GSK Pension Scheme
GSK Pension Fund
GW Contracted-Out Money Purchase Scheme
SmithKline Beecham Pension Plan

# Task Force on Climate-Related Financial Disclosures (TCFD) Report 2022

1 January -31 December 2022

# **Executive Summary**

The Trustees of the group of GlaxoSmithKline ("GSK") pension schemes covered by this report (the "Trustees" of the "Plans") recognise that climate change is one of the most important issues of our time, which will impact all countries, companies and individuals. The Trustees recognise climate change as a significant financial risk that could impact the financial security of the Plans' members' benefits if it is not properly measured and mitigated. As well as providing risks to the Plans, the transition to a lower carbon¹ economy and the mitigation of and adaptation to the physical risks of climate change may create new investment opportunities if managed appropriately.

This report covers the following Plans:

- GSK Pension Scheme ("GSKPS")
- GSK Pension Fund ("GSKPF")
- GW Contracted-Out Money Purchase Scheme ("GW COMPS")
- SmithKline Beecham Pension Plan ("SBPP")

At the current time, the Plans listed follow similar strategies for their respective Defined Benefit ("DB") and Defined Contribution ("DC") Sections. We further note that we are working to bring together separate Trustee bodies into one Trustee to oversee all of the Plans. As the Plans currently have similar assets, liabilities and funding levels, the Trustees, therefore, find that considering the impact of climate on the Plans in combination (as opposed to each in isolation) is the most meaningful approach. This approach will be revisited should the approaches of the Plans diverge in the future.

This report discloses a range of climate-related information pertaining to the Plans as required by the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021 along with the subsequent statutory guidance released by the Department for Work and Pensions in 2022. It has been prepared with the framework of the Task Force on Climate-related Financial Disclosures ("TCFD") in mind, with the intent of improving transparency toward members, the Pensions Regulator and the pension sector generally, and to ensure that trustees are thorough and rigorous in identifying, assessing and managing climate risk.

There are several reasons that climate-related considerations – whose characteristics differ in a number of ways from other investment risk factors – have become an area of greater focus in recent years. The primary motivation for the consideration of climate-related matters in the management of the Plans is to improve outcomes for beneficiaries by ensuring that financially relevant factors are not overlooked. In addition, we aim to minimise the possible harm done by our actions *provided* this can be done without compromising our financial responsibilities or in any other way conflicting with trustees' fiduciary duty under trust law.

Members are encouraged to contact the Trustee of their Plan if they have any questions or comments.

 $<sup>1 \</sup> We \ use the term \ carbon \ as \ shorthand \ to \ describe \ carbon \ dioxide \ equivalent \ greenhouse \ gas \ emissions$ 

## **Governance**

**Trustee oversight.** The Trustees are ultimately responsible for the oversight of climate-related risks and opportunities as they relate to the Plans, and set the overall policy, which is reviewed annually. The Trustees delegate responsibility for implementing and monitoring the Plans climate change policy to the Joint Investment Committee ("JIC") and Joint DC Committee ("JDCC") for the Defined Benefit ("DB") and Defined Contribution ("DC") Sections respectively. The Trustees maintain oversight through a quarterly reporting and meeting cycle.

**Trustee knowledge and understanding.** In order to maintain sufficient knowledge and understanding of relevant climate-related risks and opportunities, the Trustees receive background material, including guidance provided by the Pensions Regulator and the Department for Work and Pensions, and attend seminars and other training provided by a range of expert parties.

**Third-party providers.** The Trustees rely on Investment Advisers and third-party asset managers to identify and assess climate change risks and opportunities as well as considering input from other third-party providers, specifically our Plan Actuaries and, where relevant, Covenant Advisers. Each provider is required to demonstrate sufficient credentials in relation to the assessment of climate-related matters.

# **Strategy**

**Investment beliefs.** The Trustees have agreed and documented a series of investment beliefs, a number of which relate to sustainable investing and an acknowledgement that appropriate assessment of environmental and climate change impacts, as well as other social and governance considerations, will help to improve outcomes for members and beneficiaries through enhanced long-term returns and better risk management.

**Short, medium and long term.** In the assessment and management of climate-related risks, the following time horizons apply:

Time horizon	DB Sections	DC Sections
Short term	0-5 years	0-5 years
Medium term	5-15 years	5-25 years
Long term	15-30 years	25-40 years

For the DB Sections, the time horizons are typically shorter, reflecting the expectation of gradual de-risking of the investments, arriving at a low risk position suitable for maturing DB schemes in around 11 years' time. For the DC Sections, we have longer term time horizons compared to our DB Sections, which reference the expected lifetime of a typical member.

**Scenario analysis.** In order to better understand the risks and opportunities posed by climate change and to inform strategy and investment decisions, the Trustees consider the results of scenario analysis carried out separately for the DB and DC Sections by the Investment Advisers. In each case, scenarios that were considered included ones in which the global average temperature rises by up to 2 degrees and ones in which the rise experienced is 3 degrees. This analysis was completed for the 2021 report and has not been updated for this 2022 scheme year report as no changes were made to the strategic allocations or assumptions considered that would lead to a material change in

the conclusions. The previous year's analysis is referenced in the Appendix of this report.

At the present time, the climate-related risks that are believed to be most material to the Plans are those associated with (a) the impact of regulatory action on the value of investments and (b) the disruptive impact and extreme uncertainty that would result in the event of failure to meet the goals of the Paris Agreement<sup>2</sup>.

For the DB Sections, the nature of GSK's business and the locations of its physical assets do not present any particularly unique or acute risks that might undermine the resilience of the employer's covenant beyond those faced by broader society. We acknowledge, however, that the longer the time horizon, the greater the level of uncertainty there is.

**Incorporation into investment decisions.** Within all Sections, the Trustees receive quarterly performance reporting from our Investment Advisers. The Trustees have assessed that our managers adequately integrate Environmental, Social and Governance ("ESG") considerations at present into their portfolio where it is appropriate. The Trustees receive annual updates on our managers' approach to integrating ESG into their mandates as well as compliance with industry best practice guidance, such as the 2020 UK Stewardship code. In addition, the Trustees expect to incorporate ESG, including climate change, into our discussions and decisions during future investment strategy reviews of all Sections.

# **Risk management**

**Identification, assessment and management of climate-related risks.** For both the DB and DC Sections, the key risks relate to how member outcomes may be impacted, in addition to process-related risks that include: failure to adequately monitor climate related risks to which the Plans' assets are exposed, which could lead to risks being taken outside of appetite; and failure to incorporate ESG and Stewardship within the investment policy, which could lead to enforcement from the Pensions Regulator. Because the primary motivation for the consideration of climate-related risks is their potential financial impact to the Plans, the management of these risks is integrated as far as possible into the Plans' overall risk framework. Steps for the mitigation of those risks are outlined in the governance policy described above.

# **Metrics and targets**

**Metrics.** The primary metrics that are used by the Plans to measure climate-related impact are:

- total GHG emissions (DB and DC Sections);
- carbon footprint (DB and DC Sections);
- weighted average carbon intensity ("WACI") (DB and DC Sections);
- implied temperature rise (DB and DC Sections)
- portfolio alignment (using the Science-Based Targets Initiative framework for DB Section); and
- data quality (DC Section).

<sup>2</sup> The primary goal of the Paris Agreement is a global average temperature rise of "well below 2 degrees Celsius and pursuing efforts to limit it to 1.5 degrees relative to pre-industrial levels. For reference, the Intergovernmental Panel on Climate Change have estimated the rise to 2021 as being 1.1 degrees.

We also set out the data coverage across the DB and DC Sections.

The Trustees have made some changes and additions to metrics in this, the second annual report. Specifically, for the DB Sections, adding implied temperature rise and amending the other alignment metric to be the percentage of the portfolio companies who are working with the independently verified Science-based Targets initiative ("SBTi"). For the DC Sections, data quality has been added as an additional metric. Introducing the SBTi and data quality metrics are intended to help us focus on how robust and reliable the data we collect is. We also track the overall data coverage each year. Furthermore, in line with the latest regulatory guidance we have included 'Scope 3' emission measures this year. These are estimates of the energy used anywhere in the supply chains of the companies we invest in and are split into 'upstream' and 'downstream'. We recognise the collection and treatment of these figures is in its infancy and likely to evolve quickly.

A summary of the results is set out below:

- This is the second year that the Scope 1+2 total carbon emissions, carbon footprint and WACI metrics have been generated for all Sections.
- For the DC Sections, there were no changes to the investment strategy but we note that the majority of funds experienced a reduction in absolute emissions but a rise in carbon footprint and WACI.
- For the DB Sections the main difference between 2021 and 2022 is a change in investment strategy which increased the overall exposure to equity and credit investments at the expense of multi-asset managers which due to the nature of their strategies, were not captured within previous year's emissions metrics. This increase in portfolio coverage links directly to the increase in the absolute level of emissions observed. The carbon footprint and WACI figures naturally adjust for this and are therefore more helpful in assessing trends in underlying portfolio components. These were flat and slightly falling respectively, consistent with expectations of gradual reductions over time.
- We also recognise the significant impact of the COVID-19 pandemic on these numbers. We understand a significant proportion of the reduction in emissions metrics from 2019 to 2022 reflects society's action to control the pandemic through 2020 and 2021. As such, we make cautious comparisons between annual data.
- This is the first year we include the specific Portfolio Alignment measure (Percentage of portfolio with a Science Based Target) for the DB Sections.
- We note that the implied temperature rise methodology has changed since last year's analysis and therefore previous results are not directly comparable.
- Data quality is a new metric included for the first time this year.
- In addition, Scope 3 emission metrics have been sourced for all Sections.
- Data coverage varies across the various portfolio mandates, being close to or above 90% for equity portfolios, but more limited in the case of certain multiasset or credit-based fixed income portfolios. We will continue to work with our Advisers and Managers to increase coverage and refine the quality and consistency of data in future years. The additions to our metrics this year will help us to better track this on an ongoing basis.

**Targets.** The Trustees have set the following target for each of the Plans across the DB and DC Sections:

"The Trustees commit to the aims of the Paris Agreement, expecting to reduce carbon emissions associated with its portfolio by at least 50% (from 2019 levels) by 2030 and fully (i.e. to net zero) by 2050, which is currently understood to be consistent with limiting global warming to 1.5 degrees above pre-industrial levels."

The progress against the targets and the targets themselves are under annual review by the Trustees.

We set out below the progress against the target.

**Target:** Carbon footprint – reduce carbon emissions intensity by at least 50% (from 2019 levels) by 2030

Carbon Footprint - Progress against target	2019 Baseline	2021 Scheme year	2022 Scheme year	Progress (2019-2022)
DB Sections*				
DB Sections (combined equity, corporate bond and property portfolios)	68.3	40.1	40.1	-41.3%
DC Sections**				
Listed equity portfolio (combined)	71.3	40.5	42.1	-41.0%
Listed equity and corporate bonds portfolio (combined)	76.7	42.2	41.9	-45.4%

<sup>\*</sup>For the DB Sections, since the publication of the 2021 report Cardano have updated the methodology they use to calculate Total GHG emissions and Carbon Footprint. The 2021 Scheme reporting year metrics have been restated to allow a consistent comparison with the 2022 metrics.

#### Mark Ashworth

Chair of the GSK Pension Scheme, GSK Pension Fund and GW Contracted-Out Money Purchase Scheme

# **Tom Houston**

Chair of the SmithKline Beecham Pension Plan

<sup>\*\*</sup>Analysis of the DC Section considers the listed equity portfolio and the listed equity and corporate bonds portfolio across all underlying funds within the three strategies required under the Climate Change Regulations (i.e. the three popular arrangements), namely the default strategy (comprising of the GSK Lifecycle Fund, the GSK Retirement Income Fund and the GSK Cash Fund) and the GSK Global Equity Index Fund.

## Introduction

# **Purpose of this report**

This report covers the period from 1 January 2022 to 31 December 2022, and has been produced so that the group of GlaxoSmithKline ("GSK") pension schemes covered by this report meet the requirements of the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021. These regulations require trustees to disclose a range of climate-related information, with the intent of improving transparency toward members, the Pensions Regulator and the pension sector generally, and to ensure that trustees are thorough and rigorous in identifying, assessing and managing climate risk.

Whilst there are disclosure requirements to be met from a regulatory perspective, we are keen that the process is approached not merely as a box-ticking exercise but rather in a thoughtful manner that leads to a meaningful assessment of the issues.

This is the second year that this report has been produced. As a result there are additions to the report that did not feature in the previous report, due in part to evolving regulatory requirements and in part to improvements in the availability of data. As the viability of data improves, and as best practices continue to move forward, it is our expectation that additional detail will be added in future years.

This report is available online at https://www.gskpensions.co.uk/governance/.

This report covers the following schemes (collectively referred to as "the Plans"):

- GSK Pension Scheme ("GSKPS")
- GSK Pension Fund ("GSKPF")
- GW Contracted-Out Money Purchase Scheme ("GW COMPS")
- SmithKline Beecham Pension Plan ("SBPP")

At the current time, the Plans listed follow similar strategies for their respective DB and DC Sections. We further note that we are working to bring together separate Trustee bodies into one Trustee to oversee all of the Plans. As the Plans currently have similar assets, liabilities and funding levels, the Trustees therefore find that considering the impact of climate on the Plans in combination (as opposed to each in isolation) is the most meaningful approach. This approach will be revisited should the approaches of the Plans diverge in future.

## **Climate change**

Climate change refers to global heating caused by the greenhouse gas ("GHG") emissions of human activity. This leads to the increased frequency and severity of weather events, such as droughts, sea-level rise, floods, heatwaves and wildfires.

Globally, we emit around 51 billion tons of GHG a year. Most of our emissions come from industry, energy, agriculture and transport. The GHGs we emit trap energy from the sun in the Earth's atmosphere, warming the planet. It is estimated that humans have already warmed the Earth by at least 1.1 degrees. The GHGs that trap energy in the atmosphere include carbon dioxide, methane, nitrous oxide and fluorinated gases.

Temperature change is not uniform across the globe. The Earth is warming more rapidly at the north and south poles, by as much as 3 degrees. As the poles warm, the ice melts and becomes water. Ice reflects the sun's rays but water absorbs them, causing further warming. As the Earth warms, permafrost (ground that remains frozen) begins

to thaw releasing methane from hundreds of thousands of years of decayed animal and plant matter. This causes further warming as methane is a particularly potent GHG. This understanding informs our approach to climate change-related risk management.

# Climate change as an area of increasing focus

There are several reasons that climate-related considerations have become an area of greater focus in recent years. The financial implications – both as a risk factor and as a potential source of return – have grown considerably as a result of greater awareness of the scale of the climate challenge, increased activity by policymakers and regulators, and greater attention being paid by the investment community increasing the responsiveness of security prices to this factor.

There are several distinct characteristics of climate change as compared to many other investment risk factors. In particular:

- Climate risks are far-reaching in the breadth and magnitude of their impact.
- There is a high degree of certainty that the risks will materialise (although the exact outcomes and time horizon are uncertain).
- Climate risks may be aggravated by tipping points, leading to larger impacts than initially considered.
- Once certain thresholds are crossed, the consequences are likely to be irreversible.
- The scale and nature of climate impacts are dependent on the actions being taken today by governments, corporations, investors and individuals.

Alongside greater recognition of the significance of climate-related considerations, there is also increasing recognition among the broader investment community of other environmental, social and governance ("ESG") factors and of the importance of sustainability in a broader sense. Although this report focuses only on climate-related risks and opportunities, the management of the Plans also incorporates consideration of other relevant ESG factors.

This increased focus on climate-related issues is broad-based. It is true of the policymakers and regulators, who oversee the pension system. It is true of the Plans' sponsor, GlaxoSmithKline. The Trustees also assess it to be true of the Plans' membership as a whole. For example, over the past few years, the Trustees have written to members about ESG items in member newsletters, a member survey in 2018 and 2023, and when the DC default strategy added ESG-focussed funds in 2021 alongside launching an ESG-focused equity fund for members in 2021 on a self-select basis (both using the Future World Fund series). Through this engagement with members, as well as the understanding of the broader society as a whole, the Trustees are satisfied that climate-related factors are important considerations for the members of the Plans.

## **Climate-related reporting requirements**

The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021 now require larger UK pension schemes to report specifically on this topic. Further statutory guidance issued by the Department for Work and Pensions in 2022 now requires relevant UK pension schemes (including the Plans) to disclose a metric that measures the alignment of the schemes' portfolio to the emissions reduction goals of the Paris Climate Agreement. In the case of the Plans, we had selected portfolio alignment metrics

for our first report, but have taken the opportunity to refresh our approach for this second year. The legislation builds on the Task Force on Climate-related Financial Disclosures ("TCFD") initiative. This is an industry-led group which aims to help investors understand their financial exposure to climate risk. TCFD-aligned reporting requirements are also mandatory for Britain's largest companies and other financial institutions.

# Climate change and financial objectives

The primary motivation for the consideration of climate-related matters in the management of the Plans is to improve outcomes for beneficiaries by ensuring that financially relevant factors (i.e. any factor which may impact financial outcomes) are not overlooked.

The Trustees believe that climate-related risks are financially material, and therefore this means setting our financial objectives to allow the Plans both to mitigate the risks that climate change may present as well as capitalising on the opportunities that the transition to a lower carbon economy and the mitigation of and adaptation to the physical risks of climate change may present.

In addition, as climate change represents a "systems-level" risk to markets and the broader economy which will impact all investors, we aim to minimise any exacerbating effect that our own actions may have (e.g. by reducing the GHG emissions associated with our investment activity), *provided* this can be done without compromising our financial responsibilities or in any other way conflicting with trustees' fiduciary duty under trust law.

# Governance<sup>3</sup>

In the following section we provide verbatim extracts from policy documents which explain our approach in detail.

# Climate-related risk governance policy: Trustee Oversight

The Trustee is ultimately responsible for the oversight of climate-related risks and opportunities as they relate to the Plan. Climate change is a financially material risk that we consider in our investment decision making.

The Trustee sets its policy concerning climate change, including:

- Agreeing the types of climate-related risks and opportunities which they
  consider will have an effect over the short, medium and long terms on the
  Plan's investment and funding strategies.
- Agreeing the time periods which comprise the short, medium and long term applicable to the Plan, taking into account the Plan's liabilities and its obligations to pay benefits as appropriate.
- Ensuring that the Plan's risk management processes adequately incorporate the identification, assessment and effective management of relevant climate-related risks.
- Agreeing the climate-related metrics that are used to measure progress towards the climate-related targets, which will include at least one absolute emissions metric, one emissions intensity metric and one additional climate change metric.
- Agreeing appropriate climate-related targets for the Plan.
- Agreeing the Plan's approach to scenario analysis, including which scenarios to model (which will include at least two scenarios where there is an increase in the global temperature and in one of those two scenarios the global average temperature increase selected will be within the range of 1.5 and 2 degrees Celsius above pre-industrial levels).

