generation_

Generation Investment Management TCFD report

2022

Generation Investment Management
is a pure play sustainable investment manager –
it is all we do, and all we will ever do.

Introduction

OUR WORLDVIEW AND INVESTMENT PHILOSOPHY

We see long-term investing as best practice and sustainability as the organising construct of the global economy.

We use environmental, social and governance (ESG) factors as tools to evaluate the quality of business and management. We believe this approach reveals important and relevant insights that other investment frameworks may miss, and that ultimately lead to superior[1], risk-adjusted investment results.

Generation has been investing in public equity markets for 17 years and in private markets for over 13. As of year-end 2021, Generation has four investment strategies: our Global Equity and Asia Equity strategies in the public markets, and our Growth Equity and Long-term Equity strategies in the private markets. Separately Generation established a new subsidiary, Just Climate, in 2021. Just Climate's mission is to work in partnership to limit global temperature rise to 1.5C, by directing and scaling capital towards the most impactful climate solutions and supporting capital markets to incorporate climate and just transition considerations into capital allocation decisions.

Consideration of climate change outcomes and associated risks and opportunities has been central to Generation's investment philosophy since its founding and is part and parcel of how we integrate sustainability factors into our investment process. From the start of our journey, we recognised the need to build greater awareness of climate-related assessment among financial and non-financial companies alike. As such, we have helped launch and support several initiatives that we believe can accelerate the transition to a more sustainable economic system. In 2016 we were part of the founding membership of the Taskforce on Climate-Related Financial Disclosures (TCFD), which has been a key partner in our work to advocate for tools and frameworks to standardise disclosure.

By COP26, the finance sector had committed USD 130 trillion to the net-zero transition. Even as new organisations continue to commit to net zero, the resolute focus must now be implementation. While we need governments to step in where markets can't succeed on their own, we believe finance must act with or without government policy, because in our view managing climate risk and opportunity is fiduciary duty. We need a financial system in which all financial institutions and capital allocators integrate climate and just transition into their decisions across all asset classes.

We believe that ensuring the integrity of net-zero investing, reporting our progress against the TCFD framework and encouraging our peers and our portfolio companies to do the same is essential to industry-wide progress. Consistent disclosure of climate considerations is the key to enabling all companies, managers and owners to assess their exposure and opportunity. We look forward to continuing to learn and collaborate alongside our portfolio companies and peers in accelerating a long-term, sustainable transition.

[1] Although Generation seeks to provide superior investment performance, this is an aspiration and there is no guarantee that this goal will be achieved.

Governance

Generation has established a governance framework designed to allow for investment management, business development and client relationships, as well as operational control and risk management, to be reviewed independently through a number of committees and oversight groups.

The key sponsor of the governance and the control and risk management environment is the Senior Partner, who has a role similar to a Chief Executive Officer. He is supported and monitored by a committee structure as follows:

- **The Management Committee** (the firm's governing body)
- **The Operating Committee** (oversees the operational functions of the business units of the firm, in general terms executing the Charter approved by the Management Committee)
- **The Risk Oversight Group** (the "ROG", chaired by an independent non-executive officer, implements the Risk Management Statement approved by the Management Committee)
- **The Valuation Oversight Group** (the "VOG", implements the Valuation Policy approved by the Management Committee)
- **The Remuneration Committee** (which implements the Remuneration Policy approved by the Management Committee)
- **The Conflicts Committee** (which reports to the Management Committee and Risk Oversight Group on conflict management issues)**.**

LEADERSHIP OVERSIGHT OF CLIMATE-RELATED RISKS AND OPPORTUNITIES

The Management Committee provides a forum for the partners to ensure that the business is being run in accordance with the Partnership Agreement. It oversees resourcing and strategy, including with regards to managing climate change outcomes and associated risks and opportunities.

Given Generation's mission and integration of sustainability research into investment processes, climate-related issues are always considered when developing strategy, overseeing risk and setting performance objectives. The Management Committee maintains ultimate responsibility for the integration of climate considerations into our business processes.

The majority of the firm's Management Committee has been with Generation since its founding and several members have expertise in climate science, climate policy and the implications for businesses. For example, our Chairman is also the founder of the Climate Reality Project, which seeks to promote education related to climate change. Since Generation's founding in 2004, the Management Committee has been critical in developing our integrated investment process and shaping the firm's research and advocacy agenda with respect to climate change.

Across every business line of the firm, business unit heads are also responsible for confirming the risks they are exposed to within their respective groups and reporting this accordingly to the ROG via a central risk register. These risks include potential exposure to climate-related considerations. Results are reviewed annually by the ROG and communicated to the Management Committee when necessary.

With respect to the firm's operational footprint, Generation's Environmental Management System (EMS) is reviewed internally by the Chief Operating Officer and assessed by the Operating Committee, with more frequent postings on specific events as they occur. The Management Committee reviews the EMS on a quarterly basis to appraise a summary of findings related to completed actions, updated aspects and impacts or improvements made. The EMS is reviewed by external auditors on an annual basis. The ROG and Management Committee receive annual updates on the firm's carbon compensation programme with a focus on recommended emissions reduction targets, suggested carbon compensation inclusions and progress of the projects supported by the purchase of carbon credits. The Environmental Steering Committee (ESC) meets monthly and develops and monitors the implementation of Generation's environmental objectives – to reduce the negative environmental impact of our business operations and continually improve our environmental performance.

Our commitment to Net zero by 2040

In 2020, Generation committed to aligning all the investment portfolios we manage with net-zero emissions by 2040. We made this commitment to our clients because leadership on the climate crisis is critical, and we believe that managing climate risk and opportunity is inseparable from our fiduciary responsibility. In the months following our commitment, we worked with peers and partners, in particular the Institutional Investors Group on Climate Change (IIGCC), to establish the Net Zero Asset Managers initiative (NZAM) – a coalition of like-minded managers committed to supporting the goal of net-zero emissions by mid-century.

The initiative now has 291 signatories from around the world, with a combined USD 66 trillion of assets under management (over half of all assets under management globally), recruited through the work of several groups, including IIGCC and Ceres, and with the support of the High-Level Champions for Climate Action, which our Foundation supported in the run-up to COP26. As an NZAM signatory, we are committed to publishing TCFD disclosures annually, including a climate action plan, and submitting them to the Investor Agenda via its partner organisations for review to ensure the approach applied is based on a robust methodology, consistent with the UN Race to Zero criteria, and that action is being taken in line with our commitments.

EMBEDDING SUSTAINABILITY ACROSS OUR INVESTMENT TEAMS

Our investment leadership and teams are resourced with sufficient analysts to allow for the integration of sustainability research within fundamental equity analysis and deep stewardship of all the companies in which we invest. Our teams focus on what a given business does, as well as how the business operates.

For example, our public equity analysts each cover a relatively small number of companies – typically around 12. This permits each analyst to develop insights, gain conviction and undertake stewardship activities that others without similar levels of resourcing may find difficult to achieve. Because of the intense coverage of a company by our analysts, we expect to understand our stocks better than most managers, and to have a higher level of engagement with management teams and boards. Although analysts are focused on different sectors, our approach is team-based, and constructive dialogue and idea-sharing across the team are valued and encouraged. Issues relating to climate-related risk and opportunity are routinely discussed at investment team meetings.

In our private equity teams, we use sustainability research as the lens through which we identify great business models and management teams. In taking a 'System Positive' approach, we look to ensure that firms' services and products clearly drive a transition towards a more sustainable future. This requires that we characterise the first and second order implications of sustainability trends – which necessarily include climate-related risks and outcomes. Across our Growth Equity team, all investment professionals fuse fundamental analysis and sustainability analysis into an integrated approach to help identify, source and ultimately invest in attractive companies. In examining what a business does, we assess specific environmental, social, health and financial inclusion metrics at the point of investment, which we believe will drive performance.

We also have a dedicated 'Research Strategy' sub-team focused on performing primary research, which supports our investment teams in assessing climate-related risks. The team manages relationships with traditional equity research providers, ESG research and climate data providers and expert networks.

Finally, we added several new roles to strengthen our monitoring and engagement on climate-related issues. In 2020 we appointed our first Director of Engagement. This role enhances our ability to structure and undertake more ambitious engagement programmes, use voting strategically in support of our investment objectives to accelerate climate action, collaborate more effectively with other investors and escalate engagement where necessary.

Strategy

CLIMATE AND OUR INVESTMENT PHILOSOPHY

Consideration of climate-related risks and opportunities has been embedded into our investment approach across all strategies since the firm's inception. In our view, the financial materiality of climate change has grown at a relentless pace since the firm's founding.

We believe that the transition to a net-zero economy is accelerating, and that resource efficiency solutions will drive productivity and profitability. We also believe that businesses that are adapting to this transition will remain profitable over the long term, as will those businesses whose products and services directly meet impending resource challenges.

We consider climate risk in terms of Business and Management Quality in our investment process, and seek to invest in businesses that are well-positioned for the net-zero transition. Such risks may include carbon stranding through increased direct and indirect regulation; increasing competition from clean technologies as they become ever more economically viable and widespread; and socio-political pressures, as emissions implications become less acceptable publicly.

Integrating this view into our Global Equity and Asia Equity portfolios has led us away from carbon-intensive sectors such as oil and gas, coal, mining, cement and steel. The carbon intensity of our Global Equity portfolio is less than one quarter that of the benchmark (MSCI World, taking account of Scope 1+2 emissions, as well as first-tier supply chain emissions) partly for this reason, as well as positive selection within sectors[2].

IDENTIFYING CLIMATE-RELATED RISKS AND OPPORTUNITIES

ROADMAPS AND RESEARCH

Our sourcing is informed primarily by our research 'roadmaps' that identify macro and sector trends, including material sustainability risks and opportunities. The development of roadmaps provides an opportunity for analysts and the broader investment team to investigate factors driving sector and global trends while deepening their understanding of the investment landscape. Roadmaps may have a broader focus, on countries or sustainability themes (e.g., water), but typically focus on sectors and sub-sectors. Roadmaps allow the investment team to identify sustainability risks and opportunities relevant and material to particular sectors. Example roadmaps include electric vehicles, the future of work and electric utilities. In our roadmap on utilities, we evaluated the risks posed to utilities by impending climate-related legislation, the impacts of stranded asset risk and the infrastructure challenges of a rapid transition to a dynamic, low-emissions grid.

Over the years, we have completed several hundred roadmaps across our public and private equity strategies, and for each of these have characterised the relevant short- and long-term climate considerations and drivers when material.

SUSTAINABILITY FACTORS IN COMPANY SELECTION

Guided and informed by roadmap research, analysts pursue in-depth company research. This stage is structured around the robust criteria we have set for Management Quality (MQ) and Business Quality (BQ) as described below, which enable us to evaluate both *what* a business does and **how** a business operates. Aspects considered include barriers to entry, business stability and alignment of management incentives.

[2] According to Trucost analysis conducted on the portfolio as of 15 March 2022.

The criteria also necessitate a deeper analysis of a company's positioning with regards to the material and relevant sustainability factors within its sector. The Critical Sustainability Factors that analysts consider pertaining to climate include, amongst others:

– Are they consistent with the world we want?
– whether a company's offerings impair or improve the present and/or future well-being of society
– what externalities exist and who else might be 'paying a price'
– whether there are environmental or social vulnerabilities to be tracked.

Our private equity teams also overlay scrutiny of a company's products and services with whether they accelerate a given sector to a more sustainable end-state. A key component of our private equity process is to ensure, in the earliest stages of diligence, that the business is System Positive, which requires that its services and products clearly drive a transition towards a more sustainable future. To determine whether a company meets this threshold, we compile information about the total effects of a business model on people and planet, positive and negative, including intended and unintended effects. This analysis encompasses the following areas:

System: Whether the business model advances a transition towards a more sustainable economy

Environment and resources: Lifecycle assessment to determine the first and second order environmental impacts of the business

Social and health: The net social and health outcomes associated with business growth, including implications for users and for the broader population

Operations and management: Whether the company is driven by a strong mission, and how that is translated into operations, management and culture.

The investment team debates aggregated data on how a company provides a net contribution to a more sustainable economy. Where possible, we use a lifecycle assessment approach to benchmark company performance against an appropriate baseline, which is particularly well suited to assessing environmental technology companies. For a business model with social or health-related business outcomes, the investment team compiles a net contribution assessment compared to a baseline. This enables us to focus our efforts on businesses we believe are providing true systemic solutions to material global challenges such as climate change, healthcare, income inequality and well-being.

THE RESILIENCE OF OUR STRATEGIES UNDER DIFFERENT CLIMATE SCENARIOS

Global Equity. We have always stressed the risks and opportunities of climate change as part of our investment process and have sought explicitly to structure the portfolio to be well positioned for a low-carbon transition. Carbon intensity is a gating consideration to a company's inclusion on our Focus List, and our analysts often focus on modelling a specific aspect of the transition (for instance, the cost curves of battery storage). To this end, in 2020 we partnered with Vivid Economics to start exploring the implied temperature rise of the Global Equity portfolio and the value at risk (or implied opportunity) under different scenarios for each of the sectors we cover.

The findings from this analysis are shared below.

The Generation portfolio was aligned with a 1.5C pathway in this preliminary analysis. The results tentatively indicated that the portfolio was aligned with 1.2C of warming to 2100 compared to 3.1C for the MSCI ACWI – on a Scope 1 basis. However, this methodology covered Scope 1 only, to avoid double-counting. This was a material deficiency in the analysis.

While the MSCI ACWI lost 4% of current valuation under a 1.5C scenario[3], the Generation portfolio gained 1% in value. While this was very much in line with our broad investment thesis, we would caution that it was very much a preliminary analysis and there is no guarantee this result will be achieved. The assessment was based on a different, sector-by-sector assessment that seeks to identify the climate value at risk in the portfolio. It captures a portion of value chain emissions by considering the impact on sales of green goods and services.

Increase in demand for low-carbon products was more important for Generation's portfolio compared to the MSCI ACWI, where demand destruction played a greater role. Generally speaking, across the broader MSCI ACWI Index some companies lose more than others as a result of higher carbon prices and shrinking markets for their products. There are few gainers. The striking difference for the Global Equity portfolio was that it appeared to suffer little demand destruction and benefitted from growing markets for technologies like electric vehicles and energy-efficient lighting. Exposure to carbon costs was much smaller and, importantly, emissions were largely dealt with through abatement (actual emissions reductions) rather than passing the carbon costs on to customers and continuing to pollute.

[3] The 1.5C scenario used for this analysis was based on the model REMIND with scenarios from the ADVANCE project. ADVANCE-REMIND envisages immediate policy action consistent with 1.5C warming by 2100. This is a 'well below' 1.5C scenario (>67% probability of 1.5C), in keeping with the narrative of a stringent policy scenario. Specifically, mitigation efforts are strengthened with a globally uniform carbon price after 2020 to limit cumulative 2011–2100 CO_2 emissions to 400 $GtCO_2$ (corresponding to ~200 $GtCO_2$ from 2016–2100).

In 2021 we used a new Implied Temperature Rise (ITR) tool from a different provider, MSCI ESG Research, to continue our assessment of Global Equity portfolio alignment. The MSCI tool takes a much broader view, taking account of Scope 1, 2 and 3 emissions, yielding quite different results.

These were the headline numbers using the MSCI tool:

SCOPE	ITR
S1	3.03
S2	1.81
S3	2.01
S1+2	**2.04**
S1+2+3	**2.01**

We drew the below conclusions.

Implied Temperature Rise analysis is a work in progress and different approaches used by different providers can give quite different results. In particular, the assessment of the Scope 1 ITR as 3 degrees is strikingly different from that of Vivid Economics; we think the MSCI methodology could be harsh on some manufacturing companies (semiconductor companies and several industrial companies scored particularly poorly).

Using this method, the Generation portfolio was aligned with 2 degrees. This was significantly better than the benchmark at 2.84 degrees.

We need to go further and faster. In this assessment, there remains work to do to move the portfolio from 2 degrees to 1.5 degrees, which intuitively rings true. But that Generation still needs to go further and faster on emissions reduction illustrates the scale of the global challenge.

Generation will continue to explore different portfolio alignment tools and engage in methodology development.

GROWTH EQUITY

As noted above, our Growth Equity strategy exists to back businesses driving the transition to a more sustainable economy. Our foundational roadmap work across industries (including energy, transport, industrials, food and agriculture, the built environment and other areas) is where we articulate our understanding of what is required to align to a 1.5C scenario, and the associated risks and opportunities. In our coverage of environmental technologies, we seek to back those companies with products and services that displace less efficient incumbent solutions (e.g., non-animal protein to displace meat, or electric transport to displace internal combustion engines). We leverage lifecycle assessments to ensure a net reduction in emissions relative to business as usual. In our coverage of healthcare and financial inclusion businesses we seek to address health and social outcomes that improve well-being and address inequality, both of which are critical to achieving the Sustainable Development Goals aligned with a stable and inclusive net-zero economy by 2050. In all cases, we require that our portfolio companies monitor and report on their Scope 1, 2 and 3 emissions to demonstrate alignment with net-zero commitments.

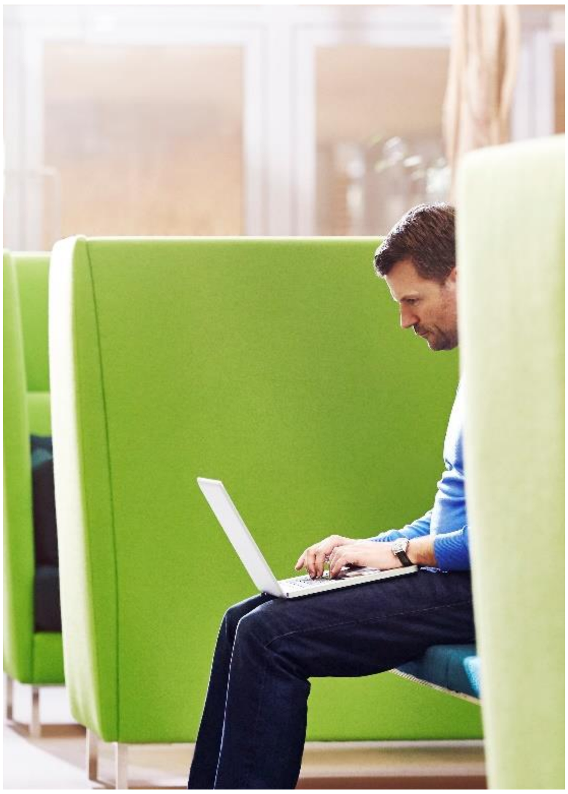
In terms of scenario planning, our entire focus on the Growth Equity team is on achieving a pathway aligned with 1.5C, and our portfolio companies should be enablers of that future. However, through our roadmap work we also look to understand the International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC) scenarios where the world does not achieve the Paris Agreement target – in one recent example, we centred this analysis on a 3C world. In that context, we review the nature of climate-related risks and challenges to our companies as a function of the geographical locations of a company's supply chain, the nature of its operations, the impact that an accelerated climate warming scenario would have on the structure of its market, the impact on supply and demand of its products or services and the impact on its customers and associated communities.

CLIMATE AND OUR OPERATIONAL PHILOSOPHY

Our firm's direct environmental impact and associated climate risk exposure is primarily driven by the operation of our offices and business travel. We aim to minimise our carbon footprint and use of environmental resources through our sourcing decisions and carbon compensation programme, as well as through promoting behavioural changes amongst employees, suppliers and other stakeholders.

OUR OFFICES

Generation has designed its offices to minimise the environmental impact of its operations. Both offices are located centrally and are well served by public transport facilities. In London, our office at 20 Air Street achieved the 'Excellent' rating by BREEAM (Building Research Establishment Environmental Assessment Method). In addition to a rainwater harvesting system, an intelligent lighting system is in place to maximise natural light and limit wastage. A biodiverse sedum roof improves insulation and supports the local bee population. The interior modelling has the 'SKA Gold' rating. Similarly, our San Francisco office is located in a building that has been re-certified as Platinum for the LEED E-BOM, which applies to existing builds. Our own fit-out received LEED Platinum certification. We used sustainable and non-toxic products and materials, adhering to the WELL standard with its primary focus on the health and well-being of occupants. Both offices have on-site processes for the separation, collection and recycling of different types of waste materials, including food waste. Both also work with building management on an ongoing basis to prioritise energy efficiency and sustainable practices.



SUPPLIERS, TRAINING AND MONITORING

Business-related sourcing decisions also include local travel and office supplies, where we choose sustainable suppliers as much as possible, which in turn aims to minimise possible climate-related risk. We assess our suppliers against a checklist, which includes questions relating to their ESG practices. As part of the induction for new joiners, we communicate the environmental practices we have in place for recycling and provide training on the energy savings decisions individuals can make and on the relevant technology available. We aim to engage local suppliers where possible, or those that already service our building with the aim of reducing travel and consolidating deliveries. In 2020 we implemented an internal Environmental Management System (EMS), which provides us with a framework to monitor resource use, reduce waste, mitigate environmental risks and improve our sustainability efforts.

CARBON COMPENSATION

Generation is committed to carbon compensation for what we see as the unavoidable carbon emissions of our business activities on an annual basis. While we strive to manage our usage and sourcing decisions, we recognise the constraints inherent within the necessary business travel, especially air travel. We base the measurement of the firm's carbon footprint on our business travel and office use, as well as the carbon emissions created by Generation team member households. We consult with third parties to apply widely accepted emissions factors to measuring our travel, energy use and household data. Whilst we appreciate that carbon credits do not provide a complete solution, they contribute to mitigating our overall environmental impact while we work to reduce our emissions to as close to zero as possible.

ADVOCACY AND IMPACT INITIATIVES

Generation was established in response to the concerns of its founders around the detrimental impacts and systemic risks posed by short-termism and the failure to integrate sustainability considerations into investment analysis and stewardship. Working to address these challenges is intrinsic to Generation's purpose and our vision on how to mitigate systemic climate risk.

As a small firm with big aspirations, we must focus, motivate and collaborate with others. We pursued the below impact initiatives in the past year to leverage our track-record, differentiated approach to investment research and convening power.

RESEARCH

The Sustainability Trends Report (STR): Drawing on more than 190 sources, we published our fifth annual STR in 2021 and hope it will become the 'go-to' resource for those seeking information on sustainability developments. Our aim is to aggregate and share insights that governments, businesses and investors can use to ensure a net-zero, prosperous, equitable, healthy and safe society.

Sustainability Insights: We launched our Insights series in 2019 to share lessons drawn from our investment work in the form of publicly available research papers. In 2021, we published four papers aimed at helping to raise the bar on climate action: the Race to Zero, The Time Value of Carbon, The Impact Gap and Listed Company Emissions.

Measuring Portfolio Alignment: To meet growing investor and lender interest in measuring the alignment of financial portfolios to the objectives of the Paris Agreement and to advance adoption of a consistent and robust approach, Generation chaired a private sector initiative to assess the range of approaches for measuring net-zero alignment of companies and investment portfolios. In October 2021, the Portfolio Alignment Team published its second report, with the workstream then incorporated into the work of the Glasgow Financial Alliance for Net Zero (GFANZ).

COLLABORATION & ADVOCACY

The Generation Foundation: In 2020, the Foundation entered its next phase of work with targeted action in areas that contribute to two related impact goals: limiting global warming to 1.5C and creating fairer, inclusive economies. The Foundation has a portfolio of around 20 strategic partnerships. The Foundation was the largest donor to the COP26 Non-State Actor Champions office in 2021, supporting their work to galvanise business and civil society efforts on climate and build a groundswell of ambition in Glasgow. In 2021 we saw the fruits of other early grants made under the Foundation's new strategy. For example, the **Legal Framework for Impact** report was published, which aims to overcome barriers preventing mainstream finance from playing its part in the achievement of societal goals like the SDGs and limiting warming to 1.5C.

Investor Engagement: Generation sought to leverage client relationships and use its convening power by holding a series of asset owner gatherings to build momentum on climate action. In the run-up to COP26 we convened a high-level event, 'Finance at Countdown', which featured presentations from central bank heads, cabinet secretaries, advocates, investors and other stakeholders. We continued to engage with investors through our roles in NZAM and the Glasgow Financial Alliance for Net Zero (GFANZ).

Natural Climate Solutions (NCS): Today's approach to land use and agriculture is a major source of GHG emissions, biodiversity loss and exploitation. A fundamental change and scaling of natural climate solutions (NCS) have the potential to deliver more than 30% of the emissions reductions required for net zero[4]. In 2021, Generation began actively engaging with stakeholders on deforestation and became a signatory to the commitment, launched at COP26, to end commodity-driven deforestation in investment portfolios by 2025.

INNOVATION

Climate TRACE: Climate TRACE is a non-profit coalition of AI-based tech companies, non-government organisations and universities fusing data streams from 300 existing satellites, 11,100 land-, sea- and air-based sensors and other data sources to directly measure emissions. The Partners of Generation have provided significant funding for Climate TRACE. Ahead of COP26, Climate TRACE released the first independent, comprehensive inventory of global emissions for every country in the world, all divided into ten economic sectors and 38 subsectors and freely available online.

Just Climate: Just Climate is a new business established by Generation in 2021, whose mission is to work in partnership to limit global temperature rise to 1.5C, by directing and scaling capital towards the most impactful climate solutions and supporting capital markets to incorporate climate and just transition considerations into capital allocation decisions.

[4] See Natural Climate Solutions by Griscom et al.

Risk Management

OUR APPROACH TO IDENTIFYING RISKS

Evaluating climate-related risks (and the resulting opportunities) is central to all our investment strategies, as described in the previous section with respect to our research roadmaps, our company selection process and how we expect to evolve our strategies under various climate scenarios.

For each of our strategies, we track a wide range of sustainability indicators at the portfolio company level and hold regular monitoring meetings with companies. We have identified sustainability factors material for our investments and operations through comprehensive external and internal stakeholder engagement and materiality assessment, aligned with the UN-backed Principles for Responsible Investment, NZAM, the TCFD and the UK Stewardship Code.

With respect to our internal operations, business unit heads are responsible for tracking the risks that their individual teams are exposed to within their respective groups. This is documented within a central risk register, which the ROG has a responsibility to oversee. Building on our existing process, we will continue to introduce a more granular assessment of climate-related risks, although we recognise that given our small employee base and footprint, our greatest potential exposure to climate-related risk lies with our investment strategies.

Global Equity & Asia Equity

In the second half of 2020, Generation agreed a new framework for climate change engagement. In the below diagram, we lay out four levels for engagement. We aspire for companies to ascend these levels as quickly as possible. At Level 1, companies disclose their GHG emissions either to the Carbon Disclosure Project (CDP) or in annual reports. At Level 2, they disclose on climate-related risk and opportunity, in line with the recommendations of TCFD. At Level 3, the company has set a Science Based Target. And finally, at Level 4, companies are actively demonstrating leadership on climate action.

Figure 1: Climate Change Engagement Framework

At the end of 2020, we wrote to all Focus List companies tracked by our Global Equity team to introduce our climate engagement framework. We used this opportunity to share detailed resources and to deepen our support of companies at every level, from those beginning to monitor and report emissions to those looking to attain best practice.

At the same time, we made clear that our expectations on climate change would increasingly impact our investment and voting decisions, given our conviction around the importance of sustainability factors in driving business performance and our own commitment to achieving net-zero portfolio emissions no later than 2040.

These activities laid the groundwork for our engagement on climate change in 2021. From our Focus List of companies, we identified high-priority targets for engagement: those companies that are non-disclosers, material emitters or businesses we believe have the greatest potential to be system-positive on climate change.

Our active engagement and scrutiny of climate action has contributed to a rapid increase in coverage of Science Based Targets in our Global Equity portfolio (see section on metrics below).

We have taken a slightly different approach to our Asia Equity strategy. While all Asia Equity companies on our Global Equity Focus List received our climate engagement framework and resources, we also recognise that Asian companies to date have been less focused on climate-related disclosure and action than global peers. We therefore focused our initial efforts on a smaller subset of Asian companies that we believed had the potential to be Asian champions for climate action.

Growth Equity

Within our Growth Equity strategy, we are focused on supporting companies that are already system positive – those that drive, in many cases, the scale-up of climate solutions that in fact mitigate exposure to climate risk. One example from Sustainable Solutions Fund III is Vestiaire Collective, outlined in the case study below.

Figure 2: Growth Equity Case Study

Vestiaire Collective

Certified B Corporation

Impact overview: Vestiaire

What it does

Vestiaire Collective is a global online marketplace for pre-owned luxury fashion with more than 7.5 million members in over 50 countries.

Close to 30,000 items are added weekly across fashion categories. The company was founded to promote circularity in the fashion industry to make it more sustainable and to broaden access to high quality goods.

INVESTMENT DETAIL

Year invested
2021

Amount invested
EUR 40.0M

IMPACT DOMAIN

Planetary Health

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Investment & System Positive Thesis

In 2021, the fashion industry and its supply chain was the world's third largest polluter, producing 5% of the world's GHG emissions.

Encouraging circularity by reselling fashion goods extends their life, reduces waste and reduces fashion goods' carbon footprint, contributing to reducing the footprint of the fashion industry as a whole.

Vestiaire Collective plays a critical role in facilitating this shift to a more sustainable fashion industry worldwide.

Impact insights

What. Generation supported Vestiaire Collective in conducting a Life Cycle Assessment, building on the company's own initial work.

How. In 2021 Vestiaire Collective received a **B Corp Certification** with a **score of 89.4**. Generation also supported the company in calculating its full carbon footprint this year.

In addition to our engagement with portfolio firms, the Growth Equity team regularly collects and reports on impact data to monitor climate-related risks. Generation has developed a bespoke framework based on best-practice measurement and reporting protocols (including those outlined by the Sustainability Accounting Standards Board, the Impact Management Project and others), and works with each portfolio company to evaluate critical ESG risks and opportunities on an annual basis. This also includes annually assessing the portfolio's Scope 1, 2 and 3 emissions.

Long-term Equity

Generation's Long-term Equity strategy holds two portfolio investments. The first investment was in FNZ, a global investment platform providing multi-channel wealth management services. FNZ is a signatory to the UN-backed PRI, the UN Global Compact, UNEP FI and UN Green Digital Finance Alliance, and furthermore has announced its ambitions to repay all its historic carbon debt by 2025. Climate and governance risks are integrated into operational risk and resilience planning at the business level.

Additionally, we believe the challenges associated with climate change are on one level an issue of capital allocation. FNZ Impact delivers a range of individually tailored sustainability analytics and services to investors, who can then understand and address what matters to them, whether it be their portfolio carbon footprint, nature or diversity in the workplace.

In 2021, the Long-term Equity strategy established a major strategic partnership with Octopus Energy, holding a stake of approximately 10% in the company at the end of 2021. This will help Octopus to accelerate its mission to drive the renewable revolution globally. Octopus's technology platform, Kraken, is already contracted to deliver outstanding customer experience, hyper-efficient operations and cleaner and smarter energy solutions to 17 million energy accounts globally, through Octopus's own retail businesses in the UK, USA, Germany, Spain and New Zealand, plus licensing agreements with Good Energy, Hanwha Corporation, Origin Energy, nPower and E.ON.

The Generation Foundation

2021 saw the culmination of a project to overcome the barriers preventing mainstream finance from playing its part in the achievement of societal goals like limiting global warming to 1.5C. It sought to answer this question:

To what extent are investors permitted, or required, to account for the impact of their activities on sustainability factors, not only the impact of sustainability factors, on their portfolios?

The critical output of this project was an analysis prepared by law firm Freshfields Bruckhaus Deringer, commissioned by the PRI, UNEP FI and the Generation Foundation. It presented some surprising findings: most investors are not only permitted, but are actually required, to invest for impact. Investors must take action to achieve a sustainability impact through asset allocation, stewardship or policy engagement when that impact is likely to affect financial performance. In practice, this could be the beginning of a significant shift for mainstream investors. It is undoubtedly in investors' financial interest to limit global warming to 1.5C, and therefore it is clear that investors have a duty to set goals, take action and assess progress. The next phase of this work will be a) to support investors to understand their obligations and put them into action and b) to work with policymakers, regulators and governments to make this duty even clearer in law and ensure market characteristics like benchmarks or asset allocation standards do not impede progress.

PHYSICAL RISK

To date, our asset- and portfolio-level analysis of climate risk and opportunity has focused on the transition to net zero, and the implications for the companies we invest in on behalf of our clients.

At present, physical climate risk is tracked by our investment analysts at the company level (along with other sustainability issues and aligned with the way Generation has always approached climate risk and opportunity), but we do not yet have a structured approach to analysing physical risk at the portfolio level. Some of the barriers to doing so include:

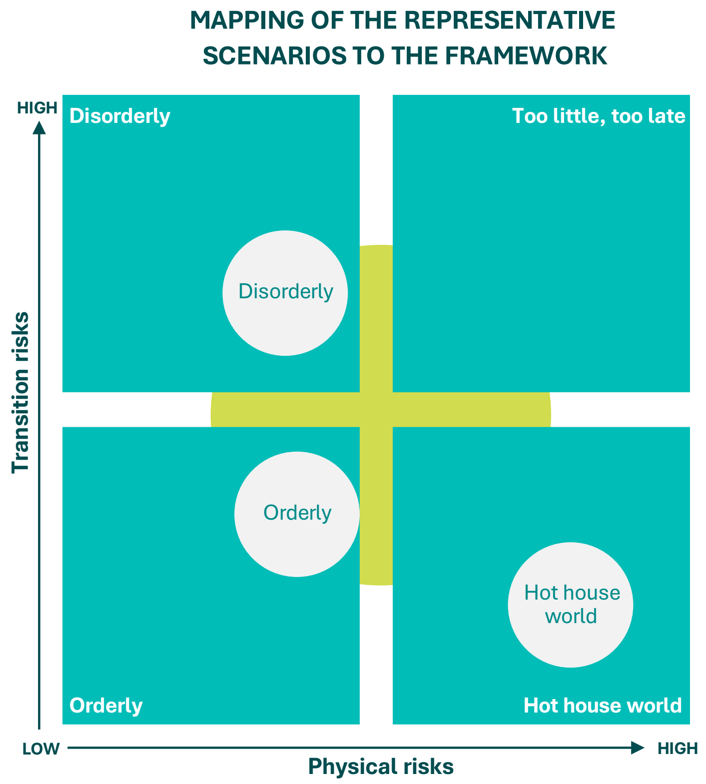
- Incomplete data on the location and value of all company assets (these are needed to assess the potential damage resulting from, for example, extreme weather events under different climate scenarios).
- Methodologies have been developed for specific areas such as real estate, oil and gas, and infrastructure, which have direct exposure to climate-related impacts[5], but we hold few if any such companies in our portfolios. In contrast, methodologies for industrials, finance and healthcare are much less well established.
- Estimating and aggregating climate risk across a portfolio of companies in different sectors. As one report put it, 'no impact function is available to link climate hazards and impacts for a large variety of economic sectors'.[6]
- Methodologies currently focus on first-order effects (such as physical damage of a flood), whereas we believe second- and third-order effects of climate-driven crises are likely to pose even greater challenges for our companies. Methodologies also tend to focus on mean changes in climate variables, rather than tail risks and tipping points.

We will continue to evaluate off-the-shelf methodologies and collaborate with developers to address some of the issues set out above. We are also considering analysis based on qualitative assessment to highlight key risks. The key elements of this would include the following:

- Conducting a workshop with an external organisation expert on climate impacts, to elicit information from our analysts who have deep understanding of their sectors and companies.
- Output would be a straightforward heatmapping – to identify key risks by company/sector, geography and exposure to impacts of chronic/acute climate changes.
- Exploration of second- and third-order effects, such as commodity price volatility, government interventions and geopolitical instability.
- Using scenarios provided by the Network for Greening the Financial System (NGFS) (including scenarios that would lead to a very dangerous outcome for humanity – what NGFS refers to as a future 'Hot House World') and drawing on the analysis in the IPCC 6th Assessment Report, especially by Working Group 2[7].

[5] See this report by Mercer as an example of analysis for sectors at high direct risk from climate change https://www.camecon.com/wp-content/uploads/2021/10/gl-2019-wealth-climate-change-the-sequel-full-report.pdf.
[6] ClimInvest (2020). 'Assessing Physical Climate Risks for Financial Decision Makers'. https://www.carbone4.com/files/wp-content/uploads/2020/06/ClimINVEST_AssessingPhysicalClimateRisks_Carbone4-2020.pdf
[7] https://www.ipcc.ch/assessment-report/ar6/

Figure 3: NGFS depiction of different climate futures



Source: Network for Greening the Financial System (NGSF), NGFS Scenarios, 2022

INTEGRATION INTO OUR OVERALL RISK MANAGEMENT

The investment philosophy and process we have described is the primary way that we mitigate climate-related risks across the firm. The firm is built on the premise that climate change will be a significant driver of economics and a source of risk and opportunity. In this way, it is built into the fabric of the firm and not a separate agenda topic or applied to a separate proportion of our assets.

However, we also embed climate risks into the firm's overall risk management framework, for which our Senior Partner and Management Committee have ultimate responsibility. The operation of the infrastructure group, as well as certain regulated activities, is overseen by the Risk Oversight Group ("ROG"), which is chaired by a Non-Executive Officer. The ROG reports to the Management Committee. Generation's risk management framework and governance structure are intended to provide comprehensive controls and ongoing identification and management of its major risks. The ROG meets regularly to review internal controls, risk management processes, regulatory compliance and relevant reports received from Generation's advisers and auditors. While climate-change risk is not considered a major internal risk, part of the ROG's annual deliverables include reviewing and monitoring the firm's carbon-neutral status while on the journey to net-zero emissions and ongoing compliance with all relevant regulations. This includes reviewing updates on potential climate-related risks to operations.

Metrics and targets

Generation has sought to report on a wide range of environmental metrics for years, in an effort to understand both the climate-related risks our portfolios are exposed to as well as the positive opportunities we might pursue.

TCFD provided updated guidance on Metrics, Targets and Transition Plans in October 2021. We contributed to this directly through our roles on the Portfolio Alignment Team and subsequently on the Glasgow Financial Alliance for Net Zero (GFANZ) workstream on portfolio alignment. Since our TCFD report in 2021, we have made progress on clarifying the methods and targets we are following to meet our net-zero commitment.

Several frameworks for reporting on and tracking towards net-zero portfolios have been launched and developed over the past year. We have chosen to use Science Based Targets (SBT) coverage as our primary metric for target setting, in line with the SBTi Financial Sector Science-Based Targets Guidance. As one of the frameworks approved by Race to Zero, this is appropriate for target-setting for NZAM members.

Our target, which will be submitted to SBTi for review, is as follows:

- 100% SBT coverage by 2030 across all AUM
- with an interim target of 60% SBT coverage by 2025 across all AUM

The percentage coverage is calculated on a portfolio weighted basis. SBTs are recognised when a target is approved by SBTi, rather than when a commitment to set a SBT is made. Since SBTs are aligned with net zero by 2050, we have moved forward the 100% target coverage goal from 2040 (as per SBTi method) to 2030. While approximate, this is intended to position our portfolio for net-zero emissions by 2040.

One advantage of this methodology is that SBTs help to align responsibility across our portfolios, the companies we invest in on behalf of our clients and in turn the suppliers of those companies (since SBTs require companies to set a Scope 3 target, if it is at least 40% of their total emissions footprint). This creates shared responsibility but also a reason for cooperation and innovation on climate action.

Scope 3 emissions are currently hard to track at the portfolio level, yet this is the critical area for our portfolios (using estimated data, it is clear that Scope 3 accounts for the vast majority of our emissions footprint). As such, tracking progress via absolute or intensity-based metrics could provide a less robust lever for our portfolios, until disclosed data coverage and quality improves.

At the same time, we have always believed that no single measure can capture the full story on climate action. Other metrics we continue to track and use to inform portfolio alignment include: GHG emissions over time (absolute and intensity, for Scopes 1–3); percentage coverage net-zero 2040 commitments; and Implied Temperature Rise metrics. Our headline metric for NZAM is the percentage of companies with SBTs agreed, but we also track the percentage of companies that have committed to set a SBT and the share of SBTs that apply the 1.5-degree methodology. We track membership of demand-side initiatives such as RE100 and EV100. On deforestation, we track data provided by CDP Forests and Forest 500.

We are committed to achieving net-zero emissions in our business operations on the same timescale as outlined above. We are working with external consultants on understanding more deeply all material aspects of our operational emissions and the levers we have, establishing interim targets and determining how to track progress.

As well as our progress on net-zero Frameworks, in this year's report we have added a Financed Emissions metric that has been calculated in accordance with the Partnership for Carbon Accounting Financials (PCAF). This metric is designed to give a representative view of the emissions associated with our investments by considering the size of our investment across the year relative to the company's outstanding equity and debt.

The quality and consistency of carbon data is improving rapidly, but is still far behind the quality of financial data. Our metrics use the best data available to us, but a lot of companies and data providers do not disclose emissions consistently. For this reason, our metrics necessarily use the latest available carbon data (in places this means 2020 data rather than 2021), and not all of the companies that we own disclose all of their material Scope 3 emissions yet. This is something that we engage with companies on regularly and we will continue to do so.

For our listed equity funds (Global Equity and Asia Equity), our financed emissions were as follows:

Financed Emissions:

∑(outstanding amount / EVIC * Scope 1 + 2 emissions) = 133,917 t CO_2e

This figure incorporates data for 85% of the companies, by number, held in the Global and Asia portfolios in 2021.

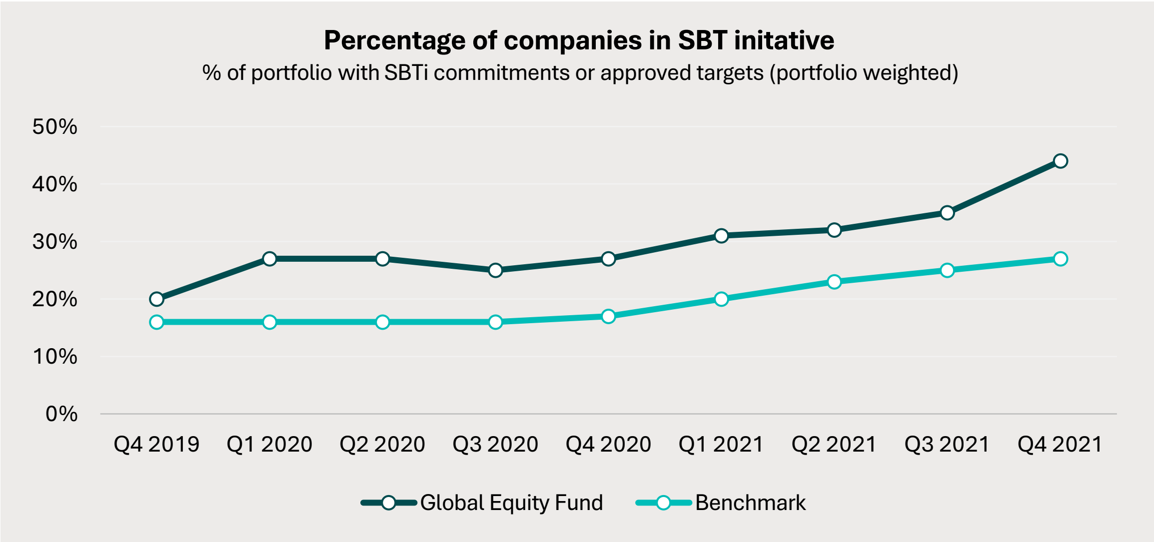
This information may no longer be current. To the extent not sourced from Generation, it is from sources believed reliable. However, Generation does not represent that it is accurate or complete and it should not be relied upon. It should not be deemed representative of future characteristics for the Portfolio. Source: MSCI

EVIC = Enterprise Value including Cash

Global Equity

Generation's Global Equity strategy, accounting for USD 33.3 billion of assets as of 31 December 2021, had 27.8% Science Based Target coverage as of 1 December 2021. A further 17.6% of the portfolio was covered by companies committed to setting a SBTi, where the target had not yet been agreed (SBTi allows companies two years to set a target after committing to do so). As displayed in the chart below, this figure has increased significantly since we first began to track this systematically in 2019. About half the portfolio therefore consisted of companies that had either set an SBT or planned to do so in the coming months. We will continue to engage companies to encourage them to join the initiative.

Figure 4: Percentage of Global Equity portfolio with agreed or committed SBTi targets



Since 2018, we have undertaken regular comparative analysis of our listed equity strategies against their benchmarks on a range of ESG metrics as a check on the outcomes of our investment and stewardship process. This includes select climate-related metrics, which are presented against a benchmark (the MSCI World Index).

	PORTFOLIO		**BENCHMARK**	
FACTOR	**Q4 2020**	**Q4 2021**	**Q4 2020**	**Q4 2021**
Carbon footprint – (tonnes) CO_2 equivalent*/$m (revenues)	60	58	264	242
Percentage of companies in SBT initiative (targets set or committed)	27%	44%	17%	27%
Average carbon-weighted disclosure *	70%	75%	72%	76%
Implied Temperature rise S1+2+3 (degrees C) at Q1 2022	-	2	-	2.8

As of 31 December 2021 (unless otherwise stated). This information may no longer be current. To the extent not sourced from Generation, it is from sources believed reliable. However, Generation does not represent that it is accurate or complete and it should not be relied upon. It should not be deemed representative of future characteristics for the Portfolio. Source: 1TruCost Data, 2Generation analysis based on data from the Science Based Targets initiative and MSCI, as of 31 December 2021
* Scope 1 and 2 plus Scope 3 first tier upstream supply chain emissions

Asia Equity

As we do for Global Equity, we provide select climate-related metrics alongside ESG and financial metrics for the Asia Equity portfolio as of December 2021 below. The Benchmark represents the MSCI Asia Ex-Japan.

	PORTFOLIO		BENCHMARK	
FACTOR	**Q4 2020**	**Q4 2021**	**Q4 2020**	**Q4 2021**
Carbon footprint – (tonnes) CO2 equivalent*/$m (revs)	71.8	68.2	496.9	514.9
Percentage of companies in SBT initiative (targets set or committed)	-	18%	-	4%
Average carbon-weighted disclosure *	56%	57%	40%	46%

As of 31 December 2021 (unless otherwise stated). This information may no longer be current. To the extent not sourced from Generation, it is from sources believed reliable. However, Generation does not represent that it is accurate or complete and it should not be relied upon. It should not be deemed representative of future characteristics for the Portfolio. Source: 1TruCost Data, 2Generation analysis based on data from the Science Based Targets initiative and MSCI, as of 31 December 2021
* Scope 1 and 2 plus Scope 3 first tier upstream supply chain emissions

Growth Equity

For our Growth Equity strategy, we focus on measuring outcomes (i.e., the effects of outputs on an issue we aim to address), as opposed to outputs themselves (i.e., what a company's activity produces). We measure these outcomes across the three thematic areas of focus for the strategy: Planetary Health, People Health and Financial Inclusion. While our companies are still young and at different stages of their ability to prove their impact, we aim to present aggregate portfolio data across these three outcome dimensions.

In addition to our Sustainability and Impact reports, we provide select metrics on the absolute emissions and emissions intensity of our portfolio. Please see below the results for Sustainable Solutions Fund III's 13 portfolio companies held in 2021:

FACTOR	PORTFOLIO
Scope 1 Emissions – tCO_2 equivalent	2,801
Scope 2 Emissions – tCO_2 equivalent	11,586
Scope 3 Emissions – tCO_2 equivalent	148,744
Scope 1–3 Emissions – tCO_2 equivalent	163,131
Emissions Intensity – tCO_2 equivalent (Scopes 1+2)/$m (revenues)	6.7
Emissions Intensity – tCO_2 equivalent (Scopes 1+2+3)/$m (revenues)	76
Financed Emissions – tCO_2 equivalent – ∑(outstanding amount/EVIC) x (Scope 1+2 emissions)	476

As of 31 December 2021. This information may no longer be current. To the extent not sourced from Generation, it is from sources believed reliable. Generation does not represent that is accurate or complete and it should not be relied upon. It should not be deemed representative for future characteristics for the Portfolio.

1. Most of our portfolio companies are software-enabled and therefore Scope 3 emissions are driven by spend on technology infrastructure, such as spend on data centre capacity and online advertising. Scope 3 emissions are approximated using sector-specific emissions factors.
2. Our portfolio company Convoy represents approximately half of aggregate revenues across all portfolio companies.

Source: Emitwise, Generation analysis

Finally, we have chosen to provide standardised reporting aligned with the Sustainability Accounting Standards Board (SASB) standards, a framework designed to assist companies in disclosing financially material, decision-orientated sustainability information to investors. We believe this level of disclosure is best practice for our private companies as they mature. We also provide analysis to support our clients' interest in mapping outcomes to the Sustainable Development Goals (SDGs), as well as the five dimensions of the Impact Management Project. Lastly, we look to provide colour with real case studies, in some instances powered by customer surveys to benchmark how each company is improving quality of life for its stakeholders.

Long-term Equity

As noted above, our Long-term Equity strategy holds investments in two portfolio companies, FNZ and Octopus. Please see the 2021 carbon-absolute emissions and Emissions Intensity results for these companies below. Both FNZ and Octopus have joined the SBTi, but their targets are not yet approved. Octopus's disclosures do not yet include all Scope 3 categories. We envisage these metrics changing materially with additional disclosure for this reason.

FACTOR	PORTFOLIO
Scope 1-3 Emissions – tCO_2 equivalent	1198
Emissions Intensity – tCO_2 equivalent (Scopes 1+2+3)/$m (revenues)	0.36
Financed Emissions – tCO_2 equivalent – ∑ (outstanding amount/Enterprise Value Including Cash) x (Scope 1+2 emissions)	172

As of 31 December 2021. This information may no longer be current. To the extent not sourced from Generation, it is from sources believed reliable. Generation does not represent that it is accurate or complete and it should not be relied upon. It should not be deemed representative for future characteristics for the Portfolio. Octopus's disclosures do not yet include all Scope 3 categories. We envisage these metrics changing materially with additional disclosure. Source: FNZ, Octopus

The path ahead

We recognise that there is much more work we need to do to see our vision for sustainable investing and sustainable capitalism realised. In parallel, we recognise that there is much required to strengthen and enhance climate-related risk and opportunity assessment, which is an essential building block of a sustainable transition.

In our practice, we aim to expand our measurement and monitoring of key metrics across all strategies, and to explore systematic, portfolio-level analysis of our exposure to physical climate and transition risks under different scenarios. We will also continue to support the development of best-in-class tools and expanded emissions disclosure and data availability, as we have through our involvement in the Portfolio Alignment Measurement workstream of GFANZ.

We will continue to advance how we manage climate risk and accelerate investments towards the climate transition. For example, we will continue to leverage our engagement and proxy voting capabilities to elevate ambition and action of our portfolio companies, and we will continue to support a focused range of impact and advocacy initiatives to galvanise transformation across our industry. As we already do, we will not only monitor and seek to mitigate climate-related risks, but also continue to invest in companies that we believe can accelerate solutions to climate change and mitigate climate risk exposure for all.

Important Information

Please note that this communication is for informational purposes only and describes our investment strategies. It is not and does not constitute a solicitation of any financial product in any jurisdiction. It is not intended to be, nor should be construed or used as, an offer to sell, or solicitation of any offer to buy units or interests in any Fund managed by Generation. The information contained herein is not complete, and does not represent all holdings, or material information about an investment in the Global Equity Fund, including important disclosures and risk factors. It is intended for existing investors only. Units in Generation's Global Equity Fund are offered only on the basis of the Fund's prospectus. Specifically, units in the Global Equity Fund are only available for offer and sale in the United States or to US Persons (as that term is defined in Rule 902 of Regulation S promulgated under the Securities Act of 1933, as amended ("Securities Act"), that qualify as both (i) accredited investors and (ii) qualified purchasers (as such terms are respectively defined in Regulation D promulgated under the Securities Act and the Investment Company Act of 1940, as amended). In the European Union, Generation's Global Fund is only available in certain countries to Professional Investors as defined in the Alternative Investