



# Climate-related Financial Disclosure

**Aviva plc**  
Reporting Suite 2023



# It all starts with our customers

Make the most out of life, plan for the future. Have the confidence that if things go wrong, we'll be there to help put them right.

It takes Aviva.

## Our reporting suite

This report forms part of our reporting suite.

Find out more on [www.aviva.com](http://www.aviva.com)



**Reporting Criteria 2023**  
Sets out the principles and definitions used to report the Group's key sustainability performance indicators and selected data points.



**Sustainability Datasheet 2023**  
All sustainability metrics are included in our datasheet.



**Annual Report and Accounts 2023**  
Our report on our Group's strategy, governance and performance in 2023. Including our financial statements.

## Our reporting approach

The content of this report is focused on the requirements of our stakeholders, relevant regulations, and sustainability rating and benchmarking providers. It focuses on the concepts and key performance indicators (KPIs) that reflect our most material climate issues and has been prepared in accordance with the Taskforce on Climate-related Financial Disclosures (TCFD). This report includes the disclosures required by the Financial Conduct Authority's (FCA) Policy Statement (PS) 21/24 for Aviva Group life insurance and asset management companies, in the United Kingdom.

We believe clearly stated ambitions and performance information are essential for enhancing the quality, reliability and comparability of climate reporting. We are committed to reporting data to improve our climate disclosures for internal decision-making and disclosing meaningful data for our external stakeholders. As an investor, we also rely on this type of information from others to inform our investment and underwriting strategies and support our disclosures. As part of this commitment, the Metrics and targets section of this report covers material frameworks and methodologies which we consider important in terms of communicating our approach to calculate emissions.

Climate metrics include current estimates of emissions and forward looking metrics such as ambitions, targets, climate scenarios and climate projections and forecasts. See the Cautionary statements section for the challenges and limitations related to measurement of emissions to determine the impact of climate change on Aviva.

## How to navigate this report

Throughout the Strategy section of this report, we use a colour coding system to highlight our strategic focus areas:

Influencing

Decarbonising our investment portfolio

Insuring the transition

Decarbonising our operations and supply chain

Remember to use your browser's bookmarks and tools to navigate

To search this document: PC use Ctrl+F; MAC use Command +F



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A glossary explaining key terms used in this report is available on: [www.aviva.com/climate-goals-glossary](http://www.aviva.com/climate-goals-glossary)

## Foreword

This report brings together our disclosure in accordance with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD). We have set out how we have complied in the TCFD compliance summary.

This report includes, within the Appendix, the entity-level reporting for the entities under the FCA's PS 21/24 Enhancing climate-related disclosures by asset managers, life insurers and FCA-regulated pension providers (PS 21/24). These entities include Aviva Life & Pensions UK Limited, Aviva Pension Trustees UK Limited, Aviva Administration Limited, Aviva Investors Global Services Limited and Aviva Investors UK Fund Services Limited.

This report should be read in conjunction with the Cautionary statements.

The Climate-related Financial Disclosure 2023 was approved by the Board on 6 March 2024.

## Assurance approach

Aviva plc appointed PricewaterhouseCoopers LLP ("PwC") to provide independent assurance over certain climate metrics, indicated with <sup>AR</sup> for reasonable assurance and <sup>AL</sup> for limited assurance in this report.

This indicates that the data was subject to external independent limited/reasonable assurance by PwC.

For the results of that assurance, see the assurance report on page 73 and Aviva plc 2023 Reporting Criteria Independent Assurance section.

## As a reminder

Unless otherwise stated, we use £ sterling and figures relate to Aviva plc Group. Figures and tables have been separately numbered within each section: Overview, Strategy, Risk management, Metrics and targets and the Appendix.

## The Company's registered office:

80 Fenchurch Street  
London, EC3M 4AE

# Chief Financial Officer's statement



Our business is in the front line of dealing with many of the impacts of climate change.

We are also well positioned to contribute to the solutions the planet needs to transition to a low-carbon future.

**Charlotte Jones**  
Group Chief Financial Officer

## Sustainability is, therefore, an integral part of our strategy at Aviva.

We've long recognised the importance of being clear-sighted and transparent about what the impacts and dependencies will be, disclosing against the requirements of the TCFD since 2016.

We have made good progress this year, using our influence to advocate for change, decarbonising Aviva's operations, supply chain and investments, and on insuring the transition to a low carbon future, but we recognise that there is more work still to be done.

Disclosures such as this are a vital step, but in and of themselves they are not sufficient to create the changes required for a Net Zero future.

The data gives us all a shared understanding of the nature of the challenge. The next steps depend on clear, consistent plans responding to that understanding, plans that can guide an actual transformation in the way things operate.

When Aviva first set out our own ambition to become a Net Zero company by 2040, we were clear that we did not underestimate the scale of the challenge: many pieces of the puzzle were missing, data and methodologies needed were incomplete, new technologies would be required and governments and global institutions needed to create the conditions for success. This remains the case today.

And yet that is not a reason for delay and there has been much progress over the last few years. Regulations, standards and guidance are being developed- such as the International Sustainability Standards Board (ISSB) standards and the work of the UK Transition Plan Taskforce, setting out a framework for disclosure and consistent, actionable plans.

There are very real challenges ahead, of course, but equally areas of opportunity to build on: funding is there for more investable projects, and there's more new green infrastructure to insure. Consumers are increasingly expecting sustainable choices and there's increased focus on the crucial role biodiversity must play in the transition.

Since the end of 2019 (our baseline year) we have invested £7.5 billion in sustainable assets, exceeding our target of £6 billion by 2025. From street lighting to charging networks for electric vehicles, ultra-low carbon homes and Net Zero carbon schools to windfarms, we are helping economies get ready for the future.

The reality is no one can achieve Net Zero on their own. Government action on policy and development of new technologies are of fundamental importance to create the conditions for success. Without good progress on these issues, achieving our climate ambitions becomes increasingly challenging. All parts of the system and all sectors must move together with common purpose to make a new economy possible.

### Read more:

[Our climate strategy page 3](#)

[TCFD compliance summary page 8](#)

[Our climate metrics page 38](#)

[Cautionary statements page 97](#)

# Our climate strategy summary

Our ambition is to be the leading UK provider and go-to customer brand for all insurance, wealth and retirement solutions, with major businesses in Canada and Ireland

We focus on climate action, building stronger communities and running ourselves as a sustainable business

We have an ambition to be Net Zero by 2040. Our current approach is:



### Reducing carbon emissions

Aviva is seeking to reduce the carbon emissions in its operations, across supply chain, and through investments and insurance underwriting propositions



### Protecting and restoring biodiversity

Seeking to protect and enhance biodiversity through nature-based solutions



### Understanding the impact of investments

Aviva provides materials to help people understand environmental issues and opportunities in respect of investments

How we are addressing the climate challenges in short term based on our current understanding:

### Reducing operational emissions

We are moving at pace to reduce Aviva's operational emissions that we directly control

[Read more about decarbonising our operations and supply chain on P25](#)

### Influencing supply chain

We are working with our suppliers to promote Science-Based Targets (SBTs) and our target is to achieve this with 70% of Aviva's supplier by spend by end of 2025

[Read more about decarbonising our operations and supply chain on P25](#)

### Providing financing for renewables

We focus on propositions to provide electricity generation project finance for renewable electricity

[Read more about decarbonising our investment portfolio on P21](#)

### Working with investee companies

We are aiming for 33% of our corporate equity, bonds and loan portfolio to have SBTs by end of 2025

[Read more about influencing on P16](#)

### Reducing the carbon intensity of investments

We are aiming for a 25% reduction in the intensity of real estate and equity and corporate bonds portfolio emissions for Scope 1 and Scope 2 by 2025 (31 December 2024) from a 2019 baseline

[Read more about decarbonising our investment portfolio on P21](#)



# The external environment

## There are positive and negative factors impacting the journey to Net Zero.

**+1.48°C**

warmer, 2023's global temperature was than pre-industrial average<sup>1</sup>

### More extreme weather events<sup>1</sup>

The impacts of climate change are driving extreme weather events across the globe. The summer of 2023 was the Northern Hemisphere's hottest in recorded history. Canada experienced its worst ever wildfire season<sup>1</sup> doubling its previous record for carbon emissions from wildfires and torrential rains in Libya destroyed one quarter of the city of Derna.

The latest Emissions Gap Report published by the United Nations Environment Programme highlights that we are not on track to meet the target set out by the Paris Agreement. Urgent, rapid, and transformative action is required to cut greenhouse gas emissions across industries to prevent the frequency and severity of extreme weather events.

### Government policy uncertainty

There is uncertainty of government policy in the US and increasingly elsewhere, and this has been evidenced by the decision by some insurers in 2023 to exit the Net Zero Insurance Alliance.

### Geopolitical environment

The global geopolitical instability is impacting energy policies and causing supply chain disruption (e.g. auto parts) with potential second and third order impacts on national and corporate journeys towards Net Zero. Geopolitical tensions have raised the issues of energy security, which could increase investment in renewable sources.

### Stagnation in climate readiness of leading nations<sup>2</sup>

There has been slow progress towards Net Zero globally and without increased focus from governments on policies and technologies to reduce carbon emissions across the global economy our, and other corporate entities climate ambitions are increasingly challenging. The **Aviva Climate Ready Index** published in October 2023, shows the climate readiness of the G7 plus Ireland. It is based on eleven weighted factors across four pillars (emissions & migration, environment & adaption, economy & business and society & community), and showed patchy progress compared to 2022.

### Companies face increasing risk of accusation of greenwashing

Perceived lack of action towards ambitions is more likely to result in accusation of greenwashing.

**1 in 13**

new homes built in a flood zone<sup>3</sup>. Homes built post-2008 are not covered by the Flood reinsurance scheme, Flood Reinsurance Scheme.

### Consumer sentiment

Consumer sentiment has continued to strengthen in favour of sustainability causes, influencing brand loyalty and purchasing decisions. There are increases in those opting for low carbon emissions or shared modes of transport and 54% of Aviva's insurance customers factored sustainability into their purchasing decision<sup>4</sup>.

### 50% renewables share of global electricity by 2030, up from 30% today<sup>5</sup>

As the global economy develops, new risks are emerging, requiring new risk management solutions.

For example, as countries look to decarbonise over the coming decades, the transition towards renewable energy will create new risk needs such as coverage for offshore wind-farms and car insurance for electric vehicles.

### Sustainable fund investment remains resilient

Sustainable fund flows in 2023 remain positive but at a lower level than 2022<sup>6</sup>. European flows, which cover the largest market also account for the largest proportion of growth.

### Regulatory momentum is accelerating

There is a trend for increased availability of information related to sustainability reporting with an increasing number of markets subject to mandatory sustainability regulations.

1. Source: European Union's Copernicus Atmosphere Monitoring Service (2023), Reuters September 2023
2. Source: Aviva Climate Ready Index - Oct 2023
3. House building, UK: permanent dwellings started and completed by country - Office for National Statistics (ons.gov.uk)
4. Aviva analysis
5. Source: International Energy Agency World Energy Outlook (2023)
6. Source: Morningstar Global Sustainable Fund Flows: Q4 2023 in Review



# Playing our role in the transition

## Aviva is committed to playing its role in supporting the low-carbon transition of economic sectors in line with science and under consideration of associated social impacts.

We have made this commitment with a view to acting in the best interests of our customers and clients, the long-term continuity of our business model and with respect to the wider environment in which we operate.

We recognise that whilst we have control over the decarbonisation of Aviva's operations, when it comes to decarbonising the economy in which we operate and invest, Aviva is one part of a far larger global financial ecosystem.

It is for this reason that we have committed to do everything within our power to create the right conditions to become a Net Zero carbon<sup>1</sup> emissions company by 2040, whilst also recognising that we do not have full control over the delivery of this ambition.

Government action on policy and development of new technologies are of fundamental importance to create the conditions for success. Without good progress on these issues, achieving our climate ambition becomes increasingly challenging.

This is reflected in the terms of the Net Zero Asset Owners Alliance<sup>2</sup>, including the reference to such a pledge being made on the "expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met<sup>3</sup>". Our macro-stewardship programme involves engagement with policy makers and regulators around the world to advocate for the policy interventions needed to facilitate the transition to a low-carbon economy e.g. establishing the true cost of carbon emissions. For the last three years, we have also written to finance ministries and central banks at the start of each year setting out expectations on climate change, biodiversity loss and other material sustainability concerns.

To give ourselves the best chance of meeting our ambition, we must take action to drive the decarbonisation of the economy. Our approach to influencing and advocating is set out in this report. Some critical examples are detailed on the right.

### Overhaul of global governance structures

Each element of the international financial architecture should have included within its mandate the delivery of the Paris Agreement and should have to report on a transition plan. These individual reports should in turn be aggregated into a global transition plan.

### National governments' contributions

Major economies need to step up their level of ambition, namely, to adopt Net Zero targets on a shorter timeline.

Governments and regulators need to adopt fiscal measures that reward economic activity supporting sustainable outcomes and penalise economic activities harming sustainability goals. Examples include:

- Adoption of carbon taxes or emissions trading schemes, which would require the true price of carbon emissions to be captured on companies' balance sheets and in their cashflows, ensuring that this flows through to valuations;
- Removal of fossil fuel subsidies; and
- Adoption of clean energy subsidies.

Regulators need to drive further improvements in sustainability disclosures in particular to support an understanding of how companies plan to pivot their businesses to thrive in the transition to a low carbon economy, as well as the specific policy interventions that are needed to enable the transition of each sector.

### Market participants collaborating to find solutions to shared problems

Market participants need to come together to accelerate a market for high-quality carbon credits and offsets.

Technological improvements are needed in Carbon Capture and Sequestration (CCS) and Direct Air Capture (DAC) to scale up their contribution to emissions reductions.

Investors need to encourage companies and sovereigns to raise their level of ambition to adopt Net Zero targets on a shorter timeline, as well as to deliver on those targets.

1. We often use the shorthand of carbon, but our targets are for greenhouse gases in general and measured in carbon dioxide equivalent (CO<sub>2</sub>e)
2. <https://www.unepfi.org/wordpress/wp-content/uploads/2022/07/AOA-COMMITMENT-DOC-2022.pdf>
3. Terms from the Net Zero Asset Owners Alliance

# Measurement of emissions

## Aviva's climate-related financial targets and metrics are measured and determined using the accounting guidance provided within the Green House Gas (GHG) emissions Protocol.

GHG emissions are split into three scopes:

- 'Scope 1' - direct emissions from company sources;
- 'Scope 2' - indirect emissions released in production of energy used by the company; and
- All 'other emissions' that are a consequence of a company's activities across its value chain.

These 'other emissions', also known as 'Scope 3' - grouped into 15 categories, include the emissions associated with both investments and underwriting activities of Aviva.

The principle of measuring Scope 3 emissions helps companies to understand the extent to which their overall business impacts climate change, capturing upstream and downstream activities across its entire value chain.

This ensures that companies are aware of, and ultimately take action to influence the reduction of the emissions of the goods and services they procure, and the goods and services they sell. A financial services institution such as Aviva, seeks to also measure the attributed total emission footprint that comes from investing in and underwriting companies, projects and government bonds i.e. their Scope 1, Scope 2 and Scope 3.

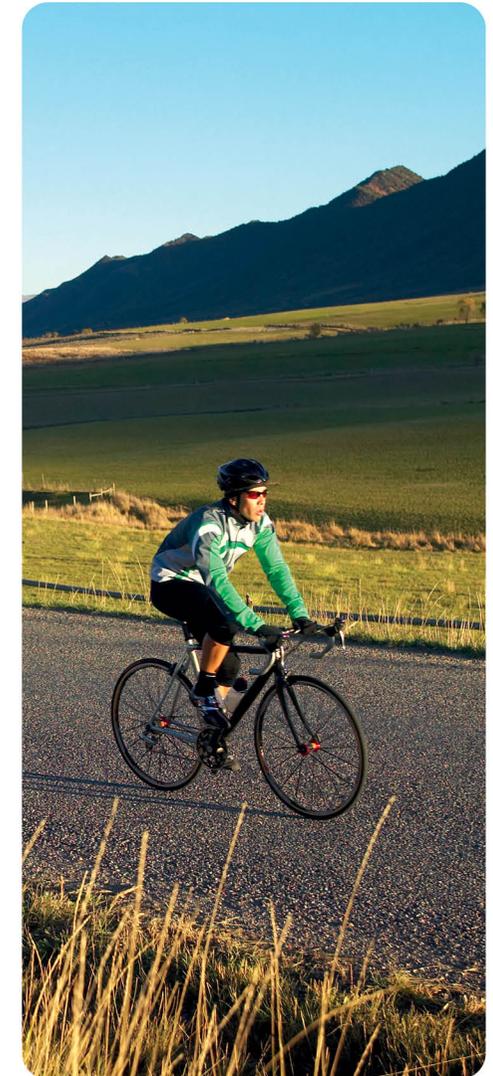
The Scope 3 emissions of its customers, investees, and suppliers, commonly known as "Scope 3 of 3", provides a more comprehensive picture of its overall emissions footprint, and its climate transition risk. However, this view is complex to produce from an accounting perspective, primarily due to limited and unsophisticated data. As these are attributed emissions and not directly emitted, they are difficult to estimate and track, and existing disclosures by clients, investees and suppliers are limited. There is also significant double counting of emissions when Scope 3 of 3 is included.

Current GHG emissions accounting guidance does not yet provide a definitive basis on how Scope 3 of 3 emissions should be treated, particularly for measurement and target-setting across investments and underwriting.

Currently Aviva categorises its emissions footprint on its level of influence over its Scope 3 emissions, depending on, for example, whether assets are included in shareholder funds where we have greater influence or included in our policyholder funds, and for emissions from underwriting activities, the line of business and how it is distributed. The absolute emissions are currently included in our reported metrics when emissions can be reliably measured.

Aviva will continue to address challenges related to accounting of Scope 3 of 3 emissions through its macro and micro stewardship activities, engaging with clients and developing products and solutions to enable emissions reduction among its clients, advocacy for data quality improvements and more certainty towards the accounting guidance.

Ultimately the insurance industry, like other sectors, is grappling with data availability and quality.



# Our 2023 climate highlights

## We have made progress towards our climate ambitions in 2023, across our climate focus areas.

### Reducing Aviva's operational emissions

- We achieved a 50% reduction in Aviva's Scope 1 and Scope 2 operational emissions compared to 2019 baseline.
- During 2023, we confirmed that 100% of our 2022 electricity used by Aviva's operations was from certified renewable sources and therefore we have achieved RE100<sup>1</sup> and this is earlier than previously planned.

### Influencing our supply chain

- We hosted our second supplier summit in November 2023 which was attended by over 100 of our supply chain partners to update on our Net Zero agenda and to provide opportunities for education and collaboration.

### Providing financing for renewables

- We are providing investment financing to help connect offshore windfarms to the national grid, including Hornsea Two, located 90km off the Yorkshire coast in the UK.

### Working with investee companies

- Aviva Investors have engaged with the the 30 most systemically important carbon emitters in our portfolio, to work together on the challenges of transitioning to a low-carbon economy.
- Supported the installation of 190,000 on-street electric vehicle (EV) chargers by providing £110 million to Connected Kerb and €30 million to Erapid in Ireland.

### Reducing the carbon intensity of our investments

- We achieved our sustainable assets target of £6 billion of origination compared to a 2019 baseline, a year early.
- Our Scope 1 and Scope 2 weighted average carbon intensity for credit and equities has reduced since 2022 by 22%.
- Our temperature alignment score was 2.4°C at 31 December, tracking the global implied temperature rise aligned with the Paris Agreement target of limiting global warming to well below 2°C, and preferably 1.5°C above pre-industrial levels by end of 2100. The methodology to estimate temperature alignment is nascent and is expected to develop as more robust data becomes available.

### Insuring the transition

- Extended our renewable energy insurance offering to include offshore wind.
- Started insuring engineered timber in commercial property developments.
- Launched our EV content hub which provides users with EV guidance. We also introduced stand alone insurance cover for EV charging points.
- Our Aviva Zero motor product in the UK, offering customers the opportunity to offset car emissions, has sold over 500,000 policies since launch in 2022.

1. RE100 is the global corporate renewable energy initiative bringing together hundreds of large and ambitious businesses committed to 100% renewable electricity

## £7.5bn

Cumulative investment in sustainable assets compared to 2019 baseline

## 50%

Operational carbon emissions reduction compared to 2019 baseline

## 22%

Scope 1 and Scope 2 weighted average carbon intensity reduction in credit and equities (shareholder, with-profits and policyholder compared to 2022)

### Additional links

[Aviva Climate-Ready Index Report](#)

[Aviva expands underwriting appetite to include engineered timber for commercial buildings](#)

# TCFD compliance summary

The TCFD outlines 11 recommendations for organisations to include in their climate reporting. The table below directs to the relevant section where these recommendations are covered in this report for Aviva plc. Whilst we have complied with the 11 recommendations, we continue to work towards expanding the scope of our metrics and targets, developing the methodology of our climate scenario analysis and enhancing our disclosure in this area. In addition to the TCFD Final Report, we have also considered the TCFD Annex (issued October 2021).

TCFD pillars	TCFD recommended disclosures	Section the disclosures are included in
<b>Governance</b> Disclose the organisation's governance around climate-related issues and opportunities.	a. Describe the Board's oversight of climate-related risks and opportunities.	• Governance - Our management's climate roles and responsibilities (see page 35)
	b. Describe management's role in assessing and managing climate-related risks and opportunities.	• Governance - Our management's climate roles and responsibilities (see page 35)
<b>Strategy</b> Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning where such information is material.	a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long-term.	• Our climate strategy, risks and opportunities (see page 12)
	b. Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	• Our climate strategy (see page 10) • Our strategic focus (see page 15)
	c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	• Scenario analysis - Our Climate VaR measure (see page 13)
<b>Risk management</b> Disclose how the organisation identifies, assesses and manages climate-related risks.	a. Describe the organisation's processes for identifying and assessing climate-related risks.	• Risk management - Our process for identifying and assessing climate-related risks (see page 30)
	b. Describe the organisation's processes for managing climate-related risks.	• Risk management - Our process for monitoring and managing climate-related risks (see page 30)
	c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	• Risk management - Our process for integrating climate-related risks into risk management (see page 29)
<b>Metrics and Targets</b> Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	• Metrics and targets - Overview of our metrics (see page 38)
	b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas emissions (GHG) and the related risks.	• Metrics and targets - Operational emissions (see page 43) • Metrics and targets - Financed emissions (see page 48) • Metrics and targets - Monitoring sovereign holdings (see page 52)
	c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	• Strategy - Our climate strategy (see page 3 and page 10) • Strategy - Our science-based targets (see page 27) • Metrics and targets - Overview of our metrics (from page 38)



# Sustainability is one of Aviva's four strategic priorities

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# Our climate strategy

**The ways in which the insurance industry could be affected by the climate crisis are diverse and are interconnected with other sustainability issues. Our strategic response focuses on the transition, physical and litigation risk factors and related opportunities.**

We consider climate-related risks and opportunities for our asset manager, asset owner, savings and pensions provider roles together, in context of the underlying assets. We consider the climate-related risks and opportunities separately for our insurance business. We are beginning to understand the impacts and dependencies of deforestation and more widely nature through the impact assessments we have carried out in the last two years. These will inform the development of the Group level nature-related risk appetite and preferences.

## Climate-related risks

We assess the transition, physical and litigation risks universe before applying materiality. The material climate-related impacts are defined by Aviva as follows:

- **Transition risks** relate to the business impact resulting from the transition to a low carbon economy. This may entail extensive policy, legal, technology, and market changes designed to mitigate climate change. As a result, depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organisations.
- **Physical risks** relate to the business impact arising from acute, abrupt and disruptive impacts such as more frequent and intensive storms, extreme heat and cold, floods, droughts and fires, as well as chronic gradual impacts such as higher than average temperatures, rises in sea levels and the spread of vector-borne diseases. The risk includes the effects directly resulting from events, such as damage to property, and those that may arise indirectly through subsequent events, such as the disruption of global supply chains or resource scarcity.

- **Litigation risks** relate to the business impact that could arise from parties who have suffered loss and damage from climate change and seek to recover losses from others who they believe may have been responsible. Where such claims are successful, those parties against whom the claims are made may seek to pass on some or all of the cost to insurance firms under third-party contracts.

In this section we have summarised the material climate-related risks that we are or could be exposed to and the time horizons over which they could manifest.

## Climate-related opportunities

In this section we have also summarised the material climate-related opportunities that we are or could become exposed to and the time horizons over which they could manifest.

Transition opportunities to the low-carbon economy are expected to manifest in the short, medium and long-term, therefore it is vital to ensure we are equipped to respond to these opportunities, to provide long-term value to our shareholders.

## Our climate transition plan

The initial iteration of our Climate transition plan, was published in March 2022. This provided information on our climate ambitions and how we could address climate risks and opportunities. We are using the UK's Transition Plan Taskforce framework to inform the development of our transition plans further.

We regularly review our transition activities towards our ambition and expect to publish the next iteration of our Transition Plan in 2025. This will take into account the latest view of methodology and data quality.



## Our climate strategy

### Time horizons

The materiality and horizons over which climate-related risks and opportunities affect our business depend on the specific insurance products, geographies and investments being considered. For example, our general insurance business considers risks in the underwriting and pricing processes and in setting the reinsurance strategy based on a relatively short time horizon (one to three years).

Aviva recognises that the increased severity and frequency of weather-related losses have the potential to negatively affect our profitability. Consequently, large catastrophic losses are already explicitly considered in our economic capital modelling to ensure resilience to such catastrophic scenarios.

We model the impacts of climate change on our business under different temperature pathways using our climate scenario analysis. The output of this modelling along with other analysis, research, data and metrics informs our strategic response to mitigate, transfer, accept or control our exposure to climate risks, which are expected to manifest in the short, medium and long-term.

Our exposure to climate risk is more severe under higher temperature pathways, meaning we need to influence others and support a co-ordinated global response to the low-carbon transition to limit both ours, and humanity's, exposure to climate breakdown.



### We use the following time horizons to classify climate-related opportunities and risks, aligned to our strategy and business plans:

- **Short term - 0 to 3 years:** Risks and opportunities deemed material to our three year business and financial planning cycle are viewed as short term.
- **Medium term - 3 to 10 years:** Risks and opportunities deemed material to our 2030 ambitions are viewed as medium term.
- **Long term >10 years:** aligned with the SBTi guidance for financial institutions.

### Embedding climate-related planning into the Aviva business planning process

Aviva Group, business units and control functions develop three year business plans, on an annual basis, to ensure our climate strategy is appropriately translated into operational and financial plans to secure delivery of our short-term ambitions and set the path towards our medium term and long term strategic ambitions.

In developing these plans, each area will consider the external market context, undertake rigorous prioritisation of initiatives, including understanding and evaluating commercial and financial implication and trade-offs, and assess key risks and opportunities.

### Inclusion of climate in business plans

Climate planning is formally embedded into the overall Aviva's three year Business Planning process. The three year Business Plan underpins the financial and non-financial ambitions and targets, including those considered for the Remuneration policy.



## Our climate strategy

### Short to medium term

### Medium to long term

Climate-related Risks	
<b>Transition risks</b>	<p><b>As an Asset Manager, Asset Owner, Savings and Pension Provider:</b></p> <ul style="list-style-type: none"> <li>Reduction in returns from company investments in highly carbon-intensive companies and sectors, where those companies are not taking action to transition to a low carbon economy.</li> <li>Reduction in returns from real assets that are not compatible with the transition to a low carbon economy.</li> </ul>
<b>Physical risks</b>	<p><b>As an Asset Manager, Asset Owner, Savings and Pension Provider:</b></p> <ul style="list-style-type: none"> <li>Reduction in returns from real assets due to extreme weather events as well as chronic effects which present financial risks through loss of revenue from business interruption and/or increased capital costs to repair assets.</li> </ul> <p><b>As an Insurer:</b></p> <ul style="list-style-type: none"> <li>Disruption to the general insurance market due to changes in extreme weather that impact product design and demand as well as affordability of insurance products in some cases.</li> </ul>
<b>Climate-related Opportunities</b>	
<b>Physical opportunities</b>	<p><b>As an Asset Manager, Asset Owner, Savings and Pension Provider:</b></p> <ul style="list-style-type: none"> <li>Enhanced returns on company investments which are resilient to the physical effects of climate change.</li> <li>Enhanced returns on real assets which are resilient to the physical effects of climate change.</li> </ul>
<b>Transition opportunities</b>	<p><b>As an Asset Manager, Asset Owner, Savings and Pension Provider:</b></p> <ul style="list-style-type: none"> <li>Enhanced returns on company investments aligned with the transition to a low carbon economy.</li> <li>Enhanced returns on real assets aligned with the transition to a low carbon economy.</li> </ul> <p><b>As an Insurer:</b></p> <ul style="list-style-type: none"> <li>Develop climate-conscious general insurance products and services that support the transition to a low carbon economy and reward customers for environmentally responsible actions and help to build resilience to climate change.</li> <li>Develop climate-conscious savings and retirements products and services that enable and incentivise climate-positive behaviour from customers.</li> </ul>

Climate-related risks and opportunities and their potential impacts and related metrics depend on access to accurate, verifiable, reliable, consistent and comparable climate-related data. The insurance industry, like other sectors, is grappling with data availability and quality. Aviva is using its meaningful influence to source reliable data on time to enable accurate measurement of emissions.



# Scenario analysis

## Scenario analysis is a key tool to identify the potential impact of climate change on our organisation. We use our Climate Value at Risk metric to provide insight.

The Climate Value at Risk (Climate VaR) metric is a forward-looking estimate of the impact on our portfolio under different climate scenarios. Climate-related risks have the potential to affect both the asset and liability sides of insurers' balance sheets and their long-term business models. To address this challenge, Aviva has developed a Climate VaR metric to assess and help manage the financial risk, exposure and resilience of our business model and strategy to different climate scenarios, within a given time horizon.

### Approach and methodology

Our approach takes into account available methodology and science, and is specific for our business. This is summarised below. Reporting criteria for Climate VaR is included in note 14.

To support the development of the Climate VaR, an interdisciplinary team has been created with representation from across the business.

An expert panel has also been set up to review and challenge the methodology and assumptions made in the selection, development and modelling of the financial impacts across scenarios.

The panel includes internal experts as well as external experts: Dr Frank Venmans, Dr Joana Setzer and Dr Viktor Roezer from the Grantham Research Institute on Climate Change and the Environment at the London School of Economics; and Dr Julius Kob and Dr Katharina Dittrich from Warwick Business School.

### Scenarios

The Intergovernmental Panel on Climate Change (IPCC) has identified potential future scenarios with respect to climate change<sup>1</sup>. Each scenario describes a potential trajectory for future levels of greenhouse gases and other air pollutants.

From these scenarios, we have considered those that can be mapped to the following temperature rises by 2100 and levels of economy-wide mitigations required:

- 1.5°C (aggressive mitigation);
- 2°C (strong mitigation);
- 3°C (some mitigation); and
- 4°C (no further mitigation).

We calculate a Climate VaR for these four scenarios to provide a wide range of possible outcomes, reflecting the different emission projections and associated temperature rises.

### Our modelling approach

The Climate VaR models both climate-related transition and physical risks and opportunities which are tailored to the impacts we observe across our diverse range of asset classes and product offerings:

- **Transition:** covers the projected costs of policy action related to limiting greenhouse gas emissions and projected profits from green revenues arising from the development of new technologies and patents across the market. We also recognise there is a growing trend in climate-related litigation and have qualitatively assessed its potential exposure accordingly; and
- **Physical:** covers the financial impact from extreme weather events (acute) (e.g. flood, wind storm and tropical cyclones) and those associated with longer-term shifts in climate patterns (chronic effects such as sea level rise). Although we recognise that the most extreme physical effects are most likely to be felt in the second half of the century, extreme weather events attributed to climate change are already occurring and impacts may be greater and sooner than expected as earth systems react to temperature rises.

The data and methodology we use to calculate these risks and opportunities differs by asset class and product line:

- For credit, equities and real estate, we use transition and physical risk VaR impact data from MSCI<sup>2</sup>.
- For sovereign debt, we assess a country's vulnerability to the physical effects of climate change using research<sup>3</sup> from the University of Cambridge's Bennett Institute for Public Policy.
- For infrastructure debt, we use the ClimateWise Transition Risk Framework<sup>4</sup> to identify the key risk exposures across our portfolio of assets.
- For life insurance liabilities, we use internal data and judgements to determine the impact on our life insurance book from changing mortality rates.
- For general insurance liabilities, we use our natural catastrophe models to assess the impact on our premiums as a result of the occurrence of different extreme weather hazards.



## Scenario analysis

In 2023 we have made the following changes to our methodology to improve the robustness of the metric:

- For credit, equities and real estate, we have better aligned our methodology to reflect updated climate science.
- For sovereign debt and infrastructure assets, we have refined our methodology to better capture anticipated behaviour under stress.

### Key estimates and assumptions

This is a nascent form of analysis, with a number of key estimates and assumptions, and limitations remain as set out below.

Quantifying the impacts of climate change is an emerging practice, with inherent uncertainty in the approach taken as a range of scenarios are assessed.

We employ numerous judgements in the execution of our methodology. For example, we apply uplifts to VaR impacts to try to allow for the indirect impacts of physical risk (e.g. lower economic growth, lower productivity and supply chain disruption), as well as the effects of feedback loops, where these uplifts are subject to significant degrees of estimation uncertainty at higher temperatures.

It is challenging to obtain consistent emissions data across our entire portfolio. As this becomes accessible, it will improve our ability to more accurately estimate the Climate VaR.

The current methodology implicitly assumes that the anticipated costs of climate change are not priced into asset valuations, whereas in reality it is anticipated that the current fair value of assets would have some consideration of climate risk priced in, but this is difficult to quantify in practice. The methodology also does not allow for the effects of tipping points being breached at higher temperatures.

Furthermore, a static balance sheet approach with no management actions has been employed.

As such, there remain uncertainties around the quantification of climate-related risks and opportunities by our Climate VaR methodology.

### Analysis

Despite the impacts from climate change, Aviva's strategy remains resilient to climate-related risks and opportunities in all scenarios, when taking into account the possibility and availability of future management actions.

### 1.5°C to 2°C insights

There remains a benefit to Aviva in terms of keeping temperature rises below 2°C.

There continues to be downside transition risk on long-term investment returns from carbon intensive sectors (for example utilities) as a result of transition policy actions. This is offset, partially, by revenues on new technologies from some sectors (for example automotives).

Physical risk still exists in these lower temperature scenarios where transition risk is a higher proportion of the overall risk – this factors in the time-lagged physical impacts from emissions to date and any further emissions up to the global peak. Estimation uncertainties are inherent in the methodology and we note the possibility that the impacts of physical risk may be understated in the data.

We continue to work towards limiting global warming to under 1.5°C in line with the Paris Agreement.

### 4°C insights

As to be expected, the proportion of transition risk generally reduces as we move to higher temperature pathways. Aviva is most exposed to the 4°C scenario where physical risk dominates, negatively impacting long-term investment returns and exacerbating insurance-related costs.

Similar to last year, in all scenarios the impact on insurance liabilities is more limited than on investment returns. However, there is potential for some impact on life and pensions business as a result of changes in mortality rates in different scenarios either from physical effects such as more extreme hot and cold weather or transition effects related to changes in pollution levels. The impact on general insurance liabilities is mitigated by the short-term nature of the business, the ability to re-price annually, and by our reinsurance programme.

However, the physical effects of climate change will result in more risks and perils becoming either uninsurable or unaffordable over the longer term.

Overall, due to the continuing estimation uncertainties around climate scenario analysis, it is critical to continue to build resilience against climate-related risks, and take advantage of opportunities, through effective decision-making, engagement and risk management.