The Trustee will review the policy (including the metrics, targets, scenario analysis etc.) annually.

The Trustee delegates responsibility for implementing and monitoring the climate change policy to the Joint Investment Committee ("JIC") and Joint DC Committee ("JDCC") for the DB and DC Sections respectively.

The Trustee maintains oversight through a quarterly reporting and meeting cycle where climate-related matters are considered. Climate change information and reporting is included in each of the meetings, including any updated information on Targets, progress against those Targets and climate change scenarios, and assessments of the impact of the climate-related risks and opportunities on the Plan's investment and funding strategy.

<sup>3</sup> This section is identical to the Climate-related risk governance policy that has been adopted by each of the Plans. Note that references to "Plan" or "Trustee" in this section therefore apply to each Plan. The JIC and JDCC are joint committees operating across all relevant Plans.

- The JIC and JDCC meet quarterly, and receive advice and monitoring reports from their respective Investment Advisers
- The JIC and JDCC have developed a more detailed analysis of the effect that climate-related risks and opportunities may have on the Plan's investment and funding strategy. This includes agreeing scope, underlying assumptions, and methodologies for each of the selected climate modelling scenarios, as well as the resilience of the Plan's investment and funding strategy in those scenarios.
- The JIC and JDCC have developed additional climate reporting metrics with their Investment Advisers to meet TCFD requirements
- The JIC and JDCC report back to the Trustee quarterly. The Investment Advisers also attend Trustee meetings
- The JDCC monitor the ongoing progress of their sustainable allocation in relation to TCFD requirements

# Climate-related risk governance policy: Trustee Knowledge and Understanding

While we are not directly involved in the day to day investment decision process, we, as the Trustee, are ultimately responsible for ensuring that climate-related risks and opportunities are identified, assessed and mitigated on behalf of the Plan and its members. We are therefore required to have sufficient knowledge and understanding of the types of climate-related risks and opportunities which may have an effect on the Plan and in order to set metrics and targets for our service providers and interpret the results of any analysis and reporting provided to us. We need to ensure that we are sufficiently informed so that we are able to challenge assumptions, external advice and information received and to fully understand any proposals developed by our advisers.

The Trustee maintains its Knowledge and Understanding with respect to climate change by:

- i. Reading relevant background material, including guidance provided by the Pensions Regulator and the Department for Work and Pensions.
- ii. Attending seminars on this subject offered by skilled firms of lawyers, consultants, investment advisers and climate change specialists. For example, the JIC and JDCC have received specialised training sessions by one of the Plan's fund managers, LGIM.
- iii. Attending specific sessions on climate change and TCFD requirements run by our lawyers and Investment Advisers. For example, the Trustee has established a TCFD working group of the JIC who have engaged in specific training sessions run by the Investment Adviser.

# Climate-related risk governance policy: Third-Party Providers

We do not carry out underlying investment activities ourselves but rely on our Investment Advisers and third-party asset managers to initially identify and assess climate change risks and opportunities, bringing recommendations where relevant. In respect of the DB section, we will also consider input from other third-party providers, specifically our Plan Actuary and Covenant Advisers.

When selecting third-party providers, we require each provider to demonstrate sufficient credentials in relation to the assessment of climate-related matters. This is done by assessing the providers in terms of their:

- Level of understanding on climate change.
- Commitment to the Paris Climate Agreement of limiting global warming to +1.5°C.
- Corporate policies focusing on reaching stated decarbonisation targets.
- Resources in place to deliver to climate related objectives.
- Ability to report to us.
- Associations with and involvement in relevant industry bodies.

The Trustee reviews its third-party providers on a regular basis to ensure all stated processes for those managing / advising the Plan on climate governance remain appropriate.

In relation to our Investment Advisers, the Trustee sets objectives informed by the competency framework proposed by the Investment Consultants Sustainability Working Group. The five themes within the competency framework are as follows:

- 1. Firm-wide climate expertise and commitment
- 2. Individual consultant climate expertise
- 3. Tools and software (to support climate-related risk assessment and monitoring)
- 4. Thought leadership and policy advocacy
- 5. Assessment of investment managers and engagement with them

These competencies will be assessed as part of our annual assessment of our Investment Advisers.

Our Investment Advisers assess our third-party fund managers' climate change competency. This forms part of the Investment Advisers' advice making.

For the avoidance of doubt, any climate related risks applying that are not associated with an aspect or aspects of integrated risk management will be picked up by the Committee that have the oversight of the relevant risk and appropriately reflected in the risk management framework. Overall responsibility for climate related risk would remain at Board level and the Committees should report any work carried out in this area back to the Board.

# Other relevant policies and activities

To support assessment of our Investment Advisers' competency, during 2022 the Trustees received information from our Investment Advisers on their climate related credentials, technical knowledge and understanding. The Trustees also met and questioned our Investment Advisers on their specific knowledge and understanding with regards to climate change.

In addition, the Trustees will consider the contribution of the Plan Actuaries and Covenant Advisers in identifying and managing climate related risks and opportunities in their respective areas as part of their annual reviews.

In addition to the risk governance policy above, the following policy documents are also relevant to the management of climate-related risks and opportunities:

- > Statement of Investment Principles
- > Statement of investment beliefs (the relevant section of which is included in the Strategy section of this report)

The Plans' SIPs can be found here: https://www.gskpensions.co.uk/governance/

Considerations that have been taken into account in the setting of these policies include:

- What is the impact on the expected level of investment return?
- What are the implications with regard to risk?
- How will the policy be implemented?
- What is the expected environmental and/or social impact?
- How does it align with the objectives of stakeholders (e.g. Plan members, the sponsoring employer)?
- Is the policy properly documented?

For example, in 2022 the JIC and JDCC gave specific consideration to what issues they would identify as being most significant when voting on shares owned or engaging with companies. This will inform the measurement and oversight of stewardship activities going forwards.

# **Strategy**

The Trustees have specifically agreed that:

- The Trustee Board members, with aid from their advisers, should ensure they remain aware of industry developments in this fast moving field, including understanding what others are doing in this space in order to challenge ourselves on our approach.
- We believe that the pursuit of environmental or social goals as objectives in their own right does not automatically compromise financial goals. To the extent such goals can be pursued alongside financial goals, we believe it is appropriate to do so.
- ESG should be a fundamental part of our investment strategy and we are
  willing to accept some shorter- term lower returns, higher risk or higher
  manager fees in order to achieve the best possible long-term outcomes.
- ESG is considered to be a financially material risk to investments, and therefore the Trustee believes that over the long term, portfolios which incorporate consideration of ESG issues will outperform those that don't.
- ESG (including climate change) issues will affect investment returns over the long-term and should be fully embedded into the investment decision-making process.
- 'Social' and 'Governance' issues should be considered to be important as well as 'Environmental' issues within the portfolio.
- We believe that managers are generally best placed to vote on holdings. However, we should have a framework against which we monitor managers' voting policies to consider whether they are sufficiently thorough and aligned with our views.
- We should aim to be 'sustainable investors' (i.e. expect our fund managers to consider ESG factors where they are material to investment performance) rather than 'impact investors', as long term returns take priority.
- Our fund managers should use voting rights and other forms of influence to steward responsible behaviour.
- We understand ESG factors may not be material to investment performance of some strategies (e.g. risk premia and LDI).
- Our fund managers should integrate ESG information into qualitative and quantitative analysis and engage with portfolio companies on relevant ESG factors.

Formulated in respect of DB sections:

Where possible, we should measure how our portfolio compares to the broader markets and how our portfolio is contributing to improved outcomes over time.

Formulated in respect of DC sections:

The Trustee recognises the growing importance of ESG and climate change issues for members. The lifestyle strategies include an allocation to sustainable equities and have also made available a self-select fund for members.

## Investment beliefs<sup>4</sup>

The Trustees have agreed a series of investment beliefs. A number of those beliefs relate to responsible investing and an acknowledgement that appropriate assessment of environmental and climate change impacts, as well as other social and governance considerations, will help to improve outcomes for members and beneficiaries through enhanced long-term returns and better risk management.

The Trustees expect these beliefs to be updated regularly as we refine our approach, reflecting both broader societal discussions and the growing amount of information available.

# Physical and transition risks

The TCFD divides climate-related risks into two major categories: (1) risks related to the transition to a lower-carbon economy and (2) risks related to the physical impacts of climate change.

Transition risks are those associated with a transition to a lower-carbon economy, which may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change.

Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns. Physical risks may have financial implications for organisations, such as direct damage to assets and indirect impacts from supply chain disruption. Organisations' financial performance may also be affected by (for example) changes in water availability, sourcing, and quality; food security; and extreme temperature changes affecting organisations' premises, operations, supply chain, transport needs, and employee safety.

As seen in the following section, in all cases the physical risks are assumed to grow over time and transition risk is somewhat nearer term and very sensitive to the path of progress.

Each of these categories is relevant to the Plans, although the relative significance varies depending on the time horizon under consideration and the path of future developments, in particular with regard to efforts to achieve the goals of the Paris Agreement.

# Short, medium and long terms

In the assessment and management of climate-related risks, the following time horizons apply:

Time horizon	DB Sections of the GSKPS, GSKPF and SBPP	DC Sections of the GSKPS, GSKPF, GW COMPS and SBPP
Short term	0-5 years	0-5 years
Medium term	5-15 years	5-25 years
Long term	15-30 years	25-40 years

<sup>4</sup> This section contains an extract of the beliefs that have been adopted by each of the Plans. Note that references to "Plan" or

<sup>&</sup>quot;Trustee" in this section therefore apply to each Plan.

