

Our perspective on the risks and opportunities associated with climate change

March 2021

BAILLIE GIFFORD

Investment managers

Risk Factors

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Introduction

We are deeply aware that much of what we do as a firm is ultimately in pursuit of delivering sustainable investment returns that will help our clients to enjoy financial security decades into the future. If this future is compromised by climate change then this becomes an increasingly problematic task. The coming decade will be of pivotal importance in determining the long-term impact of climate change on people and ecosystems around the world. While there are encouraging signs that the transition towards a cleaner, lowcarbon global economy is well underway, the speed with which this unfolds will determine whether we ultimately live in a world where climate change has been successfully managed, or one where widespread and ongoing disruption, migration and upheaval becomes the new normality.

For Baillie Gifford, it is imperative that we use our position as investors to support the new technologies and business models that will help with this challenge. Indeed, our principal purpose as investors is to assist beneficial, transformation change by allocating capital at scale to companies that will make a positive difference. If we do this effectively, then our experience shows the results for shareholders will look after themselves. Over the course of our long-term investment horizons, there will be strong incentives to reengineer every industrial and manufacturing process and every supply chain to optimise for resource efficiency and footprint reduction. It is highly likely that the world's inhabitants will not just work differently and consume differently in the low carbon future, but also live very differently too. Imagining how this is possible and investing to help bring it about is both hugely valuable to society and likely to result in investment success for our clients.

Governments and policy makers also have an important role to play and we are encouraged to see an increasingly long list of governments committing to net zero emissions targets as part of their response to the 2015 Paris Agreement. We believe that these commitments – even those where the details are less clear – send an important signal that the world is getting serious about this challenge. We look forward to what we hope will be a productive and successful UN climate conference at COP26 this year, barely 50 miles away from our own headquarters in Edinburgh.

At Baillie Gifford we have been incorporating climate change considerations into our overall approach to investment for many years. Our investment portfolios are typically way below their relevant benchmarks in terms of carbon intensity. Even more fundamentally, a central tenet of our investment approach is a firmwide belief in the importance of anticipating and understanding transitions in the economy, and more broadly in society. With the pace of technological change increasing, and all sectors of the economy being transformed by the power of machine learning and data, long-term growth investing is increasingly synonymous with understanding technological disruption and transition. In all our work as investors, we therefore look for the opportunities arising from transitions, as well as carefully considering the risks to existing holdings. In this respect, we believe the Taskforce on Climate Related Financial Disclosures (TCFD) framework offers a useful way of describing our approach to integrating climate-related risks and opportunities.

Despite this positive starting point, we recognise there is growing interest from many of our clients and other stakeholders in how we identify, assess and manage these risks and opportunities across the firm. Even companies with the right technological and societal business models for the low-carbon transition will be subject to unexpected risks and issues. Transition risk analysis, by necessity, goes way beyond assessments of relative carbon intensity, giving due consideration to how key markets and supply chains will be impacted by climate change. There are also clearly operational considerations for our own business, both with respect to our own carbon footprint and our own climate resilience. Prior to the pandemic, we set ourselves ambitious goals to reduce our own carbon footprint, and upon our return to some semblance of 'business as usual' we will reconsider these in light of everything we have learnt about remote and flexible working.

For all the above reasons we are committed to expanding our reporting and disclosure in this area, in line with the recommendations of the TCFD which we support. This initial high-level report represents our first publication of this kind at the firm-wide level, and we expect to further extend both our firm-wide and investment strategy-specific reporting over the coming year. We hope this report will be of interest to many of our clients and other stakeholders and look forward to discussing these issues in more depth with them.

Andrew Telfer Senior Partner

About Baillie Gifford

Baillie Gifford is an investment management firm founded in 1908 and headquartered in Edinburgh, UK. We employ around 1,400 people based mainly in Scotland with additional offices in Dublin, Frankfurt, Hong Kong, London, New York, Shanghai and Zurich.

In total we manage around £320bn of assets across 20 primary equity strategies and 5 non-equity strategies. Most of our strategies are focused on growth equities, though we also offer multi-asset and income-generating portfolios to meet specific client needs. We have a global and diversified client base ranging from individual investors to large institutional clients and public pension funds.