Footnotes for Scenario analysis:

1. The IPCC Sixth Assessment Report (AR6) provides an overview of the state of knowledge concerning the science of climate change
2. Certain information ©2024. MSCI ESG Research LLC. Reproduced by permission.
3. Rising Temperatures, Falling Ratings: The Effect of Climate Change on Sovereign Creditworthiness; March 2021. <https://www.bennettinstitute.cam.ac.uk/publications/rising-temperatures-falling-ratings/>
4. The ClimateWise Transition Risk Framework helps investors and regulators manage risks and capture emerging opportunities from the low carbon transition. It has been developed through the ClimateWise Insurance Advisory Council, building on the recommendations from the TCFD.

# Our strategic focus

To deliver on our climate ambition, we use our influence across our focus areas. More information about our strategic approach for these areas is set out in this section.

## Influencing

We use our influence to help drive and lead change across our focus areas.

### Decarbonising our investment portfolio

The emissions from our investment portfolio represent the largest proportion of our overall carbon footprint. As an asset owner and an asset manager, we are taking action towards decarbonisation.

### Insuring the transition

We are developing products and services supporting the transition to Net Zero.

### Decarbonising our operations and supply chain

We are taking action to reduce the environmental impact of our operations and supply chain.

## Embedding climate change awareness in our culture

All our employees set a personal sustainability goal as part of the annual goal setting process. We provide our employees with tools to take action on climate change including EV leasing through salary sacrifice, volunteering opportunities and opportunities to offset their personal emissions.



# Influencing

## We use our influence to help drive and lead change across our focus areas.

### We are committed to pushing for a better tomorrow

At Aviva, we are proud of our leadership role in society and acting out our values. We can control Aviva's operations, but also have influence through the £376 billion in assets that we have stewardship over, alongside the innovations and customers we support via our insurance.

### What are we doing to drive the required change?

The climate crisis is a collective problem that necessitates collective action in its solutions. For Aviva, this means we need to lead the way and bring our employees, industry peers and communities on the journey with us. Some of the key actions include:

- Reducing operational emissions.
- We have embedded awareness of climate change into our culture.
- Signed up to science-based target initiative and achieved validation of our SBTs in December 2022.
- Switching our company car fleet to electric vehicles and installing EV charge points.
- We have committed to improve biodiversity through our Terra Carte Pledge<sup>1</sup> and Finance for Biodiversity Pledge.

We set out here three activities we are particularly proud of:

#### A. Ownership

As a responsible investor, we have decided to take active ownership of our investment portfolios to achieve our Net Zero ambition. There are differing views on this, but we believe that divestment would be an easy option and change little in the real world. We aim to be an active owner and use our position in the market to push companies we invest in to commit to ambitious climate action – and drive the economic transition required.

#### B. Insurance to enable the transition

Insurance is a key pillar that the financial system is dependent on, giving Aviva some influence on company behaviour and activity. In 2019, we made a commitment to exit the insurance of fossil fuel power generation assets on the London market and replace this with an insurance offering designed specifically for end to end renewable energy generation infrastructure projects.

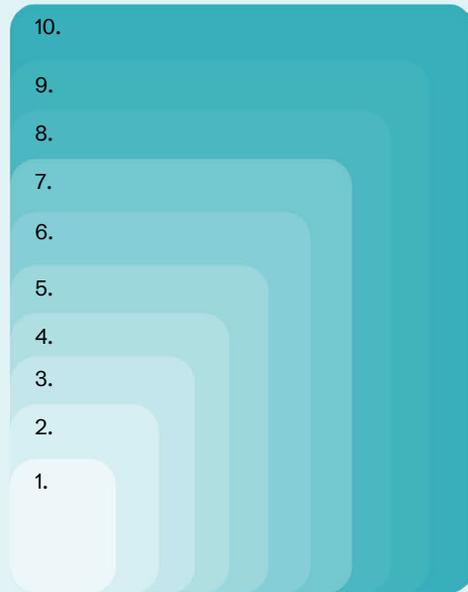
#### C. Influencing systemic change

Aviva takes its responsibility to influence systemic change, to nudge us all towards a just transition. We are doing this in many ways, from the innovative financial products we offer in the market, through using our voice in alliances including Glasgow Financial Alliance for Net Zero (GFANZ), Net Zero Asset Owner Alliance (NZAOA), Net Zero Insurer Alliance (NZIA), The Institutional Investors Group on Climate Change, Transition Pathway Initiative and Climate Action 100+.

1. Terra Carta is the guiding mandate for the Sustainable Markets Initiative, providing a proposed set of principles to 2030 that puts Nature, People and Planet at the heart of global value creation. More details available at <https://www.sustainable-markets.org/terra-carta/>

## Influencing

Figure 1: Our current view of our spheres of influence.



This is our current view of potential spheres of influence and how we might be able to use our influence.

### 1. Clients and end beneficiaries

We provide insurance coverage to enable the use of green assets such as solar panels and electric vehicles. We can use exclusion lists and choose not to work with high-carbon emitters who are not transitioning.

### 2. Our business and its influence

Aviva can influence our suppliers and use our purchasing power to demand change.

### 3. Influence with our peers

Within the alliances we operate we can collaborate and seek to influence collectively companies we invest in and policy decisions.

### 4. Real asset and infrastructure

As an investor and insurer of infrastructure we can support green innovation as well as excluding fossil fuel projects from our investments and insurance boundaries.

### 5. Investee and insured companies

We can use our influence as shareholders to vote for climate action. As a major insurer we can choose what we insure and influence our peers to follow suit.

### 6. International Financial Institutions (IFIs) Issuers

Aviva can partner with issuers to provide multilateral development funding for climate action projects.

### 7. Sovereign debt

We aim to work with sovereigns e.g. to help encourage participation in international alliances.

### 8. International Financial Architecture (IFA)

We aim to advocate for systemic rewiring of the IFA to provide specific mandates to all regulators and standards setters to play their role in creating and stewarding an international financial transition plan for Net Zero.

### 9. Civil society

Advocating for change will gather attention, civil society can demand more from governments and policy setters to implement change.

### 10. Planetary boundary

We are advocating for planetary considerations within regulation and financial markets.

## Influencing

Alliances	2023 Progress	Impact
Glasgow Financial Alliance for Net Zero (GFANZ)	We continued to co-lead the Public Policy workstream, which made good progress in making the case for Transition Planning with policymakers and regulators around the world. We also helped establish a new work programme on nature and we will continue to co-chair this work in 2024.	GFANZ is working as an alliance across finance to turn commitments into action and mobilise private capital by bringing together existing and new Net Zero finance initiatives.
Net Zero Asset Owner Alliance (NZAOA)	Aviva held the role of the co-lead of the Monitoring, Reporting and Verification working group for part of the year, participated in the other three working groups and contributed to the development of the 4th version of the target setting protocol. We also co-authored a NZAOA discussion paper on Elevating Asset Manager Net-Zero Engagement Strategies.	Financial services can better tackle the challenges of transitioning to a low carbon economy, such as improving metric quality, by collaborating in policies, engagement, and financing and aligning methodologies.
Net Zero Insurer Alliance (NZIA)	Following a number of member departures in 2023, we are helping the UN Secretariat and other members determine the best next steps for NZIA.  We were one of the 16 members of the Partnership of Carbon Accounting Financials (PCAF) Insurance-Associated Emissions Working Group that developed the first-ever accounting standard to measure greenhouse gas emissions associated to insurance portfolios. The standard covers commercial lines and personal lines motor.	The development of a standard is a starting point for measuring emissions from insurance portfolios.
Net Zero Asset Managers' initiative (NZAM)	Aviva Investors reported its progress against its Net Zero ambition through the NZAM reporting framework, which in 2023 was embedded within the Principles for Responsible Investing (PRI) reporting process.	Asset managers, in common with all financial market participants, have a key role in supporting the transition to a Net Zero economy. This includes undertaking advocacy for the enabling policy environment needed to make the transition possible, which is a key part of the NZAM commitment. Aviva Investors have used their influence to promote policy reform that will support the Net Zero transition, including advocating for reform of the international financial architecture to align with a just transition to Net Zero.
World Benchmarking Alliance (WBA)	In 2018, we played a key role in supporting the launch of the WBA, who publish free and transparent benchmarks ranking companies on contributions towards achieving the UN sustainable development goals (SDGs). In 2022, the WBA launched new benchmarks on nature, measuring the world's most influential companies on their efforts to protect our environment and its biodiversity; corporate human rights; transport, and the financial system. In this last benchmark the WBA rated Aviva second out of 400 financial services companies globally through the measurement areas of governance and strategy, respecting planetary boundaries, and adhering to societal conventions.	By devising SDG performance metrics, investors have the information they need to make sustainable investment decisions within certain industries. We expect capital to move towards sustainable business as the metric quality is improved.

## Influencing

### Influencing through our Climate Engagement Escalation Programme (CEEP)

Aviva Investors' three-year Climate Engagement Escalation Programme (CEEP) is focused on the 30 most systemically important carbon emitters across our credit and listed equity portfolios that contribute approximately a third of all global emissions, considering their Scope 3 footprint.

Companies subject to CEEP have been given notice that if certain expectations regarding the management of climate change risk are not met within acceptable timeframes, then Aviva Investors will divest its holdings in those companies where Aviva Investors has discretion to take action.

Below is an overview of our five key requests for change which we view as important to Net Zero aligned business strategies.

#### CEEP key expectations

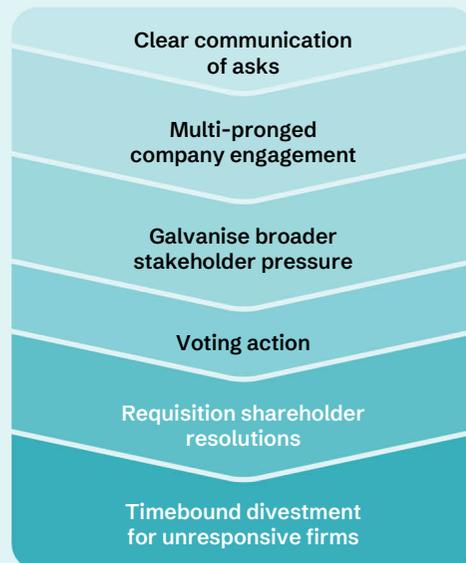
**Climate ambitions:** 2050 Net Zero Scope 3 targets validated by SBTi.

**Transition plans:** Integrate de-carbonisation roadmap into corporate strategy, include near-term goals.

**Management incentives:** Effective Board oversight. Meaningfully reflect climate targets in variable pay plans for senior leadership and wider business.

**Climate disclosures:** High quality TCFD disclosures including scenario analysis.

**Climate lobbying:** Transparency over and Paris-alignment of lobbying activities.



#### Activities in 2023

Aviva Investors has undertaken engagements across the focus group and continues to see positive progress across geographies. We completed the following:

- Exercised our voting rights at AGMs and EGMs 6,441 times
- Exercised our voting rights on 68,177 resolutions at AGMs and EGMs
- Voted against 25% of company management recommendations
- Achieved 281 sustainability engagement objectives through Aviva Investors
- Conducted 1,694 substantive sustainability engagement meetings through Aviva Investors

#### Influencing in action

Over 2023 we brought together key stakeholders from across the aviation value chain - including airline companies, SAF producers, and aircraft manufacturers - to identify key ecosystem barriers impeding decarbonisation as well as potential solutions, and to help facilitate the cross-sectoral collaboration necessary for reaching Net Zero at a larger scale.

Key areas of progress in 2023 include companies taking steps to provide a clearer picture of the feasibility and implementation schedule of their transition plans, to evidence explicit climate- governance structures at the board/management level and to strengthen TCFD-alignment of disclosures, particularly around robustness of scenario planning.

Our engagement experience to date has shown us that to enable companies to realise their low-carbon ambitions, policy efforts must be intensified to level the playing field of corporates and to de-risk emerging technologies. We believe that a holistic approach to stewardship can make a difference in encouraging deeper, faster climate action.

Appropriate escalation action will also be undertaken with companies demonstrating insufficient responsiveness.

#### Our role as an active shareholder

Many companies are still compensating senior executives in ways that foster short-termism at the expense of long-term sustainability. To drive the transition to a sustainable future, incentive schemes need to be innovative, tying sustainability performance to executive compensation and in turn weaving sustainability into the fabric of companies' practices.



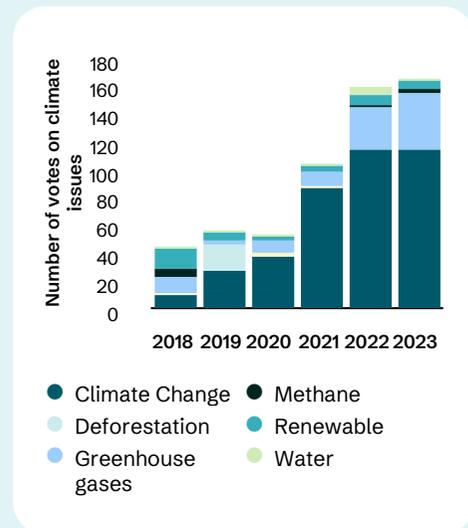
## Influencing

### Overview of engagement and voting:

The following table shows engagement held either individually or collaboratively on climate change-related issues.

Year	1-on-1	Collaboration
2018	74	17
2019	65	8
2020	118	53
2021	214	53
2022	276	69
2023	263	163

The following graph shows the number of votes made by climate issue at AGMs.



### Divesting where necessary

We believe that thermal coal and unconventional fossil fuels should not be part of a low carbon future and our Aviva Group ESG Investment Baseline Investment Exclusion Policy reflects this. As such, where companies make more than 5% of their revenue from thermal coal mining or power generation or more than 10% of their revenue from unconventional fossil fuel extraction<sup>1</sup> and have not signed up for science-based targets (SBTs)<sup>2</sup>, they will not be invested in.

Aviva’s exposure to thermal coal mining and power generation companies as well as unconventional fossil fuel companies<sup>1</sup> on our Stoplist at the end of 2023 is negligible.

### Macro stewardship

Macro stewardship refers to engaging with regulators, governments, and other entities to change “the rules of the game” in favour of those that are providing solutions to sustainability problems or supporting the transition to a sustainable future. We take seriously our duty to act in the best interests of clients and the integrity of the market. In our position as market participants, it is incumbent on us to look ahead to identify potential market-wide and systemic risks and seek to mitigate these risks through engagement. This involves calling out risks and supporting policymakers to bring about the necessary policy changes to transform our financial system, enabling it to serve the needs of the present without prejudicing those of generations to come. We use our voice to raise awareness around the concept of ‘market failures’ that relate to risks in the system, in particular their distinction from ‘market inefficiencies’. In recognising this distinction, we engage with policymakers to seek interventions to address market failures and correct them to put markets on a more sustainable footing. It is also how we issue a call to action to our peers to play their role.

Our market reform agenda represents a natural progression from our integration and stewardship work. Where market failures, such as unpriced negative externalities, exist or where there are systemic or market stability risks, we must engage with policymakers to reform markets. Market participants cannot correct these issues alone. In effect, we identify long-term and market-wide risks through our research and exercising our rights and responsibilities over the assets we own, including engaging with corporates to address and mitigate such risks. We also use these risks to inform our market reform work to ensure our actions for change have practical application and are not created in a vacuum.

1. The unconventional fossil fuel extraction is limited to companies involved in Arctic Oil and Oil Sands
2. Thermal coal mining and unconventional fuel extraction companies have 18 months from submission to have their SBTs validated, otherwise we will divest and add them to the Stoplist

# Decarbonising our investment portfolio

## The emissions from our investment portfolio represent the largest proportion of our overall carbon footprint. As an asset owner and an asset manager, we are taking action towards decarbonisation.

The emissions from our investments are captured as part of Scope 3 category 15 reporting under the Greenhouse Gas (GHG) Protocol and is a challenging area of emissions reporting due to lack of mature methodologies and availability and quality of emissions data. As the largest share of our total GHG emissions, we continue to focus on changes in this area whilst we further develop our reporting capability to support our disclosure.

As an asset owner, asset manager, and long-term savings and pensions provider, we are able to influence the global transition to lower carbon economies through our responsible investment approach.

Our assets under management span investments in, real estate, infrastructure projects and companies around the globe. These investments help our customers save for their future.

We seek to evolve our investments with a pathway towards Net Zero and therefore consistency with the 1.5°C Paris ambition. The stark probability of the world reaching the 1.5°C threshold by 2030 means the challenges will be greater and we alongside others in the global economy have to double-down on our efforts. Our success is reliant on governments, companies and society collectively taking action.

### Measuring decarbonisation success

We are aiming to reduce the carbon intensity of Aviva's investments (currently investee Scope 1 and Scope 2 emissions from credit and equities, direct real estate and sovereigns for shareholder and policyholder assets) by 60% by 2030 from a 2019 baseline.

By the end of 2023, the Scope 1 and Scope 2 weighted average carbon intensity by revenue of our credit and equities (shareholder and with-profits portfolio) reduced by 57% against a 2019 baseline.

We also provide a temperature alignment score to show our level of alignment to a 1.5°C global warming pathway. See note 10.

## We are involved in investments in three ways:

### Asset owner

As an asset owner, we set the investment strategy to meet customer and shareholder expectations and choose the asset managers to deliver these outcomes.

### Asset manager

As an asset manager, we will act as long-term stewards of our clients' assets, and will seek to decarbonise our assets and portfolios and align with a Net Zero pathway where possible.

### Savings and pension provider

For long-term savings and pensions products, we invest on our customers' behalf to meet their investment objectives. We integrate consideration of long-term climate-related issues into the products and services we offer.

## It takes a range of levers to decarbonise

The first three levers within our investments portfolio decarbonisation strategy focuses on reducing our exposure to the most harmful practices through engagement, policy and risk management processes, with the final two levers focus on grasping the opportunities arising from transition.

We use the levers across five main areas:

- Active ownership: using our voice and vote to pressure companies and directors;
- Divesting where necessary and applying portfolio constraints for high carbon emitting sectors and individual names;
- Allocating capital towards sustainable investment strategies with specific decarbonisation outcomes;
- Financing the transition: providing funding to support development of new technology and processes to deliver the transition to low carbon; and
- Providing products and services for our customers.

### Active ownership

The 'Engagement First' philosophy of Aviva Investors promotes the relative merits of engagement over divestment as the more effective mechanism of delivering positive change and real outcomes for our clients and society.

# Integrating climate risks and opportunities into our investments

## 1. Research

Our approach is systematic

Data inputs

Sustainability research

Qualitative insights

## 2. Connectivity

Sustainability is embedded in our investment process and tailored for individual strategies

Collaboration

Engagement

Active ownership

## 3. Portfolio construction

Our approach generates investment actionable insights for Aviva Investors' actively managed funds

Sustainability inputs

Exclusions

Forward-looking expectations

## 4. Evaluate and monitor

Sustainability integration has demonstrable impact on investment outcomes

Quarterly portfolio reviews

Case studies

Risk oversight

### 1. Research

#### Quantitative inputs

Data is a critical starting point to ensure that we have the broadest possible base level coverage of issues relating to climate change as regards the issuers in the market. We have carefully selected our providers of climate data and analytics. We recognise the weaknesses that are inherent within climate data, including the fact that it is static and backward looking, as well as issues related to quality and coverage. With these in mind, we view data only as a starting point for our analysis.

We combine core and enhanced climate data into our investment process.

Core data includes our proprietary corporate score and sustainability sovereign monitor scores.

Our scoring tools help identify potential sustainability risks and opportunities and lead to a summary score at issuer level which informs our investment decisions.

#### Enhanced climate data

We have developed proprietary transition risk (t-risk) frameworks that help identify firms that are actively transitioning their business models to better manage their sustainability impacts.

We have a t-risk model for climate change, where companies' performances are assessed on an industry-specific basis. This data-driven approach enables us to identify both current leaders but also firms that have the potential and commitment to improve.

We also have a range of dashboards that provide data and analytics related to our Net Zero model (entailing proprietary forward-looking carbon intensity estimation) and Principal Adverse Impact indicators. SDG alignment data assists portfolio managers in understanding the contribution that individual companies are making to specific SDGs.

#### Qualitative overlay

We combine data with qualitative insights from our Sustainability teams, which provide a variety of research outputs which support investment decisions. Sustainability research includes thematic research on climate change risks and opportunities as well as their implications for our holdings. In addition, investment teams embed material sustainability issues within their bottom-up fundamental analysis.

## Integrating climate risks and opportunities into our investments



### 2. Connectivity

#### Collaborative approach

Our Sustainability integration approach requires extensive collaboration between Sustainability teams and investment teams. Our Sustainability analysts work closely with investment desks and actively participate in a variety of forums. Additionally, our Sustainability analysts have alignment to specific investment desks and therefore ensure Sustainability insights from our Sustainability experts, including climate experts, from across the firm, are available and tailored to their needs.

### Active ownership

Engagement is a vital part of our investment process across asset classes. We use our influence through engagement and voting to promote sustainable business practices, gain insight and reduce investment risk. Engagement routinely takes the form of meetings or calls with board members or senior sustainability executives.

We set out clear objectives for engagement and follow up where appropriate.

Engagement outcomes are registered in our database, reflected in our voting and fed into our proprietary ESG scoring tools (see above). For active holdings, engagement is undertaken in close collaboration with the investment teams. The key conclusions from company engagements are fed back to the broader investment teams.

### 3. Portfolio construction

Research and connectivity flow into our third pillar, focused on how portfolio managers integrate sustainability insights into stock selection, idea generation and portfolio construction.

There are a limited number of specific sectors and economic activities where we consider the sustainability risks to be so severe that providing equity and debt funding is fundamentally misaligned with our responsible investment philosophy and corporate values. In these cases, we forgo the opportunity to engage, and actively exclude companies and industries from our investment universe.

We also integrate the UN Global Compact into our baseline exclusion policy, where companies that fail to act in line with the UN Global Compact Principles and do not take adequate remedial actions, are excluded from our investment universe. This decision is informed by third-party data as well as internal analysis.

To ensure timely insights, the sustainability team delivers training regularly to the investment teams to update them on climate themes and developments, internal projects and regulatory updates. This enables investment teams to better understand material risks and opportunities for sectors and countries, which they can price into valuations.

The sustainability teams are also a key component in determining our House View and ensure material climate related factors are considered when determining the company-wide macro outlook. These fit alongside our baseline exclusions policy<sup>1</sup>.

A case study on how this is done for our bulk purchase annuities portfolio is included on this page.

### 4. Evaluate and monitor

The Sustainability team holds quarterly reviews with portfolio managers at a strategy level. The reviews highlight the Sustainability characteristics of the funds, ensure Sustainability views are reflected in positions and provide a basis for challenge.

Sustainability characteristics include portfolio Sustainability scores, emissions profiles as well as stewardship insights.

Portfolio managers are therefore able to better understand the main contributors to their portfolio's carbon footprint and interrogate its direction of travel. We also use these insights to prioritise our engagement activity.

### Bulk purchase annuities case study

Our Bulk purchase annuity (BPA) investments backing liabilities are assessed for the impact of climate change on the real world returns. For example, for less liquid investments, a key focus in 2023 has been deepening the integration of sustainability considerations, with a strong focus on climate considerations across all investment decision making to deliver on our overarching aim of driving real world change. Focusing on decarbonisation, all new large asset deals are assessed to understand their carbon footprint and therefore impact on the overall portfolio in the short, medium and long term. Climate change transition and physical risks are also considered where appropriate. The data, tools and methodologies are still maturing, however this additional information allows us to identify opportunities and risks more readily to deliver our longer term investment and sustainability outcomes.

1. Please see policies and documents - Aviva Investors for our Baseline Exclusion Policy



# Insuring the transition

## We are developing products and services supporting the transition to Net Zero.

### Transition to renewables

The insurance landscape will undergo significant changes in the next 30 years as the transition to a lower carbon economy unfolds.

One of the biggest challenges is reducing society's reliance on fossil fuels. Aviva no longer offers insurance coverage to firms directly involved in fossil fuels, including:

- The construction of any coal-fired power stations;
- Power generation risks that generate power from coal;
- Any new fossil fuel mining or extraction projects;
- Companies with more than 5% of their revenues directly generated from extracting fossil fuels using conventional methods; and
- Offshore oil and gas rigs and platforms.

Our transition away from fossil fuels is dependent on low carbon innovations and we can support facilitating new technology through our insurance offerings.

Renewable energy presents complex project risks through solar and wind infrastructure, leading us to expand the technical expertise in our team to ensure we are providing a risk-engineered approach to our product offering. Aviva is targeting the offshore wind insurance market and we have insured our first offshore wind risk.

In 2022, we launched one of the UK's first standalone insurance products covering EV charging points. In 2023 Aviva has set up the EV content hub to provide users with EV guidance and standalone EV charger insurance.

In Canada, we have seen a 93% increase in insuring EVs, compared to 2022. Our EV proposition, introduced in 2022, which includes up to a 10% discount has contributed to the increase. We also encourage policyholders who have experienced a total loss to upgrade from a gas-powered vehicle to an EV vehicle by offering a subsidy to purchase an EV as part of the settlement.

Our Aviva Zero product in the UK, offering customers the opportunity to offset emissions, has sold over 500,000 policies since launch in 2022.

### Transition to more sustainable buildings

In 2023 we have expanded our underwriting appetite in UK and Canada to include engineered timber<sup>1</sup> in commercial developments.

Working with contractors, brokers and owners from the design stage, we are helping to increase the resilience and repairability of buildings by using leading risk management strategies to safeguard them from water damage and fire.

In Canada, we launched two pilots supporting our customers making buildings more sustainable:

- Providing complimentary leak detectors to select customers to prevent water damage claims; and
- Offering employee group plan customers a subsidy for completing a home energy assessment.

### Supporting our customers with the risks of extreme weather

Whilst the transition takes place, our customers face increased frequency and intensity of extreme weather events and we continue, where possible, to work with our customers to help them prepare e.g. offering coverage to install risk mitigation devices after a claim, and to 'build back better'.

In Canada, our Parametric insurance cover pilot (supported by CelsiusPro) for excess rain was launched in 2023 with select broker users, with initial offerings of 'Rain Day' and 'Rain Season'. While the former covers against excess rain days during the risk period, the latter offering covers against an excess in cumulative rainfall during the risk period.

In Canada, we also launched Sustainable Property Endorsement mid-year 2023 with enhanced Build Back Better coverages and reimbursement for getting certification of environmental performance.

### Carbon footprinting of underwriting portfolios

We continue to seek to measure the attributed total emission footprint that comes from underwriting companies using the PCAF Insurance Associated Emissions standard.

We were one of the 16 members of the PCAF Insurance-Associated Emissions Working Group that developed the standard. When methodologies and data is suitability developed and robust, we will provide disclosure in the future.

We will continue to address the challenges in this measurement through advocacy for data quality improvements and more certainty towards the accounting guidance.

1. Engineered timber, also called Mass timber, Cross Laminated Timber (CLT) and Glulam, are wood products that have been manufactured and bonded together to form a composite material, panel or building system

### Additional links

**Aviva expands underwriting appetite to include engineered timber for commercial buildings**

**Standalone cover for electric vehicle charging points**



# Decarbonising our operations and supply chain

## We are taking action to reduce the environmental impact of our operations and supply chain.

Our supply chain includes suppliers to Aviva's operations and suppliers we use to fulfil customers claims e.g. in making good damage to homes or cars.

### Operations

We are reducing our environmental impact in many ways, including through energy efficiency via use of technology and digital communications, using renewable energy sources and minimising the carbon intensity of our car fleet. We aim to have Net Zero operations by 2030 and have now achieved our 2025 commitment to use 100% renewable electricity by 2025 (aligned to the RE100 commitment<sup>1</sup>).

We are also working with our partners to help decarbonise our supply chain, supported by our science-based targets.

### Renewable energy and emission reductions

During 2023, we confirmed that 100% of our 2022 electricity used by Aviva's operations was from certified renewable sources.

Therefore we have achieved RE1001 and this is earlier than previously planned. Aviva was the first British pension and insurance company to reach 100% renewable electricity. We will continue to explore available renewable energy supply options including investment in self-generation projects, direct power purchase agreements with generators, peer to peer energy trading and working with our existing supply partners to drive market innovation.

We have a SBTi target to reduce Aviva's Scope 1 and Scope 2 operational emissions by 90% by end of 2030 from a 2019 baseline.

### Clean energy

We continued to install solar on the Norwich Island site last year, with further installation planned in Canada in 2024.

Aviva has received approval to install a wind turbine in Perth. This will provide the Perth office with 100% self-generated renewable electricity. The turbine should be operational by December 2024 and is expected to generate electricity in excess of the current annual site consumption.

This is equivalent to the electricity required to power over 680 homes per year. Any surplus energy generated is planned to go to the existing on-site battery storage for later use, or be exported to the grid.

### Data-driven abatement

We are currently working to further identify and abate the emissions across our estate that are more challenging to eliminate. We are working with our landlords to co-invest in energy efficiency, renewables and emission reduction projects.

We have completed decarbonisation studies to determine actions needed to reduce emissions from our buildings, fabric enhancement studies to establish measures needed to reduce energy wastage and grid capacity studies to understand power headroom to enable heat pumps.

Continual improvements are being made in day-to-day estates management to reduce energy consumption.

### Building blocks

In December 2023, we moved into our new London headquarters office space at 80 Fenchurch Street.

This new office was built in 2020 to the latest efficiency standards, has an Energy Performance Certificate (EPC) A rating and is rated BREEAM Excellent, the world's leading sustainability assessment. The estimated carbon savings are c.700 tonnes per year compared with our previous building.

### Car fleet

We have committed to moving our global vehicle fleet to electric EV or plug-in hybrid electric vehicle (PHEV) by the end of 2025 in the UK and Ireland and by the end of 2027 in Canada, via EV100<sup>2</sup>. 66% of the vehicles in our car fleet (of c.850) are now EV/PHEV. Our EV100 ambition is that all new vehicles will be PHEV or battery-powered electric vehicle (BEV) and we will be replacing the diesel/petrol/self charging hybrid vehicles as necessary, with either a PHEV or BEV as part of our individual lease renewal or new order process.

In the UK, we have 65 electric vehicle charging points at five office locations, giving us the ability to charge c.78 vehicles. In 2024 we plan to deliver a targeted EV charging strategy through a new operating partnership covering all our sites.

1. RE100 is the global corporate renewable energy initiative bringing together hundreds of large and ambitious businesses committed to 100% renewable electricity
2. EV100 is Climate Action's global initiative to accelerate the transition to EVs



## Decarbonising our operations and supply chain

### Supply Chain Engagement

Engaging with suppliers, including those suppliers supporting our claims management from our underwriting activities, on their emissions is key to achieving our ambitions. We hosted the second supplier summit in November 2023; an event attended by 250 attendees, and representation from over 100 of our supply chain partners to update on our Net Zero agenda, to drive action and to provide opportunities for education and collaboration. We will continue to provide support to our supply partners through regular conversations via our supplier management community as well as a written guidance pack, outlining our expectations of suppliers and highlighting resources that will ensure suppliers are able to align to these. We will also continue to develop the content available on our Aviva external supplier site, geared towards both small and large businesses.

### Accounting for homeworking

Our operational carbon emissions methodology calculates the emissions produced per employee, which includes the emissions from homeworking to reflect our hybrid operating model.

As this methodology is still nascent and is based on a number of assumptions we have not included these emissions in Aviva's operational carbon footprint.

This year we have used UK Government Department for Energy Security and Net Zero (DESNZ) emission factors; applying them also to our Ireland and Canada businesses in the absence of comparable local factors. We estimate these emissions equate to 4,646 (2022: 2,491) tonnes of CO<sub>2</sub> equivalents (tCO<sub>2</sub>e) for our UK, Canada and Ireland businesses. The primary driver for the increase in homeworker emissions in the period was the transition to using the DESNZ emissions factors, which incorporates higher assumed energy usage from homeworking relative to the methodology applied in the prior period.

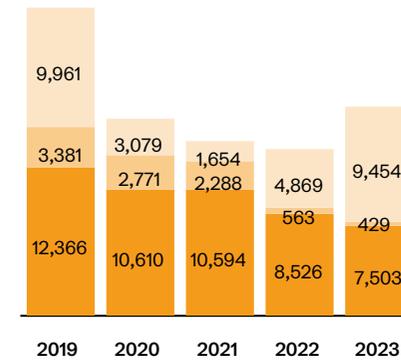
### Reducing our environmental footprint

Our UK business met our zero landfill target in 2015. Between 2019 and 2020 our workplaces were free of single-use plastic containers. Due to COVID-19 through 2021 and 2022, we had to reintroduce a limited amount of single-use plastic for health and safety reasons. We have been able to eliminate single-use plastic again in 2023.

### Operational emissions

Scope 3 emissions have increased compared to 2022 principally as a result of business travel increasing.

Figure 2: Absolute operational carbon emissions tCO<sub>2</sub>e (market based)<sup>1</sup>.



- Scope 1 – natural gas, fugitive emissions, oil and company owned cars
- Scope 2 – electricity municipal heating and cooling
- Scope 3 – Business travel and grey fleet, waste and water, electricity transmission and distribution, (excludes homeworking energy use)

### Improving offsetting transparency

Aviva has been carbon neutral in our business operations since 2006, through the purchase and retirement of carbon reduction credits from the voluntary carbon market. We are continuing to maintain the carbon neutrality of our operations through use of reduction credits (representing the residual carbon dioxide equivalent that is avoided from being emitted into the atmosphere) through to 2030.

### Moving from carbon reduction credits to removal credits

With more companies considering how they treat their residual carbon emissions from their operations, the focus on carbon reduction credits and the type of credits employed has increased. To contain costs and ensure the continued robustness of carbon neutrality status, we worked with carbon development partners to focus on the development of a Gold Standard cookstove project in the Bihar region of India.

With the reductions in emissions from the business, it is anticipated that this project will deliver carbon reduction credits to help support Aviva's operations remaining carbon neutral through to 2030. At that stage we will switch to using removal credits (representing the carbon removed from the atmosphere as the result of carbon removal projects). Our work on our carbon removals plans has commenced following the £100 million funding we announced in March 2021. In February 2023, we announced a £38 million partnership with The Wildlife Trusts to help restore the UK's temperate rainforests. In June 2023 we partnered with the Wildfowl and Wetlands Trust (WWT), the charity for wetlands and wildlife, on an innovative saltmarsh creation project in the UK. Aviva has pledged £21 million to the WWT aiming to help restore up to 25 hectares of saltmarsh over the next 17 years. We have also pledged donations of c.CAD\$6.2 million to our work with Wild + Pine (CAD 6.2 million).

1. 2019 Scope 3 emissions of 9,961 include 6,535 relating to the UK as previously reported, the remaining 3,426 relating to offshore

# Our Science-based targets

We use SBTs, which were validated by the Science-Based Targets initiative in December 2022, to support tracking our progress against our ambitions. Our SBTs, along with our progress in 2023 are set out below.

Climate focus area	Aviva science-based target	Metric	Progress against target
Decarbonising our supply chain	Aviva plc commits to 70% of its suppliers by spend, covering purchased goods and services, setting SBTi validated targets by the end of 2025	% of suppliers by spend covering purchased goods and services that have validated SBTs	At 31 December 2023 35% of suppliers by purchased spend had validated SBTs
Decarbonising our investment portfolio	Aviva plc commits to 33% of its corporate equity, bonds and loans portfolio by invested value setting SBTi validated targets by the end of 2025	% coverage corporate equity, bonds and loans by SBTi approved companies (weighted average)	At 31 December 2023 37% of corporate equity, bonds and loans portfolio had validated SBTs
Decarbonising our investment portfolio	Aviva plc commits to reduce its real estate investment portfolio GHG emissions 57% per square metre within its real estate by 2030 from a 2019 baseline	% reduction in real estate portfolio GHG emissions per square metre (m <sup>2</sup> ) from 2019 baseline	At 31 December 2022 <sup>1</sup> there was a 20% reduction compared to the 2019 baseline
Decarbonising our investment portfolio	Aviva plc commits to continue providing electricity generation project finance for only renewable electricity until the end of 2030	Number of non-renewable electricity generation project finance projects financed (baseline is nil)	Nil non-renewable electricity generation project finance projects financed up to 31 December 2023
Decarbonising our operations	Aviva plc commits to reduce absolute Scope 1 and Scope 2 own operational emissions by 90% from a 2019 baseline by the end of 2030	% reduction in absolute Scope 1 and 2 emissions from 2019 baseline	At 31 December 2023 there was an 50% reduction in Scope 1 and Scope 2 emissions compared to the 2019 baseline

The targets and coverage percentages related to decarbonising our investment portfolio include all in-scope external client assets managed under discretionary mandates. The target setting process for our SBTs led to us including external assets under discretionary mandates, alongside the assets recognised in the Group's Statement of Financial Position. Due to data limitations and methodology gaps we are currently unable to report on financed emissions associated with investments managed under discretionary mandates. Therefore progress reported above has been calculated excluding these mandates from the baseline and the 2023 results.

In addition to these targets, we also have targets as part of our membership of the Net Zero Asset Owners Alliance (NZAOA). We have outlined our progress against these targets in note 7.

1. Reflects the 2022 carbon intensity per square metre compared to the 2019 baseline

# Our approach to climate risk is embedded in our risk management framework

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# Risk management

## A rigorous and consistent risk management framework is embedded across Aviva.

Aviva’s risk management framework sets out how we identify, measure, monitor, manage and report on the risks to which our business, customers and wider society are, or could be, exposed to (including climate and other sustainability related risks).

## Our process for integrating climate-related risks into risk management

Aviva considers climate change to be a significant risk to our strategy, business model, customers and wider society. Its impacts are already being felt.

We are acting now through Aviva’s Sustainability Ambition to mitigate and manage its impacts both today and in the future. Through these actions, we continue to build resilience to climate transition, physical and litigation (including greenwashing) risks.

Climate and other sustainability risks have been part of our risk policies<sup>1</sup> and our business planning instructions. Through this framework (see figure - right), we identify, measure, monitor, manage and report on climate-related risks.

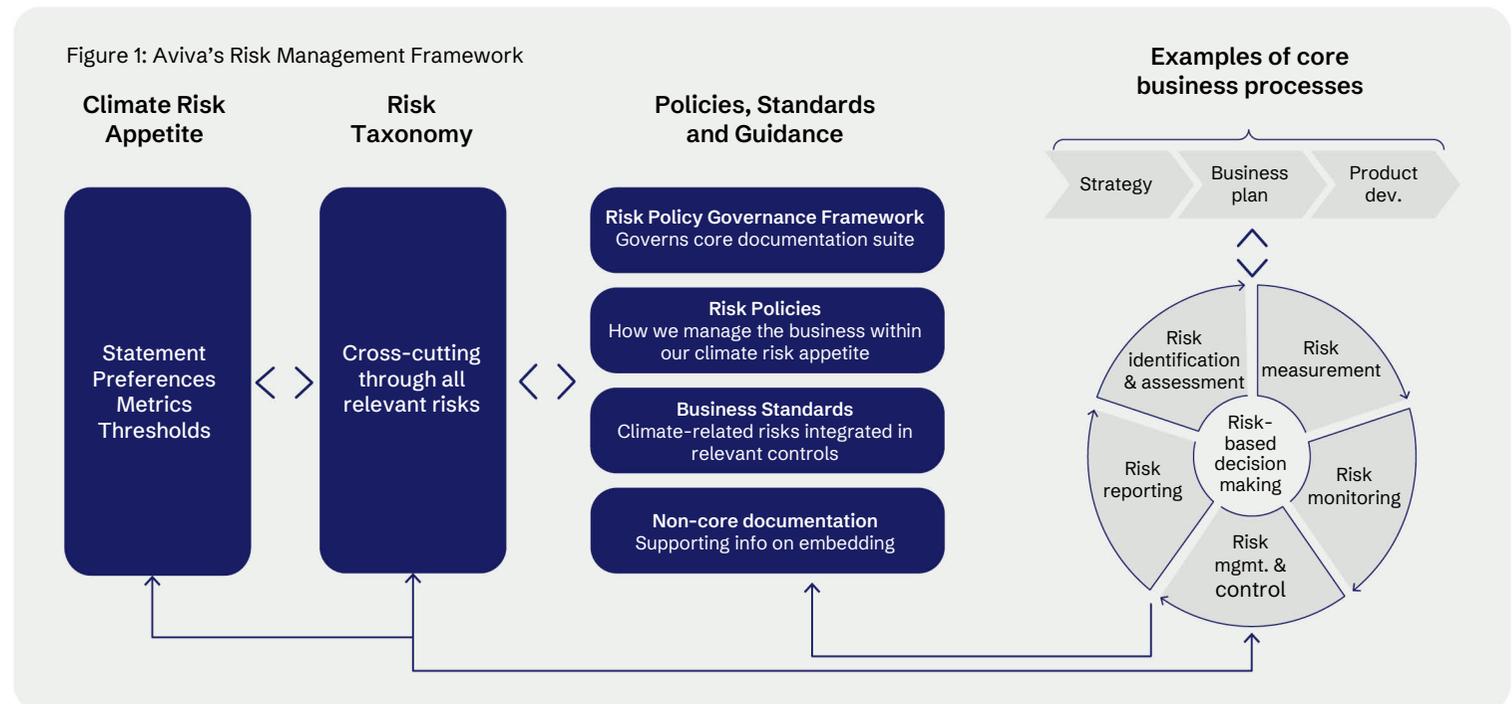
Our climate risk appetite statement, preferences (see table in this section), metrics and thresholds facilitate risk-based decision making in line with our business plan and Sustainability Ambition. Climate-related risks are presented as ‘cross-cutting’ rather than standalone risks in our risk taxonomy.

The principal risks impacted by climate change are credit risk, market risk, general insurance risk, and life insurance risk.

Our business standards explicitly integrate climate-related risks across all risk and control management activities supporting our day-to-day decisions. In doing so, we take into consideration the fact that climate-related risks and opportunities do not always easily align with existing risk management processes.

In 2023, through an effective collaboration across Aviva as well as clear roles and responsibilities, we continued to build our climate and other sustainability risk capability and methodology to further integrate these risks and opportunities into our risk management and risk appetite frameworks.

1. Including our Risk Management Framework, Financial Risk Policy, GI Risk Policy, Life Insurance Risk Policy, Operational Risk Policy, Risk Appetite Framework as well as our Own Risk and Solvency Assessment (ORSA) policies



## Risk management

We further developed guidance, metrics and targets, to support better understanding and monitoring of climate-related risks and ensure these are embedded in our day-to-day decision making.

### Our process for identifying and assessing climate-related risks

We use our risk identification process to identify potential exposure to climate-related risks via the associated physical risk (for example flood, windstorm and tropical cyclones and heavy precipitation), transition risk (for example new climate policies) and litigation risk (including greenwashing).

We then conduct exposure analysis to understand how these risks will impact our most material exposures.

We use scenarios to understand how climate-related risks might impact Aviva's strategy, financial and operational resilience, and franchise/reputation and, therefore, the management actions we might need to take as a result. This is primarily a qualitative assessment informed by quantitative indicators.

We map emerging risks and trends on our emerging risk spectrum according to the nature and size of their impact to assess their materiality. The outcomes are reported to our Board and Senior Management, which informs the prioritisation for management action and reporting (see risk spectrum figure - right). This is an ongoing exercise and position of the emerging risks and associated scenarios will evolve in line with science and best practice.

### Our process for monitoring and managing climate-related risks

We use a variety of metrics to monitor and manage alignment with global or national targets on climate change mitigation and the potential financial impact on our business, including operational carbon emissions, financed emissions, monitoring of sovereign holdings, investment in sustainable assets, weather-related losses, temperature alignment, and Climate Value-at-Risk (Climate VaR). We continue to enhance our understanding of litigation risk to reduce the risk of harm arising from greenwashing risk.

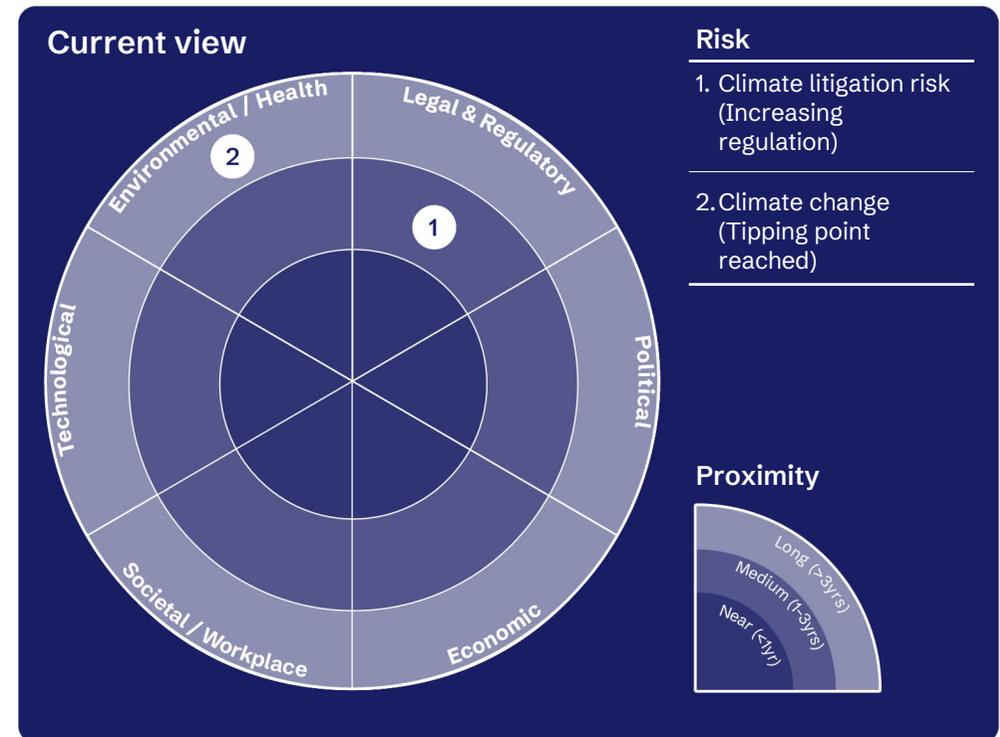
We use scenario analysis as an input to our risk assessment processes to test the resilience of our business strategy and adapt our business to ensure its longevity as an asset manager, asset owner, insurer, and pension provider. For example:

- We reflect the potential short-term impact of climate change, where appropriate, in our internal model Solvency Capital Requirement, over a 1-year time horizon.
- We are adapting to a world of increasing physical risk. We have built the possibility of short-term extreme weather events into our general insurance pricing, reinsurance programme design and monitor actual weather-related losses versus expected weather losses by business. Well-exercised and effective plans are in place to respond to major weather events and weather-related claims supported by exposure mapping and flood modelling tools.

- We use long term scenario analysis as one of the inputs into the climate-related risk assessment process. For example, Climate VaR is used to support our risk management, quarterly internal reporting process and annual production of external disclosures as well as our ORSA allowing us to understand the extent to which climate change will impact our business based on different IPCC scenarios. Climate VaR is also used to review the resilience of our strategy.

For example: from an asset perspective, the Climate VaR is used to identify how we can change our capital allocation to reduce our exposure to both transition and physical risks. From a liability perspective, we have modelled the transition risks of our underwritten Personal Lines and Commercial Lines books. This bespoke analysis informs our future underwriting and pricing strategies.

Figure 2: Risk Spectrum



## Risk management

### Risk Appetite Statement

We have a very low appetite for climate-related risks which could have a material negative impact upon our balance sheet and business model as well as our customers and wider society. We actively seek to reduce our exposure over time to the downside risks arising from the transition to a low carbon economy. We seek to identify and support solutions that will drive a transition to a low-carbon, climate resilient economy. We seek to limit our net exposure to the more acute and chronic physical risks that will occur in the event the Paris Agreement target is not met. We actively avoid material exposure to climate litigation risks.

### Escalation process

The climate risk appetite, its metrics and associated thresholds are set by the Board. If the overall appetite is breached, the Board would be notified and the breach discussed at the next sub-committee or Board meeting as relevant.

### Frequency of review

We monitor our climate metrics against our thresholds and targets on a quarterly basis.

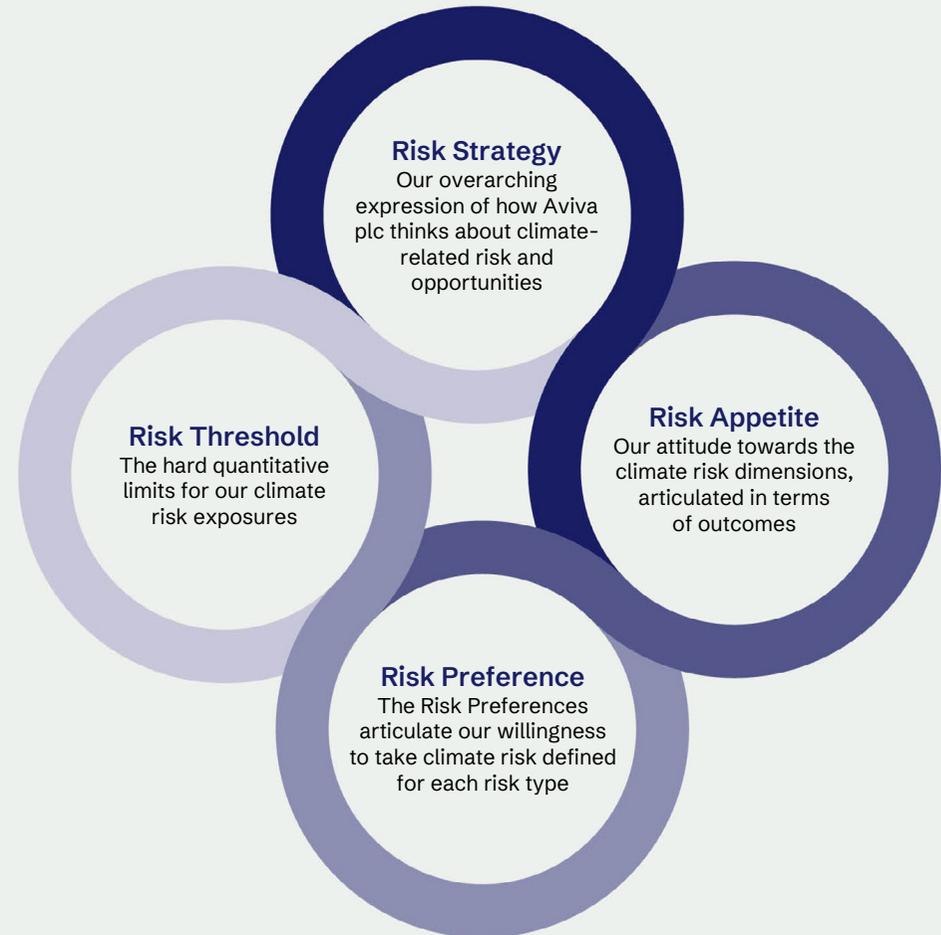
### Risk preferences

Risk type	Preference	Rationale
Transition risk	Avoid <sup>1</sup>	We seek to reduce the impact on our business that is likely to arise from the extensive policy, technology and market changes resulting from the transition to a low carbon economy. Depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risks.
Physical risk	Accept <sup>2</sup>	We seek to limit, or where appropriate reduce, our investment and net underwriting exposure to the more acute and chronic physical effects of climate change, whilst recognising that we have capabilities to manage these risks, support adaptation and build resilience.
Litigation risk	Avoid	We are averse to climate litigation risk that could arise from parties who have suffered loss and damage from climate change and seek to recover losses from Aviva if they consider that investment or underwriting activities have contributed to that loss.

1. We want a small amount of this risk

2. We are willing to accept a moderate amount of this risk

Figure 3: Key components within Aviva's Climate Risk Appetite





# Governance for climate risk is embedded in Aviva's governance framework

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# Governance

## A strong system of governance throughout the Group is essential to achieving our purpose and delivering our strategy.

Our governance framework and a clear division of responsibilities enables the Board to operate effectively, fulfil its responsibilities and provide valuable oversight.

It allows the Board to integrate climate-related risks and opportunities into our strategy, decision making and business processes.

Our governance framework is set out in our Annual Report and Accounts and our climate and sustainability governance is detailed in this section.

### Board climate-related skills and experience

The Aviva plc Board has a range of climate-related experience, as set out in the Aviva plc Annual Report and Accounts 2023. 58% of the Board are classified as having expertise in this area.

In addition, the Customer and Sustainability Committee is chaired by Shonaid Jemmett-Page, who has broad sustainability experience, including her previous role as Chair of Greencoat UK Wind plc.

### Group subsidiary boards, executive and risk committees

The Group subsidiary boards, executive and risk committees have similar responsibilities as Aviva plc and are supported by relevant functions (for example investment, risk, underwriting and capital management) to embed Aviva's Sustainability Ambition.

### Climate and sustainability governance structure

The Board's Customer and Sustainability Committee is responsible for assisting the Board in its oversight of Aviva's Sustainability Ambition.

The impact of climate change is also considered by the Risk Committee, and is embedded into our reward structures. The Audit Committee are responsible for reviewing climate-related disclosures.

#### Board

Collectively responsible for promoting the long-term sustainable success of the Company. This includes setting the Group's strategic priorities, one of which being sustainability, and setting the Group's risk appetite, which includes climate-related risk.

#### Audit Committee

Assists the Board to review the principle climate-related disclosures made in Annual Report and Accounts and Climate-related Financial Disclosure report, consider the significant inherent challenges in the measurement of climate emissions and ensure the disclosures of these challenges are addressed and given appropriate priority.

#### Risk Committee

Assists the Board in its oversight of risks, including climate-related risks by assessing the effectiveness of our risk management framework, risk strategy, risk appetite and profile.

#### Customer and Sustainability Committee

Assists the Board in its oversight of Aviva's Sustainability Ambition by evaluating progress on the priorities and objectives across Aviva's Sustainability Ambition, including our nature and biodiversity policy, climate transition plan and our overall contribution to, impact on, and role in society in the countries we operate.

#### Remuneration Committee

Assists the Board in its oversight of remuneration including consideration of climate metrics when reviewing the Directors' Remuneration Policy.

#### Group Executive Committee and Sustainability Ambition Steering Committee



## Governance

2023

### January

- The Customer and Sustainability Committee discussed progress against Aviva's Sustainability Ambition, including Key Performance Indicators and the Sustainability Ambition scorecard.
- The Risk Committee reviewed Aviva's emerging risk of reaching a climate change 'tipping point' and management's mitigation actions.

### March

- The Audit Committee reviewed the assurance process over climate and non-financial metrics and reviewed the 2022 Sustainability Report and Climate-related Financial Disclosure report.
- The Customer and Sustainability Committee reviewed and agreed the non-financial metrics in the 2022 Sustainability Report and recommended the Sustainability Report and Climate-related Financial Disclosure report to the Board for approval.
- The Audit, Risk and Customer and Sustainability Committees all received reports around the risk of greenwashing and the controls over climate reporting.
- The Risk Committee carried out a deep dive into sustainability risk. Areas of focus were delivering 2030 and 2040 goals and exposure to greenwashing risk.
- The Board approved the Sustainability Report and Climate-related Financial Disclosure report.

### May

- The Audit Committee received an update on sustainability-related reporting developments impacting full year 2023.
- The Customer and Sustainability Committee carried out a deep dive into Aviva Investors' sustainability strategy and discussed progress against Aviva's Sustainability Ambition.

### August

- Risk priorities for the second half of 2023 were reported to the Risk Committee, which included the successful delivery of Aviva's Sustainability Ambition.

### December

- The Customer and Sustainability Committee received an update on Aviva's Sustainability Ambition and discussed the internal audit review of controls to mitigate greenwashing risks.

### November

- The Board, and the Group's principal UK subsidiary boards, took part in a training session focused on sustainability.
- The Audit Committee received an update on the company's approach to non-financial reporting, including climate related disclosures for full year 2023.
- The Customer and Sustainability Committee discussed progress against Aviva's Sustainability Ambition.
- The Risk Committee received an update on the heightened increase in regulatory and activist focus on greenwashing and Aviva's controls relating to climate reporting.



## Governance

### Our management's climate roles and responsibilities

The Group Chief Executive Officer (CEO) is accountable for:

- The development and execution of the Group strategy (including climate change plan) in line with policies and objectives agreed by the Board;
- The operational effectiveness and profitability of the Group;
- The leadership of the Group through executive directors and senior management team; and
- The compliance by the Group with legal, regulatory, corporate governance, social, ethical and environmental principles.

Our business CEOs are accountable for:

- Ensuring that climate is considered as part of the investment, underwriting, product design, pricing and claims processes; and
- Compliance with legal, regulatory, corporate governance, social, ethical and environmental principles.

In addition to the responsibilities of the CEOs, other directors and management teams across Aviva are responsible for managing those areas of the business which may affect or be affected by climate change.

The Chief Risk Officers provide independent opinion and challenge of the business' management of risks including their approaches to risk identification and measuring risk impacts, including sustainability and climate-related risks. The Chief Financial Officers advise the Board on the firm's financial exposure arising from sustainability and climate-related risks and maintain an appropriate approach to disclosure and regulatory reporting of these risks.

In 2023, the Aviva Sustainability Ambition Steering Committee continued to operate as the executive level forum to monitor progress towards our sustainability ambitions, with representation from leadership across the business units and group.

Within our functions we also have individual roles focused on climate-related risks and opportunities.

### Internal audit

In 2023 our Internal audit team performed a review of controls to mitigate greenwashing risks relating to certain key activities within the Group. This provides assurance over existing controls while highlighting minor actions to support further strengthening and embedding.

### Remuneration

Since 2021, LTIP awards have included a climate performance metric. LTIP awards granted in 2023, with a 2023-2025 performance period, include one climate metric (7.5% weighting). For LTIP awards granted since 2021, the climate metric measures the reduction in CO<sub>2</sub> intensity of shareholders' assets and, from 2022, this was expanded to include with-profit funds. As set out in the Directors' Remuneration Report, a new Directors' Remuneration Policy is being proposed for 2024 and it is anticipated LTIPs awarded in 2024 will be made under this new policy. No changes are being proposed to the weighting of strategic measures (20%) in the LTIP and these individual measures also remain unchanged.

Aviva Investors was one of the early asset managers to integrate sustainability factors as part of the pay criteria across the firm, including for its investment desk heads. Through its Global Reward Framework, all investment employees should support responsible investment and integrate sustainability considerations into their investment processes. Sustainability metrics form part of the business scorecard and annual risk attestation.

The Aviva Investors Chief Investment Officer and investment desk heads consider how investment employees demonstrate their commitment to sustainability processes as part of the determination of performance and pay outcomes. In addition, in 2023 we expected all Aviva Investors colleagues in investment roles to include a specific sustainability-focused goal in their performance goal setting process. For 2024, further guidance was specifically provided to colleagues and head of asset classes in equities and fixed income regarding how to embed sustainability objectives systematically across the investment team members' objectives. Work continues in providing this further guidance to our multi-assets and real assets teams.



# Regulatory developments

## There are a number of regulatory developments that we have identified that will impact our reporting in 2024 and beyond.

### International Sustainability Standards Board

During 2023, the International Sustainability Standards Board (ISSB) issued its inaugural standards - IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures. The standards are subject to UK endorsement.

Whilst the implementation of the reporting standards will not be without challenge, including availability of data and limitations of methodology, Aviva continues to support the ISSB and the establishment of a global baseline for sustainability-related financial disclosure requirements.

### Nature related reporting

Aviva Investors is a supporting member of the Taskforce for Nature-related Financial Disclosures (TNFD) Forum supporting development of the TNFD framework to enable organisations to report and act upon evolving nature-related risks and opportunities, with the ultimate aim of supporting a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes.

The nature and biodiversity work done to date at Aviva, in particular our Biodiversity Policy, impact assessments, nature-based carbon removals projects and biodiversity-themed equity fund demonstrates our focus on this important area.

The final recommendations and guidance of the TNFD were published in September 2023. We are currently working through the final recommendations to understand and plan how best to adopt the framework.

### Transition Plan Taskforce

The UK Transition Plan Taskforce (TPT) was set up by the UK Government in April 2022 to develop the gold standard for private sector climate transition plans. The TPT is conceptually aligned with, and builds upon, the transition plan guidance developed by the Glasgow Financial Alliance for Net Zero (GFANZ), the TCFD recommendations and ISSB standards.

The TPT steering group is co-chaired by Aviva's Group CEO, Amanda Blanc, and in October 2023, the TPT launched its sector-neutral disclosure framework. Publication of further sector-specific guidance, including guidance for asset owners and asset managers, is expected in the first half of 2024.

It is anticipated that during 2024 the FCA will consult on proposals to implement TPT-aligned disclosure requirements for listed issuers. Aviva is supportive of mandatory requirements for a transition plan for the largest companies.

We are using the TPT disclosure framework to inform the development of our second transition plan.

### Sustainability Disclosure Requirements

In November 2023 the FCA published their policy statement on Sustainability Disclosure Requirements (SDR) and Investment labels. The new measures introduce an anti-greenwashing rule, product labels to help retail investors understand what their money is being used for and naming and marketing requirements.

The requirements focus on asset managers and their UK-based funds.

We are currently working through the final measures for implementation ahead of the effective date of the various rules over 2024 and 2025.

### Green Taxonomy

The UK government is expected to consult on a UK Green Taxonomy in 2024, providing investors with a tool to define which economic activities should be labelled as green. It will be designed with harmonisation and interoperability with the taxonomies of other jurisdictions in mind.

It is anticipated that Aviva will be expected to report on the level of alignment of our activities with the taxonomy. The reporting detail including scope and timing requirements will be determined following consultation.

# Our metrics assess climate-related risks and opportunities

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# Overview of our metrics

We use the following core metrics to measure the potential financial impact of climate-related risks and opportunities on our business and to measure our Scope 1, Scope 2 and Scope 3 emissions, as well as to track overall progress including against our ambitions and initiatives, recognising that they may have different boundaries. See note 14 for our reporting criteria for these metrics.

Decarbonisation area	Climate Metric	Overview	Physical/Transition Risk or Opportunity	Scope	External Data Provider (where relevant)	Note number
Operations	Operational carbon emissions	Measure the operational carbon emissions in tCO <sub>2</sub> e. This covers Scope 1, Scope 2 and certain categories of Scope 3.	Transition	Aviva Group-wide, including subsidiaries	Department for Energy Security & Net Zero (DESNZ), International Energy Agency (IEA)	Note 4
Assets under management	Financed emissions	Attributed emissions and intensity data of our investments. This covers Scope 3 category 15 - Scope 1 and 2 of the investee companies.	Transition	Shareholder, with-profits and policyholder	MSCI <sup>1</sup> , Accenture, Carbon Trust, EPC <sup>2</sup>	Note 7
Assets under management	Monitoring sovereign holdings	Measure our exposure to countries highly or moderately vulnerable to climate change and review sovereign holdings with Notre Dame-Global Adaptation Initiative (ND-GAIN) country index scores. This covers Scope 3 category 15 - production emissions of sovereigns.	Physical and Transition	Shareholder, with-profits and policyholder	University of Notre Dame (ND-GAIN country index), World Bank, PRIMAP-hist	Note 8
Assets under management	Investment in sustainable assets	Measure Aviva's investment in assets and funds which meet the sustainable asset definition.	Opportunity	Shareholder, with-profits and policyholder	Climate Bonds Initiative (CBI)	Note 9
Assets under management	Temperature alignment	Measure our portfolio alignment to Paris Agreement target as show in degree Celsius (°C).	Transition	Shareholder, with-profits and policyholder	MSCI <sup>1</sup> , Climate Action Tracker	Note 10
Underwriting activities	Weather-related losses	Actual weather-related losses versus expected losses by year and business unit and weather impact on Aviva's Combined Operating Ratio (COR).	Physical	General insurance business	N/A	Note 11

1. Certain information ©2024. MSCI ESG Research LLC. Reproduced by permission

2. Energy performance certificate (EPC) data sourced from UK (<https://epc.opendatacommunities.org/login>) and Scotland Government websites ([statistics.gov.scot](https://statistics.gov.scot) : Domestic Energy Performance Certificates)

These metrics are used in various processes from monitoring risk appetite to business planning to measuring progress against our Net Zero ambition. Whilst recognising the limitations of the metrics (e.g. scope of coverage, data availability and extended time horizons as well as the uncertainty associated with some of the underlying assumptions), we believe they are valuable in supporting our climate-related governance, strategy and risk management. We utilise internal data, as well as external data sources and providers, to produce the climate metrics. Further information on the reporting policies for each metric is included in the reporting criteria, see note 14. We have also included an update on how we measure and track climate-related litigation risk in note 13.

All percentages and totals are calculated on unrounded numbers so minor rounding differences may exist.



# Climate reporting policies

Aviva plc (the Company), a public limited company incorporated and domiciled in the United Kingdom (UK), together with its subsidiaries (collectively, the 'Group' or 'Aviva') transacts life assurance and long-term savings business, fund management and most classes of general insurance and health business through its subsidiaries, joint ventures, associates and branches in the UK, Ireland, Canada and Asia.

The principal reporting policies adopted in the preparation of the climate metrics are set out below. These policies have been consistently applied to all years presented, unless otherwise stated. The metrics provided cover the 2023 financial year (1 January 2023 to 31 December 2023). Unless otherwise noted, the amounts shown in the Climate-related Financial Disclosure are in millions of pounds sterling (£m).

## Comparatives

Comparative numbers included are consistent with our Climate-related Financial Disclosure 2022 except as outlined in note 1, which describes the changes to comparative information.

Emissions are reported using the most recent data available. Typically this means that both estimated and reported emissions will be based on data that is at least one year in arrears, for example the majority of our 2023 financed emissions will be based on 2022 information reported by investees in 2023.

Comparative information will continue to reflect this lag in the data.

## Reliance on third parties for data

Climate metrics are more uncertain than, for example, historical financial information. Climate metrics often place significant reliance on estimates of emissions, and even where reported emissions are available this data is often itself based on underlying estimates. Metrics are therefore susceptible to variation year on year. These limitations apply to Scope 1 and Scope 2 metrics for our investments but are compounded for Scope 3 emissions of our investments and underwriting. Scope 3 information is less widely reported, less consistent, and is typically subject to even greater levels of estimation uncertainty and lower data quality scores. In addition, reporting at a portfolio level introduces significant double-counting of emissions.

Note 14 outlines the source of data used to calculate the climate-related metrics included within this report, noting that the data source varies by asset class and metric type.

## Consolidation principles

Subsidiaries are those entities over which the Group has control. The Group has invested in a number of specialised investment vehicles such as Open-ended Investment Companies (OEICs) and unit trusts.

To the extent these funds are within the control of the Group (one factor being whether we have the ability to determine the investment strategy of the fund) we have considered our share of the underlying assets of these vehicles in the calculation of our metrics as relevant (subject to data availability), and have excluded the share attributable to external unitholders. Associates and joint ventures are entities over which the Group has significant influence but not control, consistent with the definitions used for financial reporting purposes.

## Consolidation procedure

Where material, comparative information is re-presented to reflect changes in the Group's reporting perimeter as a result of acquisitions and disposals of subsidiaries, joint ventures and associates.

Associates and joint ventures are included within financed emissions metrics at Aviva's ownership share.

The metrics include the amount invested through our shareholder, with-profits and policyholder funds, excluding amounts attributable to external unitholders. Consistent with the accounting consolidation principles applied for financial reporting, assets under management that are managed on behalf of third parties are excluded from the scope of the Group's reported metrics.

Due to the developing nature of climate data and reporting, it is not currently possible to report climate metrics for all of the in-scope assets in the Group's portfolio. A coverage percentage is provided which outlines how much of the total in-scope assets are currently measured within the climate metrics.

## Materiality

Our public disclosures, including our climate-related financial disclosures, include a range of topics that we believe are relevant to our businesses and that are of interest to investors and other stakeholders. For the purposes of complying with our annual and half-yearly disclosure obligations in the UK we apply materiality based on the applicable rules and regulations governing public reporting in the UK, including consideration of our interactions with our stakeholders, society, the economy and the natural environment throughout our value chain.

In our climate-related disclosures, we have been guided by the same approach to materiality, to which we have applied additional consideration of short-term, medium-term and longer-term time frames that reflect the time horizon of our climate goals, alongside broader considerations, including but not limited to, the nature of the disclosure, metric and the level of estimation involved.

## Climate reporting policies

These time frames are longer than those time frames customarily used in some of our other disclosures, including our annual and interim financial reports submitted to the London Stock Exchange (“LSE”) in the UK.

This approach to materiality means that this report, and many of our climate-related disclosures, including with respect to climate-related risks and opportunities, include certain information that we have not included in our LSE filings. Statements made in this report and in our other disclosures use a greater number and level of assumptions and estimates than many of our LSE filings. These assumptions and estimates are subject to change, particularly when projected over the longer time frames used. In applying materiality we take a holistic view taking into account both quantitative and qualitative factors when determining the information that is important in communicating our sustainability and climate strategic ambitions to stakeholders. In addition, our climate risk capabilities and Net Zero transition strategy and plan remain under development, and the data underlying these and market practice in relation to such disclosures will evolve over time.

As a result, we expect that certain disclosures made in this report are likely to be amended, updated, recalculated and re-presented in the future.

### Greenhouse gas emissions

The GHG Protocol establishes a comprehensive global standardised framework to measure and manage GHG emissions. This framework underpins the measurement of emissions in the TCFD metrics. GHG emissions used for the TCFD metrics are aligned to the GHG Protocol. This includes the seven greenhouse gases covered by the United Nations Framework Convention on Climate Change (UNFCCC)/Kyoto Protocol, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). We do not include biogenic carbon dioxide<sup>1</sup> emissions (CO<sub>2</sub>) in our reporting.

### The GHG Protocol requires reporting by scopes:



#### Scope 1 emissions

Direct emissions from company-owned assets and controlled sources e.g. emissions from Aviva offices.



#### Scope 2 emissions

Indirect emissions released in production of electricity, steam, heating or other energy purchased by the company



#### Scope 3 emissions

Indirect emissions produced along a company's entire value chain

### Reporting criteria

The reporting criteria for the metrics included in notes 3 to 11 are included in note 14.

### Independent assurance

**(AR)** Indicates that this metric was subject to independent reasonable assurance by PricewaterhouseCoopers LLP (“PwC”)

**(AL)** Indicates that this metric was subject to independent limited assurance by PricewaterhouseCoopers LLP (“PwC”)

For the results of that assurance, see the assurance report on page 73 and Aviva plc 2023 Reporting Criteria Independent Assurance section.

1. Emissions from a stationary source directly resulting from the combustion or decomposition of biologically based materials other than fossil fuels



# Our climate metrics

## Note 1 - Changes to metrics and comparative amounts

As outlined in table 1 we have included the updates that have been made to comparatives since those published in the Climate-related Financial Disclosure 2022.

### Operational emissions

Aviva has adopted International Financial Reporting Standard (IFRS) 17 Insurance Contracts from 1 January 2023. As a result the Group's revenue-based operational intensity measure has been updated to include revenue from insurance and participating investment contracts on an IFRS 17 basis. Previously calculated based on gross written premiums (GWP), it is now calculated based on insurance revenue and fee and commission income ('total income'). Comparatives have been re-presented to be on a consistent basis.

### Economic carbon intensity and Sovereign intensity

In 2023 we have updated our methodology for Economic carbon intensity (ECI) and Sovereign intensity to be reported in pounds sterling (£) rather than US dollars (\$). This reflects the functional and presentational currency of the Group. The comparatives have been re-presented on a consistent basis.

### Financed emissions

Consistent with including more asset classes where methodology and data allows, we have expanded our financed emissions metric to include additional asset classes this year, including infrastructure debt, commercial real estate mortgages, equity release mortgages and direct real estate. Absolute emissions and carbon intensity is presented for each asset class for 2023 and the comparatives for 2022. Total absolute financed emissions for 2022 have been re-presented to include these new asset classes in the total. We have also changed our approach on sovereign emissions data coverage to include local government debt. This was done to improve transparency.

Table 1: Change to our 2022 comparatives

Metric name	As previously published 2022	Re-presented 2022
<b>Operational emissions impacts<sup>1</sup>:</b>	tCO <sub>2</sub> e/GWP	tCO <sub>2</sub> e/Total income
Scope 1 and Scope 2 market-based revenue intensity	0.48	0.50
Total market-based revenue intensity	0.74	0.77
Scope 1 and Scope 2 location-based revenue intensity	0.86	0.90
Total location-based revenue intensity	1.12	1.17

Metric name	As previously published 2022	Re-presented 2022
<b>Financed emissions impacts:</b>		
Absolute emissions <sup>2</sup>	7.0 attributed tCO <sub>2</sub> e	7.9 attributed tCO <sub>2</sub> e
Economic carbon intensity <sup>3</sup>	58 tCO <sub>2</sub> e/\$m	62 tCO <sub>2</sub> e/£m
Sovereign intensity <sup>4</sup>	188 tCO <sub>2</sub> e/\$m	227 tCO <sub>2</sub> e/£m
AUM coverage <sup>5</sup>	57 %	65 %
Financed emissions data coverage <sup>5</sup>	81 %	83 %
Sovereign emissions data coverage <sup>6</sup>	100 %	93 %

- The operational emissions revenue intensity metrics reflect the impact of changing the denominator from GWP to total income
- The increase in absolute emissions of 0.9 million tCO<sub>2</sub>e reflects the inclusion of additional asset classes
- The change in currency from \$ to £ increases the credit and equities economic carbon intensity from 58 tCO<sub>2</sub>e/\$m invested to 70 tCO<sub>2</sub>e/£m invested. After this change has been taken into account, the inclusion of additional asset classes reduces the overall economic intensity from 70 tCO<sub>2</sub>e/£m invested to 62 tCO<sub>2</sub>e/£m invested.
- The increase in sovereign intensity from 188 tCO<sub>2</sub>e/\$m to 227 tCO<sub>2</sub>e/£m reflects the change in currency from \$ to £
- The AUM coverage % and financed emissions data coverage % have both increased due to the inclusion of additional asset classes
- The decrease is due to the update in calculation method for the coverage % to include local government debt in the denominator. This reduces the coverage as local government debt currently does not have an emissions methodology from PCAF. The local government debt is included in the physical risk element when monitoring the ND-GAIN score of our sovereign exposures.

## Note 2 - Exchange rates

The Group's principal overseas operations during the year were located within Canada and the eurozone. The investments of these operations have been translated at the year end rates. In addition the US dollar exchange rate is presented as certain climate input data uses a US dollar basis. The rates used are set out in table 2 below.

Table 2: Exchange rates

	2023	2022	2023	2022	2023	2022
	Eurozone (€1 equals)		Canada (\$CAD1 equals)		United States (\$USD1 equals)	
Average rate	£0.87	£0.85	£0.60	£0.62	£0.80	£0.81
Year end rate	£0.87	£0.89	£0.59	£0.61	£0.79	£0.83



## Our climate metrics

### Note 3 - Scope 3 emissions reporting

Scope 3 emissions are indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. We are engaged with regulators, industry bodies, alliances and companies across multiple sectors to develop consistent and standardised frameworks and approaches to calculate Scope 3 emissions. Aviva does not engage in all activities linked to the categories as defined under Scope 3 and furthermore, we are at varied degrees of maturity in terms of establishing methodologies and basis to calculate Scope 3 emissions. We have set out our Scope 3 emissions by category below. We have also included a table which sets out our total operational (including Scope 1 and Scope 2) and financed emissions. Sovereign emissions are shown separately given the inherent double counting of these emissions.

	Categories	Relevance	Section reference category included in
Upstream Activities	1. Purchased goods and services	Applicable	Not reported - methodology under development
	2. Capital goods	Applicable	Not reported - methodology under development
	3. Fuel and energy related activities	Applicable	Note 4 - Operational emissions
	4. Upstream transportation and distribution	Not applicable	Not applicable
	5. Waste generated in operations	Applicable	Note 4 - Operational emissions
	6. Business travel	Applicable	Note 4 - Operational emissions
	7. Employee commuting	Applicable	Note 4 - Operational emissions (partial reporting)
	8. Upstream leased assets	Not applicable	Not applicable
Downstream Activities	9. Downstream transportation and distribution	Not applicable	Not applicable
	10. Processing of sold products	Not applicable	Not applicable
	11. Use of sold products	Not applicable	Not applicable
	12. End-of-life treatment of sold products	Not applicable	Not applicable
	13. Downstream leased assets <sup>1</sup>	Not applicable	Not applicable
	14. Franchises	Not applicable	Not applicable
	15. Investments	Applicable	Note 7 - Financed emissions <sup>2</sup> and note 8 - Monitoring sovereign holdings

### Emissions summary

tCO <sub>2</sub> e shown in thousands	Note	2023			2022 (re-presented) <sup>3</sup>		
		Scope 1 and Scope 2	Scope 3	Total	Scope 1 and Scope 2	Scope 3	Total
Operational emissions	4	15	9	25	16	5	21
Financed emissions <sup>2</sup>	7	—	8,788	8,788	—	7,879	7,879
<b>Total operational and financed emissions reported by Scope</b>		<b>15</b>	<b>8,797</b>	<b>8,813</b>	<b>16</b>	<b>7,884</b>	<b>7,900</b>
<b>Sovereign emissions</b>	<b>8</b>	<b>—</b>	<b>8,871</b>	<b>8,871</b>	<b>—</b>	<b>7,597</b>	<b>7,597</b>

Footnotes for note 3:

- The emissions associated with investment properties which are owned by the Group but are leased to external tenants are included within Scope 3 category 15 as direct real estate
- Financed emissions include Scope 1 and Scope 2. This is included under Scope 3 in the table above as it relates to Scope 3 category 15.
- The 2022 comparative results have been re-presented from those previously published to include additional asset classes. See note 1 for further details.



## Our climate metrics

### Note 4 - Operational carbon emissions

Aviva's reported environmental data follows the World Resources Institute and World Business Council on Sustainable Development's GHG Protocol Corporate Standard.

#### Reporting criteria

This note should be read in conjunction with the Climate reporting policies and note 14.

#### Approach and methodology

Aviva takes the operational control approach to operational carbon emissions reporting. This means we account for 100% of emissions from operations over which we have operational control (Aviva plc and its subsidiaries).

Aviva's operational GHG emissions includes Scope 1 and Scope 2 from owned sources and selected Scope 3 non-owned emissions (categories 3, 5, 6 and 7).

As we do not have operational control over our joint venture based in China, emissions are excluded from operational emissions and have been included in Scope 3, category 15, in our financed emissions.

**Scope 1** – Operational carbon emissions from owned sources. This includes natural gas, oil, company car mileage, and fugitive emissions (gases accidentally released into the atmosphere) from air-conditioning.

**Scope 2 Location-Based** – Operational carbon emissions from non-owned sources (i.e., power plants) using an average emissions intensity for the grids on which energy consumption occurs. This includes purchased electricity, municipal heating and cooling.

**Scope 2 Market Based** – Operational carbon emissions where Aviva have contractual arrangements for renewable electricity, for example, through power purchase agreements, certified renewable energy through a supplier tariff or the purchase of specific contractual instruments as relevant.

**Scope 3** - Operational carbon emissions from non-owned sources. These are: business travel (air, rail, grey fleet, and rental cars), water, electricity transmission and distribution and landfill waste. See 'Note 3 - Scope 3 emissions reporting'.

Scope 3 emissions related to business travel have increased in 2023, as in person interactions are higher.

### Key estimates and assumptions

The consideration and materiality of Scope 3 categories requires judgement. We consider certain Scope 3 categories to not be applicable to Aviva, as we do not engage in these activities. Our reporting for each category is set out in note 3.

Operational data (energy, refrigerant gases, travel, water, waste etc) are converted to a carbon dioxide equivalent (CO<sub>2</sub>e) using externally provided carbon conversion factors such as those provided by the UK government (DESNZ) greenhouse gas reporting: conversion factors 2023 or the International Energy Agency (IEA) on an annual basis.

### Targets

We aim to have Net Zero operations by 2030 and are committed to continuing to use 100% renewable electricity in Aviva's operations (aligned to the RE100 commitment). Our 2022 electricity was verified by the CDP as being from certified renewable sources, achieving our goal three years ahead of schedule.

We have a SBTi target to reduce Aviva's Scope 1 and Scope 2 operational emissions by 90% by end of 2030 from a 2019 baseline.

The table sets out our GHG emissions on an absolute CO<sub>2</sub>e basis in accordance with the Streamlined Energy and Carbon Reporting (SECR) for our Group-wide operations.

### Analysis

Aviva's operational carbon emissions associated with Scope 2 are now additionally reported using the market-based methodology of the GHG Protocol, and aligning with the science-based targets methodology.

Scope 2 market-based methodology allows companies to benefit from their actions in sourcing certified electricity generated from renewable sources, rather than simply taking the grid average carbon emissions for the country or region.

Scope 3 emissions have increased compared to 2022 principally as a result of business travel increasing.

Market-based Scope 1 and Scope 2 emissions intensity ratios have decreased due in part to management action around energy efficiency, and reduction in the property portfolio.



## Our climate metrics

	UK	Overseas	2023 <sup>(AR)</sup> Total	UK	Overseas	2022 (re-presented) <sup>1</sup> Total
<b>Emissions (market-based)<sup>2</sup></b>						
Scope 1 (tCO <sub>2</sub> e) <sup>3</sup>	6,082	1,421	7,503	6,550	1,976	8,526
Scope 2 (tCO <sub>2</sub> e) <sup>4</sup>	—	429	429	—	563	563
Scope 3 (tCO <sub>2</sub> e) <sup>5</sup>	6,045	3,409	9,454	3,172	1,697	4,869
Total market-based emissions (tCO <sub>2</sub> e)	12,127	5,259	17,386	9,722	4,236	13,958
Carbon offsets for which credits have been purchased and retired during the year (tCO <sub>2</sub> e) <sup>6</sup>	(12,127)	(5,259)	(17,386)	(9,722)	(4,236)	(13,958)
Total net market-based emissions (tCO <sub>2</sub> e)	—	—	—	—	—	—
<b>Intensity ratios (market-based)<sup>2</sup></b>						
Scope 1 and Scope 2 - market-based emissions (tCO <sub>2</sub> e) / £ million Total income <sup>1,3,4</sup>	0.41	0.37	0.40	0.49	0.53	0.50
Total market-based emissions (tCO <sub>2</sub> e) / £ million Total income <sup>1</sup>	0.82	1.06	0.88	0.72	0.89	0.77
Total market-based emissions (tCO <sub>2</sub> e) / employee	0.62	0.62	0.62	0.59	0.59	0.59
<b>Emissions (location-based)<sup>7</sup></b>						
Scope 1 (tCO <sub>2</sub> e) <sup>3</sup>	6,082	1,421	7,503	6,550	1,976	8,526
Scope 2 (tCO <sub>2</sub> e) <sup>4</sup>	5,204	2,669	7,873	5,024	2,813	7,837
Scope 3 (tCO <sub>2</sub> e) <sup>5</sup>	6,045	3,409	9,454	3,172	1,697	4,869
Total location-based (tCO <sub>2</sub> e)	17,331	7,499	24,830	14,746	6,486	21,232
<b>Intensity ratios (location-based)<sup>7</sup></b>						
Scope 1 and Scope 2 - location-based emissions (tCO <sub>2</sub> e) / £ million Total income <sup>1</sup>	0.76	0.83	0.78	0.86	1.01	0.90
Total location-based emissions (tCO <sub>2</sub> e) / £ million Total income <sup>1</sup>	1.17	1.52	1.25	1.10	1.36	1.17
Total location-based emissions (tCO <sub>2</sub> e) / employee	0.89	0.89	0.89	0.89	0.91	0.90
<b>Energy consumption</b>						
Energy consumption (MWh) <sup>8</sup>	55,146	13,199	68,345	57,233	14,537	71,770

Footnotes for note 4:

- The 2022 comparative results have been re-presented from those previously published following the adoption of IFRS 17. See note 1 for further details.
- Market-based: A market-based method reflects emissions from electricity that companies have purposefully chosen
- Scope 1: Natural gas, fugitive emissions (leakage of gases from air conditioning and refrigeration systems), oil, and company-owned car
- Scope 2: Electricity
- Scope 3: Includes certain Scope 3 categories for business travel (category 6) and grey fleet (private cars used for business) (category 6), waste (category 5) and water. Scope 3 emissions have increased compared to 2022 principally as a result of business travel increasing.
- All residual emissions have been offset. In 2023 and 2022 we offset our residual carbon emissions from our Scope 2 market-based total as this takes account of the reduced emissions from our use of electricity from renewable sources. As at 16th February 2024, the 17,386 credits purchased in relation to the 2023 market-based emissions footprint were retired.
- Location-based: A location-based method reflects the average emissions intensity of grids on which energy consumption occurs
- Includes Scopes 1 and 2 energy MWh used within our occupied buildings

<sup>(AR)</sup> This metric was subject to external independent reasonable assurance by PwC. For the results of that assurance, see the assurance report on page 73 and Aviva plc Reporting Criteria 2023 Independent Assurance section.

## Our climate metrics

### Note 5 - Assets under management

Assets Under Management (AUM) represents all assets managed or administered by or on behalf of the Group's subsidiaries, including those assets managed by Aviva Investors and by third parties. AUM include managed assets that are reported within the Group's statement of financial position (which can be grouped into policyholder assets, with-profits assets and shareholder assets) and those assets belonging to external clients outside the Aviva Group which are therefore not included in the Group's statement of financial position.

AUM is split by asset class and also classified between policyholder, participating (with-profits) and shareholder reflecting the type of fund to which investment returns are credited. Policyholders and shareholders both have an interest in participating funds. Our climate metrics are calculated on an asset class basis.

Asset class	Policyholder assets £bn	Participating fund assets £bn	Shareholder assets £bn	External funds £bn	Total £bn
Investment property	4.2	1.8	0.2	—	6.2
Loans	1.0	2.1	28.8	—	31.9
Fixed maturity securities	43.9	18.8	51.2	—	113.9
Equity securities	84.9	7.0	0.7	—	92.6
Other investments	31.1	4.5	3.8	—	39.4
Cash and cash equivalents	6.8	2.8	7.7	—	17.3
Other	5.0	0.6	—	—	5.7
<b>Assets included in statement of financial position</b>	<b>176.9</b>	<b>37.6</b>	<b>92.3</b>	<b>—</b>	<b>306.9</b>
Less: third-party funds and UK Platform included above	—	—	—	(19.8)	(19.8)
<b>Assets managed on behalf of the Group's subsidiaries</b>	<b>176.9</b>	<b>37.6</b>	<b>92.3</b>	<b>(19.8)</b>	<b>287.1</b>
Aviva Investors	—	—	—	38.2	38.2
UK Platform	—	—	—	50.6	50.6
Other	—	—	—	0.6	0.6
<b>Assets managed on behalf of third parties<sup>1</sup></b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>89.4</b>	<b>89.4</b>
<b>31 December 2023 Total</b>	<b>176.9</b>	<b>37.6</b>	<b>92.3</b>	<b>69.6</b>	<b>376.5</b>
<b>31 December 2023 Total %</b>	<b>47.0%</b>	<b>10.0%</b>	<b>24.5%</b>	<b>18.5%</b>	<b>100.0%</b>
31 December 2022 Total <sup>2</sup>	159.7	39.6	89.2	63.6	352.1
31 December 2022 Total %	45.4 %	11.2 %	25.3 %	18.1 %	100.0 %

## Our climate metrics

### Reconciliation of climate metrics to AUM

<b>Asset class</b>	<b>31 December 2023 £bn</b>	<b>31 December 2022 (re-presented)<sup>3</sup> £bn</b>
Corporate bonds ('Credit')	54.0	47.2
Listed equity ('Equities')	87.0	76.5
Government bonds ('Sovereign')	41.4	35.6
Infrastructure debt	8.4	7.6
Direct real estate	6.4	5.6
Commercial real estate mortgages	6.2	6.5
Equity release mortgages	9.8	9.5
<b>Total AUM for climate metrics</b>	<b>213.2</b>	<b>188.6</b>
<b>AUM included in the statement of financial position</b>	<b>306.9</b>	<b>288.5</b>
<b>Asset coverage % - AUM included in statement of financial position</b>	<b>69 %</b>	<b>65 %</b>
<b>Total AUM</b>	<b>376.5</b>	<b>352.1</b>
<b>Asset coverage % - total AUM</b>	<b>57 %</b>	<b>54 %</b>

Footnotes for note 5:

1. AUM managed on behalf of third parties (i.e. external assets) cannot be directly reconciled to the financial statements and are not currently included in our climate metrics
2. The 2022 comparative results have been restated from those previously published following the adoption of IFRS 17, as described in note 1 of the Aviva plc Annual Report and Accounts 2023: loans in scope of IFRS 17 have been reallocated from loans to insurance contract and participating investment contract liabilities. This reduced the 31 December 2022 AUM total by £13 million.
3. The 2022 comparative results have been re-presented from those previously published to include additional asset classes. See note 1 for further details.

## Our climate metrics

### Note 6 - Scope 3 category 15 emissions calculations

Investment emissions are the portion of investees' emissions attributed to Aviva based on its share of investment or level of funding. We do not include investee Scope 3 emissions (Scope 3 of Scope 3) in our estimates of investee emissions, due to concerns about double counting, data quality and level of estimation. The table below sets out the asset classes which are included in our climate metrics along with the AUM used in climate metrics compared to Group AUM set out in note 5. We are not able to calculate reported or estimated emissions for all of our assets and so we disclose an asset coverage percentage to reflect this.

We have included emissions in our current metrics where we have ability to measure the emissions, as set out below. In addition this table should be considered alongside our current view of our spheres of influence as set out in the influencing section and our climate reporting policies set out earlier in this metrics and targets section.

		Corporate bonds ('Credit')	Listed equity ('Equities')	Direct real estate	Infrastructure debt	Equity release mortgages	Government bonds ('Sovereign')	Commercial real estate mortgages	
<b>AUM included in climate metrics 31 December 2023 (£bn)</b>		<b>54.0</b>	<b>87.0</b>	<b>6.4</b>	<b>8.4</b>	<b>9.8</b>	<b>41.4</b>	<b>6.2</b>	
Ability to measure (see our climate reporting policies)	Investee-level asset class emissions data available	✓	✓	✓	✓	✓	✓	✓	
<b>Data quality score</b>	The data quality score reflect the level of estimations involved in emissions. 1 represents verified reported emissions, while 5 represents entirely estimated emissions.	2023	2.1	2.1	3.5	3.6	4.4	2.3	4.0
		2022	2.2	2.2	3.4	3.7	4.4	2.2	4.0
<b>Indication of asset class included in the climate metric</b>	<b>Note 7 - Financed emissions</b>	✓	✓	✓	✓	✓	N/A	✓	
	<b>Note 8 - Monitoring of sovereign holdings</b>	N/A	N/A	N/A	N/A	N/A	✓	N/A	
	<b>Note 10 - Temperature alignment<sup>1</sup></b>	✓	✓	✓	✓	N/A	✓	N/A	

Whilst we can measure emissions from direct real estate, infrastructure debt, commercial real estate mortgages and equity release mortgages, the level of estimation is higher and this is reflected in the higher data quality scores.

PCAF score	Key
1	Highest quality score using verified reported emissions
2	Unverified reported emissions
3	Estimated using primary physical activity factors of production, e.g. MWh for electricity generation, tonnes of steel produced
4	Estimated using economic activity data e.g. revenue. Greater level of estimation than score 3
5	Lowest quality score, with a higher level of estimation than scores 1 to 4

1. The temperature alignment metric only covers 'green' infrastructure project finance (based on the sustainable asset definition outlined in note 14)



## Our climate metrics

### Note 7 - Financed emissions

Financed emissions represent the estimated carbon emissions of our investment portfolio (i.e. Aviva's emissions for Scope 3 category 15 from the GHG Protocol). We monitor the emissions of our investment portfolio for shareholder, with-profits and policyholder funds and our progress towards our climate ambitions.

We use three metrics to assess our financed emissions: absolute emissions which represents attributed estimated emissions, an asset class specific intensity metric and economic carbon intensity which enables comparison across asset classes.

This note covers the emissions associated with our corporate and real estate investments. The emissions associated with sovereign investments are included within note 8.

#### Reporting criteria

This note should be read in conjunction with the Climate reporting policies and note 14.

#### Approach and methodology

Absolute emissions and emissions intensity metrics are produced for the Group's investment portfolio where calculation methodologies are established and data is sufficiently robust. Scope 1 and Scope 2 GHG emissions are used for the investee entity and are sourced from third-party vendors.

### Absolute emissions

Our Scope 3 category 15 absolute emissions are presented in tonnes of CO<sub>2</sub> equivalents (tCO<sub>2</sub>e) and represent attributed emissions calculated using the below attribution factors.

#### Asset class Attribution factor

<b>Credit and equities</b>	£m Aviva's proportional share (market value) / £m Enterprise Value Including Cash (EVIC) of the investee company
<b>Equity release mortgages</b>	£m loan outstanding (cost basis) / £m property market value (current)
<b>Direct real estate</b>	Ownership % of property
<b>Commercial real estate mortgages</b>	£m debt outstanding (cost basis) / £m property market value (at origination)
<b>Infrastructure debt</b>	£m debt outstanding (cost basis) / £m total equity and debt (book value)

The absolute emissions attribution factor for credit and equities uses the market value of our holding as well as the enterprise value (which includes the nominal value of debt). Thus the attribution factor could be impacted by volatility in market values in the period. In addition, increasing coverage and positive new AUM flows could increase attributed emissions in the short term.

#### Intensity measures - Asset class specific intensity

To calculate asset class intensity, GHG emissions (numerator) are assessed with reference to the nature of the underlying asset (denominator) to determine an appropriate intensity measure.

- Credit, equities and infrastructure debt use weighted average carbon intensity by revenue.
- Direct real estate and commercial real estate mortgages use carbon intensity by square metre.

The weighted average carbon intensity metric uses the revenue of the underlying companies and therefore is impacted by revenue volatility in the period.

#### Intensity measures - Economic carbon intensity

We calculate economic carbon intensity by dividing the attributed absolute emissions by the amount invested, based on its current market value. This metric allows for aggregation across different asset classes. Movements in economic intensity will be impacted by market value movements in the period.

#### Key estimates and assumptions

We use reported emissions when those are available and if not, estimated emissions are included. The latest available emissions data has been used to prepare the 2023 metrics, noting that the latest emissions data available generally relates to emissions from around one year prior.

This is due to the nature of financed emissions requiring other companies to report on their own emissions for use within this metric. Comparative figures are not updated for emissions data from periods after the time of initial publication to demonstrate a one year movement in underlying data.

Further detail of the key estimates and assumptions by asset class are included below.

#### Credit and equities

The estimates for listed companies are based on firstly taking into account historic data previously reported by the company if that is available or otherwise estimating based on an industry segment-specific model for over 1,000 industry segments as provided by MSCI<sup>1</sup>.

#### Equity release mortgages

For equity release mortgages, the underlying property is matched with the emission amount as reported in the EPC where possible. c.30% of properties are matched in this way, while for the remaining c.70% of properties an average of the EPC emissions based on the post code for the property is used. The level of estimation is taken into account in the PCAF data quality score outlined further in this note.

#### Commercial real estate mortgages

For commercial real estate mortgages, all emissions are currently estimated based on the whole building using benchmark data set out below.

The estimates use floor area of the property and apply Chartered Institution of Building Services Engineers (CIBSE) Guide F energy efficiency in building as well as Department for Energy Security and Net Zero (DESNZ) emission factors.

## Our climate metrics

### Direct real estate

For direct real estate, landlord and tenant (i.e. whole building) reported emissions are used where available. Where reported emissions are not available, emissions are estimated by either extrapolating previously reported emissions to fill data gaps, or otherwise using the same approach as commercial real estate mortgages with benchmark data. In 2023 there has been an increase in the use of benchmark data when calculating the attributed emissions.

### Infrastructure debt

For infrastructure debt, emissions are reported where available in company reporting if the project is held in a dedicated project finance company or from project information. If not reported, emissions for renewable electricity generation project finance are estimated using actual electricity generation and IPCC electricity GHG emissions factors.

In all other cases emissions are estimated using GHG emissions factors, sensitised by asset type and country from the PCAF GHG emissions factor database. In most cases, revenue figures are available, so emissions are estimated based on revenue and revenue emissions factors. In a limited number of cases where revenues are not available emissions are estimated based on total assets and asset emissions factors.

### Coverage

Not all organisations publish emissions data or have their emissions data estimated by emissions data providers. When reported or estimated emissions are not available, this reduces the coverage of the metrics.

In addition, coverage is reduced for AUM for which methodology is not developed or data limitations exist.

Therefore we present two coverage percentages:

- **Emissions data coverage %** - percentage of assets for the asset class included in financed emissions which has emissions data; and
- **AUM coverage %** - percentage of the financial investments on the Group's statement of financial position that are currently included within our financed emissions metrics. See note 5 for a reconciliation to the Group's assets under management.

The table below provides the AUM coverage % for financed emissions (excluding sovereigns which is covered by note 8).

Coverage	2023	2022 (re-presented) <sup>3</sup>
AUM assets included in the statement of financial position coverage %	56 %	53 %
Emission data coverage %	87 %	83 %

Overall emissions data coverage has increased to 87% (2022: 83%) which is driven by a 5% improvement in credit and equities. This was a result of improvements in the coverage of issuers in the data provided by MSCI. Refer to table 3 for a breakdown by asset class.

As emissions data coverage is less than 100%, we expect absolute emissions to increase as we improve the data coverage over time.

This is reflected in the increase in emissions given the improvement in coverage.

### Metric and data quality

A PCAF data quality score, based on the PCAF guidelines, has been calculated to indicate the level of estimation in the data inputs of our financed emissions. The asset class level data quality score is a weighted average which is based on the proportional amount of our holdings. A scale of 1 to 5 is used, with 1 corresponding to verified reported emissions and 5 using estimated emissions. The higher the level of estimation, the more likely that the actual emissions data, when known, would deviate from the estimate provided.

The total score, which reflects a weighted average for each asset class, has improved to 2.4 (2022: 2.6). Credit and equities has a score of 2.1 which indicates a high level of reported data, albeit not verified. The lowest score is for equity release mortgages, which has a score of 4.4 which reflects that all the data is estimated and based on average emissions from EPCs. Refer to table 3 for further details.

### Targets

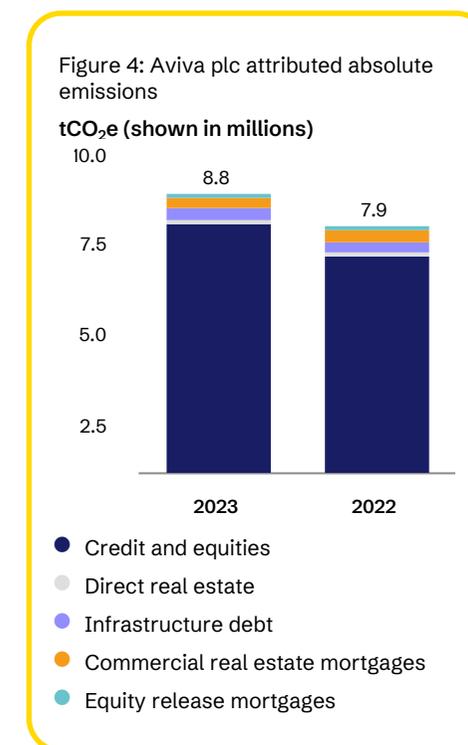
We have an ambition to be Net Zero by 2040. Towards this journey, we have a near term ambition to reduce the carbon intensity of our investments (currently Scope 1 and Scope 2 emissions from credit and equities, direct real estate and sovereigns for shareholder and policyholder assets) by 60% by 2030 from a 2019 baseline.

We also have SBTi targets (see Science-based targets section) and NZAOA targets (included in this note).

### Results

The following tables and figures set out the financed emission metrics.

Figure 4 sets out the attributed absolute emissions for the asset classes using the attribution factors set out earlier in the note.





## Our climate metrics

Table 3: Breakdown of Aviva plc's financed emissions by asset class for 2023 (Investee Scope 1 and Scope 2 included, Investee Scope 3 excluded)

Asset class	Invested amount (£bn)	Emissions data coverage % <sup>2</sup>	PCAF data quality score		Attributed absolute financed emissions (million tCO <sub>2</sub> e)		Unit of measurement	Carbon intensity by asset class		Economic carbon intensity (tCO <sub>2</sub> e/£m invested)	
			2023	2022	2023	2022 (re-presented) <sup>3</sup>		2023	2022	2023	2022 (re-presented) <sup>3</sup>
Credit and equities	141.0	86 %	2.1	2.2	7.9	7.0	tCO <sub>2</sub> e/\$m revenue (WACI-R)	93	120	65	70
Infrastructure debt	8.4	90 %	3.6	3.7	0.3	0.3	tCO <sub>2</sub> e/\$m revenue (WACI-R)	162	190	42	43
Direct real estate <sup>4</sup>	6.4	66 %	3.5	3.4	0.1	0.1	kgCO <sub>2</sub> e/m <sup>2</sup> (carbon intensity by square metres)	81	73	33	29
Commercial real estate mortgages	6.2	100 %	4.0	4.0	0.3	0.3	kgCO <sub>2</sub> e/m <sup>2</sup> (carbon intensity by square metres)	97	99	46	46
Equity release mortgages <sup>5</sup>	9.8	99 %	4.4	4.4	0.1	0.1				15	14
<b>Total</b>	<b>171.8</b>	<b>87 %</b>	<b>(AR) 2.4</b>	<b>2.6</b>	<b>(AR) 8.8</b>	<b>7.9</b>				<b>(AR) 59</b>	<b>62</b>

### Analysis

**Attributed absolute financed emissions** Scope 1 and Scope 2 attributed absolute emissions, have increased by 12% to 8.8 million tCO<sub>2</sub>e (2022: 7.9 million tCO<sub>2</sub>e). Credit and equities are the most significant asset class and make up 82% (2022: 81%) of the total invested amount (excluding sovereigns). The increase in attributed emissions for credit and equities is mainly as a result of the increased value of AUM, resulting in higher attributed emissions as market value is used to attribute the emissions.

### Asset class specific measures

WACI-R for credit and equities has decreased by 22% to 93 tCO<sub>2</sub>e/\$m revenue in 2023 (2022: 120 tCO<sub>2</sub>e/\$m revenue).

The 2023 WACI-R for credit and equities, for shareholder and with-profit funds, for UK, Ireland and Canada was 68 tCO<sub>2</sub>e/\$m revenue, which is a 57% reduction compared to the 2019 baseline. The reduction in WACI-R from 2022 to 2023 is primarily due to the growth in investee revenue amounts.

The WACI-R for infrastructure debt decreased by 15% to 162 tCO<sub>2</sub>e/\$m revenue in 2023 (2022: 190 tCO<sub>2</sub>e/\$m revenue). This was mainly due to the origination of lower intensity infrastructure debt in 2023 as well as the growth in investee revenue amounts.

The carbon intensity per square metre for commercial mortgages has decreased by 3% from 2022 to 2023.

### Economic carbon intensity (ECI)

Economic carbon intensity shows the attributed absolute emissions relative to the investment amount in £ million.

Total ECI has decreased by 5% to 59 tCO<sub>2</sub>e/£m invested (2022: 62 tCO<sub>2</sub>e/£m invested). This was driven primarily by credit and equities and the reduction in relative exposure to higher intensity companies.

### Sector analysis

Sector analysis is provided for credit and equities in table 4. This table shows a breakdown of the share of the invested amount and contribution to attributed absolute financed emissions by sector.

The sectors are based on the Global Industry Classification Standard (GICS<sup>®</sup>) using sector data provided by MSCI<sup>1</sup>. The GICS<sup>®</sup> structure consists of 11 sectors.

Table 4: Sector breakdown

GICS <sup>®</sup> Sector <sup>1</sup>	% share of invested amount	% attributed absolute financed emissions (Scope 1 and Scope 2)
Materials	5 %	37 %
Energy	5 %	25 %
Utilities	5 %	17 %
Industrials	11 %	9 %
All other sectors	74 %	12 %

Table 4 shows the top 3 sectors by emissions represent 15% of the portfolio and contribute 79% to the absolute financed emissions. The materials sector is the largest contributor, representing 5% of the portfolio but contributing to 37% of the absolute emissions.



## Our climate metrics

### Scope 3 emissions of our investments

The measurement of our Scope 3 emissions of our investments in credit and equities presents significant challenges in relation to complete and accurate measurement across all 15 categories of Scope 3 under the GHG Protocol. The availability of reported Scope 3 investee data is improving over time, however, reported information is not always complete and is typically subject to significant levels of estimation uncertainty.

This is acknowledged by third-party data providers, who often override reported Scope 3 information within their data sets when it is not deemed to be credible, replacing it with their own estimates. Such measurement is similarly subject to significant levels of estimation uncertainty, and a correspondingly low data quality score.

In addition to the measurement uncertainty noted, reporting on the Scope 3 emissions of investments at an aggregated portfolio level introduces significant double-counting challenges. Aviva's portfolio is broad and diversified, and it is therefore natural for investee companies to interact with each other and form part of each others' value chains. This leads to instances where the Scope 1 & Scope 2 emissions of one investee might be the Scope 3 emissions of another investee, or instances where multiple investees have the same underlying emissions in their Scope 3.

As a result of the significant estimation uncertainty and inherent double-counting at portfolio level, we do not believe disclosure of aggregated investee Scope 3 emissions at the Group level represents decision-useful information for the primary users of our Climate-related Financial Disclosure at this stage. We have therefore not disclosed either absolute or intensity-based Scope 3 emissions metrics.

The currently available estimated Scope 3 data for our listed equity and debt portfolio, which is subject to all of the limitations outlined, implies that our greatest exposure to Scope 3 emissions within our investment portfolio relates to the Energy sector, despite this sector not representing a significant proportion of the portfolio on a market-value basis.

Estimated company-level investee Scope 3 emissions are used as an input into our forward looking metrics, where total future footprint is of interest.

### NZAOA reporting

Aviva has also set two sub-portfolio targets through the UN-convened Net-Zero Asset Owner Alliance (NZAOA) as outlined in table 5. The scope of these targets differ to the science-based targets and do not include external client assets managed under discretionary mandates.

**Table 5: NZAOA targets**

NZAOA-based target	2023 progress
25% reduction in direct real estate carbon intensity by 2025 from a 2019 baseline <sup>4</sup>	At 31 December 2022 <sup>6</sup> there was a 20% reduction in direct real estate emissions (tCO <sub>2</sub> e) per square metre
25% reduction in weighted average carbon intensity for the listed equity and corporate bonds portfolio by 2025 from a 2019 baseline <sup>7</sup>	At 31 December 2023 there was a 57% reduction in UK, Ireland and Canada's listed equity and corporate bonds weighted average carbon intensity by revenue

### Looking Ahead

The key areas for development in 2024 and beyond are:

- Expand the disclosure to incorporate additional asset classes, where data availability and robustness permits, taking into account the latest methodology available from PCAF.
- Acknowledging the data and methodological challenges associated with the Scope 3 emissions of investments, we will continue to develop disclosure approaches to improve the decision-usefulness of portfolio-level Scope 3 information, both with reference to external reporting standards and internal methodologies.

Footnotes for note 7:

1. Certain information ©2024. MSCI ESG Research LLC. Reproduced by permission. Global Industry Classification Standard (GICS®), GICS® and GICS® Direct are service or trademarks of MSCI and S&P Global Market Intelligence.
  2. The emissions data coverage shows the percentage of the invested amount for which absolute emissions have been calculated. For infrastructure WACI-R the data coverage percentage is lower at 82% which reflects the lack of revenue data.
  3. Overall AUM coverage, total absolute financed emissions and total economic carbon intensity comparative amounts have been re-presented to include additional asset classes. In addition, the economic carbon intensity is now presented in pound sterling rather than dollars. See note 1 for further details.
  4. Direct real estate includes whole building emissions. This currently extends only to assets managed by Aviva Investors.
  5. Equity release mortgages does not have an asset class intensity metric due to the lack of data and instead only economic carbon intensity is reported for this asset class
  6. We have used the 2022 position to calculate the % reduction from the 2019 baseline as this provides a better reference point than 2023 for tracking our direct real estate emissions reduction ambition
  7. Covers shareholder and with-profit funds and extends to Scope 1 & Scope 2 emissions of the investee companies
- AR** This metric was subject to external independent reasonable assurance by PwC. For the results of that assurance, see the assurance report on page 73 and Aviva plc Reporting Criteria 2023 Independent Assurance section.



## Our climate metrics

### Note 8 - Monitoring sovereign holdings

Aviva monitors the physical climate risk in respect of our sovereign holdings using the University of Notre Dame Global Adaptation Initiative (ND-GAIN) country index<sup>1</sup>. We also have calculated emissions and intensity for sovereigns.

### Reporting criteria

This note should be read in conjunction with the Climate reporting policies and note 14.

### Approach and methodology

Aviva uses the University of Notre Dame's ND-GAIN country index to measure our sovereign holdings' exposure to climate-related risks. The ND-GAIN country index measures a country's vulnerability to the physical effects of climate change and its readiness to adapt by considering economic governance and social readiness. A country is scored on the index between 0 and 100 (higher is better).

We have also included a sovereign emissions intensity metric. This metric measures the attributed sovereign emissions relative to the amount invested.

GHG production emissions are based on data extracted from PRIMAP-hist. PPP-adjusted GDP is based on data extracted from World Bank.

The approach and methodology for sovereign attributed emissions and intensity measure is set out below:

Asset class	Attribution factor
Sovereigns	\$m proportional share (market value) / \$m Purchasing Power Parity (PPP)-adjusted Gross Domestic Product (GDP)

The sovereign intensity calculation is set out below:

Asset class	Intensity metric
Sovereigns	Sovereign carbon intensity (SCI): attributed tCO <sub>2</sub> e/£m invested amount <sup>2</sup>

As set out in note 1, in 2023 we have updated our sovereign carbon intensity methodology to be reported on a pound sterling basis (£) (rather than US dollars) to align with the functional and presentation currency of the Group.

We have excluded private sovereign loans from reporting this year. This does not have a material impact and as such comparatives were not re-presented.

### Key estimates and assumptions

The ND-GAIN scores are provided on a two-year time lag (i.e. 2021 index scores have been used in the 2023 calculations). Comparatives for 2022 were prepared based on 2020 index scores.

PRIMAP-hist. GHG emissions and PPP-adjusted GDP are provided on a one-year time lag (i.e. 2022 data has been used in the 2023 calculations). Comparatives for 2022 were prepared based on 2021 data.

External data inputs for 2022 emissions were obtained in January 2024.

### Coverage

The monitoring of sovereign holdings includes shareholder, with-profits and policyholder funds.

The following table provides the AUM and emissions data coverage percentages for sovereigns. Refer to note 7 for further details on how these are calculated.

	2023	2022 (re-presented) <sup>3</sup>
AUM assets included in the statement of financial position coverage %	13 %	12 %
Emissions data coverage %	94 %	93 %

Financed emissions includes sovereign debt only. Sub-sovereign debt (e.g. provincial or state debt) currently does not have an emissions methodology and this reduces the data coverage %.

Supranational debt is excluded from this metric, refer to the Looking ahead section below for further details.

See note 5 for the reconciliation of the assets included in the Aviva Group Statement of Financial Position to the Sovereigns covered by the monitoring sovereign holdings metric.

### Metric and data quality

A data quality score, based on the PCAF data quality score guidelines, has been calculated to indicate the level of estimation involved in the data inputs.

Data inputs have been assigned a data quality score of 2.3 since the majority of our holdings are in countries which provide reported emissions data.

## Our climate metrics

### Results

**Table 6: Breakdown of Aviva plc sovereign climate metrics**

	2023	2022 (re-presented) <sup>3</sup>
Sovereign carbon intensity tCO <sub>2</sub> e / £m invested	<b>AR 228</b>	227
Sovereign absolute emissions (attributed million tCO <sub>2</sub> e)	<b>AR 8.9</b>	7.6
PCAF data quality score (1-5)	<b>AR 2.3</b>	2.2

Sovereign absolute emissions attributed has increased from 7.6 million tCO<sub>2</sub>e to 8.9 million tCO<sub>2</sub>e. This reflects a larger investment amount on the statement of financial position and hence more emissions which are attributed. Sovereign carbon intensity has increased to 228 tCO<sub>2</sub>e/£m invested amount (2022: 227 tCO<sub>2</sub>e/£m invested amount).

The sovereign PCAF data quality score is 2.3 (2022: 2.2). This reflects a slight increase in the relative share of countries which have estimated rather than reported emissions data.

Aviva is predominantly exposed to sovereigns from developed countries, with 81% of Aviva's sovereign debt holding relating to six countries: United Kingdom 56%, United States 11%, Japan 5%, China 4%, Canada 3% and Belgium 2%.

The relative contribution is shown on the following graph based on the size of the circles for each country. With both a higher sovereign emissions intensity score and a lower ND-GAIN score, China has a greater level of physical and transition risk relative to our other holdings.

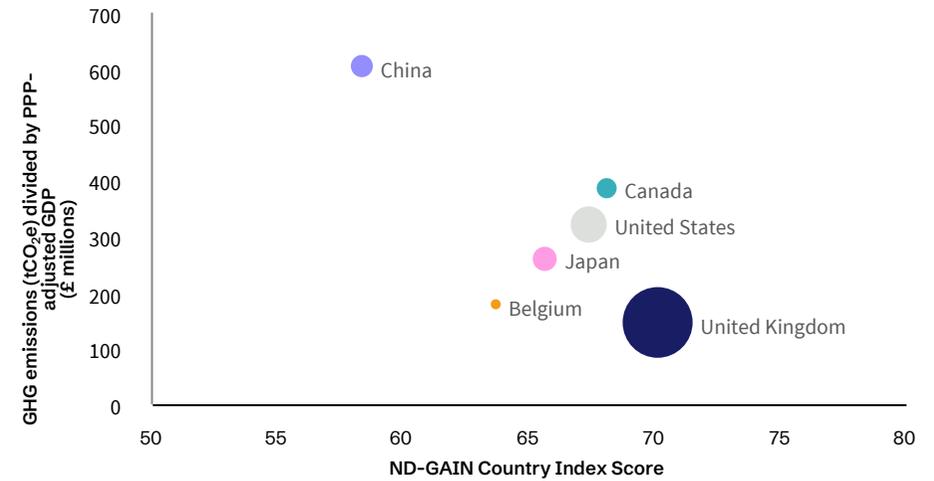
We have no significant sovereign bond exposure to countries highly vulnerable to the physical effects of climate change and our exposure to moderately exposed countries is captured as part of our risk management and monitoring of sovereign risk.

Our policy is to use the ND-GAIN country index to review and justify our holdings with a score of under 50. At 2023, this amounts to 7% (2022: 7%) of our overall sovereign exposure (including local government debt).

### Looking ahead

An area of future development in 2024 and beyond is to consider expanding the disclosure to incorporate supranational debt, where data availability and robustness permits, following assessment of the PCAF carbon accounting methodology for supranational debt.

**Figure 5: Sovereign holdings' exposure to climate-related risks (ND-GAIN country index scores and sovereign emission intensity for Aviva's top sovereign holdings for 2023)<sup>4</sup>**



Legend (ND-GAIN score, intensity tCO<sub>2</sub>e / £m PPP-adjusted GDP, % contribution to sovereign value)

- United Kingdom (70; 146; 56%)
- Belgium (64; 178; 2%)
- United States (67; 320; 11%)
- Japan (66; 261; 5%)
- China (58; 604; 4%)
- Canada (68; 385; 3%)

**Footnotes for note 8:**

1. Refer to the University of Notre Dame's website here: <https://gain.nd.edu/our-work/country-index/>
  2. This metric is equivalent to the portfolio weighted average carbon intensity of Sovereigns, based on Production emissions / PPP-adjusted GDP, with the portfolio weighting based on the invested amount. This change has been made for comparability with the economic carbon intensity measure in note 7.
  3. The sovereign carbon intensity comparative amount has been re-presented from US dollars into Pound Sterling. In addition, the sovereign emissions data coverage % has been updated to include the impact of local government debt. See note 1 for further details.
  4. The GHG emissions (tCO<sub>2</sub>e) divided by the PPP-adjusted GDP (£ millions) represents the aggregate economy-level production emissions intensity using data that is consistent with our portfolio level emissions outlined in table 6
- AR** This metric was subject to external independent reasonable assurance by PwC. For the results of that assurance, see the assurance report on page 73 and Aviva plc Reporting Criteria 2023 Independent Assurance section.



## Our climate metrics

### Note 9 - Investment in sustainable assets

Aviva measures its investments that meet the sustainable assets definition as outlined in the reporting criteria.

#### Reporting criteria

This note should be read in conjunction with the Climate reporting policies and note 14.

#### Approach and methodology

Our sustainable asset definition is based on the Climate Bonds Initiative (CBI) Taxonomy and Sector Criteria.

Assets are grouped in the following sub-categories:

- Green - assets referencing an external science-based assessment methodology for green credentials or tagged as green in the CBI green bond database;
- Sustainability - assets referencing an external science-based assessment methodology or tagged as sustainability in the CBI social and sustainability bond database, including sustainability-linked debt; and
- Transition and climate-related funds - Aviva transition funds and certain climate-focused venture capital funds. The objectives and strategy of the fund are considered to determine inclusion in investment in sustainable assets.

### Key estimates and assumptions

In forming our definition, green and sustainable have been assessed with reference to current external indicators of green and sustainable credentials.

Investment in sustainable assets is presented primarily on an origination basis (68% of the total). Bonds and real estate are presented on a market value basis.

For direct real estate investments where there are multiple units we only include the properties in the sustainable assets total if there are A rated EPCs or excellent or outstanding BREEAM certificates that cover most of the property area.

### Coverage and context

Shareholder, with-profits and policyholder assets are considered for inclusion in Aviva's investment in sustainable assets, where the definition is met. Third-party client investments by Aviva Investors are out of scope.

Aviva has AUM of £376.5 billion at 2023 (2022: £352.1 billion), of which £306.9 billion (2022: £288.5 billion) relates to AUM included in the statement of financial position. Investment in sustainable assets calculated on a market value basis represent c.3% (2022: c.2%) of AUM included in the statement of financial position. This comparison provides an indication of relative size of Aviva's investment in sustainable assets.

### Targets

We had a target to originate £6 billion in sustainable assets by 2025 from a 31 December 2019 baseline, including £1.5 billion of policyholder money into transition and climate-related funds.

Since the end of 2019 we have invested £7.5 billion in sustainable assets, of which £1.6 billion relates to policyholder money in transition and climate-related funds. As such, we have exceeded our target of £6 billion in sustainable assets ahead of 2025.

### Results

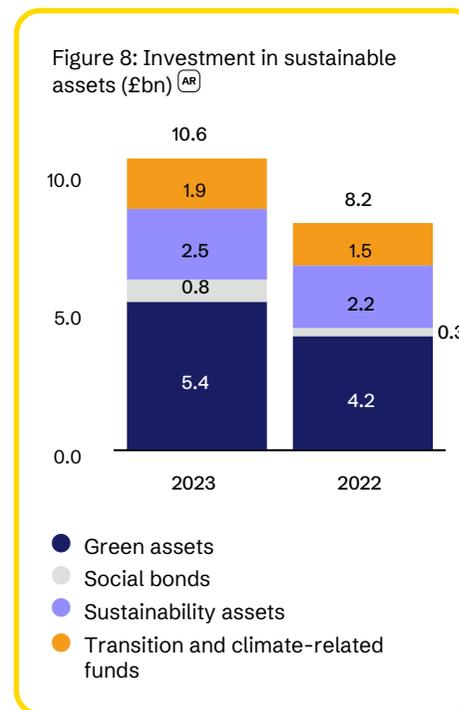


Table 7: Sustainable assets by business unit

Amounts in £bn	2023	2022
Insurance, Wealth & Retirement (IWR)	9.7	7.7
UK & Ireland General Insurance	0.3	0.2
Canada General Insurance	0.6	0.3

### Analysis

Our investments in sustainable assets increased to £10.6 billion from £8.2 billion reflecting origination in the year of £2.4 billion:

- Green assets: Additional investment (net of market value movements or divestment) in green bonds contributed £0.8 billion. Origination of renewable electricity infrastructure debt contributed £0.5 billion;
- Sustainability assets: Additional investments (net of market value movements or divestment) in sustainability bonds contributed £0.2 billion; and
- Transition and climate-related funds: Additional subscriptions (net of redemptions) in 2023 in the transition and climate-related funds amounted to £0.4 billion. This included flows into the new Canadian core plus climate transition pooled fund.

Footnotes for note 9:

<sup>(AR)</sup>This metric was subject to external independent reasonable assurance by PwC. For the results of that assurance, see the assurance report on page 73 and Aviva plc Reporting Criteria 2023 Independent Assurance section.

## Our climate metrics

### Note 10 - Temperature alignment

Temperature alignment is used to assess our alignment with the Paris Agreement target of limiting global warming to well below 2°C, and preferably up to 1.5°C above pre-industrial levels.

The temperature alignment for Aviva is expressed in degrees Celsius (°C) and estimates the global implied temperature rise (in the year 2100 or later) if the whole economy had the same carbon budget over/undershoot level as Aviva based on our investments held.

### Reporting criteria

This note should be read in conjunction with the Climate reporting policies and note 14 Reporting criteria.

### Approach and methodology

This metric is calculated based on the following inputs:

- Implied Temperature Rise (ITR) based on data and assumptions provided by MSCI<sup>1</sup> for our equities, credit and direct real estate investments.
- Temperature alignment for sovereigns is based on an analysis of individual governments' climate actions and how they compare against the Paris Agreement target, taking into account independent analysis conducted by organisations such as Climate Action Tracker<sup>2</sup>.
- The temperature alignment for 'green' infrastructure assets is based on internal analysis. The 'green' infrastructure total is calculated using the sustainable asset definition outlined in note 14.

### ITR data

ITR is based on the alignment of each company or building within the portfolio to the sectoral<sup>3</sup> greenhouse gas emission intensity needed for each sector to make its contribution to reach the Paris Agreement target. The measure takes into account the projected emissions of our investments over the next five decades (three decades in the case of properties) based on their emission track record, stated reduction targets and other data. A company or building whose projected emissions are below budget can be said to 'undershoot', while those whose projected emissions exceed the budget 'overshoot'.

### Key estimates and assumptions

Internal analysis is used for sovereigns and green infrastructure debt, as set out in our reporting criteria, see note 14.

The key estimates relating to ITR which as at the reporting date reflected the following assumptions:

- The remaining global carbon budget, which is based on the IPCC Special Report published in January 2018 less emissions subsequent to that date.
- Transient Climate Response to Cumulative Emissions (TCRE) factor which was based on the IPCC 2013 The Physical Science Basis report. This represents the global temperature change driven by carbon emissions.
- Minimum warming 'locked in', which means the warming that is being driven by carbon already emitted, is estimated as 1.3°C. This represents an estimate of additional warming that is already locked in due to past emissions.

### Coverage

Temperature alignment covers investments in shareholder, with-profits and policyholder credit, equities, real estate, 'green' infrastructure debt and sovereigns. It covers Scope 1, Scope 2 and Scope 3<sup>4</sup> emissions for credit, equity and real estate. It does not factor in embodied emissions<sup>5</sup> nor avoided emissions<sup>6</sup>. The 2023 AUM coverage based on the AUM included in the statement of financial position is 63%.

See note 5 for the reconciliation of the assets included in the Aviva plc Statement of Financial Position to the assets covered by the climate metrics.

### Results

Figure 7: Aviva plc's 2023 temperature alignment



### Analysis

Figure 7 shows that Aviva's projected temperature alignment for funds in scope of the metric is 2.4°C which is in line with the market benchmark<sup>7</sup> based on a global diversified portfolio of equities of 2.4°C. The overall score for Aviva includes additional asset classes, such as sovereigns, while the ITR score for equities and credit are both below the benchmark.

### Looking ahead

An area of future development in 2024 or beyond is to consider the latest methodology and including additional asset classes, when data is available and considered sufficiently robust.

Footnotes for note 10:

1. Certain information ©2024 MSCI ESG Research LLC. Reproduced by permission.
2. The Climate Action Tracker is an independent scientific analysis tracking government climate action since 2009, refer to <https://climateactiontracker.org/>
3. For real estate investments this is based on Network for Greening the Financial System (NGFS) emission intensity pathways which are assigned to each building. These pathways are differentiated by Carbon Risk Real Estate Monitor (CRREM) property types and countries.
4. ITR makes use of the estimated company-level Scope 3 emissions of investees where data is available to ensure that, when deriving a temperature score, it captures an estimate of a company's total footprint. This Scope 3 data is subject to the limitations outlined in note 7, however, as the temperature score is calculated at a company-level, double-counting is less of a methodological concern.
5. Embodied emissions are associated with the non-operational phase of the project including construction
6. Avoided emissions are emission reductions that the financed project produces versus what would have been emitted in the absence of the project (the baseline emissions)
7. MSCI All Country World Index (ACWI) Investable Market Index (IMI) as at 31 December 2023. ©2024 MSCI ESG Research LLC. This index captures entities across 23 developed markets and 24 emerging markets countries, with over 9,000 constituents.



## Our climate metrics

### Note 11 - Weather-related losses

Aviva is dedicated to helping our customers protect their properties against devastating floods. For many years, when settling property flood claims we have carried out cost neutral repairs<sup>1</sup>. We also support the Code of Practice for property flood resilience to (where appropriate) provide property owners with independent professional advice and reliable installation to increase confidence with their resilient flood repairs to reduce flood damage, speed up recovery and reoccupation. In addition, we have expertise within our in-house field claims teams to advise on property flood resilient measures as part of the repair process. Our risk management team provide advice and guidance to customers on the steps they can take to protect their premises to mitigate the impacts of flooding on their property and ensure our business customers have plans in place to enable them to continue to trade.

Aviva measures actual weather-related losses for our general insurance business against the expected losses (net of reinsurance) and the weather impacts on our financial key performance measure, the Combined Operating Ratio (COR). The COR presentation has been updated for IFRS 17 and now includes the impact of discounting (discounted COR). Aviva considers COR with claims measured on an undiscounted basis (undiscounted COR) to align more closely to the way in which the business is managed. This metric is presented on an undiscounted basis, consistent with previous reporting.

### Reporting criteria

This note should be read in conjunction with the Climate reporting policies and note 14 Reporting criteria.

### Approach and methodology

This metric is applicable to Aviva General Insurance businesses in the UK, Ireland and Canada. It has been reported by Aviva for a number of years through our COR reporting.

We recognise that weather-related events may become more frequent, severe, clustered and persistent. The speed of this change and the ability of society to adopt mitigation strategies may impact our ability to profitably provide products for our customers at affordable levels over the longer-term. We build the possibility of extreme weather events into our pricing to ensure it is adequate and monitor actual weather-related losses versus expected weather losses by business. Catastrophic event model results are supplemented by in-house disaster scenarios.

Looking across all of our property insurance portfolios, naturally there are areas at higher risk, which would see proportionate increases in premiums based on the risk. In those cases, we consider that the continued presence of industry-wide initiatives like FloodRe in the UK and development of risk mitigation techniques as well as public investment in flood defences would be vital in ensuring widespread access to insurance for all.

Our general insurance business exposure is limited by being predominantly in Northern Europe and Canada along with some world-wide exposure from our corporate underwriting (which is covered within our existing reinsurance programmes). We require our general insurance businesses to protect against all large, single catastrophe events by purchasing reinsurance in line with local regulatory requirements or, where none exist, to at least a 1-in-250-year event. The catastrophe reinsurance programmes limit Aviva's losses, depending on territory, from a relatively low retention level<sup>2</sup> up to at least a 1-in-250-year event. Factors determining these decisions include capital efficiency, appetite for general insurance earnings volatility and reinsurance market competitiveness. Aviva Canada has Catastrophe reinsurance cover, protecting against climate-related perils as well as up to a 1-in-500 probable maximum loss level for Earthquake exposure, in line with regulatory requirements. In the medium to longer-term, there is potential for the premiums we need to charge to cover our risk exposure to increase in line with the intensity and frequency of extreme weather.

### Results and analysis

As can be seen in both figures 8 and 9, the actual weather-related losses in 2023 at the Group level are above the expected weather-related losses, based on the long term average (LTA).

The weather-related losses in UK & Ireland General Insurance were broadly in line with expectation, whilst the weather-related losses in Canada General Insurance were more than the expected amount due to a significant number of events throughout the year.

In Figure 8, when the actual weather-related losses are equal to the LTA, the percentage is equal to 0%. Better than expected performance will result in a negative percentage and worse than expected performance will be a positive percentage.

In Figure 9, when the impact on undiscounted COR is as expected, the percentage is equal to 0%. Better than expected performance will be a negative percentage (hence a reduction in undiscounted COR) and worse than expected performance will be a positive percentage (hence an increase in undiscounted COR).

## Our climate metrics

Figure 8: Actual weather-related losses versus expected losses (by year and business unit, net of reinsurance).

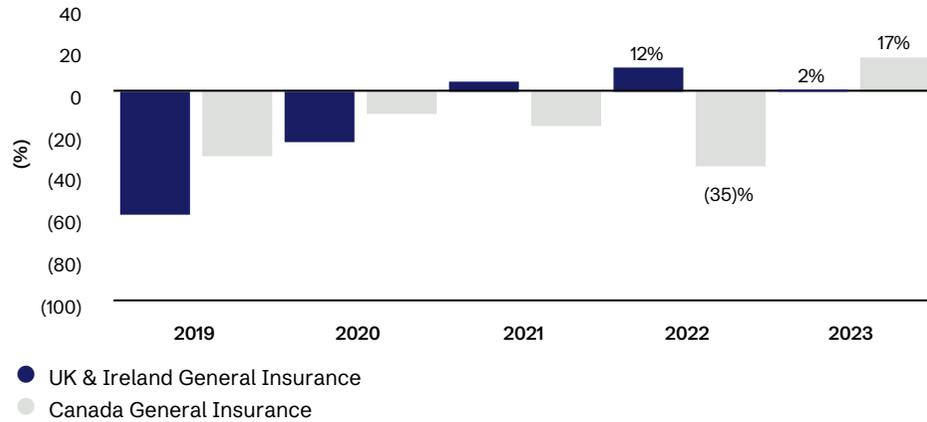
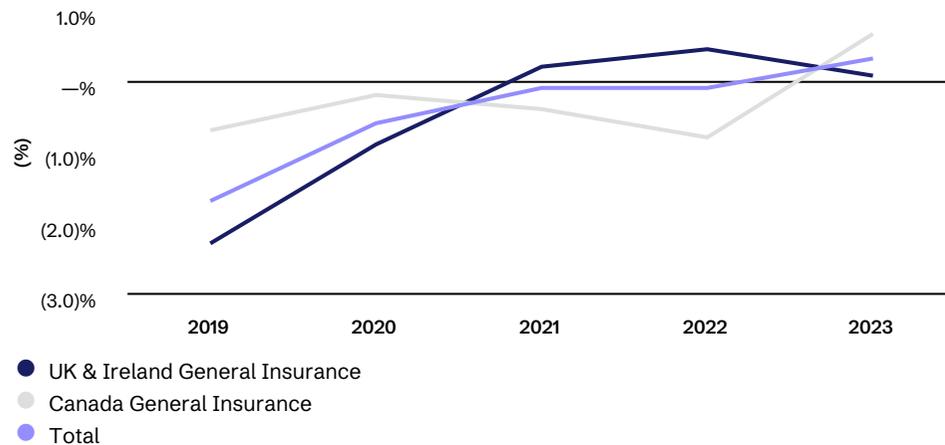


Figure 9: Weather impact on Aviva's undiscounted COR<sup>3</sup> (net of reinsurance).



### Note 12 - Additional cross industry climate-related metrics

Our disclosure for each of the cross-industry climate-related metric categories included in the TCFD Annex (issued October 2021) is shown below.

- **GHG emissions** - See note 4 for operational emissions and note 7 and note 8 for emissions for Scope 3, category 15 under our financed emissions metric (including our sovereign holdings).
- **Transition risks** - Aviva has a low percentage exposure to the utilities, materials and energy sectors, see note 7 for sector analysis for credit and equities.
- **Physical risks** - Less than 1% of our mortgage loans by value are for properties which have a 1 in 75 chance (or greater) of flooding (2022: <1%).
- **Climate-related opportunities** - Our Aviva Zero product in the UK, offering customers the opportunity to offset emissions, has sold c.466,000 (2022: c.51,000) policies in 2023. In addition, see note 9 for our investment in sustainable assets.
- **Capital deployment** - See note 9 for our investment in sustainable assets.
- **Remuneration** - See the governance section for information on how climate goals are incorporated into the remuneration of our senior executives.

Footnotes for note 11:

1. 'Cost neutral repairs' are resilient repairs being built into the cost of reinstatement - e.g. using waterproof plasterboard, raising electric points
2. The retention levels for UK and Group are £200 million on a per-occurrence basis and £350 million on an annual aggregate basis, retentions levels will be lower for localised events occurring outside of the UK
3. The 2022 comparative results have been restated from those previously published following the adoption of IFRS 17. The weather impact on Aviva's undiscounted COR was previously calculated based on net earned premiums, it is now calculated based on Insurance revenue.



## Our climate metrics

### Note 13 - Litigation risks

Climate-related litigation continues to be a growing trend. Globally, around two-thirds of all climate change-related litigation cases have been filed since 2015 (the year of the Paris Agreement) and 190 separate cases were filed in the 12 months to May 2023<sup>1</sup>. Climate change litigation continues to grow in importance each year as a way to influence policy decisions and corporate behaviour of governments and companies across multiple industries.

### Aviva's Approach

Aviva believes that the best mitigation against climate-related litigation risk is the robust governance, due diligence and disclosure framework that we have put in place around our exposures to climate change, as set out in the Governance section of this report. Furthermore, Aviva's assessment is that the direct impact from any legal challenges, and any associated fines, continues to be low across our global portfolio.

Over the last 3 years, we have continued our work to perform reviews of climate-related litigation risk<sup>2</sup>.

This work was focussed on the following key areas:

- Direct financial impacts arising from risks posed to Aviva via the underwriting of liability insurance products (i.e. where Aviva provides cover to customers who are themselves litigated against);
- Direct financial impacts arising from failure to apply regulatory requirements and/or disclosures; and
- Other potentially material financial impacts arising from direct litigation against Aviva.

### Risks arising from liability insurance products

In relation to risks arising from the underwriting of liability insurance products, our assessment identified that the majority of climate-related litigation risk relates to the following products:

- Directors and Officers Liability Insurance
- Public Liability Insurance
- Financial Institutions Insurance
- Professional Indemnity Insurance
- Pensions Trustees Liability Insurance
- Environmental Liability Insurance

The climate-related litigation risk associated with each of these products is considered to be low, due to a combination of policy wording restrictions, low exposures in high-risk sectors and reinsurance arrangements being in place to mitigate any areas of potentially significant exposure.

Further, Aviva participated in the most recent Bank of England Climate Biennial Exploratory Scenario (CBES) exercise. As part of this, we carried out a detailed quantitative approach to assessing potential exposures to climate-related litigation risk in relation to the above products. The results of this exercise confirmed the above assessment that our climate-related litigation risk is low.

### Risks arising from failure to apply regulatory requirements/disclosures

There are several regulatory requirements relating to climate and sustainability related disclosures that impact Aviva (e.g. TCFD disclosures, the Non-Financial Reporting Directive (NFRD) and MiFID II, the European Sustainable Finance Disclosure Regulation (SFDR) and the UK Sustainable Disclosure Regulation (SDR)). We regularly review any proposals to change these requirements, or to introduce new ones, to ensure that we remain compliant and adopt early where possible. As a result of the reviews performed and detailed work carried out in these areas, Aviva has assessed the current risk of a significant direct financial impact arising from failure to apply regulatory requirements relating to climate and sustainability related disclosures as low.

### Risks arising from other sources of direct litigation against Aviva

In addition to the above specific areas, work has continued throughout 2023 to identify any other areas of potential sources of climate-related litigation risk that could result in direct litigation against Aviva. The main area identified from these reviews related to possible perceived 'Greenwashing' type legal actions arising from the range of funds managed by Aviva Investors. Reviews have been carried out to assess the level of litigation risk that could arise either from funds that have a climate/sustainability mandate or funds across our wider mainstream fund portfolio. In both cases, we consider the risk of direct climate-related litigation against Aviva to be low.

We recognise that litigation risk continues to be a growing area of focus for companies and regulators, and we have taken steps to continue to strengthen our non-financial reporting and anti-greenwashing controls throughout 2023. We will continue to monitor and review climate-related litigation risk in 2024.

Footnotes for note 13:

1. Source: Grantham Institute Global Trends in Climate Change Litigation: 2023 Snapshot [https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/06/Global\\_trends\\_in\\_climate\\_change\\_litigation\\_2023\\_snapshot.pdf](https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/06/Global_trends_in_climate_change_litigation_2023_snapshot.pdf)
2. All litigation risk outputs and methodology decisions have been reviewed and challenged by a specially constituted expert panel with internal and external membership

## Our climate metrics

### Note 14 - Reporting criteria

The reporting criteria for each of the TCFD metrics is set out below:

#### Operational emissions

##### Operational Scope 1 emissions

<b>Definition</b>	The total quantity of direct GHG emissions from Aviva's operations (Scope 1). Scope 1 covers operational emissions from owned sources. This includes natural gas, oil (diesel oil), company car mileage and fugitive emissions from air-conditioning.
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e)
<b>Calculation and reporting method</b>	<p><b>Combustion of fuel</b> Natural gas and oil (diesel oil) are the two primary fuels which are used in Aviva's operations. Natural gas is used for heating and cooling our offices and oil (diesel oil) is primarily used in back-up generators.</p> <p>In the UK and Ireland, natural gas consumption data is provided directly from the supplier, except for a few small offices where data is provided by the landlord via a service charge. For other markets, including Canada, data is provided by landlords, including municipal heating and cooling. Where actual data is not available, usually for December measurements due to timing of reporting, data is extrapolated based upon historical consumption figures.</p> <p>Data on oil (diesel oil) usage in the UK, Ireland and India are provided by our service partners who undertake regular checks and provide consumption reports.</p> <p><b>Company owned vehicles</b> Company car (yellow fleet) business mileage is calculated from the expenses system, fuel cards and invoices. The data received is then multiplied with the Department for Energy Security and Net Zero (DESNZ) or International Energy Agency (IEA) emission factors to estimate carbon emissions from company owned vehicles.</p> <p><b>Fugitive emissions</b> Fugitive emission data in the UK and Ireland are provided from supplier reports by our service partners, who undertake regular checks of the air-conditioning units and measure for any leaks. In other markets, where available, this is provided by landlords.</p>
<b>Source</b>	The Group's operational environmental reporting system.

## Our climate metrics

### Operational emissions continued

#### Operational Scope 2 emissions

<b>Definition</b>	<p>The total quantity of indirect GHG emissions from purchased energy (Scope 2). Scope 2 emissions cover emissions generated from the electricity used in all the buildings the Group operates, as calculated by the location-based and market-based methodology.</p> <p><b>Location based</b> Operational emissions from non-owned sources (e.g. power plants) using an average emissions intensity for the grids on which energy consumption occurs. This includes purchased electricity, municipal heating and cooling.</p> <p><b>Market based</b> Operational emissions where we have contractual arrangements for renewable electricity, e.g. through Aviva's own on-site generation, certified renewable electricity through a supplier tariff or the separate purchase of renewable energy guarantees of origin (REGOs) or market equivalent, or consumed renewable heat or transport certified through a Government scheme.</p>
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e)
<b>Calculation and reporting method</b>	<p>In the UK and Ireland, electricity purchased data is provided directly from the supplier, except for a few small offices where data is provided by the landlord via a service charge. For other businesses, including Canada, data is provided by landlords. In India, a small number of office electricity consumption is extrapolated based upon the unit price of a kWh. Where actual data is not available, usually for December measurements due to timing of reporting, data is extrapolated based upon historical consumption figures.</p> <p><b>Location based reporting</b> As per Scope 2 guidance of GHG protocol, the total electricity purchased data is multiplied by the average grid factor from respective country's government database of electricity generation for the reporting period.</p> <p><b>Market based reporting</b> Purchased electricity that we have purposely chosen which is classed as zero carbon, including on-site generation, green tariffs that can be matched to 100% renewable generation, or through purchasing of energy certificates (e.g. renewables obligation certificates (ROC)/REGOs/renewable energy certificates (REC) etc.) is excluded from total electricity. The remainder is multiplied by the average grid factor from respective country's government database of electricity generation for the reporting period.</p>
<b>Source</b>	The Group's operational environmental reporting system.



## Our climate metrics

### Operational emissions continued

#### Operational Scope 3 emissions

<b>Definition</b>	The total quantity of indirect operational emissions (not included in Scope 1 and Scope 2) that occur in the value chain including both upstream and downstream emissions (Scope 3). Operational Scope 3 emissions cover operational emissions from business travel (air, rail, grey fleet and rental cars), water, waste, electricity transmission and distribution and homeworking.
<b>Scope</b>	This is reported for the period 1 January – 31 December. We include emissions from Group entities over which we have operational control as outlined in ‘Note 4 Operational emissions’, except for homeworking. Scope 3 home working emissions are calculated for the Group’s businesses only (UK, Ireland and Canada).
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e)
<b>Calculation and reporting method</b>	<p><b>Business travel</b> For business travel made via air, rail and hired cars the total distance travelled data is procured from corporate travel management providers on a quarterly basis. The distance travelled for business travel in privately owned vehicles is calculated from the Group’s expense systems which reimburse colleagues on a cost per kilometres (km) travelled basis. Travel is measured or converted into km. Air travel is calculated based upon class of service (first, business, economy) and appropriate emission factors are applied to each class.</p> <p><b>Water and waste</b> The data on water consumption in the UK and Ireland is provided directly from our suppliers. In other businesses, data is provided by the landlords. The data on waste generation is provided by our service partners in the UK and Ireland and by landlords in other locations. Water is measured in m<sup>3</sup> and waste is measured in metric tonnes. Emissions factors published by the Department for Energy Security and Net Zero (DESNZ) are applied to total water and waste to estimate CO<sub>2</sub>e emissions.</p> <p><b>Electricity transmission and distribution</b> Electricity transmission and distribution (T&amp;D) is the energy it takes to transfer electricity from generator to end-user, measured in kWh and converted to CO<sub>2</sub>e.</p> <p><b>Homeworking</b> Emissions from homeworking are calculated using government published emissions factors (DESNZ) multiplied by headcount and office non-occupancy rates. Homeworking emissions are not currently within the scope of external assurance and are not reported within our Streamline Energy and Carbon Reporting table (SECR), but we count in our emissions totals for which we purchase carbon credits to offset.</p>
<b>Source</b>	The Group’s operational environmental reporting system.



## Our climate metrics

### Operational emissions continued

#### % of CO<sub>2</sub>e emissions from Aviva's operations offset annually/carbon offsets (tonnes - CO<sub>2</sub>e)

<b>Definition</b>	Operational CO <sub>2</sub> e emissions offset from Aviva's operations through the purchase of Gold Standard, Voluntary Carbon Scheme and Carbon Emission Reduction carbon credits from energy efficiency, clean water provision and renewable energy generation projects from the voluntary carbon market.		
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.		
<b>Units</b>	Percentage / Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e)		
<b>Calculation and reporting method</b>	<p>We purchase voluntary emission reductions certified to the Gold Standard, Verified Carbon Standard and Certified Emission Reduction Standard. The carbon credits are delivered from community-based energy efficiency, clean water provision and renewable energy generation projects in developing countries via the voluntary carbon market. Once issued and purchased, the credits are retired to the respective carbon registry, so they cannot be used or sold again. Aviva sources carbon credits from International Carbon Reduction and Offset Alliance (ICROA) accredited companies.</p> <p>In our reporting, there is an estimation in the volume of credits required in the final period of the year. Therefore, our reporting of this metric may include offsets that have been purchased and that Aviva has committed to retire at the reporting date, by communication to the broker.</p>		
	Percentage of carbon offset achieved =	$\frac{\text{Total number of credits purchased}}{\text{Total quantity of operational Scope 1, Scope 2 and Scope 3 emissions}}$	%
<b>Source</b>	The Group's operational environmental reporting system.		

#### Scope 1 and Scope 2 - location-based emissions (tCO<sub>2</sub>e)/ £m Total income<sup>1</sup>

<b>Definition</b>	GHG intensity calculated as total quantity of Scope 1 and Scope 2 (location-based) emissions per £m Total income. Total income represents the sum of Insurance revenue and Fee and commission income as per the Consolidated Income Statement, as disclosed in Aviva plc Annual Report and Accounts.		
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.		
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e) / £ million Total income		
<b>Calculation and reporting method</b>	<p>This GHG intensity is calculated as: total quantity of Scope 1 and Scope 2 (location-based) emissions divided by £m Total income.</p> <p>A location-based method reflects the average emissions intensity of grids on which energy consumption occurs. Data on Scope 1 and Scope 2 (location-based) operational emissions are calculated based on the method highlighted in the external Reporting Criteria provided for Scope 1 and Scope 2 operational emissions.</p>		
<b>Source</b>	Emission data is sourced from the Group's operational environmental reporting system. Insurance revenue and Fee and commission income are financial measures disclosed in the Group's Annual Report and Accounts.		

1. Following adoption of IFRS 17 Insurance Contracts, the denominator of this metric has been updated to "Total Income" from "GWP" during the year. Total Income captures the sum of Insurance revenue and Fee & commission income on the IFRS Income statement.



## Our climate metrics

### Operational emissions continued

#### Total location-based emissions (tCO<sub>2</sub>e)/ employee

<b>Definition</b>	GHG intensity calculated as total quantity of emissions from Scope 1, Scope 2 (location-based) and Scope 3 operational GHG emissions per employee.
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e) / employees
<b>Calculation and reporting method</b>	This GHG intensity is calculated as: total quantity of Scope 1, Scope 2 (location-based) and Scope 3 operational emissions is divided by total number of employees. A location-based method reflects the average emissions intensity of grids on which energy consumption occurs. The number of employees is based on headcount as at 31 December of the reporting year as provided by our Group HR team. Scope 1, Scope 2 and Scope 3 operational emissions are calculated based on the method highlighted in the external reporting criteria provided for Scope 1, Scope 2 and Scope 3 operational emissions.
<b>Source</b>	The Group's operational environmental reporting system.

#### Scope 1 and Scope 2 market-based emissions (tCO<sub>2</sub>e)/ £m Total income<sup>1</sup>

<b>Definition</b>	GHG intensity calculated as total quantity of Scope 1 and Scope 2 (market based) emissions per £m Total income. Total income represents the sum of Insurance revenue and Fee and commission income as per the Consolidated Income Statement, as disclosed in the Aviva plc Annual Report and Accounts.
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e) / £ million Total income
<b>Calculation and reporting method</b>	This GHG intensity is calculated as: total quantity of Scope 1 and Scope 2 (market based) emissions divided by £m Total income. Data on Scope 1 and Scope 2 (market based) operational emissions are calculated based on the method highlighted in the external Reporting Criteria provided for Scope 1 and Scope 2 operational emissions.
<b>Source</b>	The Group's operational environmental reporting system. Insurance revenue and Fee and commission income are financial measures disclosed in the Group's Annual Report and

#### Total market-based emissions (tCO<sub>2</sub>e)/ £m Total income<sup>1</sup>

<b>Definition</b>	GHG intensity calculated as total quantity of Scope 1, Scope 2 (market based) and operational Scope 3 emissions per £m Total income. Total income represents the sum of Insurance revenue and Fee and commission income as per the Consolidated Income Statement, as disclosed in the Aviva plc Annual Report and Accounts.
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e) / £ million Total income
<b>Calculation and reporting method</b>	This GHG intensity is calculated as: total quantity of Scope 1, Scope 2 (market based) and operational Scope 3 emissions is divided by £m Total income. Data on Scope 1, Scope 2 (market-based) and Scope 3 operational emissions are calculated based on the method highlighted in the external Reporting Criteria provided for Scope 1, Scope 2 and 3 operational emissions.
<b>Source</b>	The Group's operational environmental reporting system (Scope 1, Scope 2 and operational Scope 3 emissions). Insurance revenue and Fee and commission income are financial measures disclosed in the Group's Annual Report and Accounts.

1. Following adoption of IFRS 17 Insurance Contracts, the denominator of this metric has been updated to "Total Income" from "GWP" during the year. Total Income captures the sum of Insurance revenue and Fee & commission income on the IFRS Income statement

## Our climate metrics

### Operational emissions continued

#### Total market-based emissions (tCO<sub>2</sub>e)/ employee

<b>Definition</b>	GHG intensity calculated as total quantity of emissions from Scope 1, Scope 2 (market based) and Scope 3 operational GHG emissions per employee.
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e) / employees
<b>Calculation and reporting method</b>	This GHG intensity is calculated as: total quantity of Scope 1, Scope 2 (market based) and Scope 3 operational emissions is divided by total number of employees. A market-based method reflects the average emissions intensity of grids on which energy consumption occurs. Employees number is based on headcount as at 31 December of the reporting year as provided by our Group HR team. Scope 1, Scope 2 and Scope 3 operational emissions are calculated based on the method highlighted in the external reporting criteria provided for Scope 1, Scope 2 and Scope 3 operational emissions.
<b>Source</b>	The Group's operational environmental reporting system.

#### Operational carbon emissions - absolute

<b>Definition</b>	Absolute CO <sub>2</sub> e data includes emissions from our buildings, business travel, water and waste to landfill as generated during the year.
<b>Scope</b>	This is reported for the period 1 January to 31 December. We include emissions from Group entities over which we have operational control as outlined in 'Note 4 Operational emissions'.
<b>Units</b>	Tonnes CO <sub>2</sub> e (tCO <sub>2</sub> e)
<b>Calculation and reporting method</b>	Data on Scope 1, Scope 2 and Scope 3 operational emissions are calculated based on the method highlighted in the metric description provided in 'Note 4 Operational emissions'.
<b>Source</b>	The Group's operational environmental reporting system.

## Our climate metrics

### Financed emissions

<b>Definition</b>	<p>Financed emissions metrics cover the greenhouse gas (GHG) emissions which Aviva finance through its investments under Scope 3 Category 15 of the GHG Protocol. Financed emissions disclosures encompass a number of different metrics:</p> <ul style="list-style-type: none"> <li>• Absolute GHG emissions attributed to an investment;</li> <li>• Economic carbon intensity (ECI), representing the intensity of GHG emissions attributed to investments per £m invested;</li> <li>• Weighted average carbon intensity (WACI) by revenue, representing the weighted average investee carbon intensity by revenue, whereby each investee's carbon intensity by revenue are its GHG emissions relative to its revenue generated, and the weight is the weight of the investment in the portfolio; and</li> <li>• Real estate (Direct Real Estate &amp; Commercial Mortgages) carbon intensity, representing the total GHG emissions attributed to real estate investments per metre square of attributed floor space.</li> </ul>
<b>Scope</b>	<p>Only Scope 1 and Scope 2 emissions of the investee companies are currently measured. The emissions are based on the latest available reported data or estimated data (where reported data is unavailable) in respect of Aviva plc and its subsidiaries, associates and joint ventures based on the Group's holding. Emissions are the portion of investees' emissions attributed to Aviva based on its share of investment or level of funding. We do not include Scope 3 investee emissions, due to concerns about double counting, data quality and level of estimation as discussed in Note 7 of this report.</p> <p>Sovereign emissions currently cover only production emissions (for domestic consumption and export). Consumption emissions (domestically produced and imports) are not currently measured.</p> <p>Financed emissions for our shareholder, with-profits and policyholder funds are calculated currently for the following asset classes:</p> <ul style="list-style-type: none"> <li>• Corporate bonds;</li> <li>• Listed equities;</li> <li>• Real estate (including Direct Real Estate and Commercial Mortgages);</li> <li>• Equity release mortgages; and</li> <li>• Infrastructure debt (excluding Private Finance Initiative (PFI) investments).</li> </ul>
<b>Units</b>	<p>Absolute attributed greenhouse gas emissions: metric tonnes CO<sub>2</sub> equivalent (tCO<sub>2</sub>e)</p> <p>Economic carbon intensity: tCO<sub>2</sub>e per £m invested<sup>1</sup></p> <p>Weighted average carbon intensity by revenue: tCO<sub>2</sub>e per \$m investee revenue</p> <p>Real estate carbon intensity: kilograms CO<sub>2</sub> equivalent (kgCO<sub>2</sub>e) per square metre (m<sup>2</sup>)</p>

1. The reference currency of this metric has been updated from \$m to £m. See note 1 for further details.



## Our climate metrics

### Financed emissions

<b>Calculation and reporting method</b>	<p>The methods used to calculate financed emissions are based on the Second Edition of The Global GHG Accounting and Reporting Standard Part A: Financed Emissions published by the Partnership for Carbon Accounting Financials (PCAF) on 19 December 2022.</p> <p>Absolute emissions are calculated by attributing a portion of the investee's total emissions to Aviva's relative level of investment. Absolute financed emissions associated with debt and equity investments are attributed by taking the outstanding amount (market value for listed debt<sup>1</sup> and equity, or loaned amount in all other cases) in the investee entity as a portion of the total value of the entity or asset. In the case of listed companies this is the Enterprise Value Including Cash (EVIC), otherwise total debt and equity of the investee is used. For real estate investments, absolute emissions are attributed based on the loan amount outstanding relative to the property value at origination or, in the case of direct real estate investments, the percentage ownership of the property.</p> <p>Economic carbon intensity is calculated by dividing the total attributed absolute emissions by the investment amount (based on current market value).</p> <p>Weighted average carbon intensity by revenue is derived by first calculating the individual company-level absolute emissions per \$m of revenue (tCO<sub>2</sub>e divided by \$m revenue) and then calculating a weighted average for the relevant portfolio with a weighting based on investment value.</p> <p>Real estate carbon intensity is calculated by dividing the portfolio level attributed absolute emissions by the total square meter floorspace of the portfolio (kgCO<sub>2</sub>e divided by m<sup>2</sup>).</p> <p>Sovereign emissions metrics are shown separately from company emissions metrics and should not be aggregated, given the inherent double counting of the same underlying emissions across the two metric categories (as the country-wide sovereign GHG emissions would include company emissions).</p> <p>Financed emissions only covers asset classes for which external calculation methodologies exist and where emissions data is available and meets our required quality thresholds. Our approach to measuring emissions is to use the highest quality data in line with the PCAF standard. As part of the disclosure a breakdown of the PCAF data quality score is provided.</p>
<b>Source</b>	<p>Financed emissions metrics are based on both asset data which is collected from internal Aviva financial reporting systems and emissions data which is collected from various sources and are outlined in more detail below.</p> <p>Reported emission data is sourced as follows:</p> <ul style="list-style-type: none"> <li>• MSCI<sup>2</sup> for Credit and Equities. MSCI base the data on corporate sources (such as Annual reports, Corporate Social Responsibility reports and company websites), CDP (formerly Carbon Disclosure Project) as well as government databases (when data is not available through direct corporate disclosures).</li> <li>• The Carbon Trust Group (CT) and Aviva Investors for debt provided to infrastructure project finance companies. CT base the data on corporate sources (such as Annual Reports, Corporate Social Responsibility Reports and company websites).</li> <li>• Accenture for direct real estate. Accenture use physical meter readings and invoicing to provide the reported real estate emissions.</li> </ul> <p>Estimated emissions data is sourced as follows:</p> <ul style="list-style-type: none"> <li>• MSCI estimates for credit and equities. Estimates are based on an industry segment-specific intensity model, which uses current and/or historical emissions to estimate the carbon intensity of a given industry segment and applies this estimated intensity to the revenue of the company.</li> <li>• CT provided estimates for infrastructure debt and commercial real estate mortgages. Infrastructure debt emissions are estimated using actual electricity generation and IPCC electricity GHG emissions factors where possible and otherwise are based on the PCAF GHG emission factor database (updated in September 2023) sensitised by asset type and country. For commercial real estate mortgage estimates are based on Department for Energy Security and Net Zero (DESNZ) and PCAF conversion factors and Chartered Institution of Building Services Engineers (CIBSE) (2021) energy intensity factors which use floor area and property type.</li> <li>• Accenture provide estimates for direct real estate where reported data is not available. This is based on Department for Energy Security and Net Zero (DESNZ) conversion factors and Chartered Institution of Building Services Engineers (CIBSE) (2021) energy intensity factors which use floor area and property type.</li> <li>• Energy Performance Certificates (EPCs) for equity release mortgages. This data is provided on the UK Government database for Levelling Up, Housing &amp; Communities for England and Wales and the Scottish Government.</li> </ul>

1. Under the PCAF Financed Emissions standard, it is suggested that the outstanding amount for listed debt should represent the book value of the instrument, whereas for data & modelling reasons the current market value is used. The use of market value does not have a material impact on the reported Absolute Emissions.

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## Our climate metrics

### Monitoring of sovereign holdings

<b>Definition</b>	This metric covers our sovereign or government exposures and determines the ND-GAIN country index (physical risk), sovereign absolute emissions and sovereign emission intensity scores for those sovereigns (transition risk).
<b>Scope</b>	This metric covers sovereign loans within shareholder, with-profits and policyholder funds and is limited to sovereign production emissions (excluding land use, land use change and forestry emissions).
<b>Units</b>	<p>ND-GAIN country index: measured on an index between 0 and 100, with 0 being the lowest score and 100 being the highest score.</p> <p>Sovereign Production Emissions: measured in metric tonnes CO<sub>2</sub> equivalent (tCO<sub>2</sub>e).</p> <p>Sovereign Production Emissions Intensity: At asset level, greenhouse gas emissions (tCO<sub>2</sub>e) divided by purchasing power parity (PPP) adjusted gross domestic product (GDP) in £ millions<sup>1</sup>. At sovereign portfolio level, weighted average of sovereign production emissions intensity, equivalent to the attributed sovereign production emissions per £m invested (attributed tCO<sub>2</sub>e/£m invested amount).</p>
<b>Calculation and reporting method</b>	<p>The sovereign emission intensity is based on the sovereign bond methodology published by Partnership for Carbon Accounting Financials, December 2022. See the financed emissions section above for further details.</p> <p>The University of Notre Dame's Adaptation Initiative (ND-GAIN) country index measures a country's vulnerability and readiness to climate change. Our sovereign holdings with an ND-GAIN country index score below 50 are also measured - these are countries that are highly or moderately vulnerable to climate change.</p> <p>We plot the sovereign intensity and ND-GAIN country index for our most significant sovereign exposures. An overall sovereign absolute emission and intensity metric is also provided for the entire sovereign portfolio.</p>
<b>Source</b>	<p>The metric is based on both sovereign exposure data which is collected from internal Aviva systems and the following external sources:</p> <ul style="list-style-type: none"> <li>• University of Notre Dame (ND-GAIN country index measure)<sup>2</sup>;</li> <li>• World Bank (PPP Adjusted GDP)<sup>3</sup>; and</li> <li>• PRIMAP-hist (Production GHG emissions)<sup>4</sup>.</li> </ul>

1. Purchasing power parity adjusted gross domestic product has been updated from \$m to £m

2. Copyright © 2023 University of Notre Dame. This index measure is using 2021 data.

3. World Bank data is provided under Creative Common By 4.0 DEED. International Comparison Program, World Bank | World Development Indicators database, World Bank | Eurostat-OECD PPP Programme. © 2024 The World Bank Group, All Rights Reserved. <https://datacatalog.worldbank.org/public-licenses#cc-by>

4. PRIMAP historical emissions dataset (PRIMAP-hist), is a dataset which combines UNFCCC inventory data with several other published datasets to create a comprehensive set of greenhouse gas emission pathways (Based on "Version 2.5" of PRIMAMP-hist)

## Our climate metrics

### Investment in sustainable assets

<b>Definition</b>	Our investment in sustainable assets is made up of four sub-categories: green assets, sustainability assets, social bonds and transition and climate-related funds. See the following table for more detail on the sustainable asset definition.
<b>Scope</b>	The investment in sustainable assets covers shareholder, with-profits and policyholder funds. The scope does not include assets in external mandates which are managed by Aviva Investors.
<b>Units</b>	Pounds sterling (£) in billions
<b>Calculation and reporting method</b>	<p>The investment in sustainable assets is presented at the end of the reporting period and presents assets which are recognised on the IFRS consolidated statement of financial position which meet the sustainable asset definition. The main categories of assets include infrastructure and real estate assets (both direct and debt) as well as listed bonds and loans. In addition, the underlying assets under management (AUM) of funds which fall within the definition are also included.</p> <p>The investment amount is based on the origination value of investments recognised as at 31 December 2023. Where origination value is not available, market values are used. To the extent market values are used they will include any movement in the market value in the period and as well as the impact of disposals/drawdowns. All sustainable assets excluding bonds and real estate are valued on an origination basis. Bonds are valued on a market value basis.</p>
<b>Source</b>	The metric is based on asset data collected from internal Aviva systems. In respect of bonds, data from the Climate Bonds Initiative (CBI) is used to determine whether the bonds are green, social or sustainability (including sustainability-linked) assets. In respect of real assets (direct and debt), the respective CBI methodologies for green bond screening and sustainability bond screening will be used to determine if the assets are green or sustainability assets.

## Our climate metrics

### Sustainable asset definition - split by asset class:

Asset class	Green assets	Sustainability assets	Social bonds	Transition and climate-related funds
<b>Infrastructure assets (direct and debt)</b>	Energy, Transport, Water (including nature-related solutions), Waste, Land Use categories identified as eligible under CBI green bond database methodology (2022) – this includes green energy such as solar electricity, offshore and onshore wind.	Non-electrified passenger rail and ICE-powered urban public transport.		
<b>Real estate (direct and debt)</b>	Categories defined as eligible under CBI green bond database methodology (2022). This category includes properties with EPC ratings of A and above as well as BREEAM of excellent and outstanding.			
<b>Bonds and loans</b>	In CBI green bond database and benefits from an external review <sup>1</sup> .	Tagged sustainability in CBI social and sustainability bond database (which includes sustainability and sustainability-linked bonds) and benefits from an external review <sup>1</sup> .  Sustainability linked loans which meet the Sustainability-Linked Loan Principles (SLLP) from the Loan Market Association (LMA) and benefits from an external review <sup>1</sup> .	Tagged social in CBI social and sustainability bond database and benefits from an external review <sup>1</sup> .	
<b>Funds</b>				Climate transition funds <sup>2</sup> . Social transition fund. Natural capital transition fund. Climate/decarbonisation venture capital funds <sup>3</sup> .

1. An external review is an assessment carried out by an independent third party and includes third party assurance, second party opinions (SPOs), verification under the Climate Bonds certification and bond ratings by a rating agency. This assessment will consider the green, social or sustainability credentials of the issuance against an internationally recognised framework (such as the Green Bond Principles).

2. Climate transition funds include only Aviva Investor funds; Climate Transition European Equity Fund (CTEF), Canadian Core Plus Climate Transition Pooled Fund, Climate Transition Global Equity Fund (CTGE), Climate Transition Global Credit Fund (CTGC) and Climate Transition Real Assets Fund (CTRA)

3. This includes the Clean Growth Fund (CGF), EIP Deep Decarbonization Frontier Fund LLP and Environmental Technologies Fund (ETF). These funds are not managed by Aviva Investors and hence we only recognise our direct investment.

## Our climate metrics

### Weather-related losses

<b>Definition</b>	<p>Aviva's physical risk is measured through the weather-related loss metric. The impact of weather on our Combined Operating Ratio (COR) as well as the actual weather losses impact versus expected losses is calculated.</p> <p>COR is a financial measure of General Insurance (GI) underwriting profitability calculated as total underwriting costs (including claims) in our GI entities expressed as a percentage of net earned premiums. A COR below 100% indicates profitable underwriting.</p> <p>Weather events in the following business units are classed as catastrophe (CAT) events:</p> <ul style="list-style-type: none"> <li>• UK: flood, wind and storm surge and freeze;</li> <li>• Ireland: flood, wind and storm surge and freeze; and</li> <li>• Canada: flood, windstorm, hail and wildfire.</li> </ul>
<b>Scope</b>	<p>This metric is only applicable to the General Insurance (GI) businesses in UK, Ireland and Canada.</p> <p>Weather-related losses in UK and Ireland include both attritional and CAT weather-related claims, while weather-related losses in Canada only considers CAT claims.</p>
<b>Units</b>	<p>Actual weather-related losses versus expected losses: percentage (%)</p> <p>Weather impact on Aviva's Combined Operating Ratio (COR): percentage (%)</p>
<b>Calculation and reporting method</b>	<p>The expectation for weather-related losses is based on the long-term average (LTA). The LTA takes into account the volume of business written and the reinsurance structure in place during the relevant accident year.</p> <p>Actual weather-related losses are based on paid, reported and incurred but not reported (IBNR) weather-related claims for the relevant accident year. The weather losses, both actual and expected, are presented net of the reinsurance programmes in place.</p>
<b>Source</b>	<p>The metric is based on actual and forecast claims and reinsurance data obtained from the financial consolidation system.</p>

## Our climate metrics

### Temperature alignment

<b>Definition</b>	The temperature alignment metric assesses Aviva's temperature alignment with the Paris Agreement target of limiting global warming to well below 2°C, preferably to 1.5°C above pre-industrial levels, in respect of our investments. Implied Temperature Rise (ITR) and internal analysis are used to calculate an overall temperature alignment score.
<b>Scope</b>	Temperature alignment is calculated for the following asset classes: <ul style="list-style-type: none"> <li>• ITR: companies (credit, equities and direct real estate); and</li> <li>• Internal analysis: sovereigns and green infrastructure (only infrastructure debt (or direct investments) classified within the green asset sub-category per the sustainable asset metric).</li> </ul>
<b>Units</b>	Degrees Celsius (°C)
<b>Calculation and reporting method</b>	The metric is calculated based on the following inputs: <ul style="list-style-type: none"> <li>• ITR: This measure is used for our listed equities, listed corporate bonds and loans and direct real estate. ITR takes into account the property or investee companies' current emissions and reported emissions reduction targets, projecting an absolute emissions time series for each company until 2070 for Scopes 1, 2 and 3 emissions. This is based on the methodology published by MSCI<sup>1</sup> in September 2022.</li> <li>• Internal analysis: The temperature alignment score for our sovereign exposure is based on an analysis of individual governments' actions and how they compare against the Paris Agreement target, taking into account independent analysis conducted by organisations such as Climate Action Tracker. A temperature score is applied to green infrastructure based on internal analysis.</li> <li>• All the above inputs are then aggregated based on proportional weighting in the overall portfolio to determine an overall temperature alignment score in degrees Celsius. For the purpose of this aggregation, where an asset class has below 100% data coverage, the weighted score for the assets where data is available is assumed to apply to the entire asset class.</li> </ul>
<b>Source</b>	The metric is based on asset data which is collected from internal Aviva systems as well as ITR data provided by MSCI <sup>1</sup> . In addition, data extracted from the Climate Action Tracker website is used to calculate the temperature alignment score for our sovereign exposure. The market benchmark data is based on MSCI All Country World Index (ACWI) Investable Market Index (IMI).

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## Our climate metrics

### Climate Value at Risk (Climate VaR)

<b>Definition</b>	The Climate VaR metric is a forward-looking estimate of the impact on our portfolio under different climate scenarios.
<b>Scope</b>	<p>Climate VaR is calculated for the following asset classes:</p> <ul style="list-style-type: none"> <li>• Listed equities;</li> <li>• Listed corporate bonds;</li> <li>• Sovereigns;</li> <li>• Real estate (direct and commercial real estate mortgages);</li> <li>• Equity release mortgages;</li> <li>• Infrastructure debt; and</li> <li>• Insurance liabilities (both general insurance and life insurance).</li> </ul>
<b>Units</b>	The results of the outputs are only disclosed qualitatively at present given current limitations which include scope and data availability, as well as uncertainty associated with some of the underlying assumptions.
<b>Calculation and reporting method</b>	<p>The Intergovernmental Panel on Climate Change (IPCC) has identified potential future scenarios with respect to climate change. Each scenario describes a potential trajectory for future levels of greenhouse gases and other air pollutants. From these scenarios, we have considered those that can be mapped to the following temperature rises by 2100 and levels of economy-wide mitigations required:</p> <ul style="list-style-type: none"> <li>• 1.5°C (aggressive mitigation);</li> <li>• 2°C (strong mitigation);</li> <li>• 3°C (some mitigation); and</li> <li>• 4°C (no further mitigation).</li> </ul> <p>We calculate a Climate VaR for these four scenarios to provide a wide range of possible outcomes, reflecting different emission projections and associated temperature rises. Quantifying the impacts of climate change is an emerging practice, with inherent uncertainty in the approach taken as a range of scenarios are assessed.</p> <p>We employ numerous judgements in the execution of our methodology. For example, we apply uplifts to VaR impacts to allow for the indirect impacts of physical risk (e.g. lower economic growth, lower productivity and supply chain disruption), as well as the effects of feedback loops, where these uplifts are subject to significant degrees of estimation uncertainty at higher temperatures. It is challenging to obtain consistent emissions data across our entire portfolio. As this becomes accessible, it will improve our ability to more accurately estimate the Climate VaR. The current methodology implicitly assumes that the anticipated costs of climate change are not priced into asset valuations, whereas in reality it is anticipated that the current fair value of assets would have some consideration of climate risk priced in. The methodology also does not allow for the effects of tipping points being breached at higher temperatures. Furthermore, a static balance sheet approach with no management actions has been employed. An expert panel reviews and challenges the methodology and assumptions made in the selection, development and modelling of the financial impacts across scenarios.</p> <p>As such, there remain uncertainties around the quantification of climate-related risks and opportunities by our Climate VaR methodology.</p>
<b>Source</b>	The metric is based on both asset and insurance liability data which is collected from internal Aviva systems as well as Climate VaR proportional impacts calculated and provided by MSCI <sup>1</sup> for bonds, equities and real estate holdings. Data from the Cambridge Institute of Sustainable Leadership's (CISL) Climate Wise Transition Risk Framework <sup>2</sup> is used to model transition risk exposures for infrastructure assets. Data from the University of Cambridge Bennett Institute for Public Policy <sup>3</sup> is used to model the physical risk exposures for sovereigns. We also leverage our existing catastrophe modelling capability to model the physical risk exposures for general insurance liabilities.

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2. The ClimateWise Transition Risk Framework helps investors and regulators manage risks and capture emerging opportunities from the low carbon transition. It has been developed through the ClimateWise Insurance Advisory Council, building on the recommendations from the TCFD.

3. [https://www.bennettinstitute.cam.ac.uk/wp-content/uploads/2020/12/Rising\\_Climate\\_Falling\\_Ratings\\_Working\\_Paper.pdf](https://www.bennettinstitute.cam.ac.uk/wp-content/uploads/2020/12/Rising_Climate_Falling_Ratings_Working_Paper.pdf)



# Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

The Board of Directors of Aviva plc (“Aviva”) engaged us to perform an assurance engagement in respect of selected sustainability metrics presented in Aviva’s Annual Report and Accounts 2023, Climate-related Financial Disclosure 2023 and Sustainability Datasheet 2023 for the year ended 31 December 2023 (the “Reports”). Specifically, PwC was engaged to obtain:

- reasonable assurance over the information identified in “Appendix - Table A” and marked with the symbol  and
- limited assurance over the information identified in “Appendix - Table B” below and marked with the symbol 

(together, the ‘Subject Matter Information’), as set out, together with the Aviva’s Reporting Criteria (‘Reporting Criteria’) in the ‘What we were engaged to assure’ section below.

## Our conclusions

### Our reasonable assurance conclusion

In our opinion, the Subject Matter Information marked with the symbol  in Aviva’s Reports and set out in “Appendix - Table A, has been prepared, in all material respects, in accordance with Aviva’s Reporting Criteria set out on pages 59 – 72 of Aviva’s Climate-related Financial Disclosure 2023.

### Our limited assurance conclusion

Based on the procedures we have performed, as described under “Summary of work performed” and the evidence we have obtained, nothing has come to our attention that causes us to believe that the information marked with the symbol  in Aviva’s Reports and set out in “Appendix - Table B”, has not been prepared, in all material respects, in accordance with Aviva’s Reporting Criteria set out on pages 59 – 72 of Aviva’s Climate-related Financial Disclosure 2023.

## What we were engaged to assure

The Subject Matter Information needs to be read and understood together with Aviva’s Reporting Criteria which Aviva’s directors are solely responsible for selecting and applying. The Subject Matter Information and Aviva’s Reporting Criteria are as set out in tables A and B in the Appendix.

The scope of our work did not extend to information in respect of earlier periods or to any other information included in, or linked from, the Reports.

## Our work

### Professional standards applied

We performed an assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’ and, in respect of the greenhouse gas (GHG) emissions, in accordance with International Standard on Assurance Engagements 3410 ‘Assurance engagements on greenhouse gas statements’, issued by the International Auditing and Assurance Standards Board.

## Our independence and quality control

We have complied with the Institute of Chartered Accountants in England and Wales Code of Ethics, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour, that are at least as demanding as the applicable provisions of the International Ethics Standards Board for Accountants International Code of Ethics for Professional Accountants (including International Independence Standards).

We apply International Standard on Quality Management (UK) 1 and accordingly maintain a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

### Summary of work performed

We plan and perform our work to assess whether the Subject Matter Information is free from material misstatement, whether due to fraud or error. The procedures performed for limited assurance vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

With respect to our limited assurance conclusion, the procedures we have performed, which were based on our professional judgement, included:

- considering the suitability in the circumstances of Aviva's use of the Reporting Criteria as the basis for preparing the Subject Matter Information including considering reporting boundaries;
- obtaining an understanding of Aviva's control environment, processes and systems relevant to the preparation of the Subject Matter Information;
- evaluating the appropriateness of measurement and evaluation methods, reporting policies used and estimates made by Aviva;
- comparing year on year movements and obtaining explanations from management for significant differences we identified;

- performing limited substantive testing of the Subject Matter Information marked with the symbol <sup>(AL)</sup>, which is aggregated from information submitted by business units and functions. Testing involved: agreeing arithmetical accuracy of calculations, and agreeing data points to or from source information to check that the underlying Subject Matter Information had been appropriately evaluated or measured, recorded, collated and reported; and
- evaluating the disclosures in, and overall presentation of, the Subject Matter Information.

With respect to our reasonable assurance opinion, the procedures we have performed, which were based on our professional judgement, included:

- the procedures as described above with respect to our limited assurance conclusion;
- evaluating the design of the controls relevant to the engagement, determining whether they have been implemented as described and testing the operation of those control activities where necessary;
- performing more extensive substantive testing of the Subject Matter Information marked with the symbol <sup>(AR)</sup>, including selecting more items to test; and

- testing the data on which estimates are based and separately developing our own estimates for certain metrics against which to evaluate Aviva's estimates.

### Materiality

We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the nature, timing and extent of our procedures in support of our conclusion. We believe that it is important that the intended users of the Subject Matter Information understand the scope and the concept of materiality in order to understand the assurance that our conclusions provide.

Based on our professional judgement, we determined materiality for the Subject Matter Information as follows:

### Overall materiality

Materiality may differ depending upon the nature of the Subject Matter Information. We apply professional judgement to consider the most appropriate materiality benchmark for each aspect of the Subject Matter Information.

The benchmark approach for each aspect of the Subject Matter Information is indicated in the tables A and B in the Appendix by one of the following letters:

- <sup>A</sup> This metric is an absolute number. A benchmark materiality of 5% has been applied.
- <sup>B</sup> This metric measures intensity or proportion, which is calculated as a ratio between 2 different numbers. A benchmark of 5% has been applied to both the numerator and denominator used in the calculation.
- <sup>C</sup> This metric is a weighted data quality score. A benchmark materiality of 0.2 decimal places has been applied.

We also agreed to report to the Directors misstatements ('reportable misstatements') identified during our work at a level below overall materiality, as well as misstatements below that lower level that in our view warranted reporting for qualitative reasons.

The Directors are responsible for deciding whether adjustments should be made to the Subject Matter Information in respect of those items.

## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

### Key assurance matters

Key assurance matters are those areas of our work that in our professional judgement required particular focus and attention, including those which had the greatest effect on the overall assurance strategy, the allocation of resources, and directing the efforts of the engagement team.

We considered the following areas to be key assurance matters and discussed these with Aviva's management.

### Judgement in application of complex definition of 'Investment in Sustainable Assets'

<b>Nature of the issue</b>	<p>Aviva plc is a large asset owner and manager. As part of its net zero transition plan Aviva reports the amount of investment in 'sustainable assets'. As there are a number of different frameworks and industry guidance to determine what constitutes a 'sustainable asset', management has applied judgement and developed its own definition of 'sustainable'.</p> <p>Aviva has defined this to include assets which are 'green', or 'sustainable', and as 'social bonds' or 'transition and climate-related funds'. Definitions are laid out in more detail in the Note 14 - Reporting Criteria (see page 69). Due to the element of management judgement required to apply the complex definition, there is a potential for management bias and a risk that the definition is not applied appropriately.</p>
<b>How our work addressed the key assurance matter</b>	<p>In order to address the issues noted above, we have:</p> <ul style="list-style-type: none"> <li>• Obtained an understanding of the governance process to review and approve the sustainable asset definition through walkthrough meetings and review of meeting minutes;</li> <li>• Considered the suitability of the reporting criteria in the circumstances and with respect to Aviva's portfolio of assets;</li> <li>• Tested a sample of assets included within the 'Investment in Sustainable Assets' metric to determine if the definition had been applied appropriately; and</li> <li>• Evaluated the disclosures in the Reports.</li> </ul>
<b>Element(s) of the Subject Matter Information most significantly impacted</b>	<p>Investment in Sustainable Assets</p>

## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

### Limited oversight over the controls and processes in place for third party data

<b>Nature of the issue</b>	<p>Aviva plc owns and manages an investment portfolio which covers a number of asset classes, and reports the financed emissions attributable to these assets. In calculating these emissions, Aviva uses data that is collected internally from Aviva financial reporting systems and emissions data which is collected from various third-party sources. Third-party data is sourced from:</p> <ul style="list-style-type: none"> <li>• Morgan Stanley Capital Information Inc ('MSCI') for credit and equities;</li> <li>• The Carbon Trust Group for debt provided to infrastructure project finance companies;</li> <li>• Accenture for direct real estate data;</li> <li>• The UK Government for Energy Performance Certificates used for equity release mortgages; and</li> <li>• University of Notre-Dame, World Bank and PRIMAP-hist for Sovereign debt emissions.</li> </ul> <p>Further detail on these sources has been included within the Aviva plc Reporting Criteria 2023. The data provided by third parties at an individual asset level includes (i) reported, publicly available information, and (ii) information estimated by third parties using proprietary estimation models, which is not publicly available.</p> <p>The nature of the data provided by third-parties means that Aviva has limited ability to oversee the validity and accuracy of emissions data used.</p>
<b>How our work addressed the key assurance matter</b>	<p>In order to address the issue described above in respect of reported, publicly available information we have:</p> <ul style="list-style-type: none"> <li>• Obtained an understanding of the third parties used by Aviva;</li> <li>• Recalculated the total absolute emissions relating to Equity release Mortgages and Sovereigns using independently sourced EPC and PRIMAP-hist data;</li> <li>• For a sample of assets held tested the PCAF data quality score attributed by third party providers to independently sourced information; and</li> <li>• For a sample of assets held, tested the following key inputs to independently sourced information: <ul style="list-style-type: none"> <li>- Reported emissions, and</li> <li>- Financial information such as revenue and debt and equity.</li> </ul> </li> </ul>
<b>Element(s) of the Subject Matter Information most significantly impacted</b>	<p>Total Absolute financed emissions  Total Economic carbon intensity  Total data quality score  Sovereign absolute emissions  Sovereign carbon intensity  Data quality score - Sovereign</p>



## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

### Completeness of Asset Data

<b>Nature of the issue</b>	<p>Aviva has a complex asset portfolio with data which comes from multiple sources across the Aviva group. The data used for financed emissions metrics is manually extracted from systems or automatically fed from source systems established for the consolidation of data.</p> <p>In completing this process, management is required to complete a series of procedures including data cleansing and re-formatting and manual reconciliations to ensure the completeness of the asset data used for the emissions metrics. There is a heightened risk that the extractions and processing of the source data is incomplete and the resultant metrics misstated.</p>
<b>How our work addressed the key assurance matter</b>	<p>In order to address the issue described above we have:</p> <ul style="list-style-type: none"> <li>• Obtained an understanding of the business processes and systems involved in generating the asset data, including the controls designed and implemented over assets;</li> <li>• Performed testing over the design and operating effectiveness of management’s reconciliation controls over data between source systems and the sustainability reporting system; and</li> <li>• Obtained and reviewed management’s reconciliations including the appropriateness of any large or unusual reconciling items.</li> </ul>
<b>Element(s) of the Subject Matter Information most significantly impacted</b>	<p>Total Absolute financed emissions            Total Economic carbon intensity            Sovereign absolute emissions            Sovereign carbon intensity</p>



## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

### Challenges of non-financial information

The absence of a significant body of established practice upon which to draw to evaluate and measure non-financial information allows for different, but acceptable, evaluation and measurement techniques that can affect comparability between entities, and over time.

Non-financial information is subject to more inherent limitations than financial information, given the characteristics of the underlying subject matter and the methods used for measuring or evaluating it. The precision of different measurement techniques may also vary.

In particular:

- For financed emissions calculations, it is generally acknowledged by stakeholders globally, including regulators, that there are significant limitations in the availability and quality of GHG emissions data from third parties, resulting in reliance on estimated or proxy data. This is particularly relevant for the emissions relating to the Credit & Equities asset class where 8% of data used in the calculation of financed emissions reported by Aviva is estimated by third parties, with limited oversight by Aviva over the calculation of these data points. These limitations are reflected in the assigned data quality score.

- Carbon offsets are subject to inherent limitations, including but not limited to the extent of social impact, the risk of double counting, lack of additionality, leakage, permanence, and uncertainties as to whether the expected reductions or removals will occur. This could impact the estimated reduction or removal of CO<sub>2</sub>e assigned to those offsets.

### Reporting on Other Information

The other information comprises all of the information in the Report other than the Subject Matter Information and our assurance report. The Directors are responsible for the other information. As explained above, our conclusions do not extend to the other information and, accordingly, we do not express any form of assurance thereon. In connection with our assurance of the Subject Matter Information, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Subject Matter Information or our knowledge obtained during the assurance engagement, or otherwise appears to contain a material misstatement of fact. If we identify an apparent material inconsistency or material misstatement of fact, we are required to perform procedures to conclude whether there is a material misstatement of the Subject Matter Information or a material misstatement of the other information, and to take appropriate actions in the circumstances.

### Responsibilities of the Directors

The Directors of Aviva are responsible for:

- determining appropriate reporting topics and selecting or establishing suitable criteria for measuring or evaluating the underlying subject matter;
- ensuring that those criteria are relevant and appropriate to Aviva and the intended users of the Reports;
- the preparation of the Subject Matter Information in accordance with the Reporting Criteria including designing, implementing and maintaining systems, processes and internal controls over the evaluation or measurement of the underlying subject matter to result in Subject Matter Information that is free from material misstatement, whether due to fraud or error;
- documenting and retaining underlying data and records to support the Subject Matter Information;
- producing the Reports that provide a balanced reflection of Aviva's performance in this area and disclose, with supporting rationale, matters relevant to the intended users of the Reports; and
- producing a statement of Directors' responsibility.

### Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain reasonable and limited assurance about whether the Subject Matter Information is free from material misstatement, whether due to fraud or error;
- forming independent conclusions, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusions to the Directors of Aviva.

### Use of our report

Our report, including our conclusions, has been prepared solely for the Directors of Aviva in accordance with the agreement between us dated 13 December 2023 (the "agreement"). To the fullest extent permitted by law, we do not accept or assume responsibility or liability to anyone other than the Board of Directors and Aviva for our work or our report except where terms are expressly agreed between us in writing.

**PricewaterhouseCoopers LLP**  
Chartered Accountants  
London  
6 March 2024



## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

### Appendix

The Aviva Plc Reporting Criteria 2023 is as published on the Aviva website here<sup>1</sup>

In tables within this appendix, the following acronyms are used: ARA - Aviva plc Annual Report and Accounts 2023; CRFD - Aviva Climate-related Financial Disclosure report 2023; Datasheet - Aviva Sustainability Datasheet 2023

**Table A: Subject Matter Information subject to reasonable assurance**

Subject Matter Information	Reported Unit	Reported Value	Location of Subject Matter Information
<b>Operational Emissions</b>			
Operational carbon emissions - Scope 1, Scope 2 and Scope 3 (market-based) <sup>A</sup>	Tonnes CO <sub>2</sub> e	17,386	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Operational carbon emissions - Scope 1, Scope 2 and Scope 3 (location-based) <sup>A</sup>	Tonnes CO <sub>2</sub> e	24,830	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Carbon offsets for which credits have been purchased and retired during the year <sup>A</sup>	Tonnes CO <sub>2</sub> e	(17,386)	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
<b>Intensity ratios</b>			
Scope 1 and Scope 2 - location-based emissions (tCO <sub>2</sub> e)/£m total income <sup>B</sup>	tCO <sub>2</sub> e/£m total income	0.78	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Total location-based emissions (tCO <sub>2</sub> e)/£m total income <sup>B</sup>	tCO <sub>2</sub> e/£m total income	1.25	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Total location-based emissions (tCO <sub>2</sub> e)/ employee <sup>B</sup>	tCO <sub>2</sub> e/headcount	0.89	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Scope 1 and Scope 2 - market-based emissions (tCO <sub>2</sub> e)/ £m total income <sup>B</sup>	tCO <sub>2</sub> e/£m total income	0.40	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Total market-based emissions (tCO <sub>2</sub> e)/ £m total income <sup>B</sup>	tCO <sub>2</sub> e/£m total income	0.88	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Total market-based emissions (tCO <sub>2</sub> e)/ employee <sup>B</sup>	tCO <sub>2</sub> e/headcount	0.62	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
<b>Energy consumption</b>			
Energy consumption (total energy used) <sup>A</sup>	MWh	68,345	ARA - Our CRFD; CRFD - Note 4 Operational emissions; Datasheet - Climate Action
Electricity used from renewable sources <sup>B</sup>	%	100%	ARA - Our sustainability ambition; CRFD - Note 4 Operational emissions; Our 2023 climate highlights; Datasheet - Climate Action

1. The maintenance and integrity of Aviva's website is the responsibility of the Directors; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Subject Matter Information or Reporting Criteria when presented on Aviva's website



## Independent Assurance Report to the Directors of Aviva plc on selected sustainability metrics

**Table A: Subject Matter Information subject to reasonable assurance**

Subject Matter Information	Reported Unit	Reported Value	Location of Subject Matter Information
<b>Climate Related Financial Disclosures</b>			
Economic carbon intensity for Group - Scope 1 and Scope 2 (shareholder, with-profits and policyholder assets) <sup>1, B</sup>	tCO <sub>2</sub> e/£m invested	59	CRFD - Note 7 Financed emissions; Datasheet - Climate Action
Absolute financed emissions for Group - Scope 1 and Scope 2 (shareholder, with-profits and policyholder assets) <sup>1, B</sup>	million tCO <sub>2</sub> e	8.8	CRFD - Note 7 Financed emissions; Datasheet - Climate Action
Weighted average carbon intensity - Credit & equities (shareholder assets only) for UK, Ireland and Canada <sup>B</sup>	tCO <sub>2</sub> e/\$m revenue	61	Datasheet - Climate Action
Weighted average carbon intensity - credit & equities (shareholder and with-profits assets) for UK, Ireland and Canada <sup>B</sup>	tCO <sub>2</sub> e/\$m revenue	68	CRFD - Note 7 Financed emissions; Datasheet - Climate Action
Sovereign absolute emissions <sup>A</sup>	million tCO <sub>2</sub> e	8.9	CRFD - Note 8 Monitoring sovereign holdings; Datasheet - Climate Action
Sovereign carbon intensity <sup>B</sup>	tCO <sub>2</sub> e /£m invested	228	CRFD - Note 8 Monitoring sovereign holdings; Datasheet - Climate Action
Total data quality score including <sup>C</sup>			
• Credit and Equities			
• Infrastructure debt			
• Direct real estate			
• Commercial real estate mortgages			
• Equity release mortgages			
Data quality score - Sovereign <sup>C</sup>	PCAF score	2.3	CRFD - Note 8 Monitoring sovereign holdings; Datasheet - Climate Action
Investment in sustainable assets total <sup>A</sup>	£bn	10.6	CRFD - Note 9 Investment in sustainable assets; Datasheet - Climate Action

1. Direct real estate includes whole building emissions

**Table B: Subject matter information subject to limited assurance**

Subject Matter Information	Reported Unit	Reported Value	Location of Subject Matter Information
<b>Operational emissions</b>			
% reduction in absolute Scope 1 and Scope 2 (market-based) emissions from 2019 baseline <sup>B</sup>	%	50%	ARA - Sustainability at a glance; Datasheet - Climate Action



# Appendix

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## Foreword

The following appendix brings together our disclosure in accordance with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) for five entities in scope of FCA's PS 21/24 Enhancing climate-related disclosures by asset managers, life insurers and FCA-regulated pension providers. We have set out how we have complied in the Entity level reporting - TCFD compliance summary. The entity level reports were approved on 6 March 2024.

The entity level reports reference content included in the Aviva plc Climate-related Financial Disclosure 2023 and links are provided for these references.

**A glossary explaining key terms used in this report is available on:**

[www.aviva.com/climate-goals-glossary](http://www.aviva.com/climate-goals-glossary)



# Entity level reporting - TCFD compliance summary

The TCFD outlines 11 recommendations for organisations to include in their climate reporting.

The table below directs to the relevant section where the 11 TCFD recommendations are covered in this report for Aviva Life & Pensions UK Limited (UKLAP), Aviva Pension Trustees UK Limited (UKPTL), Aviva Administration Limited (AAL), Aviva Investors Global Services Limited (AIGSL) and Aviva Investors UK Fund Services Limited (AIFSL).

Whilst we have complied with the 11 recommendations, we continue to work towards expanding the scope of our metrics and targets, developing the methodology of our climate scenario analysis and enhancing our disclosure in this area. In addition to the TCFD Final Report, we have also considered the TCFD Annex (issued October 2021).

The subsidiaries approach to the management of climate-related risk and opportunities is consistent with the approach taken for Aviva plc and therefore compliance with the TCFD recommendations for each of the legal entities in scope is achieved through reference to content in the Group section of the Aviva plc Climate-related Financial Disclosure 2023 and is supplemented by entity-specific content in this appendix.

## Section the disclosures are included in

TCFD pillars	TCFD recommended disclosures	Aviva Life & Pensions UK Limited	Aviva Pension Trustees UK Limited	Aviva Administration Limited	Aviva Investors Global Services Limited	Aviva Investors UK Fund Services Limited
<b>Governance</b> Disclose the organisation's governance around climate-related issues and opportunities.	<p>a. Describe the board's oversight of climate-related risks and opportunities.</p> <p>b. Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<ul style="list-style-type: none"> <li>Asset owner entities - Governance (see page 84)</li> <li>Group - Our management's climate roles and responsibilities (see page 35)</li> <li>Asset owner entities - Governance (see page 84)</li> </ul>			<ul style="list-style-type: none"> <li>Asset manager entities - Governance (see page 90)</li> <li>Group - Our management's climate roles and responsibilities (see page 35)</li> <li>Asset manager entities - Governance (see page 90)</li> </ul>	
<b>Strategy</b> Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning where such information is material.	a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long-term.	<ul style="list-style-type: none"> <li>Group - Our climate strategy, risks and opportunities (see page 12)</li> <li>Asset owner entities - Strategy (see page 85)</li> </ul>			<ul style="list-style-type: none"> <li>Group - Our climate strategy, risks and opportunities (see page 12)</li> <li>Asset manager entities - Strategy (see page 91)</li> </ul>	
	b. Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	<ul style="list-style-type: none"> <li>Group - Our climate strategy, risks and opportunities (see page 10)</li> <li>Group - Our strategic focus (see page 15)</li> <li>Asset owner entities - Strategy (see page 85)</li> </ul>			<ul style="list-style-type: none"> <li>Group - Our climate strategy, risks and opportunities (see page 10)</li> <li>Group - Our strategic focus (see page 15)</li> <li>Asset manager entities - Strategy (see page 91)</li> </ul>	
	c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<ul style="list-style-type: none"> <li>Group - Scenario analysis (see page 13)</li> <li>Asset owner entities - Strategy (see page 85)</li> <li>UKLAP - Context (see page 86)</li> <li>UKPTL - Context (see page 89)</li> <li>AAL - Context (see page 89)</li> </ul>			<ul style="list-style-type: none"> <li>Group - Scenario analysis (see page 13)</li> <li>Asset manager entities - Strategy (see page 91)</li> </ul>	



## Entity level reporting - TCFD compliance summary

### Section the disclosures are included in

TCFD pillars	TCFD recommended disclosures	Aviva Life & Pensions UK Limited	Aviva Pension Trustees UK Limited	Aviva Administration Limited	Aviva Investors Global Services Limited	Aviva Investors UK Fund Services Limited
<b>Risk Management</b> Disclose how the organisation identifies, assesses and manages climate-related risks.	<p>a. Describe the organisation's processes for identifying and assessing climate-related risks.</p> <p>b. Describe the organisation's processes for managing climate-related risks.</p> <p>c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.</p>	<ul style="list-style-type: none"> <li>Group - Our process for identifying and assessing climate-related risks (see page 30)</li> <li>Asset owner entities - Risk Management (see page 86)</li> </ul>	<ul style="list-style-type: none"> <li>Group - Our process to manage climate-related risks (see page 30)</li> <li>Asset owner entities - Risk Management (see page 86)</li> </ul>	<ul style="list-style-type: none"> <li>Group - Our process to integrate climate-related risks into risk management (see page 29)</li> <li>UK Life Risk Management (see page 86)</li> </ul>	<ul style="list-style-type: none"> <li>Group - Our process for identifying and assessing climate-related risks (see page 30)</li> <li>Asset manager entities - Risk management (see page 91)</li> <li>Group - Our process to manage climate-related risks (see page 30)</li> <li>Asset manager entities - Risk management (see page 91)</li> <li>Group - Our process to integrate climate-related risks into risk management (see page 29)</li> <li>Asset manager entities - Risk management (see page 91)</li> </ul>	
<b>Metrics and Targets</b> Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	• UKLAP metrics (see page 87)	• UKLAP metrics (see page 87)	• UKLAP metrics (see page 87)	• Aviva Investors Global Services Limited - Metrics and targets (see page 93)	• Aviva Investors UK Fund Services Limited - Metrics and targets (see page 95)
	b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.	• UKLAP metrics (see page 87)	• UKLAP metrics (see page 87)	• UKLAP metrics (see page 87)	• Aviva Investors Global Services Limited - Metrics and targets (see page 93)	• Aviva Investors UK Fund Services Limited - Metrics and targets (see page 95)
	c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	• UKLAP metrics (see page 87)	• UKLAP metrics (see page 87)	• UKLAP metrics (see page 87)	• Aviva Investors Global Services Limited - Metrics and targets (see page 93)	• Aviva Investors UK Fund Services Limited - Metrics and targets (see page 95)

These reports should be read in conjunction with the Cautionary statements included on page 97 to 99.

# Asset owner entities

## Asset owner entities in-scope of PS 21/24

Aviva's Insurance, Wealth & Retirement (IWR) business in the UK is written through subsidiaries of Aviva Life Holdings UK Limited (UKLH), subsequently referred to as UK IWR.

UKLH is a holding company and therefore is not a FCA regulated financial services company. The following three legal entities and subsidiaries of UKLH, which are registered FCA life insurers and/or pension providers are required by the FCA to provide entity level Climate-related (TCFD) disclosure:

- Aviva Life & Pensions UK Limited (UKLAP);
- Aviva Pension Trustees UK Limited (UKPTL); and
- Aviva Administration Limited (AAL).

The following sections on governance, strategy and risk management set out the structures and processes that are in place at a UK IWR level to take climate-related risk and opportunities into consideration. AAL and UKPTL, as subsidiaries, defer to UKLH for any such considerations. UKLH governance is merged with UKLAP, as it consists of the same executive and non-executive members and UKLAP is both the main product holding company and statutory reporting entity for the UK IWR business.

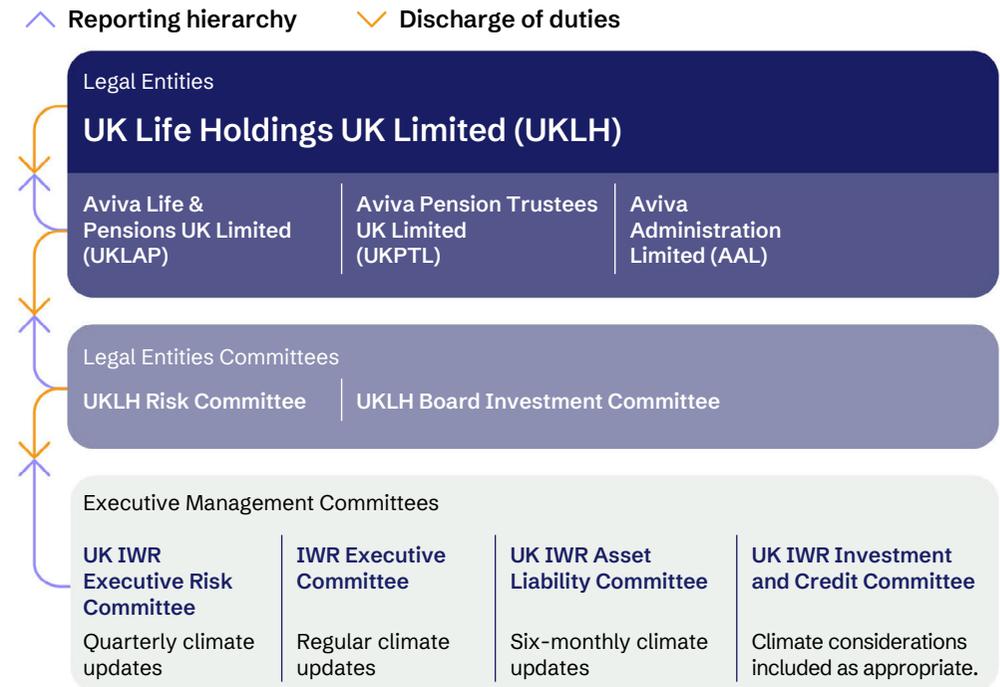
### Governance

UK IWR's approach to climate-related governance is consistent with Aviva Group's governance as described in the Group's Governance section on page 33. The UKLH Boards and Committees and the IWR Executive Committees have the same responsibilities as Group and are supported by the Group's functions.

The Boards are also focused on the wider social context within which our businesses operate, including those issues related to climate change.

Recognising climate change presents risks and opportunities for customers, communities and business, the Group is signed up to the United Nations-convened Net Zero Asset Owner Alliance (NZAOA).

Figure 1: Governance Structure





## Asset owner entities

Sustainability, including climate, is considered by the UK IWR Executive Risk Committee (ERC) on a bi-monthly basis as part of Risk reporting and on a quarterly basis as part of specific climate reporting.

The UK IWR ERC receives information about the current risk profile, covering the different risk types (including climate change), the position against tolerance and an explanation of the development of the profile. Periodic Stress and Scenario Testing exercises are carried out, which include climate considerations. These are also reported to the UK IWR Asset Liability Committee (UK IWR ALCo) and the UKLH Board committees.

In addition, UK IWR ALCo receives a six-monthly climate update. Where appropriate, additional reporting is taken from the UK IWR ERC or UK IWR ALCo to the Board Investment Committee (BIC). If required, this reporting continues to the UK IWR ERC and the UKLH Board, as appropriate (see figure 1).

The UK IWR Investment & Credit Committee (UK IWR ICC) considers investment related matters such as setting investment strategy. Such investment matters involve consideration of sustainability, including climate-related factors where appropriate.

The Chief Executive Officer (CEO) and Chief Financial Officer (CFO) of UKLH (with oversight of subsidiary legal entities) hold the regulatory accountability for managing climate risk within UK IWR as part of the Senior Manager Function. In addition, the Chief Risk Officer (CRO) provides opinion and challenge on how this is managed. This is reflected in the respective Statement of Responsibilities which sets out the tasks within a firm that the respective person will be responsible for managing in performing the function.

The CEO of IWR (and UKLAP) delegates responsibility for managing climate-related risk and opportunities through their reasonable steps documentation. This is a document which stipulates how the senior manager in question discharges responsibility to other functions and/or people to fulfil regulatory duties while maintaining oversight.

Responsibility for the oversight of the delivery of all climate and sustainability ambition and strategy was delegated to the UK IWR Chief Investments Officer (CIO) from January 2023. The CIO reports directly into the CEO and is a 'IWR ExCo' member. In addition, UK IWR Managing Directors (MDs) and the Chief Operating Officer (COO) are accountable for the delivery and the management of climate and sustainability strategy, risk management and climate-related impacts on their respective operations (including supply chain and underwriting).

The IWR ExCo meets at least 11 times per year. The ExCo has supported the CEO of UK IWR in the review and approval of the UK IWR Business Strategy on Climate and Aviva Sustainability Ambition (ASA). The IWR CEO is a member of the Group's ASA steering committee.

In addition, the IWR ExCo receives a monthly UK IWR Management Information performance summary, which includes climate-related information. This is also made available to the Non-Executive Directors on the Board committees.

The UKLH Board met five times during 2023 with additional meetings held ad-hoc as required. Sustainability was raised as a topic of discussion at all five of the standard Board meetings. Although ad-hoc board meetings did occur throughout the year, sustainability was not raised as a specific topic. Five standard UK IWR ERC and Board Risk Committees were held in 2023 and climate risk was discussed at two of these meetings, plus a further dedicated deep dive session.

### Strategy

One of UK IWR's key strategic priorities is delivering on our climate ambitions within the UK's financial services industry across a breadth of sustainability considerations. As an asset holder, UK IWR has a fiduciary duty to invest all our assets in a responsible way and for policyholder funds to continue to invest in line with policyholders' expectations of us.

Where UK IWR has investment decision-making power for our shareholder assets and policyholder assets, we are embedding our stewardship and climate ambitions into the investment strategy and day-to-day investment management.

An overview of the IWR business strategy is included in the Aviva plc Annual Report and Accounts 2023, Our business review: Insurance, Wealth & Retirement.

Our ambition to become a Net Zero asset owner by 2040, including our membership of the NZAOA, does not guarantee that decarbonisation targets will be achieved, and is undertaken on a reasonable efforts basis and is dependent on accelerated action from governments, companies and society.

As stated in our Group Strategy disclosure (see Our climate strategy, risks and opportunities section on page 12), the materiality and time horizons over which climate-related risks and opportunities affect our business is dependent on the specific insurance products and investments being considered. UK IWR takes a blended view of the climate outlook based on product type and the product demographics.

In line with Aviva Group, UK IWR considers the climate related risks and identifies the opportunities for its customers across three time horizons:

- short term (0 to 3 years);
- medium term (3 to 10 years); and
- long term (>10 years).



## Asset owner entities

Transition risks are more relevant to those customers holding products which have a short to medium-term time horizon; those with saving plans or customers approaching or starting their retirement.

Physical risks increase over the longer term, however there are impacts that have to be managed in the medium-term as well. Customers starting their retirement planning or householders taking out an equity release mortgage have more exposure to the physical risks of climate change.

Litigation risk is present across all three time horizons but like physical risk it will increase over time.

UK IWR continue to use Climate VaR scenario analysis to compare a plausible range of outcomes (adverse to favourable estimates) from our climate model. Our strategy remains resilient to climate-related risks and opportunities in all scenarios. However, this is a challenging and evolving metric and we continue to refine our approach as detailed in the scenario analysis section on pages 13 to 14.

For UK IWR, collaboration with asset managers (internal and external) is essential in the management of risk and the decarbonisation of our investment portfolios (see the decarbonising our investment portfolio section page 21).

Specific activity has included:

- Engagement with companies on climate, for example, CEEP being extended to fossil fuel demand side, starting with airlines (see the influencing section page 19).
- Expanding the Baseline Exclusion Policy (BEP) to passives through customised benchmarks thus applying a consistent approach across all our investments.
- Enhanced our investment principles to more readily support the financing transitioning companies.
- Working with our managers to develop carbon reduction optimised solutions and increasing our allocation within our auto-enrolment and heritage multi-asset funds.

### Risk Management

UK IWR's approach to risk management is consistent with Aviva Group's risk management framework as described in the Group's Risk Management section on page 29. In alignment to Group, UK IWR manages its climate-related risks in line with its risk preferences and the UK IWR Climate Risk Appetite.

UK IWR actively seeks to reduce our exposure over time to the downside risks arising from the transition to a low carbon economy. We also seek to identify and support solutions that will drive a transition to a low-carbon, climate resilient economy and to limit our net exposure to the more acute and chronic physical risks that will occur in the event the Paris Agreement target is not met. We actively avoid material exposure to climate litigation risks.

The Group Business Standards mandate the minimum requirements which must be met in UK IWR, with inclusion of climate-related risk and opportunity management. Its impact is considered in emerging risk spectrums and risk assessments and how it will impact the risks in future as set out in the strategy section on page 10.

Each quarter, the IWR CRO reports on the risk appetite and performance against that appetite, to the UK IWR ERC.

### Metrics and targets

UK IWR uses climate-related metrics to monitor climate-related risks and opportunities, consistent with those used for the Group. These are monitored on a quarterly basis through executive-level performance reporting.

## Aviva Life & Pensions UK Limited (UKLAP)

### Context

UKLAP is the main product holding company and statutory reporting entity for the UK IWR business. UKLAP has both non-profit and with-profit funds and offers a range of propositions to individual and corporate customers covering their savings, retirement, insurance and protection needs.

UKLAP's key focus areas include helping customers provide for a more comfortable retirement by supporting them with investment, drawdown, and secure income from annuities. It also helps customers to protect themselves and their families financially against death or illness and supplies services to the corporate marketplace by offering pensions, protection, and bulk annuity propositions to both large and small companies.

UKLAP has access to customers across the UK through a distribution network, with a growing Digital Direct offering for sales and service, strong relationships with independent financial advisors, brokers, employee benefit consultants, banks and single ties with some of the largest estate agencies in the country.

UKLAP has relationships with advisory firms, who they provide with a wide range of support, including expert insight around the key area of sustainability. In 2023, we provided supporting education to our distributor communities on the climate metrics contained in the product-level reports required for certain products in scope of PS 21/24.



## Asset owner entities

This year, we have extended the coverage of UKLAP's climate metrics to include infrastructure debt, direct real estate, commercial real estate mortgages and equity release mortgages. Equity release mortgages are held by Aviva Equity Release UK Ltd, and are financed by UKLAP, and therefore metrics for equity release mortgages have been included in the UKLAP disclosure.

### TCFD compliance

The TCFD outlines 11 recommendations for organisations to include in their climate reporting. The table on pages 82 and 83 sets out the reporting in accordance with each of these recommendations for UKLAP. The UKLAP entity report references in information provided for Group and for asset owners, as set out in the compliance summary.

### Metrics

UKLAP's entity level metrics are aligned to the Group's Climate reporting policies and reporting criteria set out in note 14. Furthermore, the estimates and judgements outlined in note 7 - Financed emissions, note 8 - Monitoring of sovereign holdings and note 10 - Temperature alignment are also relevant for UKLAP. Note 7 also includes information in relation to data quality using the Partnership of Carbon Accounting Financials (PCAF) data scoring.

The UKLAP metrics are a subset of the Group metrics. As the main product holding company and statutory reporting entity for the UK IWR business, UKLAP reporting also covers Aviva Administration Limited and Aviva Pension Trustees UK Limited<sup>1,2</sup>.

Table 1 sets out the assets included in the climate metrics compared to the Assets Under Management (AUM) on the UKLAP IFRS statement of financial position.

In 2023, we have expanded the assets in financed emissions to include infrastructure debt, direct real estate, commercial real estate mortgages and equity release mortgages. We have re-presented the AUM coverage for 2022 to be on a consistent basis.

Of the £189.6 billion invested amount covered in table 1, c.70% relates to customer assets (policyholder, unit-linked and customer held with-profits).

UKLAP's key areas for development are aligned to Group and are detailed in note 7.

**Table 1: AUM coverage for UKLAP**

£bn	2023	Re-presented <sup>3</sup> 2022
AUM for which emissions are calculated	189.6	171.9
AUM on IFRS statement of financial position	255.4	235.6
AUM coverage %	74 %	73 %

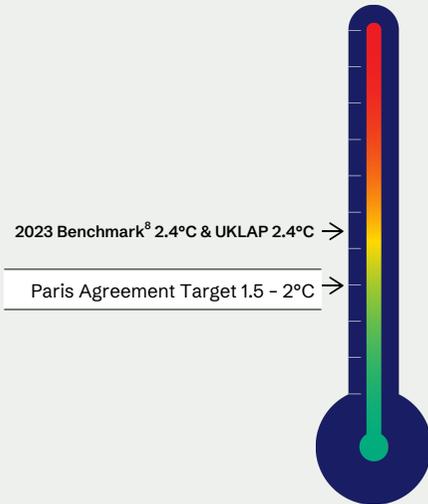
**Table 2: Breakdown of Aviva Life & Pensions UK Limited (UKLAP) financed emissions by asset class (Investee Scope 1 and Scope 2 included, Investee Scope 3 excluded)**

Asset class	Invested amount (£'billion)	Emissions data coverage %	Data quality score <sup>4</sup>	Attributed absolute emissions (million tCO <sub>2</sub> e)		Unit of measurement	Carbon intensity by asset class		Economic carbon intensity (tCO <sub>2</sub> e/£m invested)	
				2023	Re-presented 2022 <sup>5</sup>		2023	2022	2023	Re-presented 2022 <sup>5</sup>
Credit and equities	126.9	87 %	2.1	7.5	6.7	tCO <sub>2</sub> e/\$m revenue (WACI-R)	94	115	67	71
Infrastructure debt <sup>6</sup>	8.3	90 %	3.6	0.3	0.3	tCO <sub>2</sub> e/\$m revenue (WACI-R)	160	186	42	42
Direct real estate	6.1	65 %	3.5	0.1	0.1	kgCO <sub>2</sub> e/m <sup>2</sup> (carbon intensity by square metres)	81	74	33	29
Commercial real estate mortgages	6.2	100 %	4.0	0.3	0.3	kgCO <sub>2</sub> e/m <sup>2</sup> (carbon intensity by square metres)	97	99	46	46
Equity release mortgages	9.8	99 %	4.4	0.1	0.1				15	14
<b>Total</b>	<b>157.3</b>	<b>88 %</b>	<b>2.4</b>	<b>8.3</b>	<b>7.5</b>				<b>60</b>	<b>62</b>
Sovereigns	32.4	99 %	2.2	6.8	5.6				212	210



## Asset owner entities

Figure 2: UKLAP's 2023 temperature alignment<sup>7</sup>



### Analysis of Metrics

- Absolute emissions have increased by 11% since 2022 to 8.3 million tCO<sub>2</sub>e (2022: 7.5 million tCO<sub>2</sub>e), while economic carbon intensity has decreased by 2% to 60 tCO<sub>2</sub>e/£m invested (2022: 62 tCO<sub>2</sub>e/£m invested). The decrease in intensity is primarily due to credit and equities and the reduction in relative exposure to higher intensity companies.

- WACI-R for credit and equities has decreased by 19% to 94 tCO<sub>2</sub>e/\$m revenue (2022: 115 tCO<sub>2</sub>e/\$m revenue). The reduction in WACI-R from 2022 to 2023 is primarily due to the growth in investee revenue amounts.
- WACI-R for infrastructure debt has decreased by 14% decrease to 160 tCO<sub>2</sub>e/\$m revenue in 2023 (2022: 186 tCO<sub>2</sub>e/\$m revenue). This was mainly due to the origination of lower intensity infrastructure debt in 2023 as well as the growth in investee revenue amounts.
- Carbon intensity by square metre of our commercial real estate mortgages portfolio decreased by 3% to 97 kgCO<sub>2</sub>e/m<sup>2</sup> (2022: 99 kgCO<sub>2</sub>e/m<sup>2</sup>).
- Sovereign carbon intensity increased by 1% to 212 tCO<sub>2</sub>e/£m invested amount (2022: 210 tCO<sub>2</sub>e/£m invested amount).
- Absolute emissions for sovereigns increased by 21% to 6.8 million tCO<sub>2</sub>e (2022: 5.6 tCO<sub>2</sub>e). The increase in attributed emissions is due to a higher sovereign investment balance in 2023.
- The temperature alignment projected for the funds in scope of the metric is 2.4°C, which is in line with the market benchmark<sup>8</sup> based on a global diversified portfolio of equities.

Footnotes for UKLAP entity report:

1. Aviva International Insurance Limited (AIIL) reinsures a percentage of UKLAP assets. However, AIIL neither manages, nor administers assets in relation to TCFD in-scope business and as such does not need to produce a TCFD entity report.
2. In addition, Life Insurance Company of India (LICI) policyholder assets are included in the UKLAP assets, as LICI scheme members invest in Aviva Insured funds (by means of the reinsurance arrangement between LICI and Aviva). LICI scheme member investments make up <0.01% of the UKLAP assets and are included in the overall UKLAP climate metrics. For these entities, refer to the UKLAP entity report.
3. The AUM coverage for 2022 has been re-presented to include the additional asset classes. This has increased the AUM coverage from 60% to 73%.
4. The data quality score is a weighted average which is based on the proportional amount of our holdings. 1 represents the best score, while 5 represents the lowest score.
5. The total absolute emissions and economic carbon intensity comparative amounts have been re-presented to include additional asset classes. In addition, the economic carbon intensity is now presented in pound sterling rather than dollars. This has increased the credit and equity intensity from 58 tCO<sub>2</sub>e/\$m invested to 71 tCO<sub>2</sub>e/£m invested and sovereign intensity from 175 tCO<sub>2</sub>e/\$m invested to 210 tCO<sub>2</sub>e/£m invested.
6. Infrastructure WACI-R coverage % is 81% and this is lower than emissions coverage due to the lower coverage on revenue data
7. AUM coverage % for temperature alignment in 2023 is 66%
8. MSCI All Country World Index (ACWI) Investable Market Index (IMI) as at 31 December 2023. ©2024 MSCI ESG Research LLC

### Compliance Statement

This Aviva Life & Pensions UK Limited report should be read in conjunction with the information provided on pages 82 to 86 and 97 to 99.

The disclosures for Aviva Life & Pensions UK Limited, including any third party or group disclosures cross-referenced complies with the requirements under the FCA's Policy Statement PS 21/24.

**Doug Brown,**  
Chief Executive Officer

Aviva Life & Pensions UK limited  
6 March 2024



## Asset owner entities

### Aviva Pension Trustees UK Limited (UKPTL)

#### Context

UKPTL acts as a trustee and scheme administrator to Aviva Personal Pension Scheme and Aviva Free Standing Additional Voluntary Contribution pension schemes written by Aviva Life & Pensions UK Limited (UKLAP).

UKPTL offers Self Invested Personal Pension (SIPP) products distributed through three platforms:

- The Advisor Platform, which provides platform technology to Independent Financial Advisers;
- The Aviva Online Investment Service, which is a direct-to-consumer platform; and
- The My Money platform which provides platform technology to corporate businesses.

An ESG profiling tool is available on the advisor platform they provide insurance-based investment products for and where UKPTL operates the SIPPs. In addition, Aviva Financial Advice provides both pension accumulation and decumulation advice to existing customers. This service supports business growth across a number of Aviva products, including those written by UKPTL.

#### TCFD compliance

The TCFD outlines 11 recommendations for organisations to include in their climate reporting.

The table on pages 82 and 83 sets out the reporting in accordance with each of these recommendations for UKPTL. The UKPTL entity report references in information provided for Group and for asset owners, as set out in the compliance summary.

#### UKPTL Board

Climate-related risk and opportunities are not discussed at Board of UKPTL. As a subsidiary it defers to UKLAP for sustainability considerations.

#### Metrics

Separate metrics are not presented for UKPTL. As the main product holding company and statutory reporting entity for the UK IWR business, UKLAP reporting also covers UKPTL. See the Metrics and targets section of the UKLAP report, on page 87.

#### Compliance Statement

This Aviva Pension Trustees UK Limited report should be read in conjunction with the information provided on pages 82 to 86, the metrics included on page 87, and the Cautionary statements included on pages 97 to 99.

The disclosures for Aviva Pension Trustees UK Limited, including any third party or group disclosures cross-referenced complies with the requirements under the FCA's Policy Statement PS 21/24.

**Doug Brown,**  
Chief Executive Officer

Aviva Pension Trustees UK Limited  
6 March 2024

### Aviva Administration Limited (AAL) Context

AAL is managed as part of Aviva's UK IWR business and the principal activities are the supply of services to fellow UK Life undertakings. This includes the processing of payments on behalf of Aviva Life & Pensions UK Limited ("UKLAP") for annuities and commissions; and to operate a SIPP and act as a trustee and administrator for a number of pension schemes also provided by UKLAP. AAL also undertakes supplementary services including but not limited to the provision of regulated financial promotions for the Wealth business unit, including the Aviva savings proposition known as Aviva Save; and the supply of regulated Pensions Consolidation Services (PCS).

In 2023, the Chief Executive Officer of Aviva Administration Limited was transferred from Doug Brown to Claire Lund-Conlon.

#### TCFD compliance

The TCFD outlines 11 recommendations for organisations to include in their climate reporting. The table on pages 82 and 83 sets out the reporting in accordance with each of these recommendations for AAL. The AAL entity report references in information provided for Group and for asset owners, as set out in the compliance summary.

#### AAL Board

Climate-related risk and opportunities are not discussed at the Board of AAL. As a subsidiary AAL defers to UKLAP for any sustainability considerations.

### Metrics

Separate metrics are not presented for AAL. As the main product holding company and statutory reporting entity for the UK IWR business, UKLAP reporting also covers AAL. See the Metrics and targets section of the UKLAP report, on page 87.

#### Compliance Statement

This Aviva Administration Limited report should be read in conjunction with the information provided on pages 82 to 86 and the metrics included on page 87 and 97 to 99.

The disclosures for Aviva Administration Limited, including any third party or group disclosures cross-referenced complies with the requirements under the FCA's Policy Statement PS 21/24.

**Claire Lund-Conlon,**  
Chief Executive Officer

Aviva Administration Limited  
6 March 2024

# Asset manager entities

## Asset manager entities in-scope of PS 21/24

The following asset manager entities are in-scope:

Aviva Investors Global Services Limited (AIGSL); and Aviva Investors UK Fund Services Limited (AIUKFSL).

Aviva Investors Holdings Limited (AIHL) is the holding company for the Aviva Investors Group and heads up the UK Regulatory Group, including AIGSL and AIUKFSL as regulated entities. As such, the AIHL board exercises oversight (directly or through the Risk, Audit, Remuneration and Nomination committees (the Board Committees)) over the operation of its subsidiaries including both AIGSL and AIUKFSL.

AIGSL provides investment management services and related advisory services to various subsidiaries of the Aviva Group including to AIUKFSL and external clients, including retail funds, pension funds and other institutional investors.

AIUKFSL is the Authorised Corporate Director of Aviva Investors' open ended investment company (OEIC) funds, the Authorised Contractual Schemes (ACS) Manager of Aviva Investors Authorised Contractual Scheme range, and is also the Alternative Investment Fund Manager for a range of real estate funds.

The following sections on governance, strategy and risk management set out the structures and processes in place to take climate-related risk and opportunities into consideration. The reporting of metrics and targets included in the separate entity TCFD reports for those entities, are included later in this section.

## Governance

Aviva Investors has a strong system of governance, with effective and robust controls. This governance is proportionate to the nature, scale and complexity of the operations across our global asset management businesses units. It allows the Aviva Investors boards, the Board Committees, senior management and their management committees to integrate climate-related risks and opportunities into Aviva Investors' strategy, decision making and business processes.

Aviva Investors' climate governance structure as well as roles and responsibilities are summarised in the table below.

Aviva Investors' integration of sustainability factors into pay criteria across the firm are set out on page 35.

## Senior management's climate roles and responsibilities

The AIGSL Chief Executive Officer (CEO) is accountable for implementation and oversight of the Aviva Group climate and sustainability ambition and agenda in AIGSL, including management of sustainability including climate risks.

The AIGSL Chief Finance Officer (CFO) is accountable for advising the AIGSL board on the firm's financial exposure arising from climate risks and maintaining an appropriate approach to disclosure and regulatory reporting of climate risks.

Committees	Roles and Responsibilities	Activity During 2023
Aviva Investors Holdings Limited board	The board provides leadership of Aviva Investors within a framework of prudent and effective controls which enables risks (including climate-related risks and opportunities) to be assessed and managed.	The board had a deep dive meeting on Aviva Investors' sustainable investment processes and that included the management information that would be shared with the board and its subsidiaries including AIGSL and AIUKFSL.
Aviva Investors Risk Committee	This committee assists the AIHL board and its subsidiaries in their oversight of risks, including climate-related risks and opportunities, by assessing the effectiveness of Aviva Investors' risk management framework, strategy, risk appetite, risk profile and compliance with prudential regulatory requirements, including transition, litigation and physical risk and other relevant sustainability risks.	On a quarterly basis the committee reviews the status of risk appetites, risk tolerances and updates on Key Risk Indicators including those relating to Climate Risk.



## Asset manager entities

The AIGSL Chief Risk Officer (CRO) is accountable for providing independent opinion and challenge of the business' management of risks including their approaches to risk identification, measuring risk impacts and advising the business on how best to manage and mitigate risk, including sustainability (and climate) risks.

### Strategy

Aviva Investors serves as a long term steward of our clients' assets. We manage climate risk across our investments and seek to decarbonise our portfolios consistent with a Net Zero pathway where possible.

Aviva Investors are a member of the Net Zero Asset Managers initiative and the Glasgow Financial Alliance for Net Zero (GFANZ) and play a pivotal role in Aviva's overall ambition to be Net Zero by 2040. We work together with third-party clients to understand their sustainability preferences, including any related to Net Zero, to ascertain how best to deliver them.

The Group's scenario analysis on page 13 includes the assets managed by Aviva Investors entities on behalf of the Group, and as such has been used to assess the strategic resilience of these entities.

In light of our Net Zero ambition and the incoming Sustainability Disclosure Requirements (SDR) regulations, we also continue to review our existing products suite against changing client demands, including sustainability preferences.

How Aviva Investors is managing Aviva's portfolios decarbonisation strategy is described on page 21. This does not mean all assets in our portfolios today will be aligned with Net Zero. Nor does it mean that we will cease to invest in assets that are currently associated with significant emissions. Our ambition is to evolve our portfolios to align with this long-term goal.

However, portfolio decarbonisation is undertaken on a reasonable efforts basis and is dependent on accelerated action from governments, companies and society.

In the absence of explicit additional client instruction on decarbonisation targets, the existing investment objective(s) within mandates and funds are the primary basis on which the fund manager is held to account. Our Net Zero ambition means that we will continue to seek to deliver those objectives whilst also decarbonising portfolios, except where they conflict.

In practice reasonable efforts means:

### **Integration - Deploying tools and processes to enable us to understand and take action to address climate risk exposure and opportunities to accelerate decarbonisation.**

- Climate analytics to enable assessment of issuer and portfolio level emissions, identifying significant contributors and lower carbon alternatives.
- Forward-looking data models to enable assessment of future emissions trajectory and determine alignment with climate ambition.

- Research on sector and national decarbonisation pathways including policy and technological dependencies.
- Research on climate investment opportunities including new technologies, solutions providers and leaders in transition.

### **Engagement - Catalysing decarbonisation of companies, portfolios and economies.**

- Engagement with companies and Governments to develop validated Net Zero climate strategies and accelerate decarbonisation plans.
- Engagement with borrowers, developers and occupiers to deliver sustainability-linked financing and leasing in real assets.
- Promote systematic overhaul of global financial architecture to drive flow of public and private capital to support decarbonisation of economies.
- Advocate policy environment for internalisation of cost of carbon - 'Emitter Pays Principle' is central to aligning climate considerations in fundamental market valuations.

The Aviva Investors climate-related risks and opportunities are integrated into the investment process via research and data, engagement, portfolio construction and quarterly reviews as outlined on page 22.

How Aviva embed climate into the business planning process is outlined on page 11.

### **Risk management**

Aviva's risk management framework is outlined in the Risk Management section.

Climate change is considered as part of Business, Strategic and Operational risks to ensure climate change strategy, approach and activities are in line with public policy, regulation, legal developments and evolving social views.

Climate change activity for Aviva Investors manifests in the following areas:

- Investment and asset management;
- Engagement and voting;
- Product development;
- Client take-on and engagement; and
- Supplier selection and oversight.

Within Aviva Investors, sustainability specific controls are in place to perform ongoing oversight and compliance, which contributes to, and supports, the investment functions in the delivery of a strong first-line risk and controls management and governance.

Sustainability factors have the potential to cause harm to our clients by reducing the value of their investments or by creating stranded assets. Inefficient allocation of capital to companies with high external costs, such as those engaged in highly polluting or socially disruptive activities, can lower asset values over time, reducing returns to investors.



## Asset manager entities

Conversely, companies that follow good governance practices, consider social factors or their impact on society, and take steps to prevent or reduce environmental issues, could increase returns to investors.

In order to assess material sustainability risks, Aviva Investors has developed a proprietary corporate scoring system, ESG Elements, which assigns an ESG score at the corporate issuer level. The aggregated ESG Elements score for a portfolio is used to highlight where further understanding of the drivers behind specific ESG risk factors may be necessary.

Together with the MSCI ESG scores, this forms the basis of second-line ESG risk oversight. These scores assist in discussions with Portfolio Managers about aspects of the ESG risk profiles of portfolios which may become necessary to explore.

In addition, acute and chronic physical climate risks have the potential to disrupt Aviva Investors' operations or those of its third-party providers, resulting in business disruption and increased costs to resume business activities.

Aviva Investors began developing appropriate quantitative monitoring measurements in 2023 to track its progress in its climate-change goals, ambitions and responsibilities.

### Real Assets

For Real Assets, we assess both transitional and physical climate risks for asset classes where we directly own and control the asset, including real estate equity, real estate long income, and infrastructure equity.

Where analysis is performed this includes:

- a. Climate transition risk, or the risk of policy, legal, technology, and market changes related to climate change which may pose varying levels of financial risk to our clients' assets.
- b. Climate physical risk: event driven (acute) or longer-term shifts (chronic) in climate patterns which have financial implications for our clients' assets.

Understanding climate risk in our origination process is achieved through undertaking a Net Zero due diligence audit which assesses an asset in line with our Net Zero pathway and determines how the asset will be managed in order to mitigate transitional risks.

Climate physical risk is assessed using the MSCI Climate Value-at-Risk platform, which determines the level of risk to an asset or location.

Where buildings are shown to have high levels of climate risk, the transaction undergoes additional due diligence, with the outcome informing the investment decision.

In addition to assessing climate risk in each transaction, the Real Assets team work closely with MSCI, undertaking forward-looking assessments of climate risks for each portfolio on a quarterly basis, which covers the flood modelling and the chronic climate-related risks such as sea-level rise and heatwaves.

### Climate risk appetite

We have a very low appetite for climate-related risks which could have a material negative impact upon our balance sheet and business model as well as our customers and wider society. We actively seek to reduce our exposure over time to the downside risks arising from the transition to a low carbon economy. We seek to identify and support solutions that will drive a transition to a low-carbon, climate resilient economy. We seek to limit our net exposure to the more acute and chronic physical risks that will occur in the event the Paris Agreement target is not met (we note that physical risks will also occur even in the event the Paris Agreement target is met). We actively avoid material exposure to climate litigation risks.

In 2024 we will continue to deepen our understanding of climate strategy and change as well as the implementation and embedding thereof across our business activities.

We expect our qualitative risk appetite statements to expand as our understanding of climate strategy and change expands over the coming year.



## Asset manager entities

### Aviva Investors Global Services Limited

#### Context

Aviva Investors Global Services Limited (AIGSL) is the main statutory entity of Aviva Investors.

#### TCFD compliance

The TCFD outlines 11 recommendations for organisations to include in their climate reporting. The table on pages 82 and 83 sets out the reporting in accordance with each of these recommendations for AIGSL. The AIGSL report references information provided for Group and for asset managers, as set out in the compliance summary.

#### Governance

The 2022 Climate-related Financial Disclosure for AIGSL was reviewed by the Aviva Investors Audit Committee on 7 December 2022. Following an update provided on 20 February 2023, final approval was given by the AIGSL board, prior to this being included as an appendix to the Aviva plc Climate-related Financial Disclosure 2022 on 8 March 2023.

In addition to the meetings detailed below, the board of AIGSL met seven times during 2023. Sustainability and climate were discussed at four of these meetings. The board specifically oversees the progress Aviva Investors is making in meeting Aviva's Sustainability Ambitions and oversees the management of Aviva Investors' sustainable products including the climate transition range of funds.

#### Metrics

Metrics have been prepared for £158 billion (2022: £142 billion) assets in table 3 and these represent 73% (2022: 69%) of AIGSL's assets under management. AIGSL's entity level metrics are aligned to the Group's climate reporting policies and reporting criteria set out in note 14. Furthermore, the estimates and judgements outlined in note 7, note 8 and note 10 are also relevant for AIGSL.

Note 7 also includes information in relation to data quality for the Group using the Partnership of Carbon Accounting Financials (PCAF) data scoring. The metrics are prepared for AIGSL as the key metrics for monitoring and reporting against the Group's climate ambitions.

#### Analysis of metrics

- Absolute financed emissions increased by 15% to 6.6 million tCO<sub>2</sub>e (2022: 5.8 million tCO<sub>2</sub>e) and economic carbon intensity increased by 4% to 65 tCO<sub>2</sub>e/£m invested (2022: 63 tCO<sub>2</sub>e/£m invested). Table 3 shows the asset class contribution to these increases.
- WACI-R for credit and equities decreased by 17% to 98 tCO<sub>2</sub>e/\$m revenue (2022: 118 tCO<sub>2</sub>e/\$m revenue). This was mainly as a result of the growth in revenue from investee companies.

**Table 3: Breakdown of Aviva Investors Global Services Limited (AIGSL) financed emissions by asset class for 2023 (Investee Scope 1 and Scope 2 included, Investee Scope 3 excluded)**

Asset class	Invested amount (£'billion)	Emissions data coverage %	Data quality score <sup>1</sup>	Absolute emissions (attributed million tCO <sub>2</sub> e)		Carbon intensity by asset class			Economic carbon intensity (tCO <sub>2</sub> e/£m invested)		
				2023	Re-presented 2022 <sup>2</sup>	Unit of measurement		2023	2022	2023	Re-presented 2022 <sup>2</sup>
Credit and equities	98.5	85 %	2.0	5.9	5.0	tCO <sub>2</sub> e/\$m revenue (WACI-R)	98	118	70	68	
Infrastructure debt <sup>3</sup>	8.4	90 %	3.6	0.3	0.3	tCO <sub>2</sub> e/\$m revenue (WACI-R)	162	190	42	43	
Direct real estate <sup>3</sup>	6.4	66 %	3.5	0.1	0.1	kgCO <sub>2</sub> e/m <sup>2</sup> (carbon intensity by square metres)	81	73	33	29	
Commercial real estate mortgages <sup>3</sup>	6.2	100 %	4.0	0.3	0.3	kgCO <sub>2</sub> e/m <sup>2</sup> (carbon intensity by square metres)	97	99	46	46	
<b>Total</b>	<b>119.5</b>	<b>85 %</b>	<b>2.3</b>	<b>6.6</b>	<b>5.8</b>				<b>65</b>	<b>63</b>	
Sovereigns	38.0	100 %	2.3	8.0	6.8				210	223	



## Asset manager entities

- The WACI-R for infrastructure debt has decreased by 15% to 162 tCO<sub>2</sub>e/\$m revenue in 2023 (2022: 190 tCO<sub>2</sub>e/\$m revenue). This was mainly due to the origination of lower intensity infrastructure debt in 2023 as well as the growth in investee revenue amounts.
- Sovereign absolute emissions have increased to 8.0 million tCO<sub>2</sub>e (2022: 6.8 million tCO<sub>2</sub>e), whilst sovereign carbon intensity has decreased to 210 tCO<sub>2</sub>e/£m invested (2022: 223 tCO<sub>2</sub>e/£m invested). The increase in absolute emissions reflects the higher sovereign assets under management for AIGSL. The lower sovereign intensity is due to the increased investment in the UK and less in the US which has a higher sovereign emission intensity.
- Figure 3 shows the temperature alignment is 2.4°C which is in line with the market benchmark<sup>5</sup> based on a global diversified portfolio of equities of 2.4°C.

Figure 3: AIGSL's 2023 temperature alignment<sup>4</sup>

Benchmark<sup>5</sup> 2.4°C & AIGSL 2.4°C →

Paris Agreement Target 1.5 - 2°C →



Footnotes for AIGSL entity report:

1. The data quality score is a weighted average which is based on the proportional amount of our holdings. 1 represents the best score, while 5 represents the lowest score.
2. The total absolute emissions and economic carbon intensity comparative amounts have been re-presented to include additional asset classes. In addition, the economic carbon intensity is now presented in pound sterling rather than dollars. This has increased the credit and equities intensity from 56 tCO<sub>2</sub>e/\$m invested to 68 tCO<sub>2</sub>e/£m invested and sovereign carbon intensity from 184 tCO<sub>2</sub>e/\$m invested to 223 tCO<sub>2</sub>e/£m invested.
3. Infrastructure debt, direct real estate and commercial real estate mortgages relate only to assets managed for Aviva and external discretionary mandates are not currently included. For infrastructure WACI-R the data coverage % is lower at 82% which reflects the lack of revenue data for certain infrastructure deals.
4. AUM coverage % for temperature alignment in 2023 is 68%
5. MSCI All Country World Index (ACWI) Investable Market Index (IMI) as at 31 December 2023. ©2024 MSCI ESG Research LLC.

### Compliance statement

This Aviva Investors Global Services Limited report should be read in conjunction with the information provided on pages 82, 83, 90 to 92 and 97 to 99.

The disclosures for Aviva Investors Global Services Limited, including any third party or group disclosures cross-referenced, complies with the requirements under the FCA's Policy Statement PS 21/24.

**Tom Howard,**  
Chief Financial Officer  
Aviva Investors Global Services Limited  
6 March 2024

### Aviva Investors UK Fund Services Limited Context

Aviva Investors UK Fund Services Limited (AIUKFSL) provides fund management services.

### TCFD compliance

The TCFD outlines 11 recommendations for organisations to include in their climate reporting.

The table on page 82 sets out the reporting in accordance with each of these recommendations for AIUKFSL. The AIUKFSL report references information provided for Aviva Group and for asset managers, as set out in the compliance summary.

### Governance

AIUKFSL has an independent governance structure to Aviva Investors. It allows the AIUKFSL Board, management committee and senior management to integrate climate-related risks and opportunities into its strategy, decision making and business processes.

The 2022 Climate-related Financial Disclosure for AIUKFSL was reviewed by the Aviva Investors Audit Committee on 7 December 2022. Following an update provided on 20 February 2023, final approval was given by the AIUKFSL board, prior to this being included as an appendix to the Aviva plc Climate-related Financial Disclosure 2022 on 8 March 2023.

In addition to the meetings of the Aviva Investors' committees as set out in the Asset Manager entities' governance section, the Board of AIUKFSL met nine times during 2023 and discussed climate risk at least four times during the year. In 2023 the Board approved:

- A new range of multi-asset sustainable stewardship sub funds as part of the Aviva Investors Portfolio Funds ICVC. These incorporate sustainable aims into the investment process and require at least 70% of each sub fund to consist of assets positively aligned with the UN's Sustainable Development Goals and a green bond mandate.
- The launch of a real estate long term asset fund, the assets of which would be regularly reviewed for carbon emissions and Net Zero alignment with the view to forming a decarbonisation strategy for each asset.

### Strategy

AIUKFSL adopts the same high level strategy to manage climate risks and opportunities from an asset management perspective as set out above for Aviva Investors more broadly.

Other climate risks, such as operational risks and those risks associated with AIUKFSL's own carbon footprint are managed in accordance with Group policies.



## Asset manager entities

Separately, AIUKFSL manages those climate risks that arise as a result of the investment management activity undertaken on its behalf.

These risks are managed as part of the strategy adopted when appointing and delegating the asset management of the funds it is responsible for to Aviva Investors Global Services Limited and third-party investment managers as set out within the Risk Management section.

Climate opportunities are built into AIUKFSL's strategy through designing and distributing investment fund products with specific climate-related strategies, and adopting the wider Aviva Investors baseline exclusion policy to limit exposure to the most harmful types of activity.

### Appointment of asset managers

The primary asset manager for AIUKFSL is AIGSL for which TCFD reporting is provided on page 93. AIUKFSL appoints third parties as asset managers for a number of products. Third party managers are required to demonstrate that effective climate, sustainability and responsible investment policies are in place and climate risk management is embedded into the investment process.

### Risk Management

In assessing sustainability integration of external managers, AIUKFSL seeks both qualitative and quantitative evidence of application through the lens of the research process. The aim is to judge the efficacy of the approach relative to expected criteria, peers and industry trends.

This is done through direct interaction with investment managers, quantitative portfolio analysis and review of periodic sustainability-related reporting. Specific to climate, AIUKFSL where applicable challenges managers on their positions and the implications of both chronic and transition risks to the portfolio. AIUKFSL actively encourage asset managers to engage with corporate management to improve climate-specific disclosure.

### Metrics and targets

Metrics have been prepared for £64 billion (2022: £63 billion) assets in table 4 and these represent 93% of AIUKFSL's assets under management.

AIUKFSL's entity level metrics and targets are aligned to the Group's climate reporting policies and reporting criteria set out in note 14.

Furthermore, the estimates and judgements outlined in note 7, note 8 and note 10 are also relevant for AIUKFSL

A subset of the Group metrics are prepared for AIUKFSL as the key metrics for monitoring and reporting against the Group's climate ambitions.

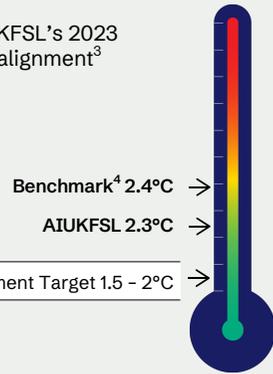
**Table 4: Breakdown of Aviva Investors UK Fund Services Limited (AIUKFSL) financed emissions by asset class for 2023 (Investee Scope 1 and Scope 2 included, Investee Scope 3 excluded)**

Asset class	Invested amount (£'billion)	Emissions data coverage %	Data quality score <sup>1</sup>	Attributed absolute emissions (million tCO <sub>2</sub> e)		Carbon intensity by asset class			Economic carbon intensity (tCO <sub>2</sub> e/£m invested)	
				2023	2022	Unit of measurement	2023	2022	2023	Re-presented 2022 <sup>2</sup>
Credit and equities	56.3	92 %	2.1	3.2	3.5	tCO <sub>2</sub> e/\$m revenue (WACI-R)	83	110	61	67
Sovereigns	8.0	100 %	2.0	1.6	1.2				197	193



## Asset manager entities

Figure 4: AIUKFSL's 2023 temperature alignment<sup>3</sup>



### Analysis of metrics

- Absolute emissions for credit and equities have decreased by 11% to 3.2 million tCO<sub>2</sub>e (2022: 3.5 million tCO<sub>2</sub>e) which is consistent with the decrease in economic carbon intensity of 10% to 61 tCO<sub>2</sub>e/£m invested (2022: 67 tCO<sub>2</sub>e/£m invested). This was driven by reduced exposure in energy, materials and utilities with higher Scope 1 and Scope 2 GHG emissions.

- WACI-R for credit and equities has decreased by 24% to 83 tCO<sub>2</sub>e/\$m revenue (2022: 110 tCO<sub>2</sub>e/\$m revenue). This was driven mainly as a result of the growth in revenue of investee companies as well as reduced exposure to energy, materials and utilities sectors.
- Sovereign absolute emissions have increased to 1.6 million tCO<sub>2</sub>e (2022: 1.2 million tCO<sub>2</sub>e) and reflects an increase in the sovereign invested amount.
- Sovereign carbon intensity has increased to 197 tCO<sub>2</sub>e/£m invested (2022: 193 tCO<sub>2</sub>e/£m invested). The increase in intensity reflects less investment in the UK and more in the US which has a higher sovereign emission intensity.
- Figure 4 shows the temperature alignment is 2.3°C which is below the market benchmark<sup>5</sup> based on a global diversified portfolio of equities of 2.4°C.

Footnotes for AIUKFSL entity report:

1. The data quality score is a weighted average which is based on the proportional amount of our holdings. 1 represents the best score, while 5 represents the lowest score.
2. The economic carbon intensity has been re-presented to pound sterling rather than dollars. This has increased the credit and equities intensity from 56 tCO<sub>2</sub>e/\$m invested to 67 tCO<sub>2</sub>e/£m invested and sovereign intensity from 160 tCO<sub>2</sub>e/\$m invested to 193 tCO<sub>2</sub>e/£m invested.
3. AUM coverage % for temperature alignment in 2023 is 93%
4. MSCI All Country World Index (ACWI) Investable Market Index (IMI) as at 31 December 2023. ©2024 MSCI ESG Research LLC.

### Compliance statement

This Aviva Investors UK Fund Services Limited report should be read in conjunction with the information provided on pages 82, 83, 90 to 92 and 97 to 99.

The disclosures for Aviva Investors UK Fund Services Limited, including any third party or group disclosures cross-referenced, complies with the requirements under the FCA's Policy Statement PS 21/24.

**Jane Adamson,**  
Chief Financial Officer  
Aviva Investors UK Fund Services Limited  
6 March 2024

# Cautionary statements

## Climate-related cautionary statement

### Climate metrics

The climate metrics, projections, forecasts and other forward-looking statements used in this document should be treated with special caution, in particular as they are more uncertain than, for example, historical financial information, and given the wider uncertainty around the evolution and impact of climate change.

Climate metrics include:

- Estimates of historical emissions and historical climate change; and
- Forward-looking climate metrics, such as ambitions, targets, climate scenarios and climate projections and forecasts.

Our understanding of climate change effects, data, metrics and methodologies and its impact continue to evolve.

Accordingly, both historical and forward-looking climate metrics are inherently uncertain and, therefore, could be less decision-useful than metrics based on historical financial statements. Below we provide a non-exhaustive list of some of the challenges associated with using climate metrics in more detail.

### 1. Methodologies for estimating and calculating GHG emissions or emissions intensities and other climate-metrics vary widely

There is a lack of standardisation and comparability with many diverging frameworks and methodologies for calculating climate metrics.

In particular:

- Some methodologies use company-specific historical emissions data while others result in estimation of emissions based on sectoral or geographical data or averages. Of those that incorporate emissions ambitions and targets, there are different criteria for the types of ambitions and targets that can and cannot be used.
- Methodologies vary in their use of Scope 1, Scope 2 and/or Scope 3 GHG emissions. Some use only Scope 1 data, while others use Scope 1 and Scope 2 and yet others take Scope 1, Scope 2, and Scope 3 GHG emissions into account.
- Certain methodologies take cumulative historical GHG emissions into account while others incorporate point-in-time assessments of emissions intensity.

There is a risk that climate metrics may result in over or under estimations.

### 2. Climate metrics are complex and require making extensive judgements and assumptions

Climate metrics and data are based on underlying assumptions made about climate change policies, technologies and other matters that are uncertain or not yet known.

Any material change in these variables may cause the assumptions, and therefore, the climate metrics and data based on those assumptions, to be incorrect.

In particular:

- Temperature scenarios generally include a set of assumptions that incorporate existing or planned global or regional policies, or business-as-usual sociodemographic projection, and projections for technological progress (including negative emissions and sequestration technologies), none of which may happen as contemplated.
- Some assumptions attempt to compensate for existing data gaps, such as past emissions trends or comparable and reliable company specific ambitions and targets. These assumptions may prove to be incorrect and not accurately represent the actual data.

Design issues specific to financed emissions raise challenges, particularly around allocating emissions to the wide range of invested assets and financed activities.

Financed emissions from owning one percent of a company might include one percent of that company's emissions; a portfolio can rapidly double count if aggregate financed emissions include each underlying company's own Scope 3 upstream and downstream emissions.

The calculation becomes significantly more complex with other activities, such as when a financial institution serves as a counterparty or is one of multiple underwriters of a financing.

There is a risk that the judgement exercised, or the estimates or assumptions used, may subsequently turn out to be incorrect.

### 3. There is a lack of complete, standardised, accurate, verifiable, reliable, consistent and comparable climate-related data

Climate-related risks and opportunities and their potential impacts and related metrics depend on access to complete, standardised, accurate, verifiable, reliable, consistent and comparable climate-related data. The insurance industry, like other sectors, is grappling with data availability and quality.



## Cautionary statements

In particular:

- Climate-related data may not be generally available from counterparties or customers or, if available, it is generally variable in terms of quality and, therefore, may not be complete, standardised, accurate, verifiable, reliable, consistent or comparable.
- Companies may rely on aggregated information based on high-level sector data developed by third parties that may be prepared in an inconsistent way using different methodologies, interpretations or assumptions.
- Data is less readily available for some invested asset types and there may also be data gaps, particularly for private companies, that are filled using “proxy” or other data, such as sectoral average, again developed in different ways.
- There is no single, global, cross-sector data provider that adequately and consistently covers the needed scope for data to analyse emissions and assess physical and transactional risks across operations and investment portfolios.
- While regulators and standard-setters mandate additional disclosure of verified climate-related data by companies across sectors, there are potential gaps between needed and available data.

- The availability of climate, industrial classification, energy use and efficiency data, including information used as a proxy for that data (e.g. EPC rating) depends on a variety of public, private and civic sector sources. Historically, climate data was largely environmental and weather data was produced by government agencies, however, the challenge is finding the relevant sources, if they exist, and then validating, cleaning and standardising the data in an accessible form or format.

Further development of reporting standards, scientific understanding of climate change and global and regional laws could materially impact the metrics, ambitions and targets contained within this report and may mean that subsequent reports do not allow a reader to compare metrics, ambitions and targets on a like for like basis. Certain disclosures are likely to be amended, updated, recalculated and restated in future reports.

There are many uncertainties, assumptions, judgements, opinions, estimates, forecasts and non-historic data surrounding the climate metrics, data, models and scenarios used to create them; and the measurement technologies, analytical methodologies and services that support them remain in an early stage.

Accordingly, the quality and interoperability of these models, technologies and methodologies is also at a relatively early stage.

Significant data gaps in sectors, sub-sectors and across invested asset classes are impeding not only climate risk management, but also the development of mitigation and adoption of strategies, as well as aspects of operations and credit risk and investment analysis that depend on data-informed processes.

In summary, the information in this report is subject to significant uncertainties and risks which may result in the group being unable to achieve the current plans, expectations, estimates, ambitions, targets or projections.

Some of the information in this document has been or may have been obtained from public and other sources and Aviva has not independently verified it. Aviva makes no representation or warranty regarding its completeness, accuracy, fitness for a particular purpose or non-infringement of such information.

### Other forward-looking statements

This document should be read in conjunction with the other documents distributed by Aviva through The Regulatory News Service (RNS). This document contains, and we may make, other verbal or written ‘forward-looking statements’ with respect to certain of Aviva’s plans and current goals and expectations relating to its future financial condition, performance, results, strategic initiatives and objectives.

Forward-looking statements include, without limitation, projections, estimates, commitments, plans, approaches, ambitions and targets (including, without limitation, sustainability commitments, ambitions, goals and targets). Statements containing the words ‘believes’, ‘intends’, ‘expects’, ‘projects’, ‘plans’, ‘will’, ‘seeks’, ‘aims’, ‘may’, ‘could’, ‘outlook’, ‘objective’, ‘predict’, ‘likely’, ‘target’, ‘goal’, ‘guidance’, ‘trends’, ‘future’, ‘estimates’, ‘potential’ and ‘anticipates’, and words of similar meaning, are forward-looking.

By their nature, all forward-looking statements involve risk and uncertainty. Accordingly, there are or will be important factors that could cause actual results to differ materially from those indicated in these statements.

Factors that could cause actual results to differ materially from those described in these statements include (but are not limited to):

- Regulatory measures addressing climate change and broader sustainability-related issues; and
- The development of standards and interpretations, including evolving requirements and practices in sustainability reporting; and the ability of the Group, together with governments and other stakeholders to measure, manage, and mitigate the impacts of climate change and broader sustainability-related issues effectively.

A detailed description of other relevant factors is contained within Aviva’s most recent annual report available on its website at <https://www.aviva.com/reports>.



## Cautionary statements

Due to such uncertainties and risks, readers are cautioned not to place undue reliance on such forward-looking statements. Forward-looking statements in this report are current only as of the date on which such statements are made and we do not undertake to update our forward-looking statements except as required by applicable law and do not provide any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements will actually occur.

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### Use of Carbon Trust Data

The Carbon Trust Group (CT) supported the calculation of financed emissions metrics for infrastructure debt and commercial real estate mortgages and presented the final data in Aviva’s proprietary data model developed prior to the CT’s engagement. The calculation of financed emissions is based on Partnership of Carbon Accounting Financial (PCAF) methodologies and dependent on the data available. Carbon Trust has not considered the interest of any other party when supporting with the calculation of the financed emissions. To the fullest extent permitted by law, Carbon Trust accepts no responsibility and denies any liability to any other party for its work in supporting with the calculation of financed emissions.

As the calculations are based on information made available by Aviva and other third parties, Carbon Trust does

not warrant that the information presented in the calculations is complete, accurate or up to date.

Carbon Trust is not an auditor and cannot in every instance independently verify or validate the information it receives. Any person who obtains access to Aviva’s calculations of financed emissions and chooses to rely on them will do so at its own risk.

Furthermore, the calculations of financed emissions shall in no event be interpreted and construed as an assessment of the economic performance and creditworthiness of Aviva or any of its products or investments.

As explained in our ‘Assurance approach’ on page 1, the information in this document is unaudited, except for those metrics indicated with an  or  symbol, indicating reasonable assurance or limited assurance, respectively. This report has been prepared for, and only for, the members of the Company, as a body, and no other persons. The Company, its directors, employees, agents or advisers do not accept or assume responsibility to any other person to whom this document is shown or into whose hands it may come, and any such responsibility or liability is expressly disclaimed. Aviva plc is a company registered in England No. 2468686.

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