



**Columbia Threadneedle Investments**

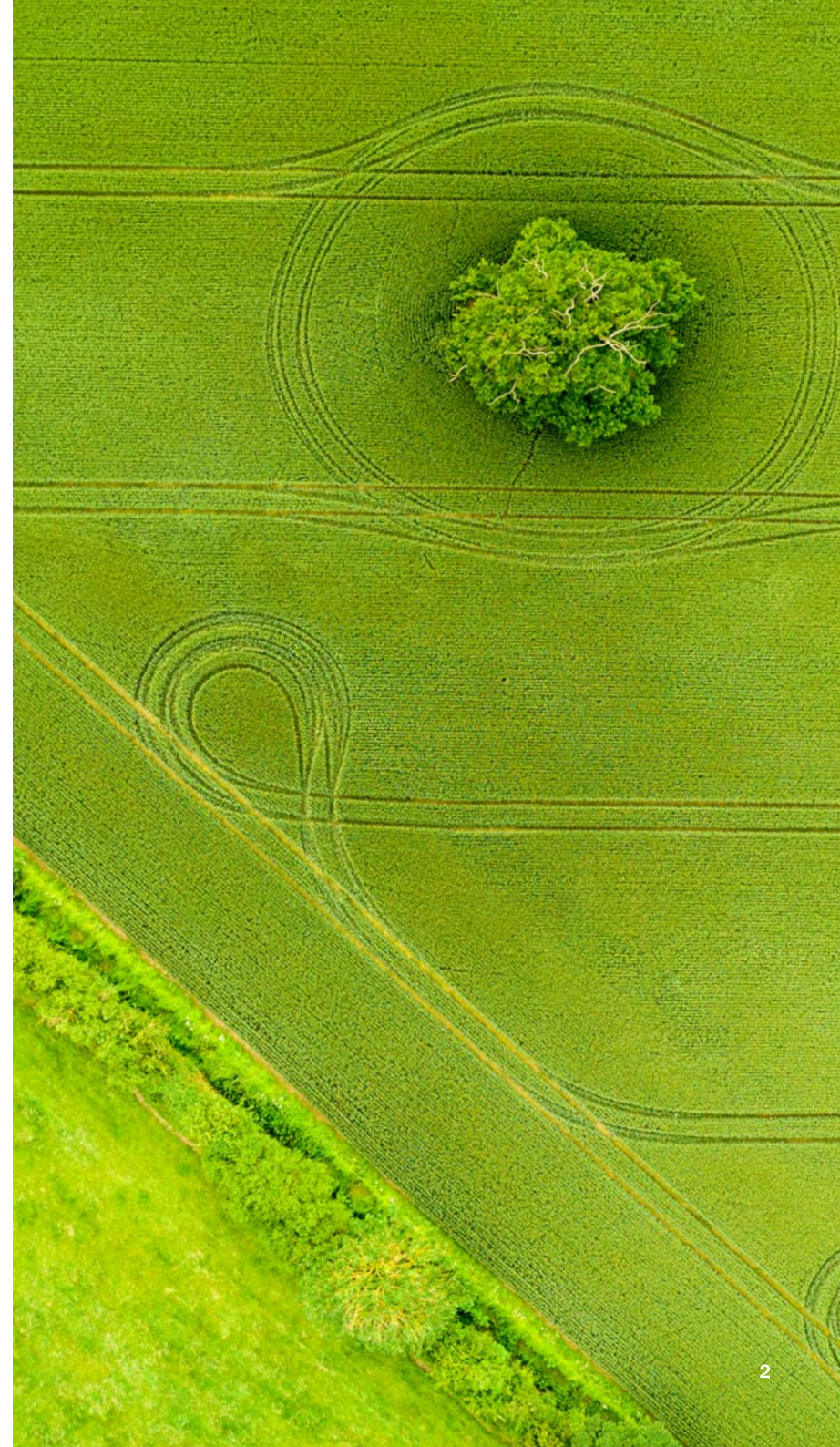
# Climate change: managing risks and opportunities

Our report in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)



*A report on how Columbia Threadneedle Investments manages climate-related risks and opportunities in investment portfolios and across business operations under the framework established by the Task Force on Climate-related Financial Disclosures (TCFD)*

**June 2023**



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This report covers the various legal entities within Columbia Threadneedle Investments (Columbia Threadneedle), except for Pyrford International, a wholly owned subsidiary of Columbia Threadneedle, which makes separate arrangements for climate-related risks and opportunities.

# Foreword

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At Columbia Threadneedle Investments, we strive to be a trusted partner to our clients and responsible stewards of their assets, allocating capital within a framework of robust research and good governance in accordance with their investment objectives.

Our core business is the active management of clients' investments through the well-researched allocation of capital to companies and other assets in a manner designed to create long-term value, support economic growth, and serve broader prosperity.

In keeping with this aim, we manage our business responsibly, including understanding and thoughtfully responding to climate change, which presents both risks and opportunities for our clients and our business. We are committed to both delivering long-term financial returns for clients, which includes managing the risks and opportunities presented by climate change, and supporting a constructive transition to a low-carbon economy. We recognise that the transition to a low-carbon economy is complex and requires consideration of multiple geopolitical realities and unique market characteristics of the companies and assets in which we invest for our clients.

Importantly, we offer a broad choice in investment strategies for individual and institutional clients with differing priorities, including solutions that meet the growing client demand for more climate-aware investment opportunities, and we are evolving our offering in this regard.

As part of our work, we are a signatory to the Net Zero Asset Managers Initiative (NZAMI) and, working in partnership with our

clients, we aspire to reach net zero emissions by 2050 or sooner across all assets under management. Consistent with Columbia Threadneedle's client-centric model, reaching this aspiration depends on the mandates agreed with clients and the regulatory environments within which we operate.

Our focus is on ensuring we understand the specific challenges and opportunities companies and economies face – both in the near-term and over time – as they relate to different sectors and issuers. As such, we actively engage with the companies we invest in to help them manage the transition and deliver for their stakeholders.

As described in this report and our UK Stewardship Report for 2023, we have worked diligently to integrate our engagement and voting activities that resulted from our 2021 acquisition of BMO GAM (EMEA). As of January 2023, we have an integrated, global approach to engagement and voting that includes a single, global proxy voting policy.

In summary, this report provides updated information on how we manage climate-related risks and opportunities both for the investments we manage for our clients and our business operations.

I hope you find it informative.



**Ted Truscott**

CEO, Columbia Threadneedle Investments





## UK attestation

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As a leading global asset manager we have a significant presence in the United Kingdom, with more than 1,376<sup>1</sup> employees and a large proportion of our assets managed by our investment teams in London.

On behalf of our clients, we are a major shareholder and bondholder of UK-listed companies, and a large commercial real estate owner in the UK.

We recognise the efforts by the UK Government and other UK institutions, including our regulator the Financial Conduct Authority (FCA), to achieve standardised climate-related financial reporting under the framework established by the Task Force on Climate-Related Financial Disclosures (TCFD) in support of the UK's response to climate change.

We trust that the disclosures in this report outlining how Columbia Threadneedle Investments manages climate-related risks and opportunities meet the requirements introduced by the FCA in Policy Statement 21/24, which are applicable to certain of our legal entities that are based in the UK.

We believe that we are well placed as a firm to serve the evolving stakeholder expectations in this area in our role as responsible stewards of capital.



**Nick Ring**

CEO of Columbia Threadneedle Investments, EMEA



# Governance

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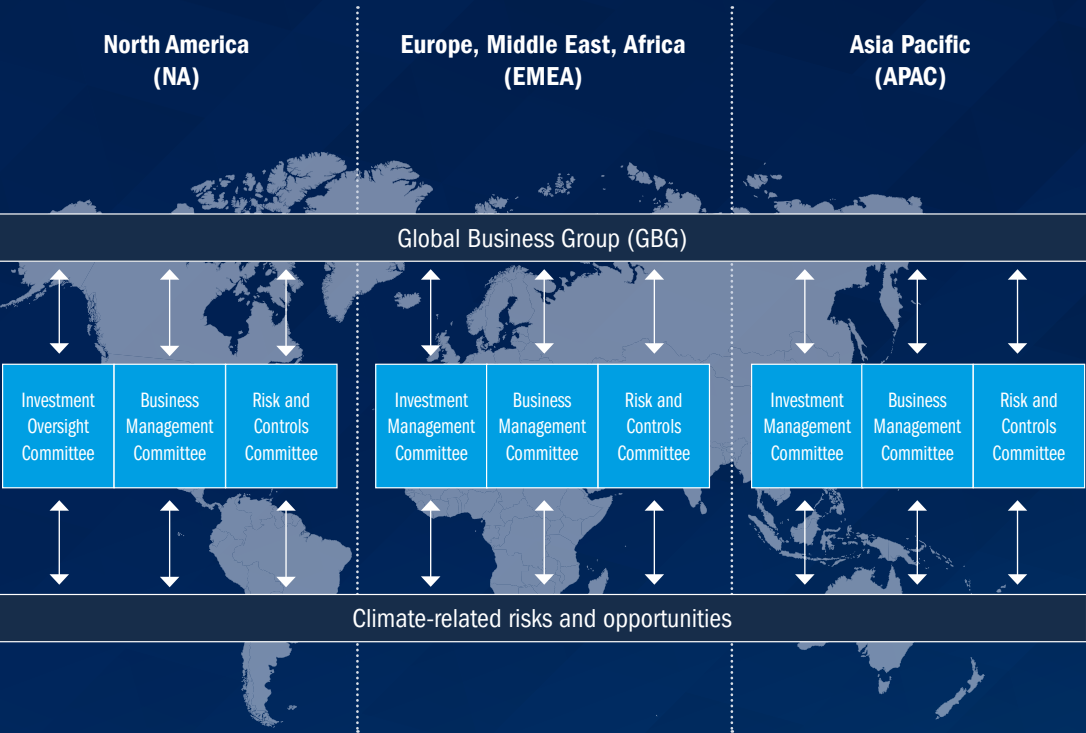
Columbia Threadneedle Investments is a leading global asset manager that provides a broad range of investment strategies and solutions for individual, institutional and corporate clients around the world.

With more than 2,500 people, including over 650 investment professionals based in North America, Europe and Asia, we manage \$608 billion of assets across developed and emerging market equities, fixed income, asset allocation solutions, and alternatives.<sup>2</sup>



## Global governance structure

The graphic below illustrates the way in which our global heads group is supported by a variety of regional business committees.



Applies to the Columbia Threadneedle group of companies excluding the business formerly trading as BMO GAM (EMEA).

## Management

Columbia Threadneedle has a comprehensive governance framework designed to ensure that our governing committees are operating effectively. This framework provides a mechanism for escalation and resolution of business matters, including those related to climate-related risks and opportunities.

Our decisions related to global strategy are managed by our operating forums, the Global Executive Group (GEG) and Global Business Group (GBG). The GEG and GBG exercise, as part of their responsibilities, strategic oversight of our business, including climate-related risks and opportunities and management of our business-related carbon emissions. The two forums are chaired by our Chief Executive Officer Ted Truscott. This strategic oversight is in addition to the governance arrangements that we have in place across the three regions in which we operate our business: North America (NA); Europe, Middle East and Africa (EMEA); and Asia Pacific (APAC).

Senior executives located in each region provide oversight by way of the Investment Oversight Committee (IOC) in NA, the Investment Management Committee (IMC) in EMEA and APAC, and the Property Committee (PC) in EMEA. These committees meet monthly and have responsibilities for Columbia Threadneedle's overarching investment framework, including our engagement and proxy voting activities.

Our Global Chief Investment Officer (CIO) is responsible for ensuring that information related to environmental, social and governance (ESG) is included in our research, helping to build a holistic view of the climate-related risks and opportunities attached to our holdings and potential investments.



During 2022, the CIO consolidated our Responsible Investment (RI) leadership under our Global Head of Responsible Investment, Claudia Wearmouth, who participates in the GBG, as well as engaging with the IMC and IOC on climate matters.

This governance structure also supports our objectives to advance a culture of compliance, and to understand and manage both existing and emerging risks. The Risk Management section further details the oversight undertaken by our Investment Risk team in EMEA and NA when monitoring climate risks within the portfolios that we manage on behalf of our clients. The Investment Risk team in EMEA may report any specific issue to the IMC or the PC; the Investment Risk team in NA may report any specific issue to the IOC. The Risk and Controls Committees (RCCs) in EMEA, APAC and NA, among other things (i) provide oversight of the operational risk management strategies, policies and practices that identify, assess, monitor and manage risk for Columbia Threadneedle, and (ii) act as points of regional escalation for emerging and long-term risk issues, including related to climate change.

In 2022 we conducted an exercise to identify and better understand the climate-related risks and opportunities that exist within the asset classes that we manage and within our own business operations. The findings from this exercise are outlined in the Strategy section below and have been presented to the GEG, IMC, IOC and PC.

“ This governance structure also supports our objectives to advance a culture of compliance, and to understand and manage both existing and emerging risks. ”







## Board oversight

Certain boards within the Columbia Threadneedle group are responsible for overseeing that client assets are managed in accordance with agreed upon investment guidelines. In connection with this oversight, these Boards are provided with information related to climate-related risks and opportunities, our responsible investing framework, and whether and the degree to which consideration of climate-related targets and risks forms part of the portfolio construction process.

For an investment product that has a specific climate-related target, the relevant Board would be provided with information on any related material risk issues to enable them to monitor the progress that is being made against the target. Certain Boards in EMEA have also been updated on the climate-related risks and opportunities that were identified within the asset classes that we manage and our business operations to support their responsibilities in this area.



# Strategy

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As part of our overall business strategy, we recognise the importance of managing climate-related risks and opportunities effectively.

Our aim is to be consistent and proactive in recognising these risks and opportunities, and to use our expertise and our role as a global investor to mitigate risks and take advantage of opportunities, acting in the long-term economic interests of our clients.

In this part of the report, we explain how we have assessed climate risk and opportunities and describe the four pillars of our climate strategy.







## Identification of climate risks and opportunities

This section sets out the process and outcomes of an exercise undertaken by Columbia Threadneedle to understand the potential impact of these risks and opportunities across various parts of our business, and to the portfolios that we manage for our clients.

We see three primary transmission pathways through which climate-related risks and opportunities can potentially result in financial impacts for asset managers:

- **Investment performance:** the financial value of assets we invest in for our clients could be susceptible to fluctuations due to how effectively the portfolio issuers in which we invest have managed such climate-related risks and opportunities
- **Suitability of products:** our ability to mitigate climate-related risks and maximise climate-related opportunities could influence whether a client chooses to (continues to) invest with us
- **Costs:** meeting regulatory requirements and client expectations on climate-related risks and opportunities may lead to material costs being incurred

In 2022, we held workshop sessions with a cross section of our investment professionals representing eight asset classes and our facilities and operations teams. Our focus was rating the risk exposure of the different asset class and our business more generally to different types of climate-related risks and opportunities. This exercise provided a snapshot of climate-related risks and opportunities based on the perspective of those individuals involved.

The participants were asked to make a judgement on:

- The **magnitude** of potential financial impact, positive or negative;
- The **likelihood** of the risk / opportunity materialising;
- The **mitigating factors** we have in place; and
- The **timeframe** over which the risk / opportunity could materialise.

## Outcomes

The following table sets out a description of the potential climate-related risks and opportunities; the timescale over which we believe these risks and opportunities could materialise; and the mitigation actions in place to address these potential risks.

The outcomes of this exercise have been presented to and discussed by our GEG.

Risk	Description of impact	Timeframe <sup>3</sup>	Mitigation actions/actions to maximise opportunities
Transition: Policy & legal (Investment risks and opportunities)	The performance of the investment portfolios we manage may be impacted by climate-related regulation or policy – resulting in both risks and opportunities.	Short term	Our investment teams in relevant asset classes have processes in place to identify potential investment-related risks and opportunities arising from climate change, described in the Strategy section of this report. Six dedicated environmental experts in our RI team support this work.
Transition: Policy & legal (Operational risks)	Laws, regulations or guidance linked to climate change or sustainability could result in additional material compliance costs. There has been a recent increase in ESG-related regulation, such as product labelling or disclosure rules, and the anti-greenwashing measures being taken by regulators in both Europe and North America.	Short term	We have dedicated research personnel who track the implications of forthcoming regulation. Our Legal and Compliance teams review the implications of upcoming regulatory developments. We may proactively contribute feedback to government and regulatory consultations where appropriate, for the benefit of our clients. We also have a business change team to implement and comply with the necessary changes introduced by new regulatory developments.
Transition: Technology	The requirement to keep pace with technological advancements to adequately identify, assess and manage climate risks and opportunities could result in additional personnel or data costs.	Short term	We work closely with clients to identify their expectations on technology and data. We have a dedicated and large internal technology team, which enables us to efficiently integrate third party data and build proprietary analysis systems, such as our net zero model outlined below, to inform our investment processes.
Transition: Market	The expectations of some clients for the management of climate risk are evolving, and managers who do not keep pace with such expectations may put assets at risk.	Short term	We have developed data, risk management and reporting processes for relevant Investment teams to ensure that climate-related risks are considered and can be reported to clients as appropriate.
Transition: Reputation	Managers are subject to heightened regulatory, media and client scrutiny around ESG and climate change. Negative perceptions of actions or inactions could create reputational risk and impact client relationships.	Short term	We continue to take a robust approach to climate change using our in-house expertise and industry networks, and we have robust compliance processes to ensure that our reporting is accurate. We have a broad product offering to suit and adapt to differing client needs and preferences.



Risk	Description of impact	Timeframe <sup>3</sup>	Mitigation actions/actions to maximise opportunities
Physical: Acute & chronic (Investment risks)	A range of physical climate events could impact underlying asset performance. This could be particularly marked in certain regions (those subject to the greatest climate stress), and certain industries (such as agriculture and electric utilities).	Medium term	<p>Our risk analysis in relevant asset classes and sectors incorporates physical climate risk data, where available. Mindful of the limitations of current data, we have written a research note on the challenges in the data currently available to the industry to support the <a href="#">assessment of physical risk</a>, and follow industry initiatives such as the work of the UK Centre for Greening Finance and Investment.</p> <p>Physical risk is also a focus area for our Active Ownership programme, with a focus in 2023 on engaging European domiciled companies in the food, construction, utilities, and chemicals industries, based on our analysis of exposure to physical risks.</p>
Physical: Acute & chronic (Operational risks)	Office facilities, infrastructure (e.g. transport) or staff could be impacted by adverse climate events.	Medium term	In relation to operational risk, Columbia Threadneedle leases the vast majority of its facilities and holds insurance which helps to mitigate the potential financial impact of physical climate risks. Disaster recovery plans are also in place.
Opportunity	Description of impact	Timeframe <sup>3</sup>	Mitigation actions/actions to maximise opportunities
Resource efficiency, Energy source	Investing in assets that support resource efficiency and/or low-carbon energy sources could result in improved investment performance.	Short term	Value creation opportunities through improved resource efficiency and low-carbon energy sources are identified as part of our fundamental research processes, and we run specific products that target this as an investment theme. We have conducted deep thematic research on key areas such as hydrogen and carbon capture and storage and held internal seminars to discuss the investment opportunities arising.
Products & Services, Market, Resilience	Increasing client demand for products or services that meet their expectations around managing climate risk and opportunities could result in inflows into new Columbia Threadneedle climate-related products or services	Short term	We have a long track record in developing RI products, including many with a specific climate-related focus, as set out in further detail below. For specific clients, our evolving data tools, such as our net zero tool, will support the analysis and reporting of climate transition readiness of investee companies in listed asset classes to support future client needs.

The landscape of climate-related risks and opportunities is rapidly changing, as climate policies, science and technologies evolve. Our mitigating actions and management of risk and maximising of opportunities are regularly reviewed, with oversight from senior management as set out in the Governance section above, and we expect these to evolve over time.

## The four pillars of our strategy

This section sets out in greater detail our strategic response to the climate-related risks and opportunities presented to our business, and to the asset management industry holistically. The main impact is through our managed assets, which is the focus of this section; our approach in relation to our operational emissions is set out in more detail in the later sections of this report.



Our strategy applies across our global business. We also consider, where relevant, ESG factors and, specifically, climate-related factors in our decision-making related to delegated functions, such as the criteria for the selection of external third-party asset managers where this forms a part of our clients' requirements.

From a counterparty screening perspective all approved counterparties are subject to an ESG risk review where they are screened against ESG factors, including climate-related issues.

## Implementing our net zero commitment

A key pillar of our climate change strategy is our net zero commitment. As a signatory to the Net Zero Asset Managers Initiative (NZAMI)<sup>4</sup>, working in partnership with our clients, we aspire to reach net zero emissions by 2050 or sooner across all assets under management. Consistent with Columbia Threadneedle's client-centric model, reaching this aspiration depends on the mandates agreed with clients and the regulatory environments within which we all operate. With certain governments focused on slowing the acceleration of climate change and decarbonisation technologies evolving, we see having robust data and methodologies to assess net zero as an essential part of the overall risk management within our investment processes.

We operate in several jurisdictions where governments have made net zero commitments, such as the UK's Climate Change Act 2008 (2050 Target Amendment) Order 2019. Our own net zero ambition is consistent with these targets, and we track key pieces of implementing legislation, such as the European Union's New Green Proposals.

We have thus far developed our net zero methodology in two key asset classes: listed companies (equities and corporate bonds),

and direct real estate investments in the UK and continental Europe. We are working on methodologies for other asset classes, and are actively contributing to the development of industry methodologies, for instance through participating in the consultation process for the Assessing Sovereign Climate-Related Opportunities and Risks (ASCOR) project, and chairing discussions on sovereign bonds for working groups at the Institutional Investors Group on Climate Change (IIGCC).

In 2022, we published our initial commitments as a member of the NZAMI, committing 7.36% of our total AUM, representing US\$43.5 billion (as at 15 October 2022), to apply net zero methodologies. This initial commitment was EMEA-focused and covered 74 pooled funds and segregated mandates invested in the equity, corporate debt, and real estate asset classes. Out of these, 47 are regulated pooled funds managed for clients in the UK and Europe, representing 31% of our OEIC and 65% of our SICAV assets at that date. We expect this figure to grow over time as we work in partnership with clients to expand coverage and develop further methodological approaches.





# 1

## Integrating climate-related risks and opportunities into our investment processes

As a research-driven active manager, we believe that the integration of ESG considerations<sup>5</sup> into our investment research builds a fuller picture of the risks and opportunities and future return prospects of the companies, debt issuers and assets we invest, or look to invest in. While our investment approaches and styles vary depending on the product and strategy, our investment professionals share a common belief that companies that demonstrate a sustainable business model, organisational stability, and the ability to evolve where necessary are best placed to deliver long-term value for our clients, support economic growth, and serve broader prosperity.

ESG factors are therefore integrated into our fundamental research process, led by a team of approximately 200 analysts and research associates. Working collaboratively across all major asset classes, the team turns information and data into forward-looking insights that can add real value to our investment decisions, enhancing our ability to deliver on our clients' desired financial and non-financial outcomes.

Our more than 40 RI specialists act as a hub of expertise.<sup>6</sup> These specialists work with our research and investment professionals to enrich their understanding of key sustainability trends as they relate to specific sectors and issuers.

The specialists collaborate with our portfolio managers and investment analysts to highlight risks and opportunities within industries and sectors, informing investment decisions across asset classes. In the context of climate change, they produce research, conduct training, and develop data tools and methodologies. Among our RI specialists is our active ownership team, which leads on the implementation of our engagement and voting processes in line with client expectations.

The integration of ESG factors, including climate-related risk and opportunities, is important information available to our investment teams as part of their decision making, as appropriate. Information is tailored by asset class and product type, as set out below for key asset classes.

### **Equities and corporate bonds**

Climate change can impact the economic value of companies over time, both positively and negatively. Physical risks can result from acute climate events (e.g., storms, floods or hurricanes) or long-term changing weather patterns (e.g., implications from rising temperatures). If not effectively managed by the portfolio companies in which we invest, these events can have severe consequences, including such things as asset damage, supply chain disruption, reduced water



availability and quality, food security, employee health & safety, changing consumption patterns, rising costs (energy, raw materials, insurance) or capital expenditure (for climate resilience/mitigation/adaptation).

To support the analysis of these impacts, our research and investment teams have access to a wide range of climate-related metrics and data. These cover water use, land use, energy, waste, and physical climate risks, amongst others. We use the Sustainable Accounting Standards Board ([SASB](#)) standards as a guide to which metrics are most financially material to each sector. We also make use of climate change disclosure and analysis from Climate Action 100+, Transition Pathway Initiative, CDP<sup>7</sup>, and others.

Climate change and the energy transition also feature strongly in our thematic research, with 2022 focus areas including hydrogen and carbon capture and storage.

We have built, and are making available, TCFD carbon metrics into a dashboard so that our research and investment professionals can analyse the carbon risk and performance of a large universe of companies, where data is available. These metrics include weighted average carbon intensity, total carbon emissions, carbon footprint, carbon intensity, and exposure to carbon-related assets.

We have developed an Energy Transition framework, that analysts can use to rate companies on their strategy around climate risks and opportunities. Analysts rate companies on a group of six metrics; the resulting score is fed into our equities research process. We also have access to MSCI ESG's Climate Value at Risk data, which we use in scenario analysis, as described more fully in the Risk Management section below. Ultimately, how these tools and ratings are used by portfolio managers is a function of the design of the products and the mandates agreed with clients.

In 2023 we plan to expand climate data availability by adding our net zero model into the Aladdin Enterprise System (our portfolio management system), and are in the process of making it available to our investment teams. This model is based on the Net Zero Investment Framework, developed by the Paris Aligned Investment Initiative.

We use a selection of data sources to rate companies on their alignment to a net zero pathway, from Fully Aligned; to those making progress, which are rated as Aligning or Committed; to those that are Not Aligned. This enables us to analyse portfolios and identify which companies to engage on behalf of our clients.

Data from the model is being made available to our investment professionals to support company analysis. The model is also used to track progress for those client portfolios committed to apply a net zero approach. For this group of portfolios, we aim to have portfolio companies representing at least 70% of portfolio emissions rated either as aligned or under engagement, as recommended by the Net Zero Investment Framework.

We also compare a portfolio's overall carbon intensity with a net zero aligned trajectory, based on financed emissions intensity for the portfolio's benchmark in 2019, and applying a 50% reduction by 2030. We use this as a reference pathway to track and monitor progress, but not as a binding target.<sup>8</sup>

“ We have developed an Energy Transition framework, that analysts can use to rate companies on their strategy around climate risks and opportunities. ”





### Sovereign bonds

Climate change presents risks to sovereign bond investments to the extent that there are impacts of an order of magnitude which affect government creditworthiness. Examples include:

- Catastrophic weather events such as storms, which could cut economic growth and push up government spending on rebuilding.
- Extreme weather conditions such as prolonged drought or heatwaves, which could impact agricultural production and other weather-dependent activities, and impact governments where these form a major part of the tax base.

Our investment analysis of sovereign debt includes ESG factors, where these are material to the investment case. We also run specialist mandates at the request of clients that explicitly tilt portfolios based on ESG factors, such as climate change.

Many governments also have a green bond issuance programme, allowing investors to allocate capital towards issues focused on climate solutions. We run a number of green bond client mandates which include both government and sovereign bonds and have processes in place to monitor the green bond quality.

We continue to monitor net zero alignment methodologies for sovereign bonds, which are still under development in the industry. For example, the Assessing Sovereign Climate-related Opportunities and Risks (ASCOR) project, which is intended to provide an open-access data source, to support both the integration of climate risks and opportunities into investment processes, and the assessment of government net zero alignment.

### Real estate

Real estate presents a unique dynamic given its fundamental contribution to basic human needs. The intrinsic nature of property in our daily lives emphasises the scale of potential impact that climate risks and opportunities may have. The ability of buildings to withstand increasingly volatile weather patterns, to protect and harness the world's natural resources, and to support business continuity through the shift to a green economy cannot be understated.

In our European direct real estate businesses, our standard due diligence protocol when considering investments involves the detailed consideration of a wide range of ESG factors. We specifically focus on investment-critical aspects such as energy efficiency characteristics, flood risk, longer-term resilience to

climate change and impact on net zero carbon ambitions, as appropriate to each individual property.

We perform regular structured reviews of ESG credentials at individual property level, blending relevant and specific characteristics into both fund and asset level business planning and operational activity, so that we can determine appropriate mitigation or adaptation plans.

Such assessments may include the evaluation of exposure to physical climate risks or the extent to which the distribution of existing energy performance ratings across funds create transitional risk. We maintain a watchful eye on developing legislative requirements and stakeholder expectations and involve all property-related disciplines in the development of appropriate strategies, approaches, and tools to best manage real estate assets.

In North America, our real estate investment subsidiary Lionstone Investments applies a methodology driven by data, utilising underlying risk indicators that emerge from changes in the physical environment. The risks are categorised and captured for each asset and included in a proprietary research database, which is used to make strategic decisions throughout the asset lifecycle.



### Private equity

The range of climate change risks and opportunities outlined above that can affect listed companies can equally impact private companies. We actively seek to invest in private equity funds and co-investments that take positive steps to effectively manage anticipated future risks to businesses by investing in climate transition or adaptation, reducing environmental risks, and positioning themselves to benefit from sustainable opportunities.

The exposure to climate-related risks and opportunities is now assessed as part of our ESG due diligence on each investment that we make and monitored through to exit. We integrate a number of internationally recognised frameworks into our investment process, which address the potential impacts of climate change, such as the UN Sustainable Development Goals ('UN SDGs') where we have participated in climate-focused private equity working groups.

Post-investment, we formally engage with portfolio companies on climate-related issues via our Annual ESG Survey and results are reported within our Annual Private Equity ESG Report<sup>9</sup>. Our ESG Survey both allows us to measure performance and facilitates engagement with such companies.

### Infrastructure

In the infrastructure asset class, we manage one fund in EMEA which, through asset selection and active asset management, supports the creation of sustainable infrastructure assets that are environmentally optimised. The climate-related issues that can affect this asset class are similar to those outlined above.

The core model that underpins the fund's sustainability framework is based on a series of indicators selected to collectively capture the capability of an infrastructure asset's management team to 'plan, implement, check, and act' in respect of sustainability issues. At the asset selection stage, the investment team review a prospective asset's alignment with the characteristics identified in the UN's Sustainable Development Goals, one of which is climate action. The fund also uses exclusionary screens, including some related to climate change.

### Fiduciary management

Our global fiduciary management capability serves clients in the UK, Netherlands, and US, providing tailored investment advisory and portfolio management capabilities, including full ESG integration, where this forms part of clients' requirements.

Our Dutch fiduciary team has developed an in-house climate analysis tool that pulls data from our active ownership efforts and from specialized external sources. We use this tool, combined with the climate and sector expertise of the RI team, to map the climate-related investment performance of our clients' portfolio holdings, where applicable. For our fiduciary clients in the Netherlands, net zero commitments have become established market practice.

We are able to use this analysis for complete portfolios or for select sets of asset classes or mandates, depending on client preferences. We then translate the findings into strategic investment, portfolio construction and policy advice. In doing so, we not only look at climate-related risks, but also at investment opportunities like green bonds or climate (mitigation and/or adaptation) solutions providers.

For Asset Liability Management (ALM) studies, and when advising about the strategic asset allocation (SAA) of the investment portfolio of a pension fund, we will liaise with a client's consultant to ensure climate-related risks have been taken into account consistent with client expectations. We have published research on the relationship between climate-related risk and SAA.





We can calculate climate-related risks for 22 asset classes in our CMA (Capital Market Assumptions) model and can compare these top-down outcomes with bottom-up VaR (Value at Risk) and factor analyses per mandate/asset class.

For most of our fiduciary clients, we have partnered with them to implement net zero guidelines across significant parts of their allocations. This started with feasibility studies against various net zero frameworks, commitments, and guidance documents, both national and international. It was followed up by implementation plans spanning several years and covering as many asset classes as possible. For those clients, we are now looking for opportunities to further optimise portfolios from a climate-risk point of view.

Our delegated Investment Officers, fiduciary RI strategists, investment strategists and multi-management teams work closely together to implement net zero with each client's appointed external managers.

More specifically, we have drafted one client's action plan to be submitted under the Financial Sector's Commitment under the Dutch Climate Accord. We have also incorporated

net zero key performance indicators in the ESG progress reporting we regularly present to our clients' boards of trustees. This allows trustees to monitor net zero implementation progress and climate-related risks and impacts relating to the portfolios and mandates they oversee.

#### **Managed and multi-asset funds**

Within our managed and multi-asset fund ranges, there are a number of underlying investments including, but not limited to, funds managed by Columbia Threadneedle Investments EMEA and our affiliates, as well as passive strategies and direct holdings. Individual funds invest in a variety of these investments dependent on what the mandate is designed to achieve. For all such EMEA funds, consideration of sustainability risk is integrated into the selection of the underlying investments, be they direct or through other funds, and at the overall fund level.

Where the managed and multi-asset funds gain exposure to securities directly, rather than through other funds, the integration of sustainability risk is considered as part of the security selection process that is described for the relevant asset class above.

Aggregate sustainability risk exposure across the underlying funds are measured and collated at the fund level and then compared against an appropriate benchmark, or composite. Specific processes and procedures apply in relation to dedicated sustainable multi-asset strategies such as our Responsible, Sustainable and SDG fund ranges.

“ For most of our fiduciary clients, we have partnered with them to implement net zero guidelines across significant parts of their allocations. ”



## 2

### Achieving real-world impact through active ownership

As active owners, proactive engagement with the issuers we invest in on behalf of our clients is an integral part of our approach to research and investment, and as stewards of client capital. Through constructively encouraging investee companies to improve, active ownership can be a powerful driver of positive change, underpinning our commitment to deliver long-term returns for our clients. Engagement takes place collaboratively, with active ownership specialists, fundamental research analysts and portfolio managers working together consistent with client mandates.

We ensure an informed approach to our engagement, underpinned by collaboration across asset classes and thematic and sectoral disciplines. We engage to enhance our research insights, to deepen relationships with the companies we invest in, to understand how they are positioned for transition, and to influence for change over time.

An important component to our engagement on climate change is Climate Action 100+, an investor-led initiative that aims to ensure action on climate change. At the point of writing, we are directly engaged on behalf of our clients with 48 of the 167 companies covered by the initiative and are a lead investor on seven of those engagements.

Consistent with client expectations, we engage with issuers in companies and sectors where we believe climate risk is material. Our objectives are closely aligned with the Climate Action 100+ benchmark,<sup>10</sup> and we advocate for the following:

- An overall net zero ambition for 2050 or earlier, which covers Scope 1 and 2 emissions, and Scope 3 for sectors where this is material.
- Short and medium-term emissions targets, covering the same scopes; targets should be in line with the global ambition to limit the temperature rise to 1.5°C.
- A credible strategy to achieve these targets.
- Alignment of capital expenditure and research & development expenditure consistent with the global ambition to limit the temperature rise to 1.5°C.
- Alignment of holdings' lobbying activities with their climate strategies, including memberships of, or representation in, trade associations.
- Link between the achievement of climate-related objectives and executive remuneration.
- Board-level oversight of climate risks and opportunities.



- Acknowledgement and mitigation of the potential social impacts that may arise in the transition to a lower carbon world.
- Disclosure in line with the TCFD recommendations, including scenario analysis, in order to improve data availability and allow asset managers to assess climate-related risks.
- Reflection of climate risk in financial accounts and audits where this is material.

Whilst consideration of these factors applies across different sectors, we also have identified specific focus areas for key industries, recognising that there are unique circumstances that must be understood for individual companies in their transition pathway. We track and monitor engagement and use milestones to measure our progress against those objectives. Our best practice expectations on net zero are set out in detail in our paper ‘Net Zero: Best Practice and Engagement Approach’.<sup>11</sup>

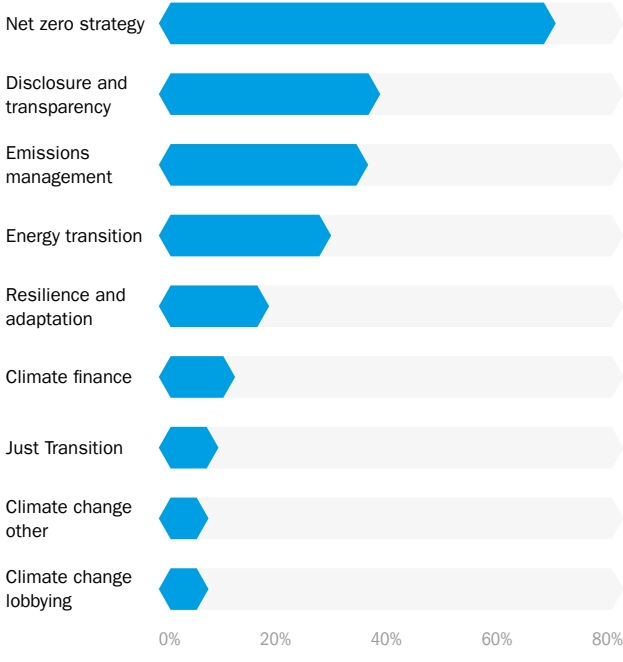
In 2022, on behalf of our clients, our RI team conducted 924 engagements on climate change with 507 different companies. As our understanding of climate-related risks and opportunities have progressed, the content of these engagements has evolved. Many engagements have moved on from encouraging companies to acknowledge climate change as a potential risk and the setting of preliminary targets into the technicalities and challenges of taking the steps necessary to achieve such targets.

We recognise that industries are different and we remain in dialogue with companies in sectors where carbon emissions are hard to abate, seeking to understand how such companies are working to overcome the challenges they face. Additionally, portfolio company lobbying and capital expenditure are relevant to our consideration

as we seek to understand whether lobbying practices and allocation of capital are aligned with our portfolio companies’ stated climate targets.

The topics of our 2022 engagements are set out in the chart below. Note that climate engagements typically address multiple interdependent issues in each interaction, explaining why the percentages below add up to more than 100%.

Climate change topics covered in engagements in 2022



Each engagement may cover multiple climate topics  
Source: Columbia Threadneedle Investments, January 2023

Alongside engagement, proxy voting is a tool available to us as stewards for our clients’ capital. Where companies in high-impact sectors—e.g., those large enough to be requested to disclose to the CDP’s Climate Change survey—fail to provide investment-relevant climate disclosure or do not have a robust climate change risk management strategy, we may oppose certain management resolutions if we think that this is in the best long-term economic interests of our clients. In certain instances, we may support shareholder resolutions calling on companies to improve their business planning and public disclosure in relation to climate change risks and opportunities. Note that we apply our guidelines to client portfolios in a manner that considers our clients’ respective investment objectives and best long-term economic interests. This could result in our voting on a matter the same way (or differently) for different clients.

We make use of investor tools such as the Climate Action 100+ Net Zero Company Benchmark, the Transition Pathway Initiative, our own proprietary net zero tool, as well as engagements we’ve conducted to support our work in this regard.<sup>12</sup>

“ In 2022, on behalf of our clients, our RI team conducted 924 engagements on climate change with 507 different companies. ”



# 3

## Delivering innovative investment strategies and solutions

We offer investment solutions that allow investors to place extra emphasis on managing climate risks and opportunities in their portfolios. These strategies are available to institutional investors globally and can be tailored to specific goals.

Our current focus is on offering ESG and climate-related funds primarily to retail investors in the UK and Europe to meet client demand.

Examples of current strategies include:<sup>13</sup>

- **Responsible and sustainable equity:** These have exclusions related to companies' fossil fuel exposure, and some additionally have a thematic focus, targeting investments in areas including energy transition and sustainable mobility.

- **Social and green bonds:** Our EMEA-based social bond strategy is designed to unlock the full potential of bonds to deliver both a financial return and positive social outcomes. As the pursuit of a net zero world implicates issues beyond purely the environmental, the strategy focuses on issuers who factor in social considerations in their transition to a lower carbon world in order to minimise potentially negative societal impacts. We also provide green bond mandates for segregated clients.

- **Private equity and infrastructure:** Our Climate Opportunity Partners private equity fund<sup>14</sup> provides its investors access to investment opportunities arising from global efforts to tackle the causes and impacts of climate change. Our European Sustainable Infrastructure strategy actively targets environmental and social outcomes, including investing in assets supporting Europe's energy transition.

- **Real estate:** Our Carbon Neutral Real Estate strategy, developed in 2010 as a joint venture between Columbia Threadneedle, the Carbon Trust and Stanhope, aims to reduce the carbon emissions of the built environment. Together with our operating partners, we identify suitable office buildings and turn them into modern, energy-efficient workplaces, while generating returns for investors. We then let and manage the buildings to ensure ongoing management and reduction of energy wastage.

- **Responsible Engagement Overlay (reo®) service:** Clients of our engagement and voting service benefit from a comprehensive approach to active ownership across their assets, wherever they may be managed. Climate change is one of the seven key themes covered by this service.





# 4

## Advocacy and thought leadership

As part of our approach, we contribute thoughtfully and proactively to government and regulatory consultations where appropriate, helping to inform and shape policies to create lasting progress for the benefit of our clients.

To stimulate innovation and improve industry standards within RI, we participate in numerous investor bodies to discuss and promote best practice. On climate initiatives, we work through our membership of the Institutional Investors Group on Climate Change, which is the European membership body for investor collaboration on climate change, where we play an active role in several working groups. We also contribute to climate change work by wider industry groups such as the UK's Investment Association.

Advocacy and collaborations related to climate change in 2022 included input into the UK's Just Transition Finance Challenge, where we provided our views on the criteria that will be used to define how specialist financial vehicles can align with principles that support a constructive transition which considers both investor and stakeholder interests; and membership of the new Net Zero Engagement Initiative, which will focus on collaborative engagement with high emitters, particularly in the European market, which are not included in the Climate Action 100+

programme but would benefit from constructive investor stewardship in how they manage their transition to a low-carbon economy.

### Biodiversity and nature risk exposure

We are aware that there are strong links between risks driven by events related to climate change, and risks driven by the depletion and degradation of nature.<sup>15</sup> Due to this fundamental interdependence, we believe that investment risks related to climate change and nature loss must start to be considered in a more systemic and connected way. We are closely monitoring evolving regulatory and stakeholder expectations on the disclosure of financial institution exposure to nature-related risks. We are members of the Taskforce on Nature-related Financial Disclosures Forum. We have conducted an exercise using the United Nations Environment Programme World Conservation Monitoring Centre's (UNEP-WCMC) ENCORE tool to understand the exposure of our equity and corporate fixed income investments to nature-related impacts and dependencies.<sup>16</sup>

We have also published various papers on climate change which we reference in webinars and meetings with clients.

## Recent publications on climate change



Balancing act – India's journey to net zero



COP26 and carbon markets: what are the implications for investors?



Future proofing – Indian companies addressing the climate challenge



Nature as an ally: tackling the climate-nature nexus



Principles for carbon offsetting



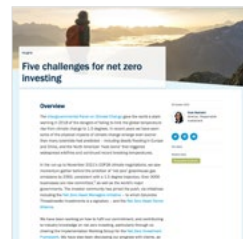
Energy crisis response: repowering Europe



Jet zero – how investors can get on board for the long haul of aviation decarbonisation



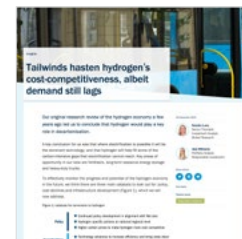
Why CCS technologies are capturing investor attention



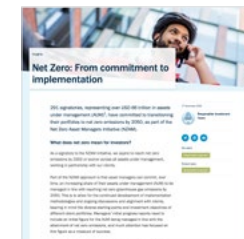
Five challenges for net zero investing



What we expect from COP27 in Egypt



Tailwinds hasten hydrogen's cost-competitiveness, albeit demand still lags



Net Zero: From commitment to implementation



COP27 – what happened?



ESG Viewpoint: The challenges of assessing physical climate risk



## Risk management

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Climate change risk is unusual in that the risk takes two interlinked forms: the financial risks of climate change to the companies in which we invest and the risks to the climate from the actions of the companies themselves.

To tackle the first risk we use scenario analysis and the other risk tools we describe in this section. We aim to ameliorate the second risk via engagement as described above.







## Our operations

Our enterprise risk management process includes assessing, protecting against and mitigating the physical risks of catastrophic weather events affecting our company. We also recognise the long-term transitional challenges and opportunities that reflect evolving client preferences and specific regulatory regimes in the markets where we conduct business.

As a financial services firm, Columbia Threadneedle generates low levels of direct greenhouse gas emissions relative to other industries.<sup>17</sup> We are committed to a net zero target for our operations and have set an interim reduction target for 2030 as described in the Metrics and targets section. For example, we have long focused on operating our buildings efficiently: in 2021, we moved our Boston headquarters to a LEED Platinum certified building at Atlantic Wharf, and we continue to operate one of our London offices at the award-winning Cannon Place, a BREEAM recognised building.<sup>18</sup>

In the EMEA region, our internal Environmental Advisory Group (EAG) focuses on identifying, measuring, and reducing the environmental impacts that inevitably arise from our own day-to-day business activities. These impacts come from travel, waste and usage of energy, water, and raw materials. The EAG works with senior management to set and monitor environmental targets each year. In early 2023, we launched an EAG with a similar mandate for our North America business.

Financial risks from climate change primarily arise from:

- Physical risks relating to specific weather events (such as heatwaves, floods, wildfires and storms), and longer-term shifts in the climate (such as changes in precipitation, extreme weather variability, sea level rise, and rising mean temperatures); and
- Transition risks arising from the process of adjustment towards a low-carbon economy. This includes climate-related developments in policy and regulation, the emergence of disruptive technology or business models, shifting sentiment and societal preferences, or evolving evidence, frameworks and legal interpretations.



## The use of scenario analysis

The future path of global temperature is uncertain. Transition risk and physical risks can be seen as potentially offsetting each other – earlier and more vigorous government action could increase transition risk but decrease physical risk. This uncertainty leads us to the use of climate scenario analysis to understand the different sensitivities of our investment holdings and portfolios<sup>19</sup> to these various options as we remain focused on delivering long-term for our clients.

**One of the scenario analysis tools we use is Climate Value at Risk.** We scrutinise climate value at risk data for client portfolios and benchmarks. The data provides a relative guide on the potential upside or downside impact to a portfolio from climate risks, under a variety of climate scenarios.

The scenarios are based on the Network for Greening the Financial System (NGFS) public scenarios and are modelled using the REMIND model<sup>20</sup>. We compare the portfolio's value at risk against its benchmark under three different scenarios: orderly transition, disorderly transition and hothouse world. Our example to the right gives the definitions of these three scenarios. This exercise enables portfolio managers to assess the range of outcomes for each portfolio under the different scenarios compared to its benchmark, which indicates the level of sensitivity of the portfolio compared to its benchmark to different climate outcomes.

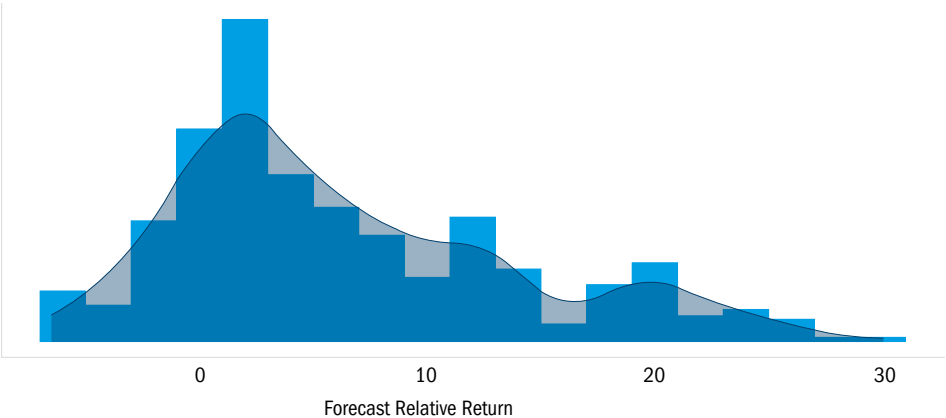
Our investment risk teams compare these results across the portfolios we run to identify portfolios with potentially higher negative exposure.

Below we show an example of this (taken from a product level report).

Climate scenario analysis		
Information provided on a climate value at risk is intended to provide an indication of the potential impact to a portfolio from climate risks, under a variety of climate scenarios. These include acute and chronic changes to the climate ("physical risk"), as well as "transition risks", which can include policy changes, or changes in markets, technology, demand, etc. The scenarios are based on the Network For Greening the Financial System (NGFS) public scenarios and are modelled by MSCI ESG using the REMIND model.		
Scenario-analysis should always be thought of as an exercise in 'stress testing' rather than looking for absolute outcomes and should be considered as part of overall portfolio risk management and not in isolation. Columbia Threadneedle seeks to identify and manage climate risks and opportunities as part of our integration of ESG factors, as set out in our TCFD report.		
Resilience		
The range of outcomes for this portfolio between the different climate scenarios is lower to that of the benchmark, suggesting a similar level of sensitivity to different future climate outcomes.		
Orderly transition	Orderly transition' scenarios assume climate policies are introduced early and become gradually more stringent, reaching global net zero emissions around 2050. We assume a 1.5°C temperature rise in this scenario.	<b>Estimated value at risk:</b> 7.4% lower than the benchmark  In the orderly transition scenario, transition risks are lower for this portfolio than the benchmark, whilst physical risks are lower.  There are regulatory and transition risks for those companies in carbon-intensive sectors. Risks manifest where companies fail to transition, and opportunities arise where companies can provide the solutions and services required in a low carbon economy. Physical risks are relatively low in this orderly transition scenario, as global temperatures are limited to 1.5°C.
Disorderly transition	Disorderly transition' scenarios assume climate policies are delayed or divergent, requiring sharper emissions reductions achieved at a higher cost and with increased physical risks in order to limit the global temperature rise. We assume a 2°C temperature rise in this scenario.	<b>Estimated value at risk:</b> 15.9% higher than the benchmark  In the disorderly transition scenario, transition risks are lower for this portfolio than the benchmark, whilst physical risks are lower.  In this scenario physical risks become more pronounced. Transition risks present particular challenges due to regional divergence. The companies within the portfolio with high carbon intensity may feel these more acutely.
Hothouse world	Hothouse world scenarios assume that some climate policies are implemented in some jurisdictions, but global efforts are insufficient to halt significant global warming. Critical temperature thresholds are exceeded, leading to severe physical risks and irreversible impacts. We assume a 3°C temperature rise in this scenario.	<b>Estimated value at risk:</b> 7.0% lower than the benchmark  In the hothouse world scenario, transition risks are similar for this portfolio than the benchmark, whilst physical risks are lower.  This scenario has high physical risk exposure, and more limited regulatory and carbon risks. Risk is therefore less correlated to exposure to carbon-intensive assets than in other scenarios but is more strongly related to the exposure to climate impacts. Key factors determining the overall risk will include the geographical location of companies' assets.

The chart below shows the distribution of the relative performance estimation across our portfolios managed in EMEA for the disorderly transition scenario, which we are using as an illustration of our approach. We note that the median absolute return of our portfolios in this scenario is around -17% and no portfolio has a positive absolute return.

Distribution of outperformance estimations for the 2°C “disorderly transition” scenario



Source: Portfolio level data calculated by Columbia Threadneedle Investments from MSCI's Climate VaR data. The chart includes portfolios managed in EMEA where the data coverage is over 40%. It excludes portfolios where the benchmark is cash or where we do not have detailed benchmark constituents. Data as at 31st December 2022.

The first thing we notice is that the majority of the portfolios are forecast to have a positive relative return in this scenario, and the return forecasts are very much biased to the right. Hence we can be comfortable with the overall positioning across most of our portfolios for this scenario (again noting this is relative, not absolute return).

This is not the full story however as comparing relative return forecasts misses out the differences in risk between any two portfolios. For example, we would expect the relative return and risk of a government bond fund to be much smaller than, say, an emerging market equity fund. As such, we need to adjust these return forecasts for the level of risk, measured by tracking error, in order to be able to highlight on which portfolios we should focus.

We see in the table below the forecast relative returns, the risk (tracking error) and the ratio of the two. Although Portfolio 7 has a worse return forecast than Portfolio 8, the risk for Portfolio 7 is much less than that of Portfolio 8. Hence the return forecast for Portfolio 7 is only a 1.4 standard deviation move, whereas for Portfolio 8 it is a much larger 2.4 standard deviation move.

	Scenario relative return	Tracking error	Ratio
Portfolio 1	-6.65	2.46	-2.70
Portfolio 2	-6.56	2.38	-2.76
Portfolio 3	-6.02	2.45	-2.46
Portfolio 4	-5.99	4.10	-1.46
Portfolio 5	-5.97	4.73	-1.26
Portfolio 6	-5.91	4.22	-1.40
Portfolio 7	-5.88	4.20	-1.40
Portfolio 8	-5.81	2.42	-2.40
Portfolio 9	-5.66	2.44	-2.32
Portfolio 10	-5.58	4.24	-1.31
Portfolio 11	-5.11	4.77	-1.07

Our Investment Risk team reviewing these results would firstly view the portfolios where the risk adjusted figures were significantly negative, and then calculate which individual underlying names in a particular portfolio were large drivers of the negative relative performance. The team would discuss these names with both the portfolio managers and the RI team to see if any action is required. A potential outcome of this could be to engage with these companies to encourage them to reduce their carbon emissions.



## Physical risk

As potential real-world impacts of climate change become more apparent, attention is being directed to the physical risks and the need to appraise the resilience of issuers to these risks. The data available to investors is, however, often opaque and uncertain, putting the onus on users to understand the limitations of applying this type of data to managing issuer-level risks.

In our publication [“The challenges of assessing physical climate risk”](#) we discussed four limitations of physical risk data and suggested ways in which qualitative and quantitative analysis could be combined to develop a deeper understanding of this issue.

We are also developing our own physical risk scenarios, considering topics such as heat waves, coastal flooding or wildfires, and how these affect companies and economies.

## Monitoring climate-related risks

Columbia Threadneedle has a three lines of defence model for its overall risk management framework. Climate-related risks and opportunities are initially identified as part of our investment management and research process. This is discussed in the Strategy section above.

investment portfolio depending on how they are categorised internally, how portfolio managers have determined to evaluate such risks consistent with client mandates, and any applicable regulatory labelling or disclosure regime that they must comply with). This helps to consider how to prioritise climate-related risks overall. The compliance team also monitors portfolios for compliance with client directed investment limits.

As discussed above the primary tool for assessing the magnitude of climate-related risk is scenario analysis. We will look to evolve the use of scenarios over the coming years. Many scenarios today are relatively long term and so we hope to develop both shorter-term scenarios and sensitivity analysis around the longer-term scenarios.

## Investment risk

Our independent Investment Risk team monitors portfolios daily against a number of risk-based guidelines. We do not prioritise between climate-related risks and the other types of risks we consider (e.g., market, liquidity, credit). In our view risks should be monitored holistically. The levels of our risk guidelines are informed by the risk and return preferences and targets of our clients and their portfolios, as well as each portfolio's level of ESG integration (funds will have different levels of ESG integration within their

If a portfolio breaches a guideline or a limit, this will cause an investment risk analyst to look at the cause of the breach and, if needed, discuss it with the portfolio manager. We have our Investment Risk Advisory Groups (IRAGs), which cover listed assets, property and alternatives as a whole, where the investment risk team can raise exceptions they have determined may not be being dealt with effectively. These groups are chaired by the European Chief Investment Officer, the head of the property business and the head of the alternatives business, respectively. If the issue is not dealt with in these forums, it can be raised to the relevant Risk and Controls Committee and, ultimately, the relevant Board.



## Internal audit

The independent internal audit function for Columbia Threadneedle is Risk & Control Services (RCS). RCS is responsible for developing a comprehensive risk assessment covering all businesses and functions within Columbia Threadneedle, including assessing any specific regional regulatory requirements; regularly updating the risk assessment based on relevant changes (e.g., business strategy, products, organizational structure, legal/regulatory environment, acquisitions/divestitures, operations, technologies, control processes, identification of thematic issues); and reviewing the risk assessment with the the appropriate board committees and management annually. This risk assessment, which includes considerations relating to climate and sustainability, drives the development of the annual internal audit plan. RCS completed an audit of RI in 2021 and RI topics have been incorporated into the audit approach for investment-related audits since 2022.

## Regulatory developments

The Legal and Compliance team actively scans the regulatory developments horizon across regions to identify changes that may impact Columbia Threadneedle's business and/or its clients' portfolios, including those relating to climate-related risk and opportunities. Regulatory changes are implemented by relevant business stakeholders with advisory and technical support being given by the Legal and Compliance team.

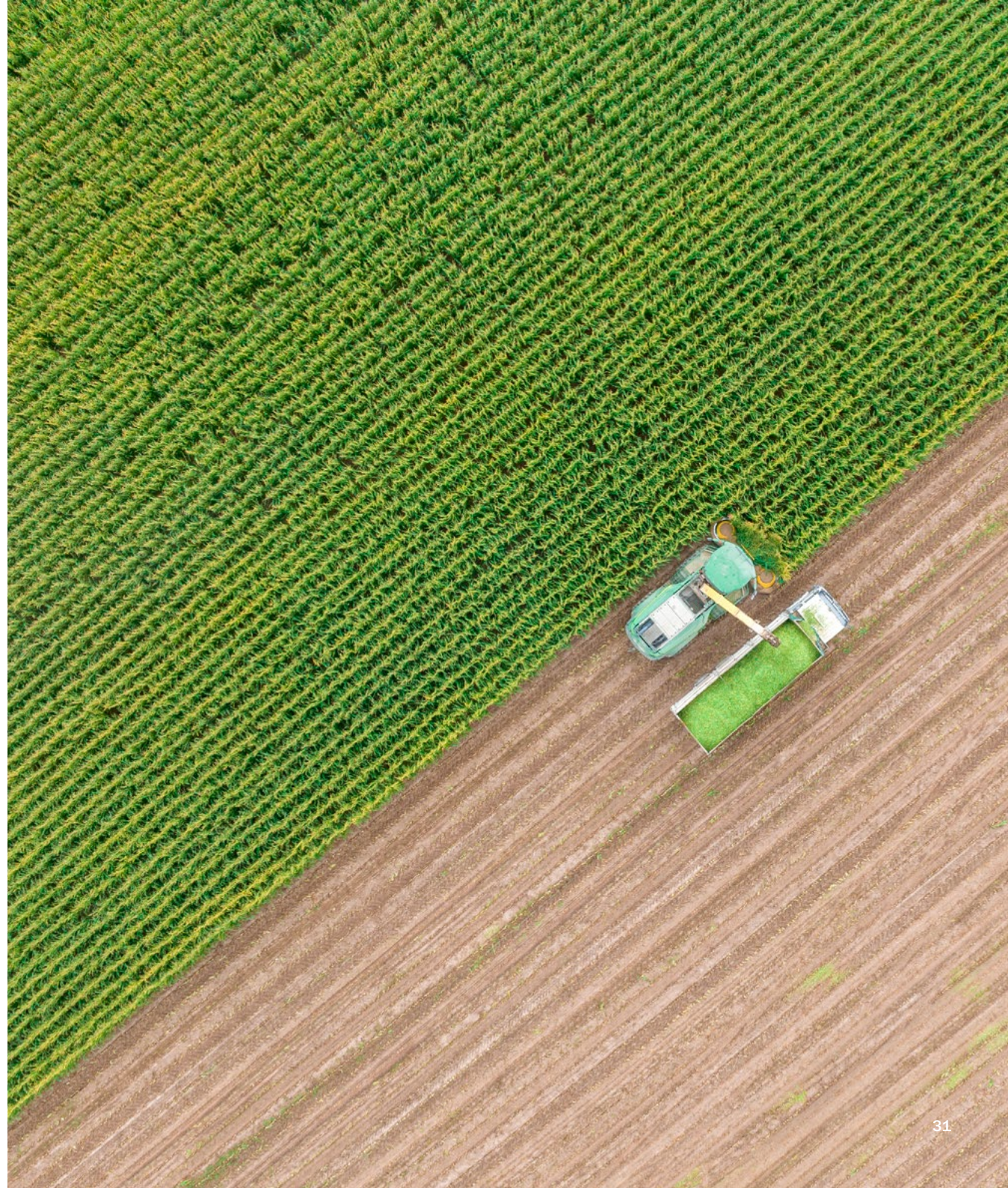


## Metrics & targets

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Using metrics and targets to assess and manage climate-related risks and opportunities within Columbia Threadneedle Investments.

We use a variety of metrics and targets to appraise and track our management of climate-related risks and opportunities and to ensure that our management is effectively readying the business, and our clients' portfolios, as appropriate, for the challenges that climate change may present.







We use four primary categories of climate-related metrics and targets split across two broad areas: exposure indicators and management indicators. Exposure indicators assess the level of climate-related risk and opportunities to which our business and the investment products that we manage on behalf of clients are exposed. Management indicators enable us to track how effectively we are establishing approaches to mitigating these risks and capitalising on opportunities.

#### **Exposure indicators**

- **Corporate Greenhouse Gas Emissions.** Columbia Threadneedle reports Scope 1, Scope 2 and certain Scope 3 emissions categories.
- **Product-level exposure metrics.** Climate-related risk and opportunity data is made publicly available for certain investment products. These metrics include corporate and sovereign carbon data, top contributors to portfolio carbon footprint, and portfolio carbon footprint by sector.

#### **Management indicators**

- **Net zero.** As a signatory to the Net Zero Asset Management Initiative (NZAMI), we aspire to reach net zero emissions by 2050 or sooner across all assets under management working in partnership with our clients. Consistent with Columbia Threadneedle's client-centric model, reaching this aspiration depends on the mandates agreed with clients and the regulatory environments within which we all operate. We track metrics related to our net zero commitment at the product and firm level, including the alignment status of investee companies and portfolio emissions intensity relative to a benchmark target for those funds committed to net zero.
- **Enterprise indicators.** We track metrics related to our sustainable investing and investment stewardship functions to assess our ability to effectively manage climate-related risks and opportunities. These include datapoints on the quantity and success of our climate-related engagement, the number of personnel in our RI team, the number of formal investment team trainings on sustainability topics conducted, and assets managed in funds and segregated client accounts with RI objectives or constraints and net zero objectives.



## Corporate greenhouse gas emissions

### Operational emissions

#### Our carbon footprint

The table to the right shows our greenhouse gas (GHG) emissions across the regions in which we operate. Emissions are reported as tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), which include the three main GHGs – carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) – expressed as carbon dioxide equivalents using the standard long-term global warming potentials (GWP-100).

Our operational carbon footprint increased in 2022 from 2021. This was partially driven by the integration of the former BMO GAM (EMEA) business which added 2,708 tCO<sub>2</sub>e. We anticipate that these emissions will subside in 2023 as we consolidate our office footprint.

#### Operational emissions interim target

For our operational emissions we have set an interim target of a 50% reduction by 2030, using 2019 baseline data. This target applies to the aggregate emissions disclosed in Table 2. To accurately track progress over the long term, this is an intensity target based on emissions per full-time employee and is subject to change. It will accommodate future business growth as well as the integration of emissions for the business formerly trading as BMO GAM (EMEA). It will require us to reduce emissions per full-time employee from 8.01 tCO<sub>2</sub>e to 4.00 tCO<sub>2</sub>e by 2030<sup>21</sup>. We aim to achieve this through reduction of business flight emissions, office electricity consumption, and employee commuting emissions. In 2022 we had reduced our operational emissions by 33% against the 2019 baseline.

**Table 1: Columbia Threadneedle Investments carbon footprint 2019 – 2022 (tCO<sub>2</sub>e)<sup>†</sup>**

Scope	Category	2019	2020	2021	2022
Scope 1	Natural gas & other fuel (estimated)	899	616	503	1,045
	Refrigerants	269	247	389	136
	Corporate vehicles	6	0	0	24
Scope 2	Energy (location-based)	7,121	5,591	5,437	2,509
Scope 3	Business travel: flights	7,699	1,398	715	7,116
	Business travel: land	423	79	41	219
	Employee commute	3,150	715	612	2,489
	Employee WFH	393	1,251	1,237	765
	FERA	1,812	1,340	2,060	1,054
<b>Total</b>		<b>21,772</b>	<b>11,237</b>	<b>10,994</b>	<b>15,357</b>

Source: Anthesis and Columbia Threadneedle Investments, 2022. WFH = Work from home; FERA = Fuel and Energy Related Activities not included in Scopes 1 or 2. Natural gas & other fuel (estimated) have been restated for 2019, 2020 and 2021 to account for a methodology change<sup>22</sup>. 2019 emissions data has been restated to account for the integration of the former BMO GAM (EMEA) business<sup>23</sup>.

**Table 2: Columbia Threadneedle Investments carbon footprint per full-time employee<sup>†</sup>**

Tonnes CO <sub>2</sub> e	2019	2020	2021	2022
<b>Total gross emissions</b> (Scope 1, 2 & 3) (tCO <sub>2</sub> e)	<b>21,772</b>	<b>11,237</b>	<b>10,994</b>	<b>15,357</b>
Total number of full-time employees	2,717 <sup>24</sup>	2,015	1,957	2,842
Intensity ratio (tCO <sub>2</sub> e per FTE)	8.01	5.58	5.62	5.4

Source: Anthesis and Columbia Threadneedle Investments, 2022

<sup>†</sup> Measurement uncertainties – The amounts reported in tables 1-5 are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

## Columbia Threadneedle Investments financed emissions

In current carbon accounting models, greenhouse gas emissions associated with investments are considered part of a financial institution's overall carbon footprint. These are called financed emissions and are by far the most significant portion of Columbia Threadneedle's carbon footprint.

We track financed emissions data at the product-, entity- and enterprise-levels of the organisation. We are aware that there are data gaps and methodological challenges regarding these metrics, and we are taking steps as a firm to address these gaps and methodological challenges. We review these in more detail in the product-level exposure metrics section on page 37, as these gaps and challenges at the product level are also relevant when we roll-up data to the entity- and enterprise-levels of the organisation.

A working estimate of our enterprise-wide total financed emissions from our listed equity and corporate debt investments as of 31 December 2022 is approximately 16 million tCO<sub>2</sub>e. This is calculated using the equation shown below, which is aligned with that recommended by the TCFD and the Partnership for Carbon Accounting Financials (PCAF):

$$\text{tCO}_2\text{e} = \sum_{i=1}^n \left( \frac{\text{Total value of our EQ+FI holdings in \$}}{\text{Enterprise Value including Cash (EVIC)}} \right) \times (\text{Scope 1} + \text{Scope 2 emissions})$$

Limitations of this metric are that EVIC data is sometimes missing for non-listed equity and bonds.

## Entity-level financed emissions

Within the Columbia Threadneedle group there are several legal entities that are regulated by the FCA and required to make TCFD disclosures.<sup>25</sup> These entities are further outlined in tables 3, 4 and 5 below.

For the entities regulated by the FCA we have calculated two additional carbon metrics for our listed equity and corporate debt investments. Carbon footprint measures a portfolio's greenhouse gas emissions normalised by its value. This enables comparison of different portfolios' emissions, irrespective of AUM. Limitations of this metric are that EVIC data is occasionally missing for non-listed equity and bonds, and this figure is impacted by market movements and inflation which can mask carbon emission trends. Carbon footprint is calculated using the equation below:

$$\text{tCO}_2\text{e}/\$m \text{ invested} = \frac{\sum_{i=1}^n \left( \frac{\text{Current value of investment (USD)}_i}{\text{Issuer's EVIC}} \right) \times \text{Issuer's GHG emissions}}{\text{Current portfolio value}}$$

**Weighted Average Carbon Intensity (WACI)** measures a portfolio's exposure to carbon intensive companies weighted by revenue. This metric enables an assessment to be made on how efficiently the issuers in a portfolio can generate revenue while minimising carbon emissions. This metric enables a comparison between portfolios, but revenue data can mask the emissions profile of corporates operating across multiple business segments.

$$\text{tCO}_2\text{e}/\$m \text{ revenue} = \sum_{i=1}^n \left( \frac{\text{Current value of investment (USD)}_i}{\text{Current portfolio value}} \right) \times \frac{\text{Issuer's GHG emissions}}{\text{Issuer's revenue}}$$



We also calculate the emissions from our sovereign debt investments using three carbon metrics.

**Total carbon emissions** are the total GHG emissions of a portfolio's investments. This metric is useful for identifying the portfolios we manage that have higher emission profiles and therefore may be exposed to greater climate-related risks, but results are largely driven by the overall amount invested in a portfolio.

$$tCO_2e = \sum_{i=1}^n \frac{\text{Sovereign Bond Investment (USD)}_i}{\text{Gross Government Debt (USD)}_i} \times \text{Sovereign Emissions (tCO}_2e)_i$$

**Carbon footprint** measures a portfolio's greenhouse gas emissions normalised by its value. This enables comparison of different portfolios' emissions, irrespective of AUM. The Carbon Footprint for sovereign bonds is calculated as Total Portfolio holdings multiplied by government GHG emissions over total government debt.

$$tCO_2e / \$m \text{ invested} = \sum_{i=1}^n \left( \frac{\text{Sovereign Bond Investment (USD)}_i}{\text{Gross Government Debt (USD)}_i} \times \text{Sovereign Emissions (tCO}_2e)_i \right)$$

This is a useful metric as it enables comparison of different portfolios' emissions, irrespective of AUM, but debt can be an inaccurate denominator as sovereigns rarely finance themselves primarily with debt not tax revenue.

**Greenhouse gas intensity** measures a portfolio's exposure to carbon intensive sovereigns weighted by GDP.

$$tCO_2e / \$m \text{ invested} = \sum_{i=1}^n \left( \frac{\text{Sovereign Bond Investment (USD)}_i}{\text{Nominal GDP (international USD)}_i} \times \text{Sovereign Emissions (tCO}_2e)_i \right)$$

We calculate total carbon emissions for our real assets sectors, using different approaches for real estate and infrastructure. We are not currently able to report total carbon emissions data for our private equity investments.

We use the following equation to calculate **total carbon emissions from real estate assets**, and we adjust each asset's Gross Asset Value (£M) by ownership share where applicable.

$$tCO_2e = \sum_{i=1}^n \left( \frac{\text{Gross Asset Value (USD)}_i}{\text{Gross Asset Value adjusted by ownership (USD)}_i} \times \text{Asset's GHG emissions (tCO}_2e)_i \right)$$

We calculate the **total greenhouse gas emissions associated with our infrastructure assets** using the equation below:

$$tCO_2e = \sum_{i=1}^n \left( \frac{\text{Current Value of Investment (USD)}_i}{\text{Investee Company's Enterprise Value (USD)}_i} \times \text{Asset's GHG emissions (tCO}_2e)_i \right)$$

**Table 3: Investment emissions for corporate equity and debt in 2022<sup>†</sup>**

Metric	Scope	TAML	TINTL	CTML	CTMM LLP	Units
Total Carbon Emissions	Scope 1 & 2	5,103,472	2,250	764,893	3,510	tCO <sub>2</sub> e
Carbon footprint	Scope 1 & 2	47.85	33.36	45.34	68.21	tCO <sub>2</sub> e/ \$m invested
Weighted Average Carbon Intensity (WACI)	Scope 1 & 2	124.91	112.43	82.09	81.87	tCO <sub>2</sub> e/ \$m revenue
Data Coverage	Scope 1 & 2	86%	60%	74%	5%	%

**Table 4: Investment emissions for sovereign debt in 2022<sup>†</sup>**

Metric	Scope	TAML	TINTL	CTML	CTMM LLP	Units
Total Carbon Emissions	N/A	3,408,711	2,874	6,840,418	0	tCO <sub>2</sub> e
Carbon footprint	N/A	277.56	519.5	258.02	0	tCO <sub>2</sub> e/ \$m invested
GHG Intensity	N/A	214.89	195.80	180.65	0	tCO <sub>2</sub> e/ \$m invested
Data Coverage	N/A	100%	100%	100%	N/A	%

**Table 5: Investment emissions for real assets in 2022<sup>†</sup>**

Metric	Scope	TAML	CT REP	Units
Total Carbon Emissions	Scope 1 & 2	74,854	964	tCO <sub>2</sub> e
	Scope 3	197,886	8,573	tCO <sub>2</sub> e
Data Coverage	Scope 1 & 2	82%	100%	%
	Scope 3	53%	100%	%

<sup>†</sup> Measurement uncertainties – The amounts reported in tables 1-5 are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

All data in **Table 3** is based on product-level calculations. Total carbon emissions are calculated at the entity-level by summing the total carbon emissions of all products under each entity. Carbon footprint, WACI and data coverage are calculated by conducting a weighted average by product assets under management across all products under each entity.

The data coverage metric in **Table 3** appraises for all funds the proportion of all assets under management that have reported or estimated corporate carbon footprint data. Data coverage is low for the CTMM LLP entity as a significant proportion of assets managed by this entity are invested in third party managed funds that do not provide data on underlying holdings.

All data in **Table 4** is based on product-level calculations. Total carbon emissions are calculated at the entity-level by summing the total carbon emissions of all products under each entity. Carbon footprint, GHG intensity and data coverage are calculated by conducting a weighted average by product assets under management across all products under each entity.

The data coverage metric in **Table 4** appraises for all funds the proportion of all assets under management that have reported or estimated sovereign carbon footprint data. Data coverage for sovereigns is 100% as all data is sourced from Emissions Database for Global Atmospheric Research (EDGAR) via MSCI. See page 37 for more details.

The data in **Table 5** aggregates carbon emissions data from our real estate and infrastructure funds. We are not currently able to report total carbon emissions data for our private equity investments. The data coverage metric in **Table 5** appraises for all funds the proportion of all assets under management that have reported or proxy carbon data.

We will continue to update the calculation methodologies and scope of asset classes included as industry practice evolves.

**TAML**

Threadneedle Asset Management Limited

**TINTL**

Threadneedle International Limited

**CTML**

Columbia Threadneedle Management Limited

**CTMM LLP**

Columbia Threadneedle Multi-Manager LLP

**CT REP**

Columbia Threadneedle REP AM plc (Real Estate)





## Product-level exposure metrics

Columbia Threadneedle uses a number of metrics to inform the consideration of climate-related risks and opportunities in its management of investment products.<sup>26</sup> At present, these metrics are limited to products that we manage in EMEA and are available to investors from June 2023. All data gaps and methodological challenges which are disclosed regarding these metrics apply when these datapoints are aggregated from the product-level to the entity- or enterprise-level, as do the steps that we are taking as a firm to address these gaps and methodological challenges. The core metrics that we monitor and disclose include:

■ **Corporate carbon metrics.** We report total carbon emissions, carbon footprint, and Weighted Average Carbon Intensity (WACI), and the percentage of data that is reported or estimated.<sup>27</sup> These metrics help us compare the emissions profile of a fund to its benchmark and market peers, enabling us to identify funds with higher emissions profiles and greater exposure to climate-related risks. All data is provided by third party provider MSCI ESG. Derivatives and cash are excluded from product-level calculations, as well as companies or investment types with no data availability. Any green bonds are allocated emissions in line with the parent issuer, as project-level data may not be available on a consistent basis.

■ **Sovereign carbon metrics.** We state total carbon emissions, carbon footprint, and greenhouse gas intensity. These metrics help us compare the emissions profile of a fund to its benchmark and market peers, enabling us to identify funds with higher emissions profiles and stronger exposure to climate-related risks. All data is provided by third party provider MSCI ESG. MSCI draws its sovereign emission data from the Emissions Database for Global Atmospheric Research (EDGAR) rather than national inventories. EDGAR effectively relies on a bottom-up estimation approach that is consistent with UNFCCC methodologies. National inventories are not always directly comparable as they can have varying approaches to accounting. However, this does mean that sovereign emissions data is estimated rather than reported, which could reduce accuracy for sovereigns with evolved climate accounting practices. In addition, there is poorer carbon data coverage for municipal bonds and quasi-sovereigns. We believe these are market-wide issues, and we are working with our data providers on approaches to improve coverage.

■ **Real asset carbon metrics.** For real estate funds we disclose total carbon emissions, carbon footprint, and greenhouse gas intensity. We disclose these metrics for Scope 1 & 2, and Scope 3 emissions. Scope 1 and 2 relate to landlord-procured energy supplies,

including electricity, natural gas, district-heating, and district-cooling, and any fugitive emissions from HVAC systems where available. Scope 3 emissions included in the disclosure relate to Category 13 only (downstream leased assets), i.e., all energy purchased and consumed directly by the tenant(s), and any fugitive emissions from HVAC systems where available. All data is provided by our third-party provider, EVORA Global. Data coverage represents the split between actual reported emissions and estimates used, when calculating emissions data. For our infrastructure fund we report total carbon emissions, carbon footprint, and Weighted Average Carbon Intensity (WACI).

■ **Top ten contributors to portfolio carbon footprint.**

We assess the top ten issuers by Scope 1 and 2 emissions which are held in our listed equity and corporate and debt investments. These are the largest contributors to the portfolio's carbon footprint and are the holdings which are likely to be most exposed to transition risks. We also disclose the rating of these holdings on our net zero alignment tool for listed equity and corporate debt funds (discussed in more detail on page 16). This helps our clients to identify issuers which are exposed to climate risks and how those issuers are mitigating these risks. Our portfolio managers have access to a more detailed breakdown of net zero analysis through our net zero tool.

■ **Portfolio carbon footprint by sector.** For our listed equity and corporate debt portfolios we analyse the percentage of the carbon footprint of the portfolio by sector. This provides our portfolio managers and clients with a clear view on the sectors which have an outsized impact on the portfolio's carbon footprint and may be exposed to greater transition risks.

■ **Climate Value at Risk.** We monitor data on the relative Climate Value at Risk of portfolios investing in listed equity and corporate debt relative to their benchmarks. Further details on how we conduct scenario analysis at the portfolio level is discussed in the Risk Management section. For our real estate portfolios we disclose a qualitative climate scenario analysis assessment.







## Columbia Threadneedle's climate Key Performance Indicators (KPIs) and targets

As a signatory to the Net Zero Asset Management Initiative (NZAMI), we aspire to reach net zero emissions by 2050 or sooner across all assets under management, working in partnership with our clients. Consistent with Columbia Threadneedle's client-centric model, reaching this aspiration depends on the mandates agreed with clients and the regulatory environments within which we all operate. We are using the Net Zero Investment Framework (NZIF) as a basis for our methodology for corporate equities and debt, as outlined on page 16 in the Strategy section. Under the NZIF we track two core key performance indicators:

**1.** We have a proprietary approach which rates corporate alignment with net zero – classing corporates as aligned, aligning, committed, not aligned or not assessed. For each portfolio that has already adopted our net zero commitment, we have set the target for 70% of financed emissions intensity at portfolio level to be either aligned or under engagement each year, as recommended by the Net Zero Investment Framework.

**2.** We are using a trajectory to 2030 for the portfolios already aligning with our net zero commitment, based on a 50% reduction in emissions intensity for each portfolio's benchmark, from a 2019 base year. We use this as a reference pathway to monitor and track progress relative to a 1.5°C-aligned trajectory. We have not made this a binding target, as we want to avoid unintended consequences such as forcing overallocation to naturally low-emissions sectors.

These KPIs and targets currently cover 74 of our pooled funds and segregated mandates invested in the equity, corporate debt, and real estate asset classes which are applying net zero methodologies. For more details on our net zero approach see our detailed net zero methodology paper<sup>28</sup> which outlines our approach in more detail. We have also published a paper which outlines in more detail the rationale behind some of the decisions that we have made with our net zero approach.<sup>29</sup>



## Enterprise indicators

### Engagement metrics

During 2022 we undertook extensive work to integrate our engagement and voting activities, resulting in a single, global active ownership approach for our clients, including an integrated proxy voting policy, that came into effect in January 2023. In 2022 the RI team conducted 1,962 stewardship engagements with 933 companies, which was supplemented by a further 87 ESG dedicated engagements conducted by the Fundamental research team. Our teams conducted 923 climate-specific engagements with 507 different issuers, and logged 112 climate-related milestones in 2022, where issuers recorded significant climate progress related to the priorities raised during engagements.

Active engagement on how the issuers we invest in are managing climate-related risks is a key component of our approach to identifying, assessing and managing climate-related risks and opportunities in our clients' investments. Our RI team coordinates our active ownership efforts. Active ownership can help issuers to mitigate their exposure to climate-related risks by recommending improvements to climate risk management practices or improved disclosures.

### Climate management metrics

We have increased investment into our RI team, which expanded in 2022 to constitute over 40 dedicated professionals. Six members of our RI team focus on environmental topics, and they are complemented by several members of our social and governance teams that also possess considerable environmental expertise. This team coordinates with our fundamental investment analysts in planning engagement activities with portfolio companies as we remain focused on the creation of long-term value for our clients.

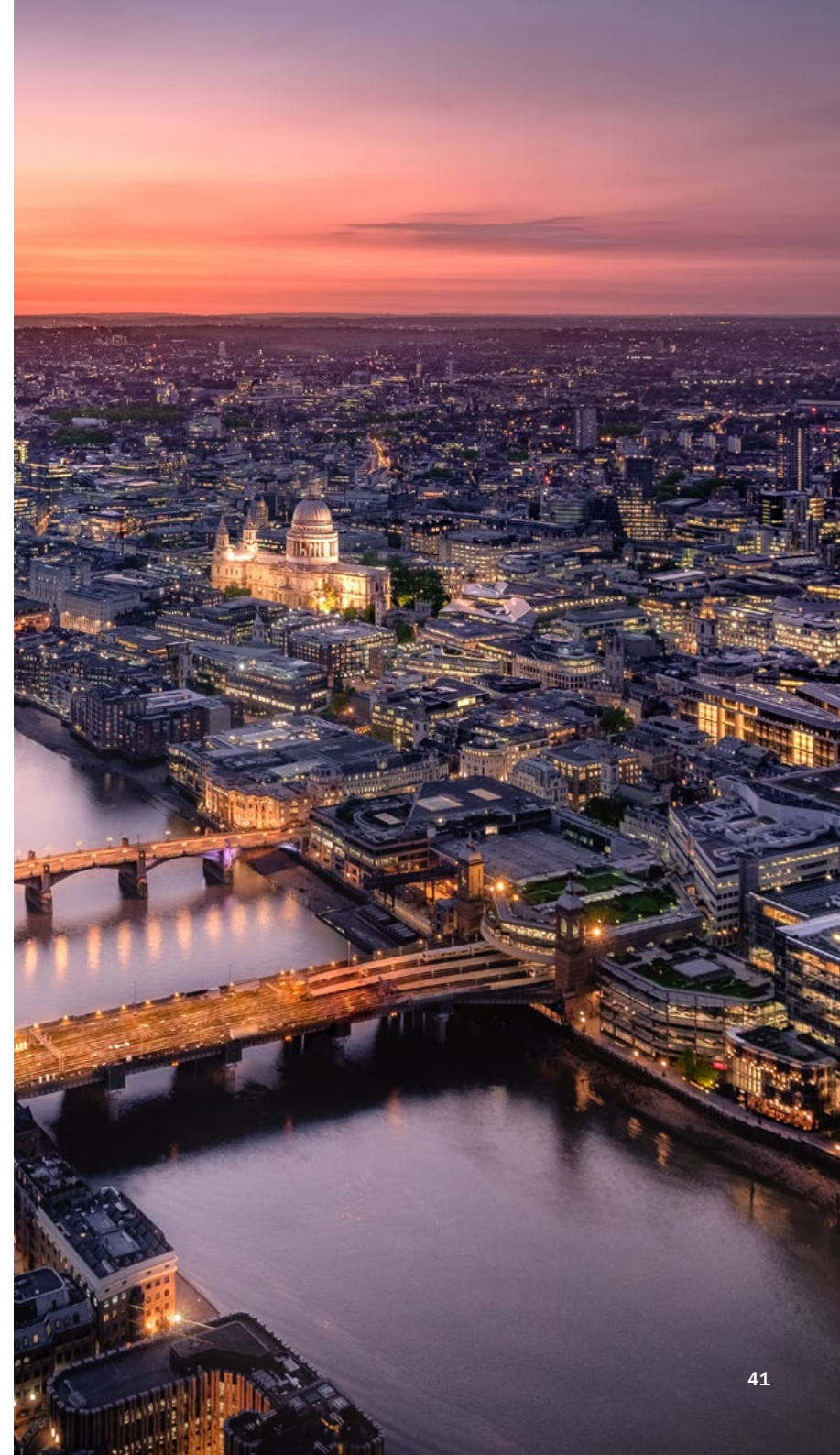
In 2022 we conducted seven formal investment team trainings on sustainability topics, including an investment team specific training on our net zero approach, net zero engagements and implications for portfolio managers. We supplemented these formal training sessions with additional briefings and roundtables on climate transition, including hydrogen, carbon capture and storage, sustainable agriculture, net zero cement, and regulatory updates on climate policy in the EU and USA.

As of 31 December 2022, we manage \$27.3 billion in assets in funds and segregated client accounts that have specific and binding RI objectives or constraints within their investment policy or guidelines. We manage \$40 billion in assets that have a net zero objective (as at 30 June 2022, subject to regulatory approval), as referenced in the Strategy section (note that these funds do not necessarily have additional RI objectives or constraints that cover social or governance topics). Certain of these funds explicitly target climate-related opportunities, such as the Future Environment Fund.



*In closing, this report provides a summary of our approach to managing climate related risks and opportunities, with the aim to deliver for our clients and manage our business responsibly. Our active ownership activities are aligned with client expectations and structured to help drive constructive real-world change over time, and we are also actively working to reduce carbon emissions from our business activities. This work is linked with our priorities to support a net zero transition.*

*Thank you for your interest in our approach.  
We hope you found this report informative.*



## Endnotes

<sup>1</sup> As of 31 March 2023.

<sup>2</sup> As of 31 March 2023.

<sup>3</sup> We define short term as less than 1 year; medium term as 1-5 years; and long term as 5-10 years.

<sup>4</sup> [Columbia Threadneedle Investments – The Net Zero Asset Managers initiative](#)

<sup>5</sup> While ESG research is made available for use in the investment process, portfolio managers make their own investment decisions, consistent with portfolio and client mandates, and accordingly certain teams may place more, less, or no emphasis on ESG factors.

<sup>6</sup> RI specialist figure includes the Columbia Threadneedle group of companies, including the business formerly trading as BMO GAM (EMEA).

<sup>7</sup> Formerly known as the Carbon Disclosure Project.

<sup>8</sup> Further detail on this methodology can be found at [Net Zero Investing: Columbia Threadneedle Investments Approach](#)

<sup>9</sup> [Columbia Threadneedle Private Equity Annual ESG Report 2022 pdf](#)

<sup>10</sup> [See Structure and Methodologies | Climate Action 100+](#)

<sup>11</sup> [ESG VIEWPOINT Net Zero: Best Practice and Engagement Approach Our net zero commitment pdf](#)

<sup>12</sup> [Responsible Investment - Corporate Governance Guidelines CGG.pdf \(columbiathreadneedle.com\)](#)

<sup>13</sup> Please note that not all products or services utilising these strategies may be available in all jurisdictions.

<sup>14</sup> Please note that our Climate Opportunity Partners fund is closed for new investment.

<sup>15</sup> [Nature as an ally: tackling the climate-nature nexus](#)

<sup>16</sup> [ESG VIEWPOINT Biodiversity Best Practice pdf](#)

<sup>17</sup> The median Scope 1 & 2 carbon intensity for Financial Services within MSCI All Country World is 3.2 (tons of CO<sub>2</sub>e/\$m sales) compared to an overall median of 32.4 for all the companies in the index. Data as of end April 2023. Source: MSCI and Columbia Threadneedle Investments.

<sup>18</sup> LEED (Leadership in Energy and Environmental Design) is a global green building benchmarking standard administered in the US by the US Green Building Council (USGBC). BREEAM (Building Research Establishment Environmental Assessment Method) was founded in the UK in 1990 and is the leading and most widely used environmental assessment method for buildings and communities.

<sup>19</sup> This scenario analysis is currently available for Equities and Fixed Income.

<sup>20</sup> REMIND (Regional Model of Investment and Development) is a numerical model that represents the future evolution of the world economies. It was developed by the Potsdam Institute for Climate Impact Research (PIK) to analyse the interactions between land-use, economy, energy, and climate systems.

<sup>21</sup> We have restated our 2019 baseline emissions intensity and 2030 target to account for the update to our methodology to calculate emissions from natural gas and other fuel, as referenced in endnote <sup>22</sup>

<sup>22</sup> Emissions from natural gas and other fuel in 2019-21 were previously calculated using only metered consumption data, which was only available for three offices. In 2022, natural gas consumption was estimated for all offices where actual consumption was not reported using average natural gas consumption per square foot for offices from CBECS (Commercial Buildings Energy Consumption Survey from the US Energy Information Administration) for offices in the USA, and data from CIBSE (Chartered Institution of Building Services Engineers) for offices in the UK and Europe. The 2019-2021 calculations were updated to follow this methodology and estimate natural gas and other fuel consumption for all offices where actual consumption was not reported.

<sup>23</sup> We have restated our 2019 baseline emissions data to account for the integration of the former BMO GAM (EMEA) business, in line with our restatement procedure and the Greenhouse Gas Protocol. As we did not have emissions data of sufficient quality covering the former BMO GAM (EMEA) business prior to the acquisition, we have added 2022 emissions data for this business to measured Columbia Threadneedle Investments 2019 emissions data.

<sup>24</sup> We have restated our 2019 baseline year total number of full-time employees to account for the integration of the former BMO GAM (EMEA) business, in line with our restatement procedure and the Greenhouse Gas Protocol. As we do not have the precise number of 2019 full-time employees in the business units of the former BMO GAM (EMEA) business that were acquired, we have added 2022 full-time employees for this business to the recorded Columbia Threadneedle Investments 2019 full-time employee data. Consistent with our restatement procedure the 2020 and 2021 emissions data disclosures do not include the acquisition restatement

<sup>25</sup> Disclosures are made by the legal entities regulated by the FCA that undertake portfolio management, in so far as data is available. The portfolio management undertaken by such entities covers assets that they manage directly on behalf of clients, as well as assets where they have been appointed as the portfolio manager by another legal entity in the Columbia Threadneedle group to provide this service. This approach avoids double counting and ensures that overseas assets managed by an FCA regulated firm are captured.

<sup>26</sup> While these metrics are used to inform the consideration of climate-related risks and opportunities, portfolio managers make their own investment decisions, consistent with the portfolio guidelines and mandates that have been agreed with clients.

<sup>27</sup> CO<sub>2</sub>e data coverage depends on several factors. Scope 1 or 2 emissions data is widely available for developed market large-cap companies, but more gaps exist in small cap, emerging markets, and private companies. Many companies do not yet report Scope 3 information.

In the absence of self-reported data, Scope 1,2 and 3 emissions can be estimated (which is done by our data provider MSCI ESG). To generate an imputed value MSCI relies on assumptions regarding the company's specific geography and sector. To show this nuance, we distinguish data that is reported/estimated within the total data coverage. Gaps still remain where we lack both reported and estimated data, we are working with our data providers to explore options to improve coverage. In future years we will also work to calculate the percentage of data reported by corporates that has been externally verified. To ensure appropriate representation of climate metrics, TCFD product level reports are only issued for Investment Portfolios which demonstrate data coverage (estimated and reported) greater than or equal to 40% of NAV.

<sup>28</sup> [Net Zero Investing: Columbia Threadneedle Investments Approach pdf](#)

<sup>29</sup> [Net Zero: From commitment to implementation](#)



The inclusion of information contained in this Report should not be construed as a characterisation regarding the materiality or financial impact of that information. Please also see Ameriprise Financial's Annual Report on Form 10-K filed on February 23, 2023 ("2022 Annual Report") and other publicly filed documents for additional information at: <https://ir.ameriprise.com/>

## Forward Looking Statements

This report contains forward-looking statements that are subject to the safe harbors created under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts are statements that could be deemed forward-looking statements. These statements are based on current expectations, estimates, forecasts, and projections and the beliefs and assumptions of our management. Words such as "expects," "anticipates," "targets," "goals," "projects," "intends," "plans," "believes," "momentum," "seeks," "estimates," "continues," "endeavors," "strives," "may," variations of such words, and similar expressions are intended to identify such forward-looking statement as well as statements that refer to (1) our goals, commitments and programs; (2) our business plans, initiatives and objectives; (3) our assumptions and expectations; (4) the scope and impact of our corporate responsibility risks and opportunities; and (5) standards and expectations of third parties. Readers are cautioned that actual results could differ materially due to a variety of factors, including assumptions not being realized, scientific or technological developments, evolving sustainability strategies, changes in markets, evolving government regulations, changes in our business, or other changes in circumstances, as well as the factors set forth in the "Risk Factors" section of Ameriprise Financial's 2022 Annual Report on Form 10-K and subsequent filings. Forward-looking statements speak only as of the date they are made, and we do not undertake any obligation to update any forward-looking statement.

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