Our Approach

Baillie Gifford is an independent private partnership, which is a relatively unusual ownership structure for an investment management firm of our size. We believe it helps us take a longer-term perspective on issues such as climate change and other societal issues, underpinned by the Baillie Gifford values, 'Our Shared Beliefs'. Our style of investment and low portfolio turnover also allows us to prioritise long-term growth over short-term returns in the companies we invest in. Owning concentrated portfolios of companies for many years incentivises and enables us to be good stewards of our clients' holdings, and we strongly believe that these factors equip us well to further incorporate climate-related risks and opportunities into our approach in the future. But we are realistic about the size and scale of the challenges that we are all collectively dealing with, and the complexity of understanding different climate change scenarios. We know that a great deal of additional insight, learning and integration lies ahead.

Most of all, we are both confident and excited that we can demonstrate our alignment with the long-term objectives of the Paris Climate Agreement by playing a meaningful role in supporting the solutions to climate change. Too much of the current discourse on how asset owners and asset managers can address climate change focuses on divestment from today's higher impact and resource intensive sectors, such as oil and gas and power generation. Societies have not shown (very understandably) much inclination to address climate change by reducing net living standards. Therefore, the real challenge is to find different ways of meeting humanity's needs through innovation, and this ultimately comes through creating better alternatives rather than just switching things off or increasing costs. Ongoing popular democratic support for the deep transition to 'Paris alignment' will require an approach that is technology-led rather than austerity-led. It will be of critical importance to ensure that the burden of any additional transitional costs do not fall disproportionately on those who can least afford to pay more. A technology-led transition also comes with the enticing possibility of boosting enterprise, improving well-being and reducing environmental impact at the same time.

We are in the very fortunate position of being capital providers to highly selective groups of innovative companies, whose products and services have the potential to enable the low-carbon transition, in areas such as electric cars, energy storage and online communications. This is where we believe we can generate the most significant positive impact and add the most value for our clients. Focusing on the future and 'what might go right' rather than 'what might go wrong' is of particular importance in all of our work on Environmental, Social and Governance (ESG) issues. The current industry bias towards focusing on the management of ESG risks provides an unintentional but nevertheless harmful barrier to innovation. We believe that we have an important role to play in making the case for a much longer-term assessment of the social impact of innovative companies.

We are also innovating within our own business. The establishment and growth of our Private Companies strategy has complemented our existing strength in discovering emerging companies with innovative and disruptive business models, enabling us to provide critical early capital and support and hold such businesses through the important early stages of growth and well beyond. Our Positive Change, Global Stewardship and Responsible Equity Income strategies all place additional focus on climate change in their stock selection, voting and engagement work. We have also created a 'Paris aligned' variant of our Global Alpha product (an approach that we now intend to replicate for several other strategies), and we have recently given approval for the creation of a new global equity strategy focusing exclusively on climate transition investment opportunities.

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These specialist products will provide insights and ideas that all our strategies can benefit from in time, and our work on integrating climate change considerations into our investment process and stewardship work is increasingly firmwide. This work is being supported by our significantly expanded Governance and Sustainability function, which has grown threefold in the past five years. We now have 24 dedicated ESG specialists, many with decades of experience, and in the last year alone we have recruited three new senior analysts into this team with specific climate experience and expertise. These analysts work closely with our investment strategies on climate change among other ESG topics. In addition to undertaking portfolio and company level research, they have collaborated with investor colleagues on a wide range of engagements with our holdings on climate change in the last year, some of which are profiled in this report.

We have also established collaborative climate working groups across our investment department and Governance and Sustainability function, which are helping to develop our understanding of best practice in this area. Our Investment Risk Team has been progressively integrating climate change data into our wider assessments of portfolio risks over the past few years, and we will be committing additional resources to this area in 2021. We are already using carbon emissions and transition risk data from a range of the leading external information providers, and will continue experimenting with innovative data providers who are helping to address the well-documented gaps in publicly available data in this area.

We have been supplementing our internal resources through partnerships with a number of external experts and industry initiatives, such as Mike Berners Lee, the Institutional Investors Group on Climate Change and the Global Ethical Finance Initiative. We are also sponsoring a PhD student at Edinburgh University who is focusing on the potential for Artificial Intelligence to improve our understanding of environmental risks. Given the scale and complexity of transition analysis, such collaborations are important to developing more comprehensive insights about the risks and opportunities ahead, and for this reason we will be further extending our collaboration in this area.