For the DB Sections, the time horizons are typically shorter, reflecting the expectation of gradual de-risking of the investments, arriving at a low risk position suitable for maturing DB schemes towards the end of the medium term. For the DC Sections, we have longer term time horizons compared to our DB Sections, which reference the expected lifetime of a typical member.

#### Short term

For both DB and DC Sections, the short term is similar and refers primarily to those risks that have been delegated to the external investment managers; these mandates are typically judged over time horizons of up to five years. In the DB Sections this is broadly the period for which the current investment strategy is expected to remain in force before beginning to de-risk. For the DC Sections this period reflects members who are approaching retirement age and have begun the final de-risk within the default strategy.

## Medium term

For both DB and DC Sections, the medium term refers to those risks that currently fall outside the scope of the external investment management mandates but which are not considered to be long-term in nature, for example risks relating to broad market conditions or to identifiable anomalies or trends in the investing environment that fall across multiple asset classes.

# Long term

For the DB Sections, the long term refers to the period over which the majority of the benefit payments are expected to be made by the Plans with respect to the current membership. Whilst the Sections could exist for longer than the 15-30 years currently considered, it is understood that by that stage they will be mostly invested in government and corporate bonds or potentially insurance contracts where the Trustees will have less influence, with the work having been done within the next 30 years to position them appropriately.

For the DC Sections, the long term refers to the period for which payments are expected to be made by the Plans with respect to the current membership. This is anticipated as up to and possibly beyond forty years, and is representative of the likely working life of a member in the early stages of their career.

## Scenario analysis

This analysis was completed for the 2021 report and was not updated during the Scheme year as no changes were made to the strategic allocations or assumptions considered that would lead to a material change in the conclusions. This is consistent with the regulatory guidance to update scenario analysis at least every three years. The JIC and the JDCC consider scenario analysis when relevant to strategy decisions on an ongoing basis. An explanation of the scenario analysis undertaken last year and the results it provided are included in the Appendix.

# Impact of climate on the sponsor covenant

Whilst the analysis undertaken in relation to the covenant has not been updated for GSK's 2022 climate-related financial disclosures, the impact on the strength of the covenant is likely to remain relatively limited. As such, Penfida would expect the covenant provided by GSK to the Plans to be Strong under all climate change scenarios

based on the information currently available and there have been no changes to the journey plans as a result. Further detail on this summarised in the risk management section.

# **Risk management**

# Identification, assessment and management of climate-related risks

Under the overall governance process described above, responsibility for the identification and management of climate-related risks falls primarily to (a) Investment Advisers, who assist in the establishment of asset allocation policy and in the oversight of the investment managers, and (b) Investment Managers, who are responsible for day-to-day positioning of the portfolios. These Advisers and managers are overseen by the IIC and IDCC for the DB and DC Sections respectively and, ultimately, by the Trustees.

The key risks relating to how member outcomes may be impacted over the short, medium and long terms are assessed as follows.

# **Short term risks and opportunities**

Over the short term (now to 2028), risks may present themselves through rapid market re-pricing relating to climate transition as:

- Scenario pathways become clearer. For example, a change in the perceived likelihood of a below 2°C scenario occurring, or greater clarity into the nature of the required transition steps.
- Market awareness grows. For example, the implications of the physical impacts
  of climate change become clearer to markets, with subsequent impact on the
  asset valuations.
- Policy changes surprise markets. For example, if a carbon price is introduced at a sufficiently high price to impact behaviour across key markets to which the portfolio is exposed.
- Substitution of existing products and services with lower emission alternatives may impact part of the funds.
- Increased prevalence of litigation risk relating to dangerous warming becoming more prevalent.
- Increases in the requirements for energy/heat efficiency of buildings and infrastructure.

Investments in transition aligned strategies may provide the Plans a partial hedge against some of these climate transition risks.

The ability of the investment arrangements to consider these short-term changes can position the portfolio favourably, for example taking advantage of the climate transition by avoiding and reducing investment in high-emitting carbon businesses. The Trustees have delegated these active decisions to our fund managers, but also made some specific allocations to help address this. Specifically, in the DB Sections an investment in a low carbon equity fund and adding carbon reduction or alignment targets into credit mandates and in the DC Sections an investment in the Future World Fund Series to tilt the default strategy towards companies that will support the transition.

#### **Medium term risks**

In the case of the DB Sections, these risks are monitored by the JIC, and will typically be considered over a time horizon of five to fifteen years, after which point the DB Sections are expected to be in a relatively low risk position, holding mostly government and corporate bonds. Over this time, the short term transition risks listed above continue to

apply, and physical risks begin to become more significant. How this could interact with future de-risking is a particular focus for the DB Sections.

In the case of the DC Sections, medium term risks are monitored by the JDCC, and will typically be considered over a time horizon up to approximately 25 years, representative of a member in their mid-career. Over the medium term (2028-2048), risks associated with the transition to a low carbon economy are still likely to dominate. These include the development of technology and low carbon solutions that are sustainable. Policy, legislation and regulation are likely to also play a key role at the international, national and subnational level. Technology and policy changes are likely to produce winners and losers both between and within sectors. Advancement of transition is likely to have started to crystallise stranded asset risks over the medium term. The sections' ability to understand these changes may position them favourably, for example by increasing investments in new emerging technologies.

# Long term risks

Over the long term (post 2048), physical risks are expected to come to the fore, particularly in the event of failure to achieve the goals of the Paris Agreement. These risks may include the impact of natural catastrophes and extreme weather events leading to physical damages; geopolitical instability; disruption of availability of natural resources such as water; loss of biodiversity; deforestation and soil erosion; ocean acidification: and a range of other environmental changes. Although we do not rule out the possibility of return opportunities arising for the Plans related to the physical effects of climate change, the main focus of the Trustees is to limit the potential downside associated with climate-related risks.

# **Incorporation into investment decisions**

As noted above, the Trustees have made some specific allocations to help manage climate risk. Specifically, in the DB Sections an investment in a low carbon equity fund and adding carbon reduction or alignment targets into credit mandates and in the DC Sections an investment in the Future World Fund Series to tilt the default strategy towards companies that will support the transition.

Within all Sections, the Trustees receive quarterly performance reporting from our Investment Advisers. The reports provide details of the Advisers' ESG rating for each of the underlying fund managers, assessing how well the manager has integrated ESG and active ownership into their investment philosophy. The JDCC Committee or JIC reviews these reports in detail on a quarterly basis, and reviews the ESG ratings and how the managers vote and engage on key engagement priorities (including climate issues) annually.

Examples of engagement can be found within our annual, scheme specific Implementation Statements, included within each Plan's Report & Accounts and available online at <a href="https://www.gskpensions.co.uk/governance/">https://www.gskpensions.co.uk/governance/</a>.

At the moment, the Trustees have assessed that our managers do adequately integrate ESG considerations into their portfolio where it is appropriate, but have recently agreed in more granular detail what areas we consider to be most significant and consequently where we will focus our attention.

For the DC Sections, the JDCC have noted with encouragement the increase to two managers' ESG ratings during the year. The Trustees regularly review the ESG ratings of

all mandates during the year and have confirmed all remain appropriate for investment. The Trustees are regularly challenging our managers on their wider ESG considerations.

For the DC Sections' managers, the Trustees received an annual update on the alignment of our managers with the UK Stewardship Code in November 2022, and note that our managers have all complied with the 2020 Code.

For the DB Section managers, all have been rated as at least 'standard' with the majority of mandates (and a much higher percentage of total assets invested) being invested in mandates considered to have strong ESG approaches. In the 2022 annual review, all managers were signatories to the UN Principles for Responsible Investment and all but one of the equity managers were signatories to the UK Stewardship code. This manager has since been removed from the portfolio for broader performance reasons.

The JIC began a detailed review of their equity mandates in 2022 and a significant aspect of this was assessing the effectiveness of ESG integration. The JIC has agreed that a key consideration for any new allocation to physical equity mandates should be the strength of ESG integration.

# How climate related risks are monitored and managed

In addition, the Trustees have identified and included the following risks in our risk registers and put in place mitigating controls. These will be reported as part of the Trustees' quarterly risk management review process and any new or emerging risks will also be highlighted.

Risk Description	Control
Failure to adequately monitor climate related risks to which the scheme assets are exposed could lead to risks being taken outside of appetite.	1. Annual review of the risk metrics (including portfolio weighted average carbon intensity), periodic scenario analysis and peer analysis.
Failure to report the outcome of the TCFD review, and to incorporate ESG and Stewardship within the investment policy could lead to enforcement from the Pensions Regulator.	<ol> <li>The Trustees annually review and approve the Climate Change report prior to it being included in the Plan's annual statement.</li> <li>The Trustees review the associated governance documentation at least annually or more frequently following a significant change in investment strategy. This includes the SIP and the Climate-Related Risk Governance Policy. The SIP includes disclosure on ESG and Stewardship. The annual Implementation Statement assesses how the SIP policies have been followed.</li> </ol>

The nature of climate change means that the probabilities of particular risks materialising cannot be estimated with confidence. The materiality of climate risks is, as a result, assessed based not only on likelihood of occurrence and potential impact, but also on other measures such as vulnerability and speed of onset.

- Vulnerability refers to the susceptibility of Plans to a risk event, in terms of their preparedness, agility, and adaptability.
- Speed of onset is the time that elapses between the occurrence of an event and the point at which the Plans feel its effect.

At the present time, the climate-related risks that are believed to be most material to the Plans are those associated with (a) the impact of regulatory action on the value of investments and (b) the disruptive impact and extreme uncertainty that would result in the event of failure to meet the goals of the Paris Agreement.

Climate change has not materially affected the approach to agreeing the best overall balance of risk and return for the Plans. However, we do actively consider within our framework how best to optimise for climate risks and opportunities over the longer term.

We also refer to the earlier sections on Governance and Strategy which provide a detailed overview of both the policy for managing climate-related risk and an explanation of the specific risks being considered over different time horizons.

## Integration into the overall risk framework

Because the primary motivation for the consideration of climate-related risks is their potential financial implications, the management of these risks is integrated as far as possible into the overall risk framework of the Plans.

#### **Covenant risk**

In addition to the implications of general economic conditions on the Plans, consideration has been given to the resilience of the sponsoring employer's covenant.

The strength of the sponsoring employer's covenant is an important factor in determining the resilience of the funding strategy for the DB Sections given the Plans depend on the sponsor for support in the event of adverse experience<sup>5</sup>.

Climate change and the global response to it will influence short, medium, and long-term covenant resilience and therefore affect the ability to pay the DB member benefits in full. We therefore believe it is important for us to understand the specific risk exposures and opportunities faced by the Sponsor. To help with this we have reviewed the Sponsor's own TCFD-compliant reporting and stated environmental goals as well as consulted with our independent Covenant Adviser.

In line with guidance from the Department of Work and Pensions, the Trustees have not undertaken detailed scenario analysis since it was undertaken to support the Trustees' conclusions last year. However, the Trustees have reviewed the public information released by GSK in its latest annual report.

The Trustees note that, in the 2022 annual report, GSK has updated their analysis on the impact of different climate scenarios on financial performance. The annual report now includes four risks and two opportunities related to climate change (previously five risks and one opportunity) with these scenarios forecasting differing levels of impact on profitability.

The most material risk remains regulations (most notably in the UK, EU and US) governing the use of high global warming potential substances, which could lead to increasing cost and restrictions on the ability to manufacture Metered Dose Inhaler products that use a high global warming potential propellant (HFA134a). The potential profit impact is assessed as being High or over £250m (previously Medium or £100m to £300m), over a 3-10 year time horizon. We note that GSK are investing in a Research &

 $<sup>5 \ \</sup> For the \ DC \ Sections, the sponsoring \ employer's \ covenant \ does \ not \ represent \ a \ material \ source \ of \ risk$ 

Development programme to find a lower-impact propellant that could reduce emissions from them by up to 90%, if the clinical trials are successful.

Other risks include increasing levels of water stress with up to a Medium (or £100m to £250m) potential profit impact, increasing frequency of extreme weather events with up to a Low (or <£100m) potential profit impact and future regulatory policy responses to address climate change leading to the imposition of carbon taxes with up to a Medium (or £100m to £250m) potential profit impact. GSK also noted a potential opportunity from climate change and the increasing demand for low carbon medicines and vaccines with a Low (or <£100m) potential profit impact<sup>6</sup>. These impacts compare to total Group turnover in 2022 of £29.3bn and adjusted operating profit of £8.2bn<sup>7</sup>.

To mitigate the risk of environmental sustainability, by 2030 the company aims to reduce carbon emissions by 80% with the remainder offset through investment in high-quality nature-based solutions, and by 2045, aims to be at the Science Based Target Initiative Net Zero Standard, with carbon emissions reduced by at least 90% and the remainder tackled through high-quality offsets. In this context, we also note that the Science Based Targets Initiative have accredited that GSK's carbon targets align to a 1.5°C pathway. GSK has also maintained top-quartile positions in the MSCI, ISS Corporate Rating and Sustainalytics ESG ratings based on GSK's "ESG Performance Report 2022". These ratings are external assessments of the resilience of companies against ESG risks.

Overall, the Trustees recognise that whilst climate change does present additional risks, the nature of GSK's business and the locations of its physical assets do not present any particularly unique or acute risks beyond those faced by broader society. We acknowledge, however, that the longer the Plans are dependent on the Sponsor, the greater the level of uncertainty.

However, as the DB Sections gradually de-risk, we expect to have lower reliance on the Sponsor such that the likelihood of requiring further assistance from the employer covenant will fall over time. This will continue to be monitored annually.

Each of the DB Sections of the GSKPS, GSKPF and SBPP have similar time horizons and investment strategies and therefore similar perspectives on the covenant.

As noted in the strategy section, whilst the analysis undertaken in relation to the covenant has not been updated for GSK's 2022 climate-related financial disclosures, the impact on the strength of the covenant is likely to remain relatively limited. As such, Penfida would expect the covenant provided by GSK to the Plans to be Strong under all climate change scenarios based on the information currently available.

<sup>6</sup> Profit opportunity related to water and vector borne diseases not quantified in GSK's 2022 annual report

<sup>7</sup> GSK provides earnings guidance to the investor community on the basis of Adjusted results. This is in line with peer companies and expectations of the investor community, supporting easier comparison of the Group's performance with its peers. The key adjustments are outlined on pages 69 and 70 of the 2022 annual report.

# **Metrics and targets**

## **Metrics**

The primary metrics that are used by the Plans to measure climate-related impact are:

- **Total GHG emissions.** This is the total emissions of seven major GHGs associated with the investments held (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride).
- **Carbon footprint.** This is the total emissions per million pounds invested.
- **Weighted average carbon intensity ("WACI").** This is the total emissions per million pounds of sales (total emissions per GDP for sovereign bonds where included).
- **Portfolio alignment**. For the DB sections this is the percentage of the portfolio with corporate targets aligned with less than 2 degrees of heating (newly measured this year by the % of companies signed up to the Science Based Targets Initiative, "SBTi") and for the DB and DC sections we also track the implied temperature rise associated with the portfolio.
- **Data quality**: For the DC sections this is the proportion of the portfolio for which emissions are reported directly by the companies we hold. In addition, we monitor overall data coverage levels for the DB and DC Sections.

# **Outline of methodologies**

**Total GHG emissions** has been calculated as carbon dioxide equivalent emissions (Metric tons) \* value of investment/company enterprise value, and measures the Plans' exposure to total GHG emissions.

CO2e, or carbon dioxide equivalent, measures emissions of carbon dioxide plus the emissions of six other GHGs expressed as an equivalent amount of  $CO_2$  based on their relative global warming potential.

The GHG Protocol Corporate Standard<sup>8</sup> classifies a company's GHG emissions into three 'scopes':

- **Scope 1:** Direct emissions from owned or controlled sources.
- **Scope 2:** Indirect emissions from generating purchased energy.

**Scope 3:** All indirect emissions not included in Scope 2 in the value chain of the reporting company, including upstream and downstream emissions.

We recognise that there remain gaps in data availability, in particular, regarding Scope 3 emissions.

**Carbon footprint** is calculated as Carbon emissions (Metric tons) / \$ Million investment \* portfolio weights, and measures the Plans' investments in emission-intensive companies.

**Weighted average carbon intensity** is a weighted average of the emissions carbon intensity of companies, defined as a company's total emissions divided by its total sales (total emissions divided by GDP for sovereign bonds where included). This metric can

 $<sup>{}^8\,\</sup>underline{https://ghgprotocol.org/sites/default/files/standards\,\,supporting/FAQ.pdf}$ 

be interpreted as a measure of the relative carbon efficiency of a fund and is not affected by movements in companies' valuation. However, it is sensitive to movements in price.

**Portfolio alignment – binary target measure** (DB Sections) is expressed as the percentage of our portfolio by AUM aligned to the Paris Climate Agreement. We use the Science-Based Targets Initiative ("SBTi") framework to measure this, which assesses the ambition of a company's Scope 1 and 2 targets.

**Portfolio alignment – Implied temperature rise** is expressed as °C and is calculated as a weighted average of the underlying companies' implied temperature rise. This metric uses MSCI methodology and is a forward-looking measure that sets out a prediction of the implied temperature trajectory of a company over the rest of the century, given a company's emissions, commitments, and momentum. This includes Scope 1, 2 and 3 emissions. We note that MSCI have reviewed their methodology behind this measure during the year and therefore current results are not directly comparable with the figures in previous reports.

**Data Quality** (DC Sections) is calculated as the proportion of the portfolio for which emissions are reported by the companies we invest in (as opposed to estimated by a data provider, or not available). In addition, we monitor overall data coverage levels for the DB and DC Sections.

# **Target**

The Trustees have set the following target for each of the Plans:

"The Trustee commits to the aims of the Paris Agreement, expecting to reduce carbon emissions associated with its portfolio by at least 50% (from 2019 levels) by 2030 and fully (i.e. to net zero) by 2050, which is currently understood to be consistent with limiting global warming to 1.5 degrees above pre-industrial levels."

Despite having different time horizons for the DB and DC Sections, the Trustees recognise the need to take sufficient action within the next decade regardless to manage climate risks and support a longer term transition to net zero. The Trustees believe that this target should align with the ability of the Plans to generate returns and to manage risk, as well as demonstrating a positive commitment to tackling climate change.

The aim for reduction in carbon emissions is expected to be achieved both through changes to the portfolio and through changes in practice (i.e. as the economy in general moves to a lower carbon footprint, in part as a result of investor stewardship activity), with the latter regarded as having the greater impact. It is also recognised that achieving this target will only be possible if market practices continue to evolve significantly, and the target will need to be kept under review to ensure that it remains appropriate.

The Trustees will use a series of metrics to track the progress against the target, but primarily the 'Carbon Footprint' detailed below as this accounts for the changing size of our investments over time. We note that at present this target considers only Scope 1+2 data given the availability of data in the base line year.

## **Progress against target**

We set out overleaf the progress against the target.

**Target:** Carbon footprint – To reduce carbon emissions intensity by at least 50% (from 2019 levels) by 2030

Carbon Footprint - Progress against target (tons CO2e / \$M invested)	2019 Baseline	2021 Scheme year	2022 Scheme year	Progress (2019-2022)
DB Sections*				
DB Section (combined equity, corporate bond and property portfolios)	ty, corporate bond oroperty 68.3 40.1 40.1		40.1	-41.3%
DC Sections**				
Listed equity portfolio (combined)	71.3	71.3 40.5 42.1		-41.0%
Listed equity and corporate bonds portfolio (combined)	76.7	42.2	41.9	-45.4%

<sup>\*</sup>For the DB Sections, since the publication of the 2021 report Cardano have updated the methodology they use to calculate Total GHG emissions and Carbon Footprint. The 2021 Scheme reporting year metrics have been restated to allow a consistent comparison with the 2022 metrics.

## Steps we are taking to achieve our target

The Trustees are committed to working with our Advisers to:

- Source information, metrics and analytics on the likelihood of achieving net zero greenhouse emissions by 2050, to enable climate change-related risks and opportunities to be understood and reflected in investment decisions.
- Engage across the investment system including data and service providers to ensure that products and services available to the Trustees are consistent with the aim of achieving global net zero emissions by 2050 or sooner.

Ensure any relevant direct and indirect policy engagement is undertaken in support of achieving global net zero greenhouse gas emissions by 2050 or sooner.

Some examples from the 2022 Scheme year are evolving our DB credit mandate benchmarks to more explicitly align with Paris Agreement targets and beginning a review of the effectiveness of ESG integration within our equity mandates.

<sup>\*\*</sup>Analysis of the DC Section considers the listed equity portfolio and the listed equity and corporate bonds portfolio across all underlying funds within the three strategies required under the Climate Change Regulations (i.e. the three popular arrangements), namely the default strategy (comprising of the GSK Lifecycle Fund, the GSK Retirement Income Fund and the GSK Cash Fund) and the GSK Global Equity Index Fund.

## **Portfolio Metrics**

As noted earlier, because the Plans currently follow similar investment strategies we have opted to consider statistics at the combined Plan level. For the DC Sections, this information is shown for the individual underlying arrangements as well.

		DB Sec	DB Sections (combined)  DC Sections – listed equity portion of default investment strategy			DC Sections – total listed assets (equities and corporate bonds) of default investment strategy				
		Baseline	Schei	me year	Baseline	Schem	ie year	Baseline	Schem	ie year
Metric	Scope	2019	2021	2022	2019	2021	2022	2019	2021	2022
	1+2	279,777	206,853	317,111	184,658	117,426	94.810	218,778	161,513	113,548
Total GHG emissions	3 upstream	-	-	671,697	-	-	229,983	-	-	260,893
(tons CO2e)	3 downstream	-	-	1,544,277	-	-	602,226	-	-	684,649
Carbon	1+2	68.3	40.1	40.1	71.3	40.5	42.1	76.7	42.2	41.9
Footprint (tons CO2e /	3 upstream	-	-	85.0	-	-	85.4	-	-	83.7
\$M invested)	3 downstream	-	-	195.3	-	-	219.3	-	-	208.7
Weighted Average	1+2	-	153.5	146.7	176.2	115.0	124.8	179.6	127.2	131.3
Carbon Intensity	3 upstream	-	-	246.1	-	-	230.0	-	-	226.8
(tons CO2e / \$M revenue)	3 downstream	-	-	449.6	-	-	428.3	-	-	421.8
Portfolio Alignment to SBTi (%)	1 + 2	-	-	17.4%	n/a	n/a	n/a	n/a	n/a	n/a
Implied Temperature Rise (°C)	1+2+3	-	3.7*	3.1	-	**	2.2	-	**	2.2
	1 + 2	n/a	n/a	n/a	-	-	83.3	-	-	80.1
Data Quality (%)	3 upstream	n/a	n/a	n/a	-	-	71.9	-	-	62.5
(/0)	3 downstream	n/a	n/a	n/a	-	-	69.2	-	-	60.3

Data is provided as follows:

- 2019 ('Baseline') 31 December 2019, was largely collated retrospectively with some estimates made to reflect managers no longer used.
- 2021 Scheme year DB portfolio data is sourced as at 31 December 2020, and DC data is as at 30 June 2021, based on asset allocation at 30 September 2021.

• 2022 Scheme year – DB portfolio data is as at 31 December 2021, and DC data is as at 30 June 2022. Analysis performed on available holdings using underlying MSCI data available in December 2022 (for DB) and November 2022 (for DC).

For the DB Sections we include the contribution from our equity, credit and property mandates (where possible) where data coverage and quality is highest. Property data is included in Total GHG emissions and Carbon footprint data. Since the publication of the 2021 report Cardano have updated the methodology they use to calculate Total GHG emissions and Carbon Footprint. The 2021 Scheme reporting year metrics have been restated to allow a consistent comparison with the 2022 metrics.

For the DC Sections, we consider the listed equity portfolio and the listed equity and corporate bonds portfolio across all underlying funds within the three strategies required under the Climate Change Regulations, namely the default strategy (comprising of the GSK Lifecycle Fund, the GSK Retirement Income Fund and the GSK Cash Fund) and the GSK Global Equity Index Fund. Data on the underlying funds can be found later in the report. We note that previous year figures have been revised.

\*Figure not included in 2021 report but has been able to be sourced to provide a comparative reference point.

\*\*We note that MSCI has updated their methodology behind the implied temperature rise measure during the year and therefore current results are not directly comparable with figures included in the previous report.

For the DC Sections, we set out below further metrics data for the strategies required under the Climate Change Regulations, namely the default strategy (comprising of the GSK Lifecycle Fund, the GSK Retirement Income Fund and the GSK Cash Fund) and the GSK Global Equity Index Fund.

DC Section 2022 Scheme Year		GSK	Lifecycle	e Fund	GSK Global Equity Index Fund			GSK Retirement Income Fund		
Metric	Scope	Listed equity	Listed assets	Sovereign assets	Listed equity	Listed assets	Sovereign assets	Listed equity	Listed assets	Sovereign assets
	1+2	65,912	81,486	10,517	16,082	16,082	-	-	2,979	5,568
Total GHG emissions	3 upstream	149,125	175,555	-	36,385	36,385	-	-	4,169	-
(tons CO2e) 3	~	408,199	476,141	-	99,596	99,596	-	-	13,681	-
Carbon	1+2	41.5	41,0	-	41,5	41,5	-	-	59.1	-
Footprint (tons CO2e /	3 upstream	83.9	82.1	-	83.9	83.9	-	-	78.5	-
\$M invested)	3 downstream	206.2	194.4	-	206.2	206.2	-	-	223.9	-
Weighted	1+2	126.2	131.3	276.0	126.2	126.2	-	-	258.5	282.0
Average Carbon Intensity	3 upstream	227.8	223.7	-	227.8	227.8	-	-	236.0	-
(tons CO2e / \$M revenue)	3 downstream	415.3	405.8	-	415.3	415.3	-	-	562.0	-
Implied Temperature Rise (°C)	1+2+3	2.2	2.2	-	2.2	2.2	-	-	2.4	-

DC Section 2022 Scheme Year		GSK	Lifecycle	e Fund	GSK Global Equity Index Fund		GSK Retirement Income Fund			
Metric	Scope	Listed equity	Listed assets	Sovereign assets	Listed equity		Sovereign assets	Listed equity		Sovereign assets
	1 + 2	83.1	80.1	-	83.1	83.1	-	-	31.5	-
Data Quality (%)	3 upstream	71.5	69.2	-	71.5	71.5	-	-	25.2	-
(70)	3 downstream	62.2	60.2	-	62.2	62.2	-	-	21.9	-

Data is as at 30 June 2022. Listed assets refers to equities and corporate bonds. Please note that due to different methodologies used to calculate listed assets and sovereign bonds we have decided not to include a total that sums together both values. GSK Lifecycle Fund is comprised of 82% listed assets / 2% sovereigns. GSK Global Equity Index is comprised of 100% listed equity. GSK Retirement Come is comprised of 67% listed assets and 26% sovereigns.

Note: GSK Cash Fund – whilst this Fund forms part of the default strategy, cash has been assumed to have zero emissions given the high turnover of the underlying assets within this strategy.

This is the first year we include the specific Portfolio Alignment measure (Percentage of portfolio with a Science Based Target) for the DB Sections. This measurement was not available when we produced our initial report, but now replaces the earlier measure of holdings aligned with less than 2 degree heating because we find it more helpful to measure where companies are actively verifying and consistently measuring their progress towards targets. In addition, we have included implied temperature rise figures for both the DB and DC sections this year and have been able to source the historic figures for the DB section to give an indication of progress across the years. Note that for the DC Section, the implied temperature rise methodology has changed since last year's analysis and therefore previous results are not directly comparable. Data quality is a new metric for the DC Section included for the first time this year. In addition, Scope 3 emission metrics have been sourced for all Sections. We will continue to produce these metrics in the future and monitor progress over time.

This is the second year that the Scope 1+2 total carbon emissions, carbon footprint and WACI metrics have been generated for all Sections. For the DC Sections, there were no changes to the investment strategy but we note that the majority of funds experienced a reduction in absolute emissions but a rise in carbon footprint and WACI. In the case of the DB Sections the main difference between the 2021 and 2022 metrics is caused by a change in investment strategy which increased the overall exposure to equity and credit investments at the expense of multi-asset managers. Due to the nature of their strategies, these were not captured within the previous year's emissions metrics. This increase in portfolio coverage links directly to the increase in the absolute level of emissions observed. The carbon footprint and WACI figures naturally adjust for this and are therefore more helpful in assessing trends in underlying portfolio components. These were flat and slightly falling respectively, consistent with expectations given modest changes to underlying portfolios across the year, which are expected to result in gradual reductions over time.

We also recognise the significant impact of the COVID-19 pandemic on these numbers. We understand a significant proportion of the reduction in emissions metrics from 2019 to 2022 reflects society's action to control the pandemic through 2020 and 2021. As such, we make cautious comparisons between annual data.

For this reason, along with the swift evolution of data measurement and capture, we are cautious about inferring the amount of permanent progress we have made towards our stated targets and this will be monitored carefully in the coming years.

# **Data availability**

Coverage levels will be monitored and we expect them to increase over time.

Where data has been provided so far, the table shows the percentage of the holdings covered by MSCI's ESG Research.

Low data coverage is not necessarily a concern in situations where only a portion of the mandate is relevant in this context, or where industry reporting on climate impacts is lower across the board in certain asset classes. This is broadly as expected:

- The majority of equity issuing companies are already being covered.
- Diversified Growth Fund mandates with some derivative exposure are partially covered.
- Credit issuing company analysis is still developing

We will continue to work with our Advisers and Managers to increase coverage and refine the quality and consistency of data in future years, with our newer metrics particularly selected to help us track improvements in quality over time.

## DC Data

Manager	DC Sections Percentage of fund (by value) covered by ESG Research				
Equity Mandates	2021 Scheme year	2022 Scheme year			
LGIM World Dev	93.9%	95.9%			
LGIM World Dev Hedged	94.3%	95.7%			
LGIM World EM	95.1%	94.9%			
LGIM Small Cap	91.0%	96.5%			
LGIM UK Equity	89.5%	88.0%			
LGIM Future World Dev	97.5%	99.4%			
LGIM Future World Dev Hedged	99.2%	99.4%			
LGIM Future World EM	95.9%	94.9%			
LGIM Future World UK Equity	95.2%	89.7%			
Multi asset Mandates					

LGIM Diversified Return	39.0%	59.5%
LGIM Retirement Income Multi-Asset	32.6%	36.3%
Nordea Diversified Return	79.6%	91.4%

We requested unaudited holdings data from each manager as at 30 June 2022. This holdings data was then analysed by Mercer using MSCI's proprietary tools as at November 2022.

The data for the DC Section is set out for all "popular arrangements" for the Plans, as required by statutory guidance. The statutory guidance defines a popular arrangement as one in which £100m or more of the assets are invested, or which accounts for 10% or more of the assets used to provide money purchase benefits. The popular arrangements are the default strategy (comprising of the GSK Lifecycle Fund, the GSK Retirement Income Fund and the GSK Cash Fund) and the GSK Global Equity Index Fund.

Following the publication of last year's report, Mercer reviewed its best practice approach to providing metrics and publication of these in TCFD reports. As a result, the following changes were made:

- HSBC Shariah Fund: removed from emissions analysis as it is not required under the Climate Change Regulations, due to it not being a "popular arrangement" as defined by the Regulations. A popular arrangement is one in which £100m or more of the Scheme's assets are invested, or which accounts for 10% or more of the assets used to provide money purchase benefits.
- Man Group Alternative Risk Premia Fund and Fulcrum Diversified Absolute Return Fund: have been removed from emissions analysis due to low coverage of available data for their funds.

To provide a clearer comparison of the listed portfolio and listed equity emissions analysis, we have updated the metrics from last year to exclude these funds.

#### DB Data

Manager	DB Sections Percentage of fund (by value) covered by MSCI's ESG Research			
	2021 Scheme year	2022 Scheme year		
Equity Mandates	96.5%	99.0%		
Credit Mandates	53.3%	53.8%		
Property Mandates	51.1%	74.5%		

Total portfolio coverage	26.2%	37.3%
Total portfolio coverage (excluding Liability Driven Investment funds)	47.2%	60.8%

We requested unaudited holdings data from the equity and credit managers as at 31 December 2021. This holdings data was then analysed by Cardano using MSCI's proprietary tools as at December 2022. In addition, unaudited portfolio level statistics were sourced from the property managers as at 31 December 2021.

The total portfolio coverage (excluding Liability Driven Investment funds), gives an indication of how much of the portfolio not invested in government bond linked assets are included in our figures. We recognise that exposure to UK government bonds is an important part of the DB Sections' strategies, but measuring and managing that risk is different to how we think about investments in companies. We therefore consider our government bond holdings separately in the following section.

## Government bond emissions for the DB sections

As with many other UK defined benefit pension schemes which undertake hedging of the interest rate and inflation components of their liability risks, the DB Sections invest a significant portion of their assets in UK Government Bonds and related derivative instruments. Due to the relative size of the DB Sections' assets that UK Government Bonds represent, the Trustees recognise that it is important to monitor and report on these holdings in this report. However, there are key ways in which the Trustees believe monitoring and reporting on government bonds should differ to monitoring and reporting on equity, credit and other assets.

Firstly, the Trustees believe that we would not be fulfilling our fiduciary responsibility without undertaking some form of interest rate and inflation hedging of the Plans' liability risks. This necessitates investments in UK government bonds to some degree and as a result we do not have the option to disinvest in the same way we would for an equity or credit asset which had undesirable sustainability characteristics.

The Trustee views that owning equity or credit assets gives an investor greater leverage over the behaviour of a company, compared to owning a government bond, which has less leverage over the behaviour of a government.

Whilst the Trustees recognise the importance of understanding the climate risks and opportunities of investing in government bonds and the stewardship role we have, we view the possibility of more immediate impact coming from focusing on the emissions related to an equity or credit asset we own. As a result, while the Trustees will report and monitor the emissions related to their government bond exposure, at this stage we believe it is less insightful than the monitoring and reporting of the emissions of growth assets.

Reporting emissions of government bonds poses numerous issues which the broader finance industry still grapples with. The first of these is that aggregating emissions of countries for government bonds with the emissions of companies as represented by equity and credit holdings, will lead to double counting of emissions. Therefore, the

Trustees have decided to report on the government bond exposure separately from the other assets. A further issue is the inherent biases within the most commonly used metrics. There are typically three ways to measure the GHG emissions of a country.

- **Per 'issued debt'**: the percentage we own of a country's debt multiplied by its emissions. This favours countries with large debts.
- **Per GDP:** a weighted average of the GHG emissions per unit of GDP. This favours countries with large GDPs.
- **Per capita**: a weighted average of the GHG emissions per person. While this does not consider historical emissions, we consider this the fairest way to measure sovereign GHG emissions because a ton of GHG emissions has the same contribution to climate change, regardless of where it is emitted, or by whom. As such, this is the measure we will monitor going forwards.

	Tons GHG per	Percentage of total portfolio
	capita	invested in UK government bonds
UK Government Bonds	6	34%

# Appendix – Scenario analysis conducted for 2021 annual report

# Scenario analysis: purpose

The Department for Work and Pensions notes that:

"The purpose of scenario analysis is to better understand the risks and opportunities posed by climate change to the Plan and to inform trustees' strategy and investment decisions accordingly. Scenarios are not forecasts or predictions but rather are intended to highlight central elements of possible futures and to draw attention to the key factors that will drive future developments.

It can enhance trustees' understanding of what is plausible and what needs to be taken seriously, informing strategy and investment decisions and strengthening the risk management process."

In this context, the Trustees have considered the results of scenario analysis carried out separately for the DB and DC Sections by the Investment Advisers. The scenarios selected are plausible and therefore it is important for the Trustees to understand the impact of these scenarios on the Plans.

# Scenario analysis: outline of chosen scenarios

The primary scenarios considered for the Plans are as follows:

- (a) <2°C heating:
  - This scenario assumes that a delayed and sudden response creates significant disruption, but is successful in limiting global heating to less than 2 degrees Celsius.
  - This implies negative impacts on asset performance from the economic transition.
- (b) 3°C heating:
  - This scenario assumes that emissions continue to increase and that climate goals are not met.
  - This implies massive physical effects. As well as the potentially catastrophic social and economic impacts of physical risk, in the long term this scenario will be the worst for investment returns.

In addition, the DB Sections have considered a  $1.5^{\circ}$ C heating scenario, which assumes that measures are taken that will keep the rise in temperature limited to  $1.5^{\circ}$ C, in line with the ambition of the Paris Agreement. In this scenario, policy responses begin sooner and are more evenly paced, but still imply negative impacts from the economic transition (broadly similar to <2°C currently). Ultimately, physical risks will be lowest under this scenario.

Please see the following link for further description of the scenarios outlined above: <a href="https://www.ngfs.net/ngfs-scenarios-portal/">https://www.ngfs.net/ngfs-scenarios-portal/</a>

# Scenario analysis: key assumptions and limitations

The DB and DC Sections have carried out separate scenario analysis exercises, supported by the respective Investment Advisers in each case. As such, the finer details for both are different. For example, the DC Section scenarios have considered changes over a 10 year period and the DB Section scenarios consider changes over 15 years, and the sources for the data differ between Advisers.

However, at a high level the scenarios consider broadly similar risks and opportunities and both approaches are predicated on the assumption that the impacts of the climate crisis have not been fully priced in by markets.

The following table summarises the assumed impacts under each scenario.

	<2°C heating	3°C heating
Risk factors:	Transition risks high, particularly in the short term. Physical risks are anticipated to become increasingly evident within the next 5-10 years.	Transition risks are not evident until the longer term, but are expected to be more material than under the 2°C scenario. Physical risks are greater in magnitude and will be experienced sooner – investments start to see a larger impact towards the end of the decade.
Narrative:	Global action starts today, driven by policy and regulation as well as consumer sentiment. Emissions peak in the 2020s and coal is phased out globally by midcentury.  By the middle of the century, the average global sea level is expected to rise and longer droughts will be experienced in regions across the globe.	Global carbon emissions are flat by 2050, but still high in absolute terms. Coal is still a significant part of the energy mix. Towards the middle of the century, irreversible physical damages will be experienced including a reduction in available water.
Market impact:	Over the next 10-15 years, the cost of transition will play through at the sector level with heavy carbon-based industries, such as the energy sector and utilities, being most negatively impacted. The renewable energy sector is expected to perform strongly under this scenario, along with materials, telecoms and IT.	In the next 10-15 years, carbon-related regulatory and policy changes are less than under a 2°C scenario. Whilst the energy and utility sectors are expected to perform poorly under this scenario, the impact is less relative to the 2°C scenario. Most sectors will experience a marginal drag on performance due to the impact of physical

		damages and some fragmented policy changes.
Impact on UK interest rates and inflation:	A 2°C scenario is expected to have a high inflationary impact and interest rates remain low to stimulate spending to support a low carbon transition with immediate effect.	A 3°C heating scenario assumes delayed climate action and 'business as usual' for 10-15 years, at which time it's assumed there is UK wide activity to help support a low carbon transition. This will also be inflationary.
Asset class impacts:	At the asset class level, equities, infrastructure and commodities are most sensitive to climate related risks over the short, medium and long term.  Sustainable allocations to global equity capture the opportunities presented by the transition to a low-carbon economy and avoid exposure to carbon-intensive sectors and/or companies – this is especially true over the short term but also applies over the medium and long term.	At the asset class level, equities, infrastructure and commodities are most sensitive to climate related risks. The pattern of expected climate impacts to expected return is similar to that under the 2°C scenario except the impacts are much more muted and closer to a 'business as usual' scenario in the short term. This is expected as increased climate action is assumed to take place after 10-15 years.

# Scenario analysis: DC section

Climate change scenario analysis has been undertaken on the strategic asset allocation of the portfolio to assess the potential implications under two different scenarios. The climate change scenario analysis is based on the strategic asset allocation of each fund as at 30 September 2021 and uses asset class assumptions rather than being based on fund holding data as is the case with the reported metrics.

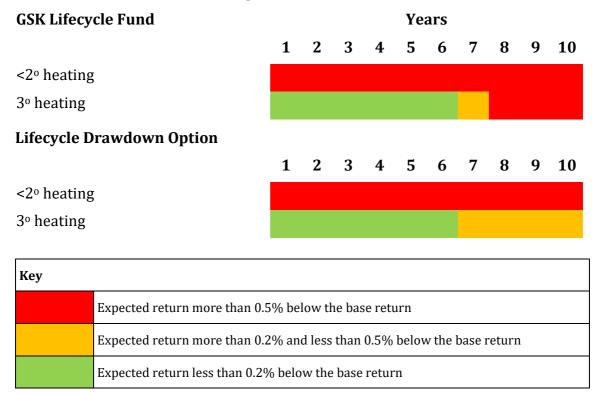
Climate scenario modelling is a complex process and the Trustees are aware of the modelling limitations. In particular:

- 1. The further into the future you go, the less reliable any quantitative modelling will be.
- 2. Looking at average asset class returns over multi-decade timeframes leads to invariably small impacts. The results are potentially significantly underestimated.
- 3. There is a reasonable likelihood that physical impacts are grossly underestimated.
- 4. Financial stability and insurance 'breakdown' is not modelled.
- 5. Most adaptation costs and social factors are not priced into the models.

Note that climate-related scenario analysis is an ever evolving space and as such the scenarios modelled may be subject to review in future periods.

# Scenario analysis: key conclusions for the DC sections

The scenario analysis completed by Mercer produces outputs that compare the expected return of the portfolio under different scenarios. In the analysis, we use the allocation of the Funds as at 30 September 2021. The relative returns are as follows:



## Notes:

- Disorderly transition (corresponding to <2° scenario). Failed transition (corresponding to 3° scenario).
- Investment Manager Fund data is based on underlying asset allocation as at 30 June 2021; Strategic allocation is based on asset allocation as at 30 September 2021. Pre-retirement strategies de-risk as at 30 June 2031 starting 10 years from retirement.
- This analysis shows that under all of the Transition scenarios the annual returns over a 10 year time horizon are expected to be lower than the base scenario.
- Disorderly Transition is expected to have a more material impact over the next 10 years but as physical risks become more pronounced due to inaction, longer term Failed Transition is expected to have a material (negative) impact for those not de-risked.

Based on the portfolios' target asset allocation as at September 2021, the DC default strategy is expected to be materially impacted under  $2^{0}$ C scenario to 2030. This is due to the current allocation to global equities and diversified growth funds that are exposed to a disorderly transition. Under the  $3^{0}$ C scenario, the expected impact on returns is less negative relative to the  $2^{0}$ C scenario over the 10 year time horizon, but we expect a failed transition to be more severe over a longer term horizon (i.e. over 10 years) and thus have a greater impact.

# Scenario analysis: key conclusions for the DB sections

For the DB Sections, the scenario analysis has been used to produce a Climate Value at Risk (CVaR). This is the estimated financial value at risk to the corporate equity and credit exposures of heating scenarios at 1.5, 2 and 3 degrees.

Climate Value at Risk in Scenario	1.5 ℃ CVaR	2°C CVaR	3°C CVaR	
Equity	-14.3%	-15.3%	-12.3%	
Credit	-2.1%	-2.9%	-0.3%	
Total exposure	-10.2%	-11.0%	-8.4%	

#### Notes:

- CVaR can be understood as a shock to a security's value (in percentage terms) as a result of climate costs. This analysis is carried out for each underlying security held (where covered by MSCI) and then aggregated to provide an indicative impact at total portfolio level
- For example, the -14.3% figure for Equity under the 1.5  $^{o}$ C Scenario means that given anticipated policy changes, physical risks and the current plans of the companies we hold equity in; we expect climate change impact over the next 15 years to cost an equivalent of 14.3% of the current value of our equity portfolios
- Total exposure includes direct, long exposure to public equities and corporate bonds
- CVaR allows for the relative risks of debt and equity. For example, equity may be more vulnerable to a shock or loss than credit. It is not additive across different stand-alone components
- The analysis does not include an impact for Sovereign Bonds. Outcomes for Sovereign Bond exposure are highly dependent on assumptions around monetary policy, inflation, growth and government policy, with climate change contributing only a component to that. We do not believe that adding sovereign bonds will add any clarity to portfolio positioning

The current DB investment allocation is expected to be materially impacted under all scenarios and most notably under the 2°C scenario within the next 15 years. This is mainly due to the current allocation to global equities that are most exposed to a disorderly transition. We note that in the long run, the 3°C scenario is the most severe by far. However, within the 15 year period considered (the DB 'medium term'), the Plans expect to substantially reduce exposure to global equities, in favour of government and corporate bonds. This move is expected to improve the resilience of the investment strategy in general, but also specifically to climate related risks.

Scenario analysis: Considerations specific to the DB sections of GSKPS, GSKPF and SBPP

## **Plan liabilities**

Climate change may also impact the value of the plan liabilities, i.e. future benefit payments expected to be made from the DB Sections over time. This impact could be via any or all of:

- 1) Changes in interest rates,
- 2) Changes in inflation expectations,
- 3) Changes in life expectancy.

Whilst we acknowledge the possibility of 1) and 2), we have implemented a 'liability hedging' strategy, which helps to mitigate risk to our funding level from adverse movements in interest or inflation rates over time. The Plans are fully hedged as a percentage of assets against moves in interest rates and inflation. However, the Trustees recognise that liability hedging programmes do not offer a perfect match of the exposures of the Plans' liabilities and therefore there remains a small amount of risk attributable to interest rates and inflation.

We currently have some insurance contracts which offer some protection against changes in life expectancy, but these do not cover all of our members and Plans. This is something we expect to consider further in the coming years. We note that although each Plan has unique liabilities and Plan specific approaches to valuing them, the high level issues and impacts are expected to be similar. In particular, our actuaries do not expect material changes in life expectancy due to climate change to be apparent for at least 10-15 years. We also acknowledge there could be a wide range of potential life expectancy outcomes under each scenario, some leading to modest improvements in funding and others to worsening.

To provide an indication of the combined impact of asset and liability moves due to a climate-related shock on our funding strategies, we have obtained some high level estimates from our advisers, summarised below. These are considered to be on the pessimistic end, with shocks all happening together within 10 years' time.

Indicative impact of a medium term climate shock (GSKPS, GSKPF and SBPP combined)	1.5 ℃	2 ℃	3 ℃
Technical Provisions funding ratio change	-8%	-4%	-2%

Notes: Indicative analysis only. Assumes asset and liability shocks are all applied to fully funded Plans, progressing with existing derisking plans as at 31 December 2030.

These figures highlight the points made above and in particular, that if life expectancy improvements are recognised at an earlier stage than currently anticipated (and society achieves the goal of containing heating to 1.5 degrees), the Defined Benefit sections of the Plans will be more likely to require further contributions from the Plans' Sponsor, GSK. Please see our comments on covenant risk in the following section.

# Appendix – Scenario analysis conducted for 2021 annual report

#### **MSCI**

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