the benefit of members and their dependents.

The Scheme has two sections: The ZPen Section, with its associated arrangements (ZPen Defined Benefit (DB) and ZPen Defined Contribution (DC)), and the ES Executives' Section (EExec DB). The assets in each section are kept completely separate. Each arrangement requires a different investment strategy that is tailored to meet the investment aims and objectives.

ZPen DB

The ZPen DB arrangement is closed to new entrants and to future accrual. Active members are members of the ZPen DC arrangement. As at 30 June 2025, active ZPen DC members include 866 hybrid members who retained a link to final pensionable salary on their ZPen DB benefits.

For ZPen DB, there is a reasonable amount of time before there is expected to be a significant majority of pensioner members, therefore the Trustee invests around 33% of the assets for this arrangement in growth assets (e.g. equities and property). Investing in growth assets provides a higher expected return, but this brings a higher chance of volatility. Over time, whilst the membership profile matures, it is expected the amount of growth assets will reduce accordingly.

EExec DB

The section is closed to new entrants and future accrual. All members in the section are now pensioners. During the Scheme year the Trustee delivered a reduction in the investment in growth assets from 5% to 0% with all investments now representing "matching" assets (e.g. government bonds). Investing in matching assets means that the assets are chosen because they react to market movements such as inflation and interest rate changes in a similar way to the liabilities of the section.

ZPen DC

The Trustee provides default strategies and a number of self-select funds for members. The Trustee believes the default strategies are suitable for the majority of members based on modelling the expected fund values at retirement and how members are expected to take their benefits.

For detailed asset and membership information, please refer to the annual report and financial statements for the Scheme year ending 30 June 2025.

Governance

Approach to stewardship and responsible investing

The Trustee believes that incorporating responsible investments (RI) into investment decisions improves long-term risk-adjusted returns. The Trustee has been integrating environmental, social and governance (ESG) factors at various steps in its investment process for many years, and in June 2019 it formalised the Scheme’s RI strategy to reflect the changing regulatory landscape. There are five core principles to the RI strategy that has been implemented:

What	We believe that incorporating ESG factors into investment decisions improves long term risk-adjusted returns We are an active owner – we vote proxies and engage, where appropriate
How	We take a pragmatic approach to responsible investments – we focus on what matters We note Zurich Group’s strategy and will leverage its global resources where it makes sense
When	We will evolve our responsible investment approach over time – and acknowledge that we will never be done

Governance framework

The Trustee is ultimately responsible for oversight of all strategic matters related to the Scheme. This includes defining the governance and management framework relating to ESG considerations and climate-related risks and opportunities. The Trustee is responsible for all material decisions related to climate change and the TCFD disclosure requirements, including those related to investments. This encompasses approving the Trustee’s net zero ambition, metrics, and targets for the Scheme, as well as ensuring that investment strategies align with these objectives. The Trustee directors meet as a full board at least five times a year. Occasionally, it is necessary to have additional meetings to consider specific matters. In order to facilitate management of the Scheme, sub-committees of the Trustee board have been formed to concentrate on specific matters and meet on a quarterly basis. The separate committees are the DC Committee and the Funding Committee.

The **Funding Committee** has been established as part of the overall governance framework that is in place to oversee and manage the DB arrangements of the Scheme. The purpose of the Funding Committee is to manage the investment and valuation matters for the DB arrangements with a view to achieving appropriate funding of the Scheme. The Funding Committee provides oversight and guidance in line with relevant legal and regulatory requirements, including those of the trust deed and rules of the Scheme. The Funding Committee has delegated authority from the Trustee in respect of investment matters, except where a change to Scheme documentation is required e.g. the trust deed and rules, the statement of investment principles (SIP) etc. There is no delegated authority in respect of valuation matters.

The **DC Committee** has been established as part of the overall governance framework that is in place to oversee and manage the DC arrangements of the Scheme. The purpose of the DC Committee is to manage DC arrangements with a view to achieving good member outcomes. The DC Committee provides oversight and guidance in line with relevant legal and regulatory requirements, including those of the trust deed and rules of the Scheme. The Committee has delegated authority from the Trustee in respect of all matters relating to the ZPen DC section and legacy AVC arrangements of the Scheme, except where a change to Scheme Documentation is required.

Both sub-committees work with advisers to support with any decision making. Where a decision can't be made, a recommendation is made by the sub-committee to the Trustee board.

See [appendix 2](#) for a diagram of how the Trustee's sub-committees work with advisers.

In addition to investment advice, the Trustee's Legal adviser, Covenant adviser and the Scheme Actuary provide advice to the Trustee on climate-related risks and opportunities.

Resources

The rationale for dedicating time and resources to the governance of climate-related risks and opportunities for the Scheme is multi-faceted and crucial for several reasons:

- **Fiduciary duty:** the Trustee has a fiduciary duty to act in the best interest of their beneficiaries. As climate change poses significant financial risks and opportunities, it is essential to assess and manage these factors to protect and enhance the long-term value of the Scheme's investments.
- **Financial stability:** climate-related risks, such as physical impacts (e.g. extreme weather events) and transition risks (e.g. policy changes, technological advancements), can have substantial financial implications for the Scheme. By integrating climate risk governance, the Scheme can enhance its resilience and ensure the long-term financial stability of the fund.
- **Regulatory compliance:** In the UK, regulatory bodies such as the Pensions Regulator and the Financial Conduct Authority (FCA) have emphasised the

importance of climate risk management for pension schemes. The UK government has committed to achieving net zero greenhouse gas emissions by 2050, and pension schemes are expected to play a role in this transition.

- Stakeholder expectations: Scheme beneficiaries, members, and other stakeholders are becoming more aware of climate change and its potential impacts. Stakeholders expect the Scheme to address climate-related risks and opportunities proactively. Demonstrating effective governance in this area can enhance trust, reputation, and stakeholder satisfaction.
- Long-term investment perspective: The Trustee is a long-term investor, with an investment horizon spanning several decades. Climate change is a long-term systemic risk that can significantly impact investment performance over time. By integrating climate risk governance, the Trustee can make informed investment decisions that consider the long-term implications of climate change on the Scheme's investments.
- Access to opportunities: climate change also presents opportunities for the Scheme to invest in low-carbon technologies, renewable energy, and other sustainable sectors. By actively managing climate-related risks and identifying these opportunities, the Trustee can align its investments with the transition to a low-carbon economy, potentially generating attractive returns while contributing to a more sustainable future.

The Scheme, with a total asset value of c.£6.2bn as at 30 June 2025, is a significant and complex entity. Given the scale and complexity of the Scheme, the Trustee recognises the need to tailor the approach to climate risk governance accordingly. Over the Scheme year the Trustee allocated further resource to protect the funding level of the Scheme, benefiting from continued high gilt yields during the Scheme year. This allocation on resources reflects the continued priority of maintaining the financial stability and sustainability of the Scheme.

To ensure effective climate risk management, the Trustee engages advisers with expertise in this area. Additionally, the in-house team plays a crucial role in overseeing the governance and management of the Scheme, with climate risk considerations integrated into the decision-making processes.

By tailoring the Trustee's approach to climate risk governance based on the size, complexity, and resource allocation of the Scheme, the Trustee is able to address climate risks in a manner that is proportionate to the Scheme's circumstances. This ensures that the Trustee's actions reflect the continued priorities of maintaining financial stability and sustainability while also considering the implications of climate change.

The Trustee's Investment Analyst (provided through the agreement between the Trustee and Zurich Insurance Company Ltd) has explicitly included the provision of services to include support for the Trustee on its climate-related risks and opportunities.

DB investment strategy changes include considerations of climate-related risks and opportunities. The Investment Analyst develops the investment strategy, working with the Finance and Investment team, any proposals are challenged by Hymans Robertson, the Trustee's independent investment adviser. Hymans Robertson provide formal advice on any investment strategy changes (under Section 36 of the Pensions Act 1995) to the Trustee. In the previous Scheme year the Funding Committee discussed climate change scenario analysis for ZPen DB, the complexities of the modelling involved and the likely impact of climate change given the de-risking that took place during the Scheme year.

For the DC arrangements, the DC Manager collaborates with the Investment Analyst and the Trustee's DC investment adviser, LCP, on the triennial review of the default investment strategies and fund range to ensure they are appropriate for the membership. The latest review was completed in December 2023 and implemented in May 2024. As part of this review the Trustee considered how best to incorporate RI into the default arrangement and self-select fund range, the changes delivered in 2024 (as set out on page 12) remain in place, with the addition of two funds launched in September 2025.

All investment advisers to the Trustee have climate related objectives set within the annual investment consultant objectives, the Investment Analyst's main objective relating to climate change is the following:

- Support the Trustee to provide recommendations in developing and implementing the most suitable RI strategy through the integration of ESG, including climate change, stewardship and wider sustainability considerations into its investment and risk management arrangements, considering the Scheme's assets, as well as specific needs and requirements, including regulatory aspects.

Hymans Robertson and LCP both have objectives to support the Trustee with the annual production of the TCFD report.

The Trustee's actuarial advisers, Hymans Robertson, are responsible for identifying any climate considerations which should be incorporated into the Scheme's funding strategy (both short and long term) and in the Trustee's integrated risk management (IRM) approach. This will include the setting of individual financial and demographic assumptions, as well as identifying climate-related risks and opportunities to the funding strategy on our behalf. The Trustee challenges the actuarial adviser on their advice as necessary within its discussions. The Trustee maintains oversight of and review the actuarial adviser on at least a triennial basis, which includes ensuring that their knowledge and advice, including with respect to ESG and climate issues, meets the Trustee's expectations and supports the Trustee adequately in its decision making. The latest actuarial adviser review took place during the Scheme year.

The Trustee's assessment of the sponsor's covenant is undertaken through dialogue with the sponsor and formal covenant reviews undertaken by PwC. PwC are responsible within their reviews for identifying any climate considerations that should be incorporated into

the Trustee's strategic discussions and in the Trustee's IRM framework as well as identifying climate-related risks and opportunities to the covenant on the Trustee's behalf. The next covenant review is expected to be undertaken after the forthcoming triennial valuation is finalised. The Trustee carried out a full review of its covenant adviser within the calendar year. This includes giving consideration to the ability of PwC to support the Trustee with understanding the possible impact of climate-related risks and opportunities on the covenant.

The Trustee's legal advisers, Eversheds Sutherland, support us in ensuring the Trustee is able to meet all legal and regulatory requirements upon the Scheme. From time to time, this may include providing the Trustee with information and/or advice on potential relevant climate-related requirements, which in turn supports the Trustee's ability to manage the risk that the Trustee do not meet these requirements. The Trustee maintains oversight of and review its legal adviser on at least a triennial basis. This includes ensuring that their knowledge and advice, including with respect to ESG and climate issues, meets the Trustee's expectations and supports the Trustee adequately in its decision making.

An RI champion (the ZPen Finance & Investment Manager) was appointed by the Trustee to oversee the day-to-day implementation of the RI strategy. The RI champion is a part of the Zurich Group's network enabling the Trustee access to the Group's resources and expertise. The RI Champion attends any sub-committee or Trustee board meeting where matters relating to RI are discussed and has the primary day-to-day responsibility for the way in which climate-related investment risks are currently managed. The RI champion regularly collaborates with the DC Manager, who is responsible for overseeing the relationship with the asset managers related to the DC section and has responsibilities on a day-to-day basis with the asset managers relating to the DB section. As all assets are mandated with external asset managers, climate-related risk management is delegated onwards to the portfolio managers through investment management agreements and fund guidelines. Asset managers are monitored on a regular basis by the sub-committees.

To truly embed RI into the Scheme's governance priorities, the Trustee has appointed a nominated Trustee for RI to oversee the integration of RI into the Scheme's strategy. The Trustee for RI will collaborate frequently with the RI champion to stay up to date with any RI developments. The RI Trustee will also attend appropriate meetings with asset managers.

Policies

The Trustee has recently agreed an updated climate change policy which sets out its approach to climate change risks and opportunities. The new policy also signposts where all information relating to climate change can be found within existing Scheme documents.

The Trustee also has a Stewardship policy which was agreed in 2024. The last review of the asset managers' policies was performed in June 2025 and there have been no changes since.

The Trustee is monitoring voting and engagement activities delegated to the asset managers, [appendix 3](#) provides engagement examples for all sections of the Scheme.

Trustee training

All Trustee directors are required to maintain a CPD (Continuing Professional Development) log with a minimum requirement of completing 15 hours per year. Each Trustee director has a personal review with the Chair and the Head of UK Pensions & Benefits at least annually. This includes a review of their trustee knowledge and understanding and specific development areas. Any training needs, including the topic of climate change, are identified by the assessments and met through tailored training programmes which use a variety of training tools, including interactive workshop sessions, seminars and individual study. Use is made of in-house expertise and the Trustee's own advisers as well as external training programmes and seminars.

During the year the Trustee received further updates on the new Infrastructure Equity investments. This asset class has been introduced to the portfolio to deliver strong investment returns and diversification while providing access to activities that have a strong ESG impact. Representatives from two new investment managers (KKR and JP Morgan) attended Funding Committee meetings to provide an in-depth presentation on the investment approaches and portfolio constituents of the infrastructure equity funds.

Key areas of strategy development

ZPen DB

The majority of investments held in this arrangement are held directly, rather than through pooled funds, which means the Trustee can directly influence the investment mandate and objectives pursued.

- In 2016, the Trustee approved an allocation to Infrastructure Debt, which includes social and environmental impact investments.
- In 2019, the Trustee agreed a restriction list excluding companies mining or generating power from thermal coal, a list which has subsequently been updated to include the consideration of oil sands and shale oil.
- In 2021, the Trustee agreed a short-term carbon reduction target for its equities and corporate bond portfolios.
- In 2022, the Trustee agreed a 2050 net zero ambition for the Scheme.
- In 2023, the Trustee approved an allocation to Infrastructure Equity, which has the potential to provide investment returns aligned with the investment strategy while delivering positive environmental impacts.
- In 2024 the Trustee completed investment in two infrastructure equity funds with portfolios that include companies that deliver low carbon energy sources or support transition to low carbon operating models.

ZPen DC

All the investments in this arrangement are in pooled investment vehicles, the default strategy and the performance of the default arrangement are reviewed at least every three years.

The latest comprehensive review was carried out by the DC Committee during 2023, working with the Trustee's DC investment adviser, and ratified by the Trustee at its meeting on 21 December 2023. The work carried out by the Committee included:

a review of the default strategies and their suitability for the membership:

- consideration of the asset allocation within each stage of the default strategies including asset classes, UK, overseas and emerging market equities and the use of currency hedging;
- consideration of the most appropriate way of incorporating responsible investment into the default arrangements.
- a review of the self-select options:

As a result of the investment review the following changes were made in May 2024:

- Z Growth Fund is 100% invested in a low carbon global equity fund with a net zero target
- Z Cautious Growth Fund is invested:
 - 55% in the low carbon global equity fund used in Z Growth Fund
 - 45% in an actively managed global bond fund which includes carbon targets and a commitment to net zero.
- The L&G Ethical Fund is closed to new contributors. Members already contributing to this fund can continue doing so.

No changes were made to the investments over the year ending 30 June 2025, however two funds were added to the self-select fund range in September 2025 including:

- An actively managed global bond fund which includes carbon targets and a commitment to net zero.
- A Climate Focus World Equity Fund which creates a portfolio of investments aligned to the 1.5C target of the Paris Agreement. The estimated carbon footprint of the fund is offset by certain share classes using carbon credits.

ESExec DB

The profile of this section is the most mature within the Scheme as all members are pensioners. As the liabilities have a shorter duration and the section has a strong funding position, the Trustee has agreed on a de-risking investment strategy with 100% allocation to liability matching asset classes such as corporate bonds and gilts. The section therefore has no exposure to growth assets, which may include high-carbon industries. While this allocation to liability matching assets, delivers a lower carbon footprint, it also means there

is less opportunity to support high emitters in their carbon reduction journey through active engagement and investment in their transition strategies.

Asset manager engagement

The Trustee engages with its asset managers regularly. This includes engagements through the Funding Committee and meetings with Trustee and UK Pensions & Benefits team (“ZPen team”) representatives. The Trustee has found direct meetings with asset managers is the most effective way to engage on RI and voting records.

Annual RI meetings

ZPen DB & ESExec DB

Annual RI meetings are generally held by a number of attendees representing the Trustee. This includes the nominated Trustee for RI, the Scheme’s RI champion and the Trustee’s Investment Analyst. The attendees are briefed ahead of each asset manager meeting with key information on each mandate to facilitate discussions.

The meetings all follow a similar format and are structured to discuss areas most pertinent to the Trustee’s RI requirements topics. For more information on the key topics discussed during the Scheme year, please visit the DB implementation statement available on www.zpen.info.

ZPen DC

The Trustee uses Scottish Widows as its DC platform provider, and as such the Trustee does not have a direct relationship with the DC asset managers; that relationship is held by Scottish Widows. The Trustee has found that direct meetings with Scottish Widows are the most effective way to engage on RI and voting records, and the provision of data required for the TCFD report.

For more information on the key topics discussed during the Scheme year, please visit the DC implementation statement available on www.zpen.info.

Strategy

In the climate change policy, the Trustee has outlined how climate-related risks and opportunities could affect DB and DC assets over defined applicable time horizons.

DB assets

The Trustee considers the risk over short, medium and long-term time horizons.

Short-term horizon is up to 5 years and risks are measured using a 5-year scenario analysis

Medium-term horizon is 5 to 10 years by the end of which approximately 80% of the Scheme's liabilities will be in respect of pensioners

Long-term horizon is greater than 10 years when over 80% of the Scheme's liabilities will be in respect of pensioners, which may result in a change in profile of the Scheme's assets

DC assets

The Trustee considers the risk for DC assets over short, medium and long-term time horizons in line with the UN Paris Agreement. That agreement was adopted in December 2015 setting out actions up to 2035 to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels.

As the Section is open to new entrants and therefore the membership profile is not static, the Trustee has used the time horizons from the UN Paris Agreement.

Short-term horizon is up to 5 years

Medium-term horizon is 5 to 10 years

Long-term horizon is greater than 10 years

Climate related risks and opportunities

The Trustee's Climate change policy details how it identifies and manages the risks and opportunities that might affect the likelihood of meeting its objectives for the Scheme, especially where such risks and opportunities are interdependent.

The transition to a low-carbon economy requires significant changes to be made and will bring a variety of different types of risk. The financial and reputational impacts of such changes will vary depending on the type of organisation, political intervention and a variety of other factors. Depending on the success and speed of the transition, climate change will also pose physical risks, impacting the way organisations operate today. However, climate change is also a business opportunity. Transitioning to a low-carbon economy creates opportunities for efficiency, innovation and growth.

The table below shows a number of different identified risks and opportunities, with the associated impact, as has been initially assessed by the Trustee. The Trustee’s actuarial adviser was instructed to consider climate risk as part of the triennial valuation as at 30 June 2022. The covenant advisers also consider climate risk as part of formal advice that has been received. This is important as the impact of climate change over the short, medium and long term will impact covenant resilience and therefore could impact the ability of the Scheme to pay members’ benefits in full.

Risk areas	Identified Risks & Opportunities	Impact	
		Short term & medium term	Long term
Investment	Climate related physical risks		Resource scarcity Extreme weather events Sea level rise
	Climate related transition risks	Carbon prices Technological change Policy tightening Consumer preferences	
	Climate related opportunities	New market opportunities ‘Green’ investments	
Covenant	Climate related physical risk to the Zurich Group	Investment risk: Valuation changes to investments as a result of climate change (Medium term) Changes in severity, frequency and geography of extreme weather events leading to: <ul style="list-style-type: none"> • Larger/more frequent claims (Medium term) • Changes in revenue and costs from changes to supply chain costs and reliability. 	Investment risk: Valuation changes to investments as a result of climate change Changes in severity, frequency and geography of extreme weather events leading to: <ul style="list-style-type: none"> • Larger/more frequent claims • Changes in revenue and costs from changes to supply chain.
	Climate related transition risk to the Zurich Group	Financing risk: Potential for increased borrowing costs (Medium term) Regulatory risks: Requirements set by the PRA / government (Medium term) Cost of and effective execution of transition, including changes in operating costs e.g. supply chain,	Market risk: Changes in GDP/growth rates, equity movements and currency risks Financing risk: Potential for increased borrowing costs Regulatory risks: Requirements set by the PRA / government

		<p>compliance and enhanced reporting requirements, new production processes.</p> <p>Consumer risks: Change in and shift in demand across geographies and lines of businesses (Medium term)</p> <p>Reputational risks: Non-green products or not meeting transition targets could damage the Zurich brand, impact market share, impact new business and have lapse effects on existing business</p> <p>Investment risk: Valuation changes to investments as a result of climate change (Medium term)</p> <p>Asset risk: Write-offs and early retirement of assets (Medium term)</p>	<p>Cost of and effective execution of transition, including changes in operating costs e.g. supply chain, compliance and enhanced reporting requirements, new production processes.</p> <p>Consumer risks: Change in and shift in demand across geographies and lines of businesses</p> <p>Reputational risks: Non-green products or not meeting transition targets could damage the Zurich brand, impact market share, impact new business and have lapse effects on existing business</p> <p>Investment risk: Valuation changes to investments as a result of climate change</p> <p>Asset risk: Write-offs and early retirement of assets</p>
	Climate related opportunities for the Zurich Group	Changes in products and services to attract customers as they increasingly look for policies/investments that have a positive effect for society and the environment.	By transitioning early to net zero by 2030 Zurich could differentiate itself within the market.

The Risk data in the table above will be provided by the covenant adviser as part of the triennial valuation that is currently being undertaken and will be presented in next year's report. The majority of, if not all, climate-related risks identified within the table would be expected to have a negative impact on the Scheme over the different time horizons as set out. On the other hand, the identified opportunities could be expected to have a positive impact overall. The actual impact of each of these risks and/or opportunities is very difficult to quantify, especially as it will depend on the way in which the world responds more broadly to climate change, which is yet to become clear. However, over time the Trustee expects the scenario analysis that it undertakes, the metrics that it measures and other tools it uses (e.g. engagement with managers) to better inform its understanding of the potential impact to the Scheme of specific climate-related issues, at which point it will be able to add more clarity within its reporting. The risks and opportunities highlighted above are those that the Trustee has identified as relevant to the Scheme and important to monitor and manage, either directly or through delegation. This view has been informed

by the Trustee's own considerations as well as advice and information provided by various advisers and providers.

Climate related physical risks

To mitigate this risk, the Trustee engages with its asset managers on a regular basis to ensure sufficient emphasis is put on including these aspects in security selection and the ongoing monitoring process. The Trustee reserves its right to impose specific investment guidelines within its segregated mandates to help ensure the Scheme's risks are mitigated and targets are met.

Climate related transition risk

In dialogue with the Group, the Trustee has recognised that certain assets are likely to be subject to transition risk through early policy change, creating the risk of asset stranding. Accordingly, the Trustee has implemented a restriction list, this list is updated on a quarterly basis and is based on direct engagement with the investee companies.

This restriction list excludes investment in the equity and debt of companies that:

- generate more than 30% of their revenue from mining thermal coal, or produce more than 20 million tons of thermal coal per year;
- generate more than 30% of their electricity from coal;
- are in the process of developing any new coal mining, power or transportation infrastructure;
- generate at least 30% of their revenue directly from the extraction of oil from oil sands;
- are purpose-built (or "dedicated") transportation infrastructure operators for thermal coal or oil sands products, including pipelines and railway transportation;
- generate more than 30% of their revenue from mining oil shale, or
- generate more than 30% of their electricity from oil shale.

The Trustee periodically reviews this approach to ensure that the restrictions are appropriate.

From a covenant perspective, the Trustee, alongside its independent covenant adviser as appropriate, will monitor the possible impact of physical and transitional climate risks on the Scheme's covenant and the interaction of the risks with the Scheme's longer term strategy. Where appropriate, the Trustee will consider changes to the Scheme strategy to mitigate any impact on the covenant, whilst noting ongoing risk management being undertaken by the Group.

Climate related opportunities

The Trustee increased its allocation to the Infrastructure Debt portfolio, between 2016 and 2022. This asset class includes a mix of impact investments and other investments that

may not have any specific social or environmental impact. The impact investments address social projects in healthcare and social housing as well as green impact investments focusing on cleaner energy and utilities. In 2024, the Trustee approved an allocation to infrastructure equity, this has the potential to increase green impact metrics once the Scheme formally invests in the asset class. Valuations of the green impact investments as at 30 June 2025 are shown below.

Green impact – direct ownership

The green impact investments include organisations delivering sustainable low carbon energy sources and other operations delivering positive environmental benefits

Offshore wind £18m

Onshore wind £40m

Ground mounted solar £87m

Utility – waste water £37m

In addition to the above the Scheme has indirect ownership of a range of assets through infrastructure equity funds operated by KKR and JP Morgan. The underlying fund assets include a number of companies delivering a range of climate related benefits, including companies operating in fields that deliver low carbon energy or facilitate transition to green energy solutions.

Net zero ambition

Over the last few years as the Trustee has developed its RI strategy for the Scheme, a key consideration has been to set an ambition for the Scheme to achieve net zero by 2050. Net zero represents a position where the carbon emissions generated by economic activity is balanced by the ability of natural and human-developed processes to absorb these emissions.

Climate change is perhaps the most complex environmental risk facing society today. The risks and opportunities associated with climate change are intergenerational, international and interdependent. The Trustee has a duty to pay benefits as and when they fall due and in doing so recognises its responsibility to work proactively to tackle climate change. Setting a net zero ambition seeks to align the Scheme with a longer-term transition to a low carbon economy and support the process of change, recognising that climate change is a material financial risk.

The main focus for the Trustee when setting a net zero ambition has been on the Scheme's final salary arrangements due to the size of the fund and impact the Trustee can have in relation to these assets. The Trustee owns the majority of assets directly, meaning it has substantial influence to make a tangible difference by using voting rights and engaging directly with asset managers.

When the Scheme achieves maturity (i.e. a significant number of members are pensioners) the scope of the available assets to invest in may be limited, so, as the Scheme has not reached that position, now is the perfect time to act.

DB assets

To achieve its ambition, the Trustee has agreed a plan based on the following pillars:

- Investments
- Engagement
- Monitoring

Investments

The Trustee is seeking to develop monitoring of climate related metrics for all assets within the Scheme. The Trustee recognises different characteristics of the asset classes it is invested in and availability of data. Once methodologies of measuring emissions are available the Trustee will work to set targets for remaining asset classes. The table below shows the current status and actions to be taken. For the asset classes that do not yet have an agreed methodology to account for emissions or reliable data is not available, the Trustee will continue to work with the Zurich Group and the asset managers to address these points.

Asset class	Asset allocation	
Equities	19.0%	5 year weighed average carbon intensity (WACI) reduction target set which runs to 30 June 2026. Over the next year the Trustee will work with the Zurich Group and asset managers to set a new target.
Real Estate	4.0%	Real Estate investment is through a CTI fund, the fund has formally committed to operational net zero by 2040
Corporate Bonds	16.0%	5 year WACI reduction target set, next target being developed.
Infrastructure Debt	8.5%	There is not yet an agreed methodology to account for the emissions. The Trustee will work with the Group on measurement and target setting once reliable data is available

LDI	43.0%	Emissions are disclosed. Measurement methodology has been provided by the asset manager.
European Loans	4.0%	Both the Trustee and the Group hold shares in the funds. The Trustee will work with the Group on measurement and target setting once reliable data is available
Middle Market Loans	3.0%	
Infrastructure equity	2.5%	The Scheme has invested in two infrastructure equity funds. Carbon intensity scores are presented in the metrics section below.

Engagement

The Trustee will continue to delegate engagement with investee companies to its asset managers.

Where the Trustee holds the same stock as Zurich Insurance Group (“Group”), the Trustee could leverage from the Group’s direct engagement and engage jointly.

Monitoring

Monitoring activities are described in the risk management section of this report.

Operational ambition

The ZPen team is employed by the Group and works in line with the Group’s operational model. Therefore, the in-house team is aligned with the Group’s 2030 operational net zero target

The contribution the ZPen team makes is to stop adding to the amount of carbon dioxide equivalent emissions that are released into the atmosphere. Significant progress has already been made and there is a clear path to further reduction by, for example, increasing our use of renewable energy and embracing hybrid working, meeting via Teams and travelling in smarter ways.

The Trustee will monitor its suppliers and the ZPen team.

Working with the Group

For the Group, RI is about achieving the mission of “doing well and doing good”, by not only creating long-term, sustainable financial value, in line with Zurich’s fiduciary duty, but, at the same time, also creating non-financial value such as reduction of carbon emissions. RI is the creation of long-term benefits for all key stakeholders, while remaining true to the

proven approach of maximising economic value based on a structured and disciplined investment process.

The Group are transitioning the investment portfolios to net zero greenhouse gas emissions by 2050, consistent with a maximum temperature rise of 1.5°C above pre-industrial temperatures, taking into account the best available scientific knowledge. Science-based interim targets for 2030 have been set for listed equity, corporate debt and real estate. The Trustee continues to work with the Group on the Scheme's net zero ambition as it can provide benefit, especially from the mandates where the Group use the same asset manager.

Scenario analysis

One of the tools employed by the Trustee in the financial management of the Scheme is scenario analysis. The purpose of scenario analysis is to explore how the Scheme's asset and liabilities behave under different stressed conditions and thus assess the overall resilience of the Scheme to different potential future outcomes.

The Trustee has conducted separate scenario analyses for the DB and DC sections of the Scheme. This approach acknowledges the distinct characteristics and requirements of each section. For the DB section, the Trustee has engaged Hymans Robertson as the investment adviser, who employs established modelling techniques that are suitable for its structure and liabilities. Similarly, for the DC section, the Trustee has collaborated with Lane Clark and Peacock (LCP) as the DC investment adviser, who utilise recognised modelling methodologies that are appropriate for assessing the potential impact of different climate scenarios on DC benefits. By leveraging the expertise of these advisers and their proven modelling approaches, the Trustee ensures that the scenario analyses are robust and accurately reflect the specific risk profiles and strategic considerations of both the DB and DC sections of the Scheme.

Building on this general approach, climate scenario analysis helps the Trustee to analyse climate-related risks and opportunities. The Trustee acknowledges that, in the current landscape there is no single methodology or tool employed by asset owners to assess the potential impacts of climate change, and that this is an evolving field of enquiry. Further the Trustee recognises that there are different climate policy pathways that would each result in outcomes consistent with 1.5-2°C warming by 2100. Additional information regarding the limitations of climate scenario analysis is set out later in this paper, along with insights of the Trustee's ongoing efforts to overcome these limitations.

ZPen DB

For the purpose of the analysis set out in this report, the Trustee focuses on the three core climate scenarios as follows:

Scenario	Description
Green revolution	<p>Corresponds to a world where there is concerted and collaborative policy action starting now, e.g. carbon pricing, green subsidies with increased public and private spending on “green solutions”.</p> <p>Improved disclosures encourage market prices to shift quickly. Transition risks arise in the short term, but less physical risk in the long term. The intensity of the disruption is high and immediate. Scenario assumes a high likelihood of achieving an emissions trajectory consistent with limiting the average global temperature increase to at or below 2°C.</p>
Delayed Transition	<p>Reflects a world where no significant additional policy action is taken in the short-term, meaning the response must be stronger when it does happen. This results in a shorter and sharper period of transition with greater (but delayed) transition risks but similar physical risks in the long term.</p> <p>Assumes a reasonably high likelihood of achieving an emissions trajectory consistent with limiting the average global temperature increase to at or below 2°C.</p>
Head in the Sand (BAU)	<p>Corresponds to a world where currently existing policies for Greenhouse Gas (GHG) emissions, renewables deployment and energy efficiency are carried out and where no additional policies are implemented compared to what have been legislated as of June 2019, it covers worldwide policies.</p> <p>Growing fears over ultimate consequences leads to market uncertainty and price adjustments; Ineffective and piecemeal action increases uncertainty and transition risks exceeded by physical risks. Assumes a very low likelihood of achieving an emissions trajectory consistent with limiting the average global temperature increase to at or below 2°C.</p>

The modelling for the DB sections also uses a base case which reflects standard capital market assumptions based on consensus views on economic outlook, which feed into long-term views on what is currently priced into the market. This base scenario therefore indirectly captures the climate risk and opportunities that are priced into current market conditions but does not allow for specific scenarios such as those defined above.

The Trustee will monitor ongoing research and developments in this area and might change the above scenarios if more meaningful conclusions could be drawn from alternative scenarios.

Approach taken by the Trustee

For the year to 30 June 2023, the Trustee built on the previous year's quantitative analysis of the Scheme's resilience to different climate change scenarios. The 2023 analysis for the ZPen and ESExec DB sections includes both the assets and liabilities of the Scheme, thereby considering both funding and investment strategy in conjunction.

The two key outputs when understanding the resilience of the ZPen and ESExec DB sections to each of the climate scenarios in the modelling undertaken below are:

- 'Likelihood of success': this means the probability that the section will be 100% funded (i.e. assets are at least equivalent to the liabilities) over time.
- 'Downside risk in 20 years': this means the possible fall in the funding level over time in the worst 5% of cases modelled.

There have been no significant changes to the investment strategy, therefore the Trustee continues to be comfortable that the scenario analysis carried out on the ZPen DB Section during 2023 is still appropriate and so has retained this analysis within the main body of this report.

Limitations of scenario analysis

It is important to note that climate scenario analysis as has been undertaken below for the Scheme is still in very early stages of development and is likely to evolve some way further. As such, there are a number of limitations with respect to the modelling that should be taken into consideration when contemplating the outputs below.

In particular, climate scenario modelling is only one of the tools used by the Trustee to consider the impact of potential climate-related risks; the output of this modelling will therefore form part of the discussions held with respect to the management of these risks alongside other tools such as the climate-related metrics chosen for the Scheme.

Additionally, the analysis does not try to answer how the Scheme's funding and investment strategy will fare in a 2, 3 or 4°C world, nor assign a likelihood to any given climate scenario. Instead, it performs what is called a 'stress test' of the resilience of a funding and investment strategy under outcomes that may be expected under different climate pathways, where uncertainty over different periods is emphasised.

Finally, as with any modelling, there is some subjectivity in the underlying assumptions chosen. As a result, interpretation of the outputs should be carefully considered and should inform decisions on potential investment strategy changes, rather than decide them; this is the approach that the Trustee will take when considering the outputs of the climate scenario analysis.

More generally, it is acknowledged that when climate scenarios are being developed for modelling purposes, it cannot be assumed that the future is going to be the same as the past or that the traditional relationships between economic variables will hold. Instead, what should be explored is how the future economy could be impacted by evolving energy production, how society may change in response, and how our economic and social systems will adapt to the growing physical impacts of a warmer climate as well as associated government policy change.

For a climate scenario narrative to be realistic, one must consider how different actors within our global system respond to stress. This is to add in the human response to environmental or other stimuli, recognising that different entities may not always take decisions that lead to an optimal outcome.

Future climate scenario analysis modelling will hopefully build on this approach and should better inform decision making by recognising the systemic nature of climate risk and that it can only be modelled with significant uncertainty. As such, the Trustee will look to evolve their approach to climate scenario modelling in the coming years in order to improve it in light of current criticism and limitations.

Overall conclusions from the scenario analysis

ZPen DB Section

All scenarios, including the base case, trend upwards similarly with respect to the **likelihood of success**.

The climate-specific scenarios do suggest slightly lower probabilities of success than the base case modelled, however not significantly so. This suggests that over the longer term in particular the section is relatively resilient to the climate scenarios modelled and their associated risks using this measure. This is likely due to the high hedging in place within the investment strategy as well as other risk management controls such as diversification of strategy.

The base case **downside risk** output represents particularly poor economic scenarios (similar to a severe recession or depression) and the climate scenarios modelled are producing results that are similar to the base case. However, the impact is broadly similar across the scenarios, including the base case, and this also thereby suggests that the section is resilient to the different climate scenarios.

As the particular scenario that will materialise is unknown, at this time remaining diversified is an important part of the Trustee's approach to addressing the risks posed.

Following engagement with the investment adviser, the Trustee is comfortable that this scenario analysis remains appropriate for the section and will use the climate scenario analysis, where appropriate and noting its limitations, to inform their decision making. The

scenario analysis will be refreshed in the current Scheme year to reflect the updated liabilities following the Scheme valuation as of 30 June 2025.

ESExec DB Section

Within the ES Exec Section, all scenarios, including the base case, start at 100% **likelihood of success** at the modelling date. This is due to the section being fully funded at that point in time. Due to the investment strategy in place, including the high level of matching offered by the Section's strategy, the likelihood of success remains at 100% over the time periods modelled. Therefore the Trustee is satisfied, based on this measure, that the Section is resilient across all of these scenarios.

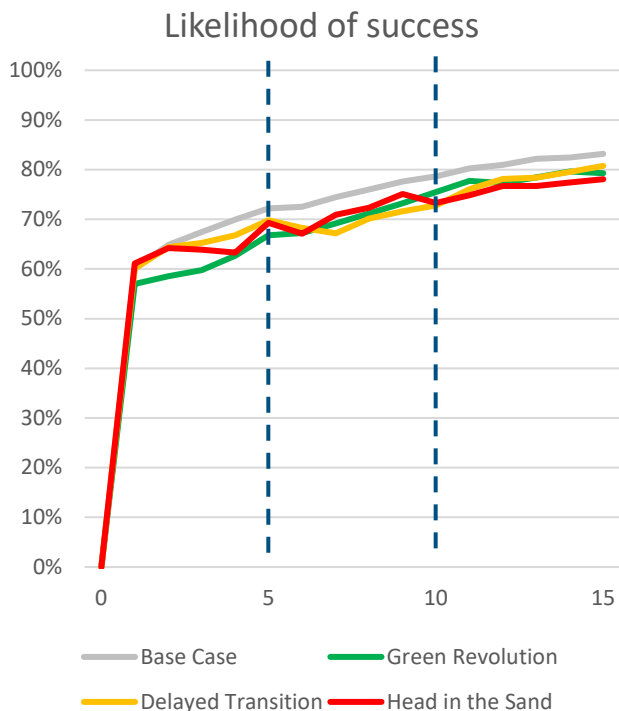
Similarly, when considering the **downside risk** for the section, despite this output representing particularly poor economic scenarios (similar to a severe recession or depression), all the climate scenarios modelled as well as the base case, produce projected funding levels that continue to ensure that the section remains above full funding. Further commentary is included in the more detailed section below, however, this also thereby suggests that the section is resilient to the different climate scenarios. This is likely in particular due to the high funding level and lower risk investment strategy in place.

As per the DB section, the Trustee is comfortable that this scenario analysis remains appropriate for the section and will use the climate scenario analysis, where appropriate and noting its limitations, to inform their decision making. The scenario analysis will be refreshed in the current scheme year to reflect the updated liabilities following the Scheme valuation as of 30 June 2025.

Detailed outputs: ZPen DB Section

The Trustee undertook analysis based on both the funding and investment strategy of the section as at 30 June 2023. In doing this, the resilience of the whole section was considered with respect to the different quantitative impacts of the climate scenarios as set out above. For instance – should interest rates over time be impacted by the different climate scenarios, both the assets and the liabilities will reflect these impacts. However, due to protection provided by hedging assets within the section's investment portfolio, the impacts of interest rates to the liabilities may be mitigated by similar changes in the investments, thereby reducing the overall strategic impact of negative interest rate changes. As such, modelling across both the assets and liabilities of the section may provide a broader view of strategic resilience than asset-only analysis.

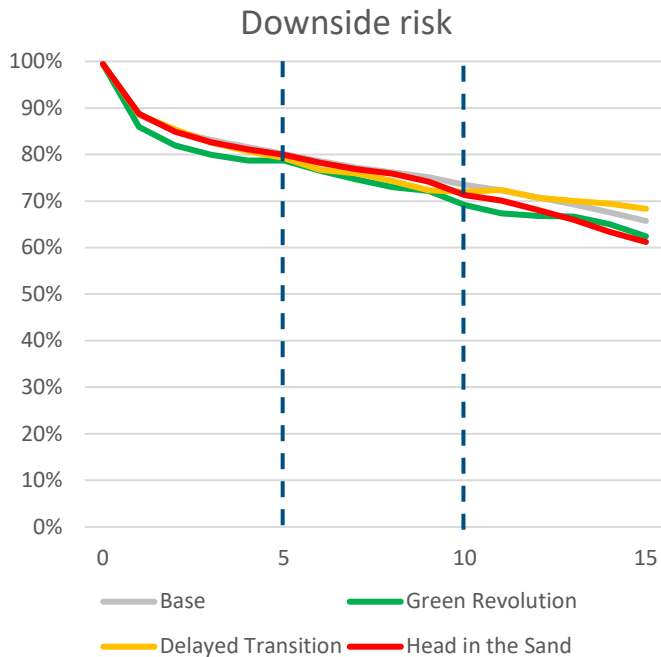
The graphs and commentary below and overleaf set out the results of the scenario analysis for the section. The impact at the five and ten year points in time has been highlighted in order to reflect upon the potential impact of the different scenarios with respect to the time horizons chosen for the Scheme earlier in this report.



For the ZPen Section, the probability of success of the section is similar across the different climate scenarios modelled, particularly over the longer term. The key differences are as may be expected; a slightly higher impact to projected funding level in the first 0-5 years under the green revolution scenario, between the years 5-10 under the delayed transition scenario and from year 10 onwards under the BAU scenario. This is reflective of when the different risks to the section may manifest depending on the scenario experienced. As the section was not fully funded at the modelling date, the likelihood of success starts at 0% but then significantly increases by year 1, reflective of the likelihood that the section achieves full funding by that point.

However, despite slight negative impacts to the section's funding level experienced across all scenarios versus the base case, the results remain relatively similar over the longer term (i.e. years 10 onwards). This indicates resilience of the section to the different climate scenarios as the modelling suggests that there is a high likelihood (70%+) of the section achieving full funding over the time periods modelled despite these impacts. It is also important to note that whilst the base case assumes that the market outlook has 'priced in' climate-related risks and opportunities, it does not make an allowance for specific climate scenarios or risks.

However, despite slight negative impacts to the section's funding level experienced



The graph to the left, focusing on downside risk to the section of the different climate scenarios, shows the average of the worst 5% of funding levels for the section. Therefore, the projected funding level of the section for this graph does appear under each scenario, to decline somewhat significantly over time, however this is the nature of downside risk as an output. It is important to note, though, that despite the risks to the section experienced under each scenario modelled, over the period to 10 years from the modelling date the funding level does not differ much between the scenarios. At the five year position, the average of the worst 5%

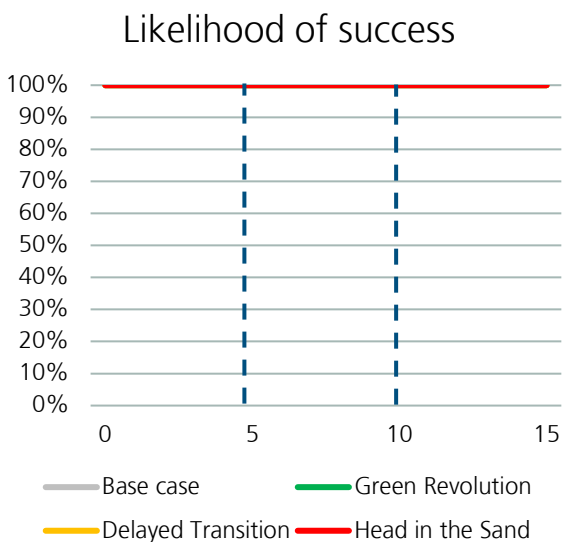
of outcomes across all scenarios including the base case are 79% - 80%, and at the 10 year position this has reduced to 69% - 73%.

This Trustee is satisfied that this demonstrates resilience of the section to different climate scenarios over the medium-longer term as defined by the Trustee, as the differences between the outputs across these scenarios at these points in time are relatively small.

Detailed outputs: ESExec DB Section

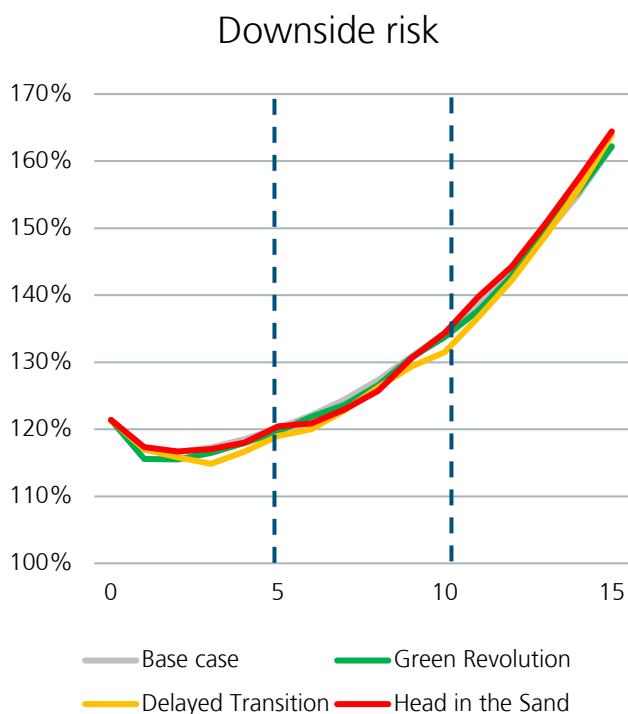
As with the ZPen Section, the Trustee undertook analysis based on both the funding and investment strategy of the Section as at 30 June 2023. In doing this, the resilience of the whole section was considered with respect to the different quantitative impacts of the climate scenarios as set out above. As such, modelling across both the assets and liabilities of the section may provide a broader view of strategic resilience than asset-only analysis.

The graphs and commentary below and overleaf set out the results of the scenario analysis for the Section. The impact has been highlighted at the five and ten year points in time in order to reflect upon the potential impact of the different scenarios with respect to the time horizons chosen for the Scheme earlier in this report.



For the ES Exec Section, the probability of success of the section is the same across the different climate scenarios modelled, as shown by the graph to the left. For all scenarios, due to the high funding level of the section and high level of matching between the investment and the funding strategies, the likelihood of success therefore remains 100% across all time periods modelled. However, despite this positive result, the Trustee is cognisant of

the potential climate-related issues that will continue to pose a risk to the section and, on an ongoing basis, continue to monitor and manage these.



The graph to the left looks at the potential downside risk to the section of the different climate scenarios. The downside risk measure focuses on the average of the worst 5% of outcomes. Despite this, whilst the projected funding level of the section for this graph does appear under each scenario, to decline over the shorter term, by the 5 and 10 year points it has recovered and then improved. Additionally, the projected funding levels do not differ much between the scenarios or between each scenario and the base case.

The Trustee is therefore satisfied that, based on the measures as shown above, this demonstrates resilience of the section to different climate scenarios over the medium-longer term as the difference between the outputs across these scenarios at these points in time are relatively small.

ZPen DC Section

The Trustee carried out climate scenario analysis in November 2024, with the support of its DC investment adviser, LCP. For the purpose of the analysis set out in this report, the Trustee focused on the three core climate scenarios as follows:

Scenario	Description
Net Zero financial crisis	Global net zero CO2 emissions achieved by 2050 via rapid and effective climate action. Financial markets react abruptly in 2025.
Limited action	Policymakers implement limited new climate policies and fall short of meeting the Paris Agreement goals, resulting in a combination of transition and physical risks
High warming	No new low-carbon policies enacted and some existing ones are scaled back. Current technological trends continue. Paris Agreement goals not met, and the resulting high warming leads to severe physical impacts

The key features of each of the climate scenarios considered are summarised in the table below¹.

Scenarios	High warming	Limited action	Net Zero financial crisis
Low carbon policies	There are no new low-carbon policies enacted in this scenario and some existing ones are scaled back. Current technological trends continue (e.g. significant falls in renewable energy prices).	Moderate steps taken by policymakers to increase climate action including working towards the 2030 targets and net zero commitments. Carbon capture and storage also used.	Ambitious low carbon policies, high investment in low carbon technologies and substitution away from fossil fuels to cleaner energy sources and biofuel. Carbon capture and storage also used to achieve global net zero by 2050
Paris Agreement outcome	Paris Agreement goals not met	Paris Agreement goals not met	Global net zero CO2 achieved by 2050; Paris Agreement goals met.

¹ New compared to the International Energy Agency's World Energy Outlook 2021 – Stated Policies Scenario (STEPS).

Global warming	Average global warming is about 2°C by 2050 and 3.7°C by 2100, compared to pre-industrial levels.	Average global warming is about 1.8°C by 2050 and 2.6°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. Multiple climate tipping points are reached and modelled and many countries suffer from extreme weather events.	High physical impacts.	Moderate physical impacts
Impact on GDP	Global GDP in 2100 predicted to be almost 80% lower than in the Ortec ² Finance / Cambridge Econometrics base case.	Global GDP in 2100 predicted to be about 50% lower than in the Ortec Finance / Cambridge Econometrics base case.	Global GDP is slightly behind the Ortec Finance / Cambridge Econometrics base case by 2100.
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.	Physical risks priced in over the period 2026-2030. A second repricing occurs in the period 2036-2040 as investors factor in the high physical risks.	Abrupt repricing of assets and a sentiment shock to the financial system in 2025.

Approach taken by the Trustee

The scenario analysis is based on a model developed by Ortec Finance and Cambridge Econometrics. The outputs were then applied to the ZPen DC section’s Drawdown Lifestyle, the default for DC only members. The three climate scenarios are projected year by year for the accumulation phase³. The results are intended to support the Trustee to consider how resilient the default strategy is to climate-related risks. The three climate scenarios are intended to be plausible narratives of how the future could unfold. They are only three scenarios out of numerous other which could be considered. Other scenarios could give better or worse outcomes for default strategy. The Trustee will carry out

² Source: Ortec Finance, modelling as at 31 December 2023. Figures quoted are medians.

³ The current modelling capability does not allow the Trustee to consider members in retirement. For this reason, the climate scenario analysis presented in this report only extends to a retirement age of 65 for each example member.

scenario analysis at least every three years and check annually if the review should be carried out sooner.

Limitations of scenario analysis

The scenario modelling considered here makes no allowance for:

- Tail risks;
- Variations from median outcomes;
- Impacts of migration and increased likelihood of armed conflict;
- Impacts of food and other resource shortage; or
- Other (systemic) risks (eg new pandemics, financial market volatility, energy security).

Tipping points are allowed for to some extent in the High Warming scenario, but not in the other scenarios. Some aspects, such as market pricing-in shocks and the level of adaptation to climate risks are modelled, but the impact and timing is highly uncertain and could mean actual outcomes are very different to what has been modelled.

These are key limitations of the modelling and can result in:

- Underestimating downside risks
- Simplifications masking some impacts that could be significantly better or worse (eg using simplified metrics to allow for weather events).

Further information on the limitations of the modelling approach can be found in the [Appendix 5](#).

Climate risk can only be modelled with significant uncertainty and climate scenario analysis modelling is an evolving field. The Trustee continue to monitor future developments in this area and evolve its approach to climate scenario modelling in the coming years, as appropriate, in order to improve it in light of current limitations and better inform decision-making.

Outputs: ZPen DC Section

The table below summarises the change in projected pension pots under each scenario compared to the LCP base case.

Scenario – Active members	Member aged 25	Member aged 35	Member aged 45	Member aged 55
Net zero financial crisis	+0.1%	-2%	-3%	-4%
Limited action	-23%	-19%	-13%	-2%
High warming	-40%	-37%	-25%	-3%

Scenario – Deferred members	Member aged 25	Member aged 35	Member aged 45	Member aged 55
Net zero financial crisis	-7%	-8%	-8%	-7%
Limited action	-34%	-27%	-16%	-3%
High warming	-56%	-49%	-31%	-4%

The High Warming scenario is the worst outcome for younger members as they would be most severely impacted by the long-term impacts of the severe physical risks associated with this scenario.

Net Zero financial crisis is the worst scenario for members in their late 50s as they will not have sufficient time to recover from short-term market shocks before retirement. Since the short to medium term only considers the next 10 years, these members are unlikely to be largely impacted by the progress of the climate transition.

For the deferred members, all scenarios have a greater negative impact on their retirement pot compared to the average active member of the same age. As deferred members are no longer making contributions, they are less able to recover from market shocks.

Overall conclusions from the scenario analysis

In conclusion, the climate scenario analysis highlights the varying impacts on different member groups within the ZPen DC Section based on their proximity to retirement and the nature of the climate scenario. Older members within 10 years of retirement are particularly vulnerable to short-term market shocks, as seen in the Net Zero financial crisis scenario, and face significant transition risks in the medium term. Conversely, younger

members, with a longer horizon until retirement, are more exposed to the physical risks associated with the High Warming pathway, as financial markets price in the severe physical impacts.

To address these challenges, it is essential to engage with investment managers to ensure they are exercising stewardship in support of net zero pathways, thereby mitigating the risks of a failed transition. The DC Section's default strategy has been enhanced to incorporate climate considerations, including an allocation to the Wellington Global Credit ESG Fund, which integrates responsible investment principles into the fixed income allocation. Additionally, the inclusion of low carbon equity investments through the L&G Low Carbon Transition Global Equity Index Fund aims to mitigate the impact of market shocks and align the investment approach with long-term climate resilience goals.

As part of the scenario analysis discussions, the Trustee noted the significant decrease to carbon emissions as a result of the DC fund review, it ratifies the Trustee's decision to more explicitly take ESG/climate change risks into account in order to improve member outcomes.

Overall, the scenario analysis underscores the importance of a proactive and adaptive investment strategy that not only mitigates risks but also capitalises on opportunities arising from the transition to a low carbon economy, promoting the resilience of members' retirement outcomes. For a detailed understanding of the constraints and assumptions underlying this analysis, please refer to the 'Limitations of Scenario Analysis' section, which highlights key areas that may impact the comprehensiveness of the Trustee's assessment.

Risk management

Identifying and assessing climate related risks

The Trustee has included climate change and broader RI consideration into the Scheme's Statements of Investment Principles ("SIP") for DB and DC assets. Implementation statements available on the Scheme's website www.zpen.info/library/responsible-investment describe compliance to SIPs during the year.

Various parties support the Trustee in the identification and assessment of climate related risks, including its sub-committees, advisers, investment managers and in-house team. Climate risk is particularly considered within the following processes:

Valuation process, with asset, liability and covenant scenario modelling

The Trustee instructed its actuarial and covenant advisers to consider climate change risk as part of the formal advice for the triennial valuation as at 30 June 2022:

- The Scheme Actuary undertook scenario modelling in order to stress-test the resilience of the funding valuation outcomes and investment strategy under different climate scenarios over different time horizons.
- The covenant advisers provided covenant considerations of the materiality and timing of the sponsor's key ESG risks and opportunities (including climate change), informed by company information and sector insights.

The actuarial and covenant advisers will consider climate change risk as part of the formal advice for the current triennial valuation exercise as at 30 June 2025.

Selection of asset classes and mandates

The Trustee expects that its investment advisers will consider the extent to which any individual asset class will be affected by climate factors in providing advice although recognises that climate factors are currently more likely to arise when considering the mandate design within asset classes. For investment decisions, the Trustee has oversight of the investment advisers through its sub-committees (DC Committee/Funding Committee), both sub-committees report activity quarterly to the full Trustee board. For a diagram of the Trustee's investment governance structure of its advisers and sub-committees, see [Appendix 2](#).

Selection/Monitoring of asset managers

In both the selection and ongoing evaluation of asset managers, the Trustee uses an internal system set up by the Zurich Group. It forms a part of the Investment Management application capturing scores based on various hard and soft factors that relate to the asset managers' performance. Each external asset manager's ESG and climate integration is assessed against the following criteria:

1. Interaction with portfolio manager/relationship manager, and overall RI approach
2. Training
3. Access to information
4. Investment Process
5. Active ownership

For any asset managers deemed to be underperforming on the ESG and climate integration criteria, the Trustee will provide feedback to the asset manager in order to request improvements are made. The respective DC/Funding Committees would consider further remedial action if standards were not improved.

Selection of individual assets

Investment managers are expected to take account of climate related factors within their decision making processes and to adopt a forward-looking approach to identify emerging risks.

Monitoring

Regular monitoring

The Trustee receives regular reports from its asset managers to track GHG reduction on a portfolio and asset manager level. The emissions will fluctuate on a short-term basis, but those fluctuations will be analysed by the UK Pensions & Benefits team, any large fluctuations will require engagement with the asset managers.

Annual monitoring

The Trustee instructs its investment adviser to prepare climate change analysis covering the ZPen DB and EExec DB arrangements. The report includes suggested next steps for the Trustee to improve an environmental impact of the Scheme's assets. The data included in this report forms a basis for the Trustee's metrics variance analysis and engagement with the Scheme's asset managers.

Monitoring at a board/sub-committee level

Reports are prepared for the Trustee, this includes the Scheme's progress on its net zero journey. The topic will be added to the agenda if there are proposals to be assessed by the Trustee or significant changes to the emissions that need to be reported/discussed.

Monitoring of advisers

The Trustee evaluates its advisers on an annual basis. To assess if the Scheme's advisers are meeting expectations, the Trustee and key UK Pensions and Benefits team members provide feedback based on a set of high-level adviser objectives in the five key areas (knowledge, advice, service, relationship management and value for money).

The Trustee's Investment Analyst (provided through the agreement between the Trustee and Zurich Investment Management) has explicitly included the provision of services to include support for the Trustee on its climate-related risks and opportunities. In addition, the investment consultant objectives integrate this service and measures the Investment Analyst as part of an assessment annually.

Asset manager engagement

One of the Trustee's five core principles is to be an active responsible investor and vote proxies and engage where appropriate.

This is the Trustee's primary mechanism for the management of climate related risks. In the year ended 30 June 2025 all engagement activities were delegated to the Scheme's asset managers - with the Trustee exercising scrutiny over the managers' activities.

The Stewardship policy for the Scheme incorporates the policy on proxy voting. As a long-term investor, the Scheme applies a longer-term focus and will vote in order to support the investee companies' strong and sustainable governance, as well as a long-term oriented strategy and its implementation. Long-term value creation is preferred over short-term gains. Voting rights for financial investments shall be exercised actively following clearly defined voting guidelines. The Trustee reviews its asset managers' proxy voting policies every three years or more frequently if there are any material changes.

The Trustee reports on voting activities during the year via the implementation statements, the most recent documents are saved under www.zpen.info/library/responsible-investment.

Appendix 3 includes engagement examples from the Scheme's asset managers.

Integration into risk register and integrated risk management (IRM) framework

The Group assesses risk through its Total Risk Profiling (TRP) methodology and process. The Trustee has agreed to identify, assess, manage and monitor Scheme risks using the sponsor's TRP methodology, with appropriate adaptations. A separate TRP is considered for DB and DC assets, it documents the most relevant and material risks to the Trustee in meetings its objectives to (i) ensure that the Scheme is run properly, (ii) have sufficient and appropriate assets to pay the promised DB benefits as they fall due, and (iii) create and maintain a framework within ZPen to help members with DC benefits achieve what they consider to be a good outcome when taking their benefits.

Risks are expressed and documented in vulnerabilities, triggers and consequences, and rated in terms of severity and frequency/probability. The risk assessment takes account of existing controls in place to manage risk. Any improvement actions should reduce the severity or frequency/probability of risk scenarios that are above the risk priority boundary. The overall risk categorisation is based on the most relevant and impactful trigger.

For the DB and DC TRP, RI and climate change risks are identified, this ensures that the Trustee classifies, reviews and considers improvement actions that it can take to manage the risks.

The Trustee also has an IRM policy, this helps the Trustee to identify and manage the risks that might affect the likelihood of meeting its objectives for the Scheme, especially where the risks are interdependent. The Trustee recognises the link between covenant, funding and investment, all proposals are considered in the context of IRM.

Consistency in risk management

The Trustee recognises the importance of consistency in managing climate-related risks. The measures shown above ensure that the Trustee's approach to risk management is consistent across different areas of the Scheme.

Metrics and Targets

Metrics and target selection

ZPen DB and ESExec DB

Metrics

In line with regulations, the Trustee is required to select and report on four metrics. This must include one absolute emissions-based metric, one emissions intensity-based metric, one additional climate change metric and one portfolio alignment metric.

The Trustee has considered a number of factors when determining metrics to measure to have a comprehensive view of the Scheme’s emissions. As availability of data varies between the asset classes and characteristics of assets held varies, the Trustee has decided to apply metrics on an asset class basis.

Publicly available data for private asset classes like infrastructure debt and private loan funds is not currently available. The Trustee is working with the relevant asset managers on obtaining the data.

In the table below, the Trustee has mapped metrics against climate change risks and opportunities described in the climate change policies. Ensuring the metrics address climate related risks and opportunities was key to the Trustee to provide a regular and a more holistic view of the investment risks.

	Weighted Average Carbon Intensity (WACI)	Total Carbon Emissions	Low Carbon Transition Score	Climate ESG score	Avoided Emissions
Type of metric	Emissions intensity-based	Absolute emissions	Portfolio alignment	Climate change	Additional
Climate related transition risk	✓	✓	✓	✓	✓
Climate related physical risks				✓	
Climate related opportunities			✓	✓	✓

For clarity, the “Low Carbon Transition Score” for DB assets represents a portfolio alignment metric using a binary target measurement approach, while the “Investments with validated science-based targets” for DC assets also falls under binary target measurement. The additional metric, “Avoided Emissions,” was chosen to reflect the positive climate impact of the Scheme’s infrastructure debt investments, which deliver measurable reductions in greenhouse gas emissions compared to conventional energy generation. The Trustee believes that it has used the best and most recent data available

at a proportionate cost. Data limitations and assumptions are disclosed later in this section.

Target

The Trustee agreed a short-term carbon reduction target for its equities and corporate bond portfolios for the **ZPen DB** assets. A target for a 25% decrease to the WACI metric over a 5 year period measured on a baseline of 31 December 2020.

In order to achieve the WACI reduction target, the Trustee has set out guidance for its asset managers in their investment management agreements on the expected annual reduction to the metric. The target has been defined at an aggregate level leaving asset managers to allocate targets to individual portfolios, where appropriate. It mainly applies to CTI and Wellington, who manage the equities. CTI also manage one of the Scheme's corporate bond portfolios. M&G was allocated its target as the other corporate bond portfolio manager. The Trustee acknowledges that the change will not be linear and the investee company's carbon exposure is one of the factors taken into consideration during the investment process by the asset manager.

This target was chosen in order to reflect the importance of reducing carbon emissions within the Scheme's investments, whilst recognising that it is easier to drive progress for some investments over others in the short term. The Trustee also acknowledges that, by implementing an emissions reduction target, this can form part of the risk management approach of the Scheme to some of the climate-related risks identified for its investments; in turn, this supports its fiduciary duty to prioritise long-term member outcomes as Trustee. The Trustee will consider building on this target in future years, not only by considering areas of potential climate-related risks, but also taking into account longer term reduction plans of the sponsor and the UK more broadly, improvements in data availability and decarbonisation opportunities that may arise – all of which should additionally form part of our risk management approach to improve member outcomes in the context of a low-carbon future.

The WACI reduction target aligns with the longer Scheme ambition to be net zero by 2050.

The next table represents a change in WACI in comparison to the December 2020 baseline.

Asset class	Manager	AUM	Dec-20	Jun-21	Jun-22	Jun-23	Jun-24	Jun-25	Change vs baseline
Equities	CTI & Wellington	£0.9bn	97.0	98.6	95.5	80.1	68.9	86.4	-10.9%
Corporate Bonds	M&G	£0.35bn	101.6	152.1	99.6	87.6	63.4	46.2	-54.5%
Corporate Bonds	CTI	£0.35bn	123.7	97.2	64.1	73.5	86.9	81.3	-34.3%
Combined		£1.6bn	106.8	102.2	90.3	80.3	71.5	76.3	-28.6%

Metrics data source: Hymans Robertson LLP

The Trustee is pleased with the progress made against the WACI targets, demonstrating effective management of the Scheme’s assets. As the Trustee continues to work towards the target of 30 June 2026, it will remain vigilant and committed to maintaining the positive trajectory, collaborating closely with the asset managers to ensure the Scheme remains on track.

The asset managers and the Trustee will review the progress quarterly and discuss any deviations from the agreed annual ranges. CTI, as asset manager of all equities and a proportion of the corporate bonds allocation, aggregate the overall WACI reduction target across of all its mandates. The Trustee monitors the change in WACI and engages with the asset managers regularly to understand variances. The Scheme remains on target to meet the WACI target reduction by 30 June 2026 for both equity and corporate bond portfolios.

The following comments from asset managers provides helpful context for the development in the WACI scores over the last 12-month period and the aligned focus on the WACI targets:

M&G

Company-level carbon emissions, measured by WACI, have generally continued to fall across issuers in the sterling corporate bond universe.

The ZPen Corporate Bond portfolio has maintained a downward trend in WACI over the past 12 months, consistently remaining below its benchmark. This reflects the portfolio’s exposure to companies with falling emissions as well as the portfolio’s evolving positioning within the sterling corporate bond universe. In particular, the portfolio has continued to reduce levels of risk in response to increasingly stretched market valuations. This has broadly resulted in moving further underweight issuers in sectors with inherently higher emission contributions.

CTI

We continue to manage the portfolios with a carbon reduction strategy in mind and as we approach the first interim target we believe the overall portfolio is nicely positioned.

Our fund managers and analysts engage companies on an active basis to drive change and we update the ZPen team on interesting developments which may impact the Trustee meeting its carbon reduction targets. All of which are important to give us a rounded approach to ensure portfolios are meeting all objectives.

We will continue to monitor all portfolios as we approach the first key milestone to ensure we hit the target as per the strategy.

Data limitations

- The majority of the data presented is sourced from Hymans Robertson LLP, who use a third party provider, MSCI. Whilst the Trustee has conviction in the supplier, the results may differ if an alternative provider was used. Specific data for Real Estate and Gilt disclosures is sourced from the relevant asset manager.
- Data used includes estimates for certain asset classes. These estimates are derived from information provided by MSCI and are incorporated into the reporting framework established by Hymans Robertson LLP.
- Data is collected periodically to align with the reporting year, but in certain cases, there may be delays in updating the data, resulting in the inclusion of emission data from the previous year.
- There may be overlap or duplication in the reported scope 3 emissions data due to the nature of the value chain and the multiple reporting entities involved. This overlap can occur when different entities report emissions from the same activities or when the same emissions source is reported by multiple entities within the value chain.

ZPen DC

The Trustee is dependent on Scottish Widows for DC metrics as they own the primary relationship with asset managers.

	Carbon footprint	GHG emissions	Investments with validated science based targets	Data quality
Type of metric	Emissions intensity-based	Absolute emissions	Portfolio alignment	Climate change
Climate related transition risk	✓	✓	✓	✓
Climate related physical risks				✓
Climate related opportunities			✓	✓

The Trustee worked with Scottish Widows on sourcing suitable metrics for the section. As a result of the dependency on Scottish Widows producing standardised TCFD metrics the above metrics were agreed.

Metrics data

ZPen DB and ESExec DB

For the year ended June 2025 the Trustee has focused on measuring asset classes for which reliable data is available. Disclosures have been extended to include metrics for both Real Estate and Gilt holdings. Measurement of remaining asset classes has been discussed with the asset managers and next steps are shown in the table included within the net zero section of this report. Asset classes not currently measured are: European Loan Fund and Middle Market Loans. For the asset classes that do not yet have an agreed methodology to account for emissions or reliable data is not available, the Trustee will continue to work with the Zurich Group and the asset managers in order to address these points.

Due to the materiality of the ESExec DB holdings relative to ZPen DB, for the year ended June 2025 the metrics for the sections have been combined.

Listed asset metrics

Good quality disclosure ensures that the Trustee’s analysis of climate-related risks is valuable and decision-useful as possible. Data availability for the equity portfolio remained high, with over 98% of assets having reported or estimated emissions data available for analysis with a slight increase of 2%. Data availability for the bond portfolios remains lower although emissions data is available for over 80% of portfolio holdings.

Across all listed portfolios, emissions data availability showed no significant change over the last 12 months. The Trustee engaged with its providers during the Scheme year to enhance the availability and quality of emissions data. These engagements included regular meetings with asset managers to discuss data gaps and improve data coverage and accuracy.

	MV (£bn)	Emissions data available	Absolute Emissions tCO2e	Weighted Average Carbon intensity tCO2e/£m sales
Equity	0.9 (1.0)	98% (96%)	56,095 (52,002)	86.4 (68.9)
Corporate Bonds	0.7 (0.8)	80% (80%)	12,580 (23,605)	64.0 (75.3)

Source: Hymans Robertson LLP (figures in brackets represent prior year figures)

For equity assets, Weighted Average Carbon Intensity (WACI) rose by over 25% over the 12 months to 30 June 2025, but remains below benchmark, mainly due to the mandate

being underweight energy and utilities relative to the benchmark, two highly carbon intensive sectors.

Within credit bond portfolios, WACI has varied with the M&G portfolio having seen a 27% decrease in emissions intensity whilst the CTI bond portfolio has seen a more moderate decrease of 6%, compared to last year's WACI which saw a significant increase of 18% relative to 2023. The reduction in carbon intensity for the CTI bond portfolio was achieved by lowering the portfolio's exposure to both the energy and utilities sectors. M&G's continued emissions reduction this year was due to sector bias, as the portfolio has continued to have lower exposure to firms with ties to fossil fuels relative to the benchmark.

Whilst the Trustee has not imposed any constraints on the management of the portfolios, it has discussed the positioning of the portfolio with the manager.

The Trustee measures other attributes of their listed asset portfolios, including both how companies are preparing for the transition and how they are managing environmental risks. The Trustee expects its managers to be assessing and managing expectations and meets with its managers on a regular basis to ensure that investee companies are acting to address shorter and longer term risks.

	Low Carbon Transition Score (/10)	Climate ESG score(/10)
Equity	6.0 (5.9)	6.4 (6.2)
Corporate Bonds	5.9 (5.7)	7.4 (7.7)

Source: Hymans Robertson LLP (figures in brackets represent prior year figures)

Over the 12 months, transition scores across both equity and credit portfolios slightly increased, indicating that the underlying portfolio companies are more aligned with the low carbon transition. The environmental risk assessment scores across both equity and credit portfolios have not changed substantially, with the former seeing a slight increase and the latter seeing a slight decrease. The slight decrease across the credit portfolio is due to a fall in this score for both mandates within the portfolio, whereas the equity mandates have seen a slight increase. This pattern resembles that of last year.

Property portfolio metrics

The Trustee gains exposure to real estate assets through investment in a pooled property fund. The fund reports absolute emissions, the Trustee has presented below the ZPer DB share of the emissions value and an associated intensity figure based on £m fund value.

	MV (£bn)	Data availability (by floor area)		
		Landlord controlled	Tenant controlled	Total portfolio
Property	0.2 (0.2)	100 (97.7%)	77.7% (67.1%)	90.4% (84.8%)

Source: Columbia Threadneedle Investments

The manager reported full data availability for landlord-controlled assets within the portfolio over the 12 months to 31 December 2024. Reporting of data for tenant-controlled assets saw an increase, which marks an improvement on last year, where data availability had fallen over the year. The full reporting for landlord-controlled assets reflects the greater control and ability to gather data in respect of such assets.

	Absolute emissions (tCO ₂ e)	Emissions intensity (tCO ₂ /£m invested)
Property	2,873 (2,174)	13.8 (11.1)

Source: Columbia Threadneedle Investments

Emissions intensity for property has been calculated with reference to the amount invested rather than being normalised for any other metric. This is primarily a consequence of data availability, and the Trustee will engage with the manager on other approaches for future reporting.

Portfolio absolute emissions represent the share of emissions attributable to the Scheme based on the Trustee’s investment in the fund. Absolute emissions for the fund increased from the previous year, primarily driven by improved data availability for fund assets, providing a fuller representation of the total asset emission of the fund. Over the year, the emissions intensity increased somewhat, with both absolute emissions for the whole fund having increased, as well as the proportion of Scheme’s holding in the total fund having increased, each of which contributes to the overall increase over the year. The manager also reports on energy, water consumption and waste generation with a goal of reducing energy consumption by 20% relative to the position at 31 December 2019 in respect to landlord-controlled assets. Over the year to 31 December 2024, an increase of 2.7% (on a like for like basis) was reported and a reduction of 4.2% against the baseline.

LDI portfolio metrics

The Trustee invests a significant proportion of its assets in a Liability Driven Investment (LDI) strategy with investment being made in both funded and unfunded gilts, the latter creating exposure to gilt investments. The approach to measuring sovereign emissions has been determined by the investment manager based on guidance provided by the Partnership for Carbon Accounting Financials (PCAF). Data provided is as at 30 June 2025.

	MV (£bn)	Absolute Emissions tCO ₂ e	Emissions intensity tCO ₂ /£m invested	Emissions intensity tCO ₂ e/GK\$m GDP
Funded gilts	1.5 (1.8)	243,347 (266,449)	159.3 (167.1)	86.5 (98.1)
Gilts on repo + TRS	2.3 (2.1)	366,208 (299,340)	159.3 (167.1)	86.5 (98.1)
Combined gilts	3.8 (3.9)	609, 555 (565,789)	159.3 (167.1)	86.5 (98.1)

Source: Insight Investments (figures in brackets represent prior year figures), Emissions intensity tCO₂e/GK\$m GDP is equivalent to Weighted Average Carbon Intensity (WACI)

The emissions intensity measure is based on total UK greenhouse gas emissions (Scope 1 and 2 only) as published by the UK government and a PPP adjusted measure of UK gross domestic product, as published by the IMF.

Infrastructure equity metrics

During the Scheme year, the Trustee invested in two infrastructure equity funds. As part of the climate-related metrics, the Trustee has obtained the WACI for these funds and disclose these figures below for transparency.

For the current reporting period, the WACI for the JP Morgan fund was 944, and for the KKR fund was 624.

These figures are relatively high compared with diversified equity portfolios, reflecting the nature of some of the infrastructure assets such as energy networks, utilities and transport, which have significant operational emissions. Many of these companies provide essential services and are pursuing decarbonisation strategies, including commitments to align with net zero pathways by 2050. The emission reductions will deliver over an extended period given the physical nature of their assets. The Trustee intends to monitor these metrics on an ongoing basis, tracking changes over time to assess progress against our climate objectives.

Scope 3 emissions

The Trustee has again reported Scope 3 emissions across listed asset portfolios although note that the availability of data is lower than for Scope 1 and 2 emissions. Despite lower data availability relative to Scope 1 and 2 emissions, data availability for Scope 3 emissions has improved across both equity and credit portfolios. Absolute scope 3 emissions for both equity and credit portfolios has also fallen by 12% and 33% respectively.

	MV (£bn)	Emissions data available	Absolute Emissions tCO2e
Equity	0.9 (1.0)	88% (74%)	534,081 (604,137)
Corporate Bonds	0.7 (0.8)	71% (59%)	144,276 (214,926)

Source: Hymans Robertson LLP

The Trustee has not set any targets with regard to Scope 3 emissions.

Avoided emissions

The green impact investments represent sources of sustainable energy. Generation of energy through these companies avoids the emissions of conventional energy production. The investments are held within the infrastructure debt portfolio. The total impact of the avoided emissions noted below is the equivalent to 11,300 cars driven for a year. The avoided emissions data did not change during the Scheme year as no new infrastructure debt investments were made.

	Kt CO2e/yr avoided
Ground-mounted solar plants	64.2
Offshore wind farm	12.8
Onshore wind farm	24.7

Metric name	Metric description
WACI	A measure of a portfolio's exposure to carbon intense companies. This is expressed in terms of tons of CO2 equivalent emitted per million dollars of revenue, weighted by the size of the allocation to each company. WACI is measured using scope 1 + scope 2 emissions. Scope 1 emissions are those from sources owned or controlled by the company, typically direct combustion of fuel as in a furnace or vehicle. Scope 2 emissions are those caused by the generation of electricity purchased by the company.
Total carbon emissions (scopes 1 & 2)	This represents the portfolios estimated scope 1 + scope 2 greenhouse gas emissions. This is expressed in terms of thousand tons of CO2 equivalent emitted by the companies invested in by the portfolio, weighted by the size of the allocation to each company.
Total carbon emissions (scope 3)	This represents the portfolios estimated scope 3 greenhouse gas emissions. This is expressed in terms of thousand tons of CO2 equivalent emitted by the companies invested in by the portfolio, weighted by the size of the allocation to each company.
Low carbon transition score	A company level score that measures a company's level of alignment to the Low Carbon Transition. Companies with higher Low Carbon Transition score are more aligned with the Low Carbon Transition compared to the companies with lower scores. (Score: 0-10)
Climate ESG score	A company level score that represents the weighted average of all Key Issues that fall under the Environment Pillar. The weight given to each Key Issue is dictated by MSCI's process which determines the relevance of each pillar to a given company and sector. At a portfolio level this is the weighted average of individual company scores by the weight in the portfolio.
Avoided emissions	Greenhouse gas emissions avoided or reduced from the use of the reporting company's product.

For more information on the calculation methodology, please refer to [appendix 4](#).

ZPen DC

Metrics selection for ZPen DC is driven by the platform provider Scottish Widows Limited (SW). The Trustee has discussed its reporting requirements and objectives and worked with SW on the common approach.

The metrics presented below are for the year ending 31 December 2024. The availability of data is measured in the first metric. SW have committed to providing the data on an annual basis as at 31 December.

	Z Growth Fund		Z Cautious Growth Fund		Z Cash Fund	
	31-Dec-23	31-Dec-24	31-Dec-23	31-Dec-24	31-Dec-23	31-Dec-24
AUM	£0.4bn	£0.5bn	£0.1bn	£0.1bn	£24.9m	£30.0m
Investments with scope 1&2 data (data quality)	95%	93%	78%	87%	104% ⁴	88%
- reported	89%	81%	72%	61%	82%	36%
- estimated	6%	12%	6%	26%	22%	53%
GHG emissions (tCO ₂ e)	23,341t	5,783t	3,005t	1,5105t	6t	6t
Carbon Footprint (tCO ₂ e / £m)	60.1	12.1	51.1	19.3	0.3	0.20.3
Investments with scope 3 data (data quality)	96%	93%	73%	87%	104%	88%
- reported	71%	77%	53%	69%	79%	74%
- estimated	25%	16%	20%	18%	25%	14%
GHG emissions (tCO ₂ e)	246,558t	154,988t	30,294t	20,612t	1,897t	1,935t
Carbon Footprint (tCO ₂ e / £m)	634	325	550	263.9	73	73
Investments with validated science based target	69%	55%	53%	51%	53%	32%

The data presented in the table above for the year ended 31 December 2024 represents the new default arrangements, as detailed on page 12. The new default arrangements utilise a low carbon global equity fund which has delivered a significant reduction in the carbon footprint for the Growth Fund and Cautious Growth Fund.


⁴ The value of greater than 100% for scope 1,2 and 3 emissions data represents the aggregate data value for all listed investments held within the fund.

Metrics data for the DC assets are provided to the Trustee by SW. The Trustee does not have a direct impact on which metrics are selected by SW and reported on.

Metric name	Metric description
Investments with scope 1, 2 & 3 data	A proportion of investments within the fund with reported and estimated emission data. The higher reported emissions % the more reliable data.
GHG emissions	This represents the portfolios estimated greenhouse gas emissions. This is expressed in terms of thousand tons of CO2 equivalent emitted by the companies invested in by the portfolio, weighted by the size of the allocation to each company.
Carbon footprint	A measure of a portfolio's exposure to carbon-intense companies. This is expressed in terms of tons of CO2 equivalent emitted of a company's most recently available enterprise value including cash, weighted by the size of the allocation to each company.
Investments with validated science based target	A proportion of investments with valid science based targets that reports on companies that are aligned with the goals of the Paris Agreement and contribute to reducing GHGs

The Trustee approves the TCFD report.

Signed on behalf of the Trustee by:

Trustee director:  **Sims**

Name: David Sims

Date 12 December 2025

Glossary

Active ownership is when shareholders engage with a company they have invested in to influence the company's strategy and actions. It is a method often used in responsible investing to directly influence a company's decisions and when working with corporate social responsibility.

Engagement - A long-term active dialogue between investors and companies on environmental, social and governance factors. An active dialogue offers investors the opportunity to discuss sustainability risks and opportunities with companies and provides them with insights into investors' expectations of corporate behaviour.

ESG stands for Environmental, Social and Governance. It is a framework used to assess the sustainability and ethical impact of a company. Environmental factors focus on the company's impact on the natural environment, social factors consider its relationships with employees, customers and communities, and governance factors evaluate its leadership and management practices. ESG criteria are used to evaluate the long-term viability and ethical practices of a company.

GHG emissions from human activities strengthen the greenhouse effect, contributing to climate change. Most is carbon dioxide from burning fossil fuels: coal, oil, and natural gas.

Infrastructure investments are a form of "real assets," which contain physical assets that are observed in everyday life like bridges, roads, highways, sewage systems, or energy.

Net zero is a balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. Net zero is reached when the amount of GHGs added is no more than the amount taken away.

Proxy voting – most institutional investors do not attend AGMs and EGMs, they are represented through proxy votes, through which they instruct someone who is attending to vote in a certain way.

Responsible investment is a strategy and practice to incorporate ESG factors into investment decisions and active ownership. It considers both how ESG might influence the risk-adjusted return of an asset and the stability of economy, as well as how investment in and engagement with assets and investees can impact society and environment.

Scenario analysis is an approach for the forward-looking assessment of risks and opportunities. Scenario analysis describes a process of evaluating how an organisation, sector, country or portfolio might perform in different future states, in order to understand its key drivers and possible outcomes.

Scope 1 emissions are direct emissions – controlled by the company (e.g. fossil fuel heating and fuel for the car fleet).

Scope 2 emissions are indirect emissions – this includes electricity and warmth that is not burnt on-site (e.g. electricity from the local utility provider)

Scope 3 emissions are emissions resulting from a company's operations or actions but not directly controlled by the company (e.g. staff commute, investment portfolio etc.)

The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5°C, compared to pre-industrial levels.

Appendices

Appendix 1: RI strategy developments

ZPen DB

2016: Impact investments

The Trustee approved an allocation to Infrastructure Debt, which includes environmental impact investments. The portfolio has grown over time with £182m of environmental impact investments as at 30 June 2025.

2019: Restriction list

The Trustee agreed its first restriction list excluding companies that generate more than 50% of their revenues from mining thermal coal and utility companies that generate more than 50% of their energy from coal.

2020: Restriction list update

The Trustee strengthened the restriction criteria to exclude investment in the equity and debt of companies that:

- generate more than 30% of their revenue from mining thermal coal, or produce more than 20 million tons of thermal coal per year;
- generate more than 30% of their electricity from coal;
- are in the process of developing any new coal mining or coal power infrastructure;
- generate at least 30% of their revenue directly from the extraction of oil from oil sands;
- are purpose-built (or “dedicated”) transportation infrastructure operators for oil sands products, including pipelines and railway transportation;
- generate more than 30% of their revenue from mining oil shale, or
- generate more than 30% of their electricity from oil shale.

2021: Carbon reduction target and climate change driven metrics

- The Trustee agreed a short-term carbon reduction target for its equities and corporate bond portfolios. The total value of the equity and corporate bond portfolios total £1.6bn as at 30 June 2025.

Time period: 5 years

Reduction: 25%

Metric: Weighted Average Carbon Intensity (WACI)

Baseline: December 2020

- A selection of metrics have been agreed to measure and report on in this report (see Metrics and target section). The selection of metrics was driven by:
 - Different characteristics of each asset class
 - Insights provided for the climate related risks and opportunities defined in the Climate Change Policy
 - Data availability
- The Trustee agreed approach to metrics and scenario analysis for ZPen DC
- The fund review was completed, resulting in the following changes driven by RI
 - LGIM 30/70 Global Equity formed a part of the default fund, one of the reasons for the change was LGIM's strong active ownership activities
 - LGIM Future World Fund was added to the self-selection options
- For Exec DB, a selection of metrics had been agreed to measure and report on in this report (see Metrics and target section). The selection of metrics was driven by:
 - Different characteristics of each asset class
 - Insights provided for the climate related risks and opportunities defined in the Climate Change Policy
 - Data availability

2022: Net zero ambition

In September 2022, the Trustee agreed a 2050 net zero ambition. The ambition covers DB investments as well as the Scheme's operations.

For more information, please refer to the 'Net zero ambition' section of this report.

2024: DC investment review

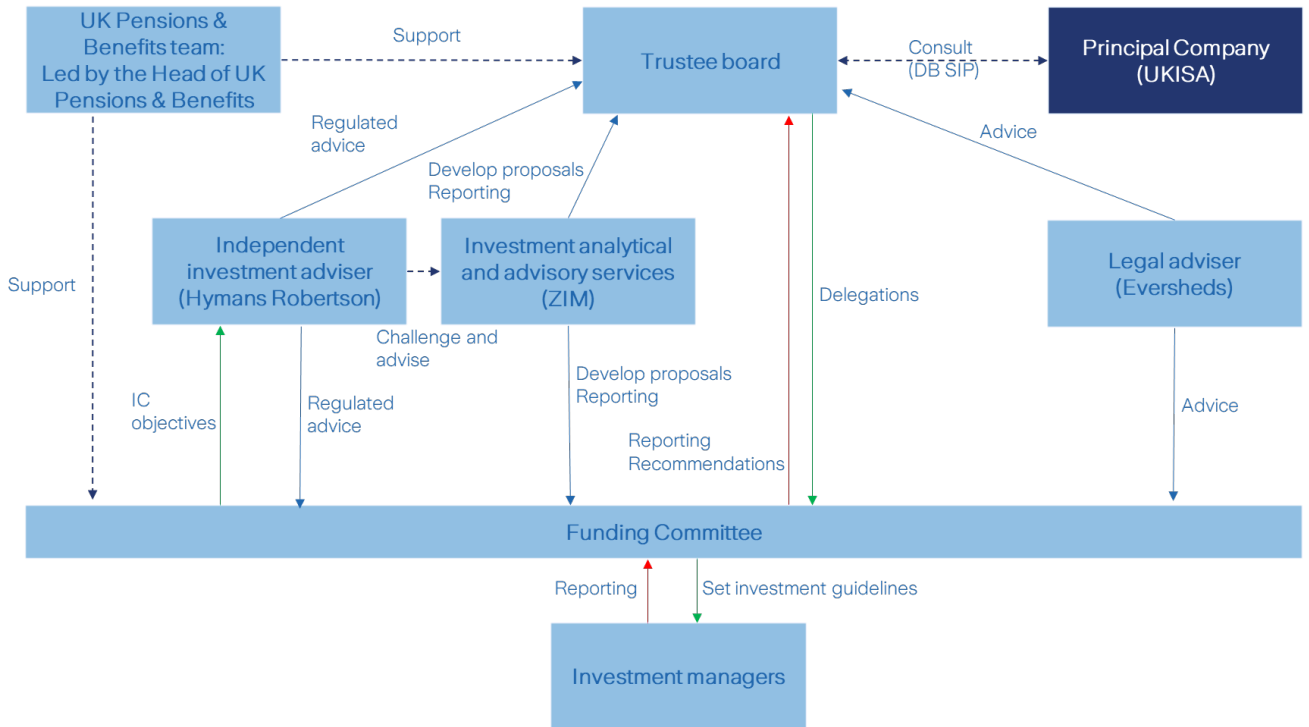
- The fund review was completed, resulting in the following changes driven by RI
 - Z Growth Fund is 100% invested in a low carbon global equity fund with a net zero target.
 - Z Cautious Growth Fund is invested 55% in the low carbon global equity fund used in Z Growth Fund. 45% in an actively managed global bond fund which includes carbon targets and a commitment to net zero.

2024 / 2025: Infrastructure equity investments

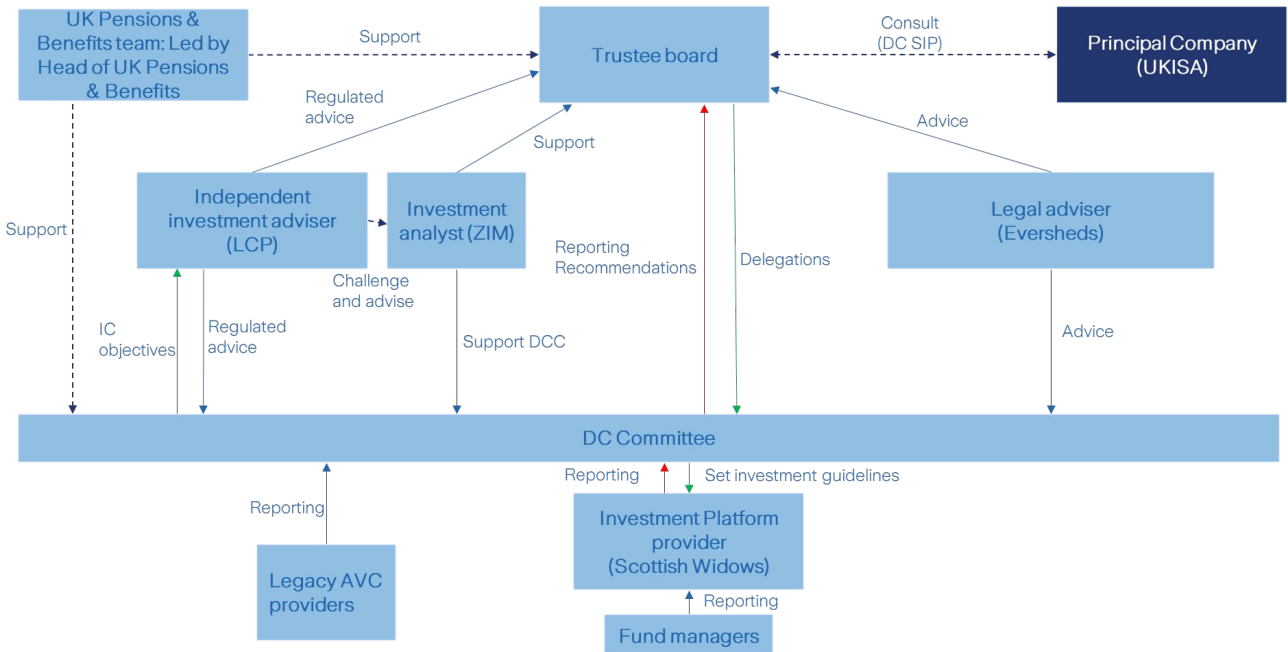
- Following the previous commitment by the Trustee to invest in infrastructure equity funds, transactions were completed for two new fund holdings in the current scheme year. The funds hold a range of assets that include companies providing a range of climate benefits, including companies operating in fields that deliver low carbon energy or facilitate green energy delivery and distribution.

Appendix 2: Investment governance

DB Investment governance



DC Investment governance



Appendix 3: Engagement case studies

ZPen DB

Example 1 – Climate Change

As part of a collective engagement with a large European automotive manufacturer, the asset manager has co-signed an investor letter which urges the company to publicly address a divergence between the stance of the European Automobile Manufacturers' Association (ACEA), of which the company is a member, of and its own position on the 2025 CO2 targets. The ACEA has advocated for the weakening of previously established 2025 CO2 targets and proposed advancing the review of CO2 regulations for both light and heavy-duty vehicles to 2025. This stance seems inconsistent with the company's declared commitment to the objectives of the Paris Agreement, as well as its own internal plans and commitments regarding CO2 reduction and the transition to electric vehicles. The letter expressed that as investors it is acknowledged the significant industrial transformation the European automobile sector is undergoing, driven by climate transition, technological advancements, and artificial intelligence. Also, it is understood that this transformation requires long-term planning for the overhaul of supply chains, workforce training, and investment. As stakeholders in the sector, we advocate for government policies that support this transition in a manner that is consistent, robust, comprehensive, and focused on delivering sustainable long-term outcomes. The company is encouraged to issue a statement on its targets and the current misalignment with the position of the industry associations. The company was also encouraged to update its climate reporting to include a list of policy dependencies necessary for successfully meeting its net zero target and climate transition plan.

Example 2 – Climate change

The asset manager had met with a large financial company to follow up on previous positive discussions regarding climate targets and strategy, where the manager strongly encouraged the company to have those targets validated by SBTi (Science Based Target initiatives), requested that it publish forward looking milestones that it aimed to achieve to hit its targets, and that the company return to reporting to CDP (a non-profit environmental scoring organization), which it had ceased doing. The progress update allowed a review of the company's updated strategy, which includes phasing out the financing of upstream oil and gas to zero by 2040, and tripling renewable energy financing by 2025. Since the previous meeting, the company had returned to reporting to CDP, had published forward-looking milestones for its strategy, and was able, following the meeting, to confirm that its targets had been validated by SBTi. The company also indicated that it intends to strengthen disclosures regarding lobbying activity and this will be assessed at the next meeting. The ongoing nature of the interaction with companies within the Scheme portfolio demonstrates how engagement is now well embedded in the asset management process.

Example 3 – Climate change

As part of the Annual monitoring process the Trustee asks the investment adviser to carry out a Responsible Investment and Climate Risk analysis of the full equity and bond portfolios. One of the key takeaways in the associated report was the identification of a company that represents one of the higher contributors to the carbon intensity score. The relevant company manufactures cement. The Scheme management team have engaged with the investment manager to obtain a fuller understanding of the company and the likely transition trajectory. The investment manager has indicated their view that cement as a product is important for the global economy and energy transition and they support retaining this company within the portfolio. The investment manager has regular engagement with the senior management of the company and, through this process, have determined that the company has an advanced decarbonization strategy when ranked against a peer group and is well positioned to drive energy transition in this industry. Furthermore, the company has a defined climate strategy with a goal to be net zero by 2050 and interim short-term targets that will drive change including a range of specific measures that are scheduled to be delivered to defined timelines. The investment manager has indicated that their engagement focus moving forward will be on the cost feasibility of proposed decarbonization projects and the company's strategy to scale its green and net zero cement sales. This specific example demonstrates that engagement can facilitate a long-term initiative whereby investors can support companies as they transition to lower carbon models.

ZPen DC

ESG reports, including voting statistics, for the pooled funds are published on the asset managers' websites. More detailed active ownership information is included in the ZPen DC's implementation statement available on the Scheme website.

Appendix 4: Metric methodology

Listed assets

- Absolute Emissions (tCO₂e): This represents the portfolios estimated Scope 1 + Scope 2 greenhouse gas emissions. This is expressed in terms of thousand tons of CO₂ equivalent emitted by the companies invested in by the portfolio, weighted by the size of the allocation to each company.
- Emissions intensity (tCO₂e/\$m sales): A measure of a portfolio's exposure to carbon-intensive companies. This is expressed in terms of tons of CO₂ equivalent emitted per million dollars of revenue, weighted by the size of the allocation to each company. Is measured using scope 1 + scope 2 emissions. Scope 1 emissions are those from sources owned or controlled by the company, typically direct combustion of fuel as in a furnace or vehicle. Scope 2 emissions are those caused by the generation of electricity purchased by the company.

The calculation methodologies across scopes 1, 2, and 3 are the same, with Scope 1 + 2 replaced by Scope 3.

Property portfolio

Only absolute GHG emissions for the total property portfolio and data availability have been provided by Columbia Threadneedle; these have been collected by the manager on behalf of the properties within the Threadneedle Pensions Limited Pooled Property Fund.

In order to calculate emissions intensity for the mandate, the absolute GHG emissions figures (i.e. 18,611) have been divided by the market value of the total portfolio (i.e. NAV of £1.353billion as at 30 June 2025). This can then be multiplied by the market value of the fund that is held by the Section in order to calculate absolute emissions of the mandate which can be attributed to the Section.

LDI portfolio

UK gilts carbon calculation methodology

Key considerations, assumptions and sources

- Production emissions data used⁵
- Figures cannot be sensibly aggregated across different asset classes (e.g. due to the use of different denominators for normalised metrics)
- There is a risk of 'double counting' emissions, as it is difficult to obtain sovereign emissions data that excludes corporate emissions
- Little consideration for 'exported' emissions in raw data

⁵ DWP guidance defines production emissions as Scope 1 and 2, and consumption emissions as Scope 3. PCAF defines production emissions as Scope 1, and consumption emissions as Scope 2 (emissions imported relating to electricity) and Scope 3 (other imported emissions).

- exporting countries retain carbon responsibility for production, even if the good is used elsewhere, for example:
 - China, Thailand, South Africa: considered higher emitters, as exporters of CO2-intensive goods
 - France, Switzerland, Sweden: considered lower emitters, as importers of CO2-intensive goods
- Purchasing power parity (PPP) adjusted GDP is used for certain metrics, to achieve consistency across all sovereigns
- Carbon values include land use, land use change, and forestry (LULUCF)
- Germanwatch Climate Change Performance methodology provides more sophisticated (but less measurable) output and is a recommended alignment tool by Paris Aligned Investment Initiative (includes IIGCC)

Weighted average cost of capital

$$\frac{UK\ GHG\ emissions\ (tCO_2e)}{UK\ PPP\ adjusted\ GDP\ (GK\$)}$$

Carbon footprint

$$\frac{UK\ GHG\ emissions\ (tCO_2e)}{market\ value\ of\ gilts\ in\ issuance\ (£)}$$

Absolute emissions (previous method)

$$\frac{UK\ GHG\ emissions\ (tCO_2e)}{market\ value\ of\ gilts\ in\ issuance\ (£)} \times market\ value\ of\ gilts\ held\ (£)$$

Absolute emissions (PCAF method)

$$\frac{Market\ value\ of\ gilts\ held\ (£)}{UK\ PPP\ adjusted\ GDP\ (£)} \times UK\ GHG\ emissions\ (tCO_2e)$$

Appendix 5: Climate scenario analysis – 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 default strategy.
- As such, the modelling does not require extensive scheme-specific data and so the Trustee was able to consider the potential impacts of the three climate scenarios for all of the Scheme’s assets in the default strategy. In practice, the Scheme’s investments may not experience climate impacts in line with the market average.
- 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.
- In addition, the model presumes that the UK government and bank counterparties will remain solvent, thereby making no allowance for credit risk on government bonds and derivative exposures. However, in a scenario where global warming exceeds 4°C, this assumption may no longer be valid.
- Medians from Ortec Finance’s model outputs are used to project forward assets, which means the results reflect the model’s “middle outcomes” for investment markets under the three scenarios. Allowing for market volatility would result in better or worse model outputs than shown. Investment markets may be more volatile in future as a result of physical and transition risks from climate change, and this is not illustrated in the modelling shown.