Our Governance of Climate-related Risks and Opportunities

Baillie Gifford's internal governance arrangements differ from many other large asset management firms in the UK and internationally. Baillie Gifford & Co, a Scottish partnership wholly owned by the partners working in the business, heads the group. As a private partnership, each of the 46 partners (including Baillie Gifford International Partnership and Baillie Gifford Asia Partnership) is jointly and severally liable for the obligations of the firm and this liability is unlimited. This means that our partners are personally liable for any debts and their liability is not capped and extends to personal assets.

This unusual ownership structure and the absence of external shareholders means that when considering climate-related risks and opportunities across our firm, our primary consideration is towards the impacts they could have on our clients – whose money we are investing – rather than on outside shareholders. We recognise that our clients ultimately represent the personal pensions, investments and savings of millions of families and individuals around the world.

Our Client-focused Approach to Governance

This focus on clients, rather than outside investors, means that our approach to overseeing and managing the risks and opportunities associated with climate change is in the most part devolved to our individual investment strategies in which clients invest and with whom they have most of their interaction. Given that our core investment strategies (which number 25 in total) have quite differentiated investment objectives, styles and geographical criteria, the main responsibility for overseeing and managing climate-related risks and opportunities therefore sits with the investment managers running each portfolio.



Our oversight and management of investment-related climate risks and opportunities is therefore built upon a 'bottom-up' approach:

This arrangement is overseen by firm-wide governance forums, including our Investment Management Group and Management Committee

They are supported with research, analysis, tools and guidance by central functions including Investment Risk, Governance and Sustainability and Compliance

Individual investment strategies have primary responsibility for oversight and management of climate-related risks and opportunities

Evolving Our Approach

The increasing prominence and influence of climate-related risks and opportunities to investment outcomes over the long term means that we must continually review and evolve our internal oversight and management of these issues. One of our main considerations – which is not unique to Baillie Gifford but is especially pertinent to us because of our ownership structure – is the need to balance the autonomy of our distinct investment strategies with the appropriate level of firmwide guidance and oversight.

Over the course of 2020, we have recruited additional senior staff with significant experience of integrating climate into governance and decision-making within financial organisations. We are now in the process of further enhancing our approach with the following areas of focus:

- Providing clients with more detailed insights into the climate-related risks and opportunities in their investment portfolios.
- Identifying the right additional external data sources to supplement our own research and analysis.
- Developing new metrics and indicators to aid strategy-level and firmwide oversight.
- Identifying new opportunities for products that explicitly align with climate objectives.
- Collaborating with others externally to support industry-wide progress.

Our Operational Climate Impacts

Our primary means of overseeing and managing the direct climate impacts from our operations is our Operations Environment Working Group. This group has the objective of promoting environmental goals and monitoring performance in areas such as building energy management, business travel, waste and carbon offsetting. Our Environmental Policy is owned by this group and in 2019 the Management Committee approved a new version which included new operational environmental targets.

How Climate Change Impacts Our Strategy

Our firmwide strategy is very consistent from year-to-year and is centred on two main objectives: to always act in the best interests of our clients and to be thoughtful and responsible stewards of their capital through the investment decisions we make.

Understanding the impact of climate-related risks and opportunities on our firm-wide strategy is therefore mainly about understanding their effects on investment performance over the long term and their effects on individual holdings (via our approach to stewardship). Both these are significant and complex objectives with many challenges and unknowns, and much work still to do. However, when we look across the entirety of Baillie Gifford's investment activities, we can make some observations about our firm's overall exposure to climate-related risks and opportunities that will help inform our future approach.

Impacts on Investment Performance

There is now considerable evidence globally that climate change and the efforts to mitigate its impacts have the potential to result in significant losses of value in listed companies and other assets, and substantial gains in others. Indeed, this volatility is significant enough to be a source of instability in the financial system as a whole and is one of the primary reasons there is such interest in this area from financial regulators across the world. We believe that without adequate investment in the solutions to climate change this volatility and disruption to people's lives will intensify and we see this as ultimately the biggest climate-related risk that we, our clients and wider society face. The impact of insufficient investment in solutions would ultimately affect all actors in the financial system and wider economy, including ordinary savers and pension holders who would very likely see reductions in the values of their investments as a result.

We believe that the TCFD's distinction between physical and transitional risks is a helpful way to understand some of the processes at work here. Changes in asset values can happen as a result of both the physical impacts of climate change itself (through things like flooding and wildfires) and also through the transitional effects of new policies, technologies and behaviour changes needed to reduce emissions and move the global economy towards net zero emissions.

When we look across our own investment strategies, our view at this stage is that transitional risks and opportunities are more material to overall investment performance over the short to medium term (0–5 and 5–10 years) than physical risks. We see several reasons for this, including:

- The growing willingness of governments to set ambitious net zero emissions commitments which are
 increasingly seen as drivers of growth and economic recovery backed up by the introduction of new
 policies and regulations affecting certain sectors.
- The rapid improvement in the competitiveness and scale-up of low-carbon technologies, including dramatic
 cost reductions seen in wind and solar generation, improved energy storage options and greater deployment
 of energy-efficient technologies.
- Expanding public support for action on climate change in some markets, evidenced through changes in consumer behaviour and heightened expectations of companies' approach to climate change.

In general, we see transition-related risks and opportunities as being particularly acute for companies or assets associated with the energy, transport, agriculture, industry and construction/property sectors. Companies in these sectors generally have some of the highest emissions (either directly or indirectly) versus the economy as a whole. They are therefore the most susceptible to policy, technology and market changes associated with the drive to reduce emissions.



Our preference for investing in high-growth companies means that our exposure to companies in some of these sectors tends to be relatively low versus their total contribution to the global economy. On fossil fuels, for example, we have seen a substantial reduction in our holdings. In 2012, we were investing just over 4 per cent of our clients' assets in oil & gas companies, but by 2020 this has fallen to less than 1 per cent. We do however have above-average exposure to the automotive sector, largely as a result of our significant holding in Tesla Inc.

Total BG Holdings (%)	MSCI ACWI Composition (%)
0.91	2.71
3.21	4.58
4.84	7.11
1.44	2.20
5.44	2.56
1.15	4.12
0.26	3.14
1.00	2.62
	0.91 3.21 4.84 1.44 5.44 1.15 0.26

Source: Baillie Gifford and underlying index provider.

From a transitional risk perspective, we have calculated that our top 250 holdings – which account for approximately 90 per cent of all our holdings by value – have a weighted average carbon intensity (where data exists) that is just under 30 per cent of the average for the MSCI ACWI as a whole (against which many of our strategies are benchmarked). Although this does not tell us everything about the wider risks and opportunities of individual companies, it is another indicator of the relatively low direct carbon intensity of many of our holdings and therefore their lower exposure to some forms of transition risk.

Over the medium to long term (5–10 years and onwards) we expect the physical risks from climate change to become increasingly relevant to the investment performance of our portfolios. From a climate science perspective, there is now much more certainty that events such as flooding, wildfires, droughts and coastal erosion are happening more frequently as a result of the changing climate and this is projected to continue to some extent under almost all emissions scenarios. However, these events are still sporadic and unpredictable in nature and therefore challenging to assess in the context of overall investment performance – though this is something we continue to explore.

Longer term (10 plus years), more systemic and wide-ranging physical impacts – such as sea-level rise and permanent changes to weather patterns – could be expected to have greater impact on the performance of some companies, assets and even nations. However, there is increased uncertainty on these impacts because they are to a large extent dependent on the effectiveness of attempts to reduce emissions globally in the decade or so ahead. In many ways, higher transitional risks may result in lower physical risks, and vice versa, although the risks may crystallise together to some extent. The timescales involved also begin to stretch well beyond even our typically long-term holding periods for the companies we invest in. Nonetheless, this is an area that we will be investigating further over the coming years.

Impacts on Stewardship

Alongside our commitment to maximising investment performance for clients, we also aim to be active and supportive owners of the companies and assets we invest in. This approach to stewardship runs across the firm and applies to companies and other assets at very different stages in their evolution and across vastly different industries and geographies. Our fundamental view is that companies that are run in a way that prioritises long-term growth over short-term profit will provide better returns for clients in the long run – and make a more valuable contribution to society along the way. This approach is encapsulated in our Stewardship Principles, which can be found here.

We believe that for most holdings, a well-integrated approach to addressing the risks and opportunities of climate change is increasingly a prerequisite for demonstrating a long-term approach to generating value. This is especially the case for holdings operating in sectors with higher transitional risks and opportunities such as energy, transport, property and agriculture. As such, we incorporate climate analysis into much of our stock-level sustainability research and analysis across the firm, using a dedicated team of specialists from the Governance and Sustainability function working alongside investment managers. Over the coming year, we plan to further integrate climate-related risks and opportunities into our approach to stewardship.

We are confident that our style of investment, which involves building relatively concentrated portfolios of high conviction holdings that we develop a close relationship with over long holding periods (the average is eight years), lends itself well to addressing and managing these issues. Furthermore, the emphasis we put on finding companies who have the ambition, competitive advantage, execution capability and scalability to outperform their peers means we prioritise many of the key attributes that genuine 'solution providers' to the climate challenge need to possess.

An Example of Investing in the Solutions to Climate Change: Tesla Inc

We invest in Tesla through several of our investment strategies and were one of the largest outside shareholders in the company for several years. Our earliest investments were back in 2013 at a time when the company's technical achievements were already world-leading but its potential to fundamentally re-engineer the shape of the global auto industry was poorly understood by many investors. We supported the company through some very difficult years when accessing capital was difficult and some market participants were betting on their failure. Their role as a visionary leader of the energy transition hung in the balance. Our long-term view of the company's potential over those years has not only resulted in tens of billions of dollars in returns for our clients but also proven one of our core beliefs to be true: that our purpose as investors is to assist in mobilising beneficial, transformation change.



Impacts on Our Operations

Our company headquarters are in Edinburgh, from where most of our staff are based. We also have smaller offices in London, Dublin, Frankfurt, New York, Hong Kong, Zurich and Shanghai. In the short to medium term (0–5 and 5–10 years), we anticipate these offices' exposure to physical climate impacts to be relatively low, given their location and construction. Over the longer term (10 plus years) these risks are likely to increase under most scenarios. We are also cognisant of the impact that physical climate impacts could have on the ability of staff and clients to connect with the firm remotely in the event of extreme weather events which disrupt communications.

Over the short, medium and long term (0–10 plus years), we also expect our operations to be affected by various policy and technology changes associated with the transition to net zero emissions that the UK Government has now written into law. These are likely to include more significant incentives and penalties aimed at minimising emissions from buildings and travel – particularly air travel. At this stage, however, we do not expect these costs to make a material difference to the financial viability of the firm.

Our Approach to Climate Risk Management

Identifying and Assessing Risks to Investment Performance

In the context of climate change, our general ethos as long-term active investors is to focus our efforts on identifying companies that can make a meaningful contribution to the challenge of reducing greenhouse emissions over the long term. But we recognise that opportunities-focused investment requires due consideration of potential risks, and this is an area where we are continuing to develop our approach in relation to climate change. Our goal over the coming year is to further integrate climate-related risks into our firmwide risk management framework.

Presently, climate risks are identified and assessed primarily through stock-level research and analysis within individual investment strategies, with the assistance of dedicated sustainability and governance analysts. This research is focused on understanding the materiality of climate risks to individual holdings and the extent to which transitional and physical climate risks are being managed and integrated into their strategies. We believe that the relationships we build through our long-term holdings of some of the world's most forward-thinking companies also give us additional insights into climate-related risks and opportunities.

Key considerations include the carbon intensity of the company or asset, the climate impact of its core products and services, and its relationships with its own stakeholders, including customers, regulators and NGOs. We also have access to data from independent providers to help add further detail to our understanding of each holding's position.

We also place great value in seeking the perspectives and insights of others to help inform our approach. We are involved with a number of industry initiatives including the UN's Principles of Responsible Investment, the Institutional Investors Group on Climate Change, the CDP and the Asian Corporate Governance Association. We also engage with leading academics and research institutes around the world to gain a deeper understanding into some of the wider issues associated with the low-carbon transition, including regional and sector-specific perspectives. For example, Baillie Gifford is a strategic partner of the Scotland-based Global Ethical Finance Initiative, which in 2019 brought together over 200 world-leading banking and investment experts to discuss climate risks amongst other ESG topics.

Climate Engagement Example: CRH

CRH plc is one of the world's largest producers of building materials, including aggregates, concrete and cement and has high greenhouse gas emissions as a result. We have been engaging with the company on its efforts to reduce emissions and align its strategy with long-term climate goals. Encouragingly, in September 2020 the Global Cement and Concrete Association, of which CRH is a member and its CEO Albert Manifold is president, announced a joint ambition to achieve carbon neutrality by 2050. We were also encouraged to learn that CRH will not count offsets as part of its strategy to reduce its carbon footprint. Instead, it is working with industry bodies to ensure technological solutions are developed. Investment in new infrastructure, carbon capture technologies and collaboration provide the best chance of delivering on this long-term objective. We believe the company aspires to lead the industry in striving for a more sustainable future, but we will continue our discussions with CRH on this and other topics.



Managing Risks to Investment Performance

Across the firm, we use several mechanisms to help manage any risks identified. Our primary approach is to engage with companies to ascertain how they are mitigating risks and the steps they are taking to reduce these over time. We use this research and engagement to help inform stock discussions and investment decision-making. Investment strategies that place particular emphasis on climate change (such as our Positive Change and Global Stewardship strategies) also apply additional analysis and policies to ensure we do not invest in certain sectors.

In general, we feel we can have greatest influence on reducing climate risks 'on the ground' by engaging with companies at senior levels over the long term, rather than simply trading different assets to remove exposure in a portfolio. That said, if we feel that enough progress is not being made in mitigating risks then we retain the option of exercising our voting rights in shareholder resolutions, and ultimately divesting our holdings.

Climate Engagement Example: Nornickel

The Russian mining company Nornickel is one of the world's largest producers of nickel, copper and palladium. We invest in Nornickel through our Emerging Markets and International Alpha strategies as we believe the company has a substantial opportunity to meet the growth in demand for raw materials needed for the transition to electric vehicles and other clean energy technologies. However, we were disappointed to see reports of the significant spill of diesel into local water courses that occurred in May 2020, partly as a result of melting permafrost in the area. However, the company has been investing significantly in reducing sulphur dioxide emissions from its operations. Our engagement with the company is therefore focused on encouraging them to develop a holistic climate strategy that encompasses both the risks to the company's operations and its approach to mitigating these, as well as the longer-term climate opportunities associated with its core products.



Climate Research Example: Enviva

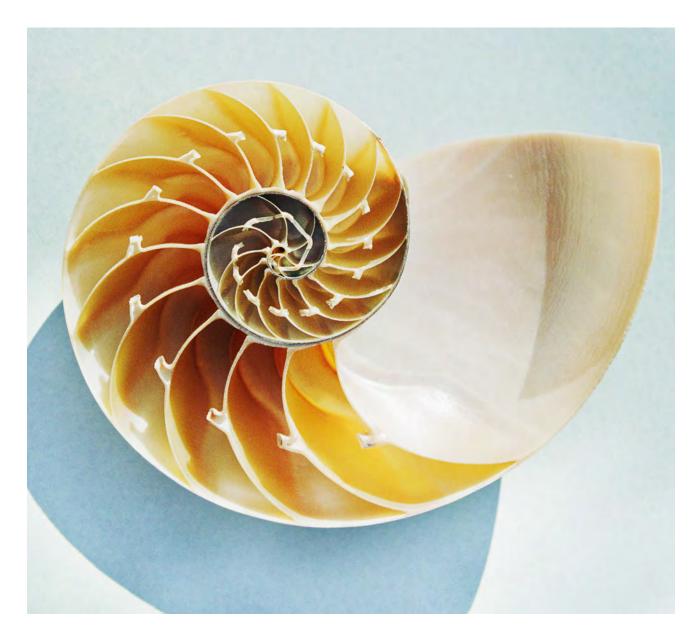
Enviva is the world's largest producer of wood pellets, which are used to generate heat and electricity around the world. We hold Enviva bonds in a range of our credit portfolios and our investment was supported by Enviva's role in helping to reduce the reliance on fossil fuels as part of the transition to a low carbon economy.

However, our ESG analysis has indicated that future incoming regulation relating to wood sourcing, certification and biodiversity could present challenges for this sector. Accordingly, our credit portfolios have reduced their holdings in Enviva and we continue to engage with the company to understand its approach to meeting future requirements and protecting the forests it relies on.



Our Operations

Our primary means of assessing and managing physical climate-related risks to our operations is through our business continuity and crisis response procedures. These procedures aim to ensure the appropriate level of response required to minimise disruption to core business activities and staff. Colleagues in our facilities management and compliance teams also help to monitor, assess and, if necessary, implement any changes required as a result of climate-related policies and technology changes. Members of these teams and our Operations Environment Working Group are also currently assessing climate and sustainability considerations associated with our move to our new headquarters building in Edinburgh, scheduled for 2023.



Our Use of Metrics and Targets

Our Use of Metrics and Targets

Metrics

There has been a considerable proliferation in the availability of third-party data and metrics aimed at assisting asset managers to integrate climate-related risks and opportunities into their investment approach. While such services are still at an early stage of development, this is to be welcomed as it represents progress in one of the main areas holding back the full integration of climate considerations into the financial system: the availability of good data. In our experience though, many of these datasets still rely very heavily on estimations and assumptions and, therefore, have some significant limitations when used to assess individual companies.

Despite these drawbacks, we do make use of some company-level carbon footprint and weighted-average GHG intensity metrics for Scope 1 and 2 emissions. These help us gain a good understanding of the basic emissions profile of companies and allow us to report carbon-intensity metrics of portfolios to clients. We are also in the process of identifying the best source of Scope 3 emissions data at the company level to help us further understand emissions-related risks in companies' upstream and downstream value chains.

In addition to this, we also use general ESG data sources which include reference to climate-related risks and opportunities at the company level.

When we look across the entirety of our largest holding across the firm, we see a picture of much lower than average carbon intensity on a weighted average basis. For example, our top 250 holdings, which account for around 90 per cent of all our holdings by value, have a weighted average carbon intensity of 66.5 tonnes of Scope 1 and 2 greenhouse gas emissions per million pounds of revenue (where data exists) versus a figure of 224.8 for the MSCI ACWI (against which many of our strategies are benchmarked).

To help us understand physical climate risks, we have access to data that can make estimations of company-level impacts under different warming scenarios. More broadly, our intention is to further develop our approach to climate scenarios to allow us to undertake more sophisticated analysis at both the company and portfolio level. This is likely to include other factors such as policy, technology and market risks and opportunities associated with different emissions and temperature scenarios.

We are also exploring the use of more advanced climate metrics, such as climate value-at-risk, temperature alignment and various definitions of net zero transition alignment. We hope to be able to build some of these insights into our client-focused reporting at the individual investment strategy level but need to be sure that these insights provide a useful and accurate view of our relatively concentrated and active approach to investing.

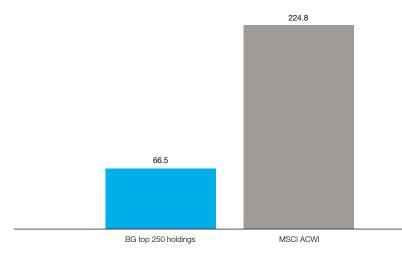
Targets

At present we have not set quantitative targets for managing climate-related risks and opportunities across our investment portfolios. We have however set several goals to reduce emissions from our direct operational footprint, which include:

- 50 per cent reduction in total Scope
 1 and 2 CO₂e emissions per full time employee by the end of 2025 (from 2019 baseline)
- 30 per cent reduction in internal paper consumption by the end of 2025 (from 2019 baseline)
- 100 per cent elimination of avoidable single use plastics from our Edinburgh headquarters by the end of 2020, to be followed by our regional offices
- Offsetting 200 per cent of our annual Scope 1 and 2 CO₂e emissions on an ongoing basis.

During 2020, the measures we took to respond to the Covid-19 pandemic mean that our business travel, commuting and office-based emissions have dropped significantly. Looking ahead to an eventual return to more normal working practices, and our move to a new headquarters building in Edinburgh, we expect to review our approach to managing our operational footprint, including goals to take account of the increasing opportunities to go even further with respect to minimising our own organisational footprint.

Weighted Average Carbon Intensity of Top 250 Holdings (Scope 1 and 2 CO₂e per £m of revenue, where data exists)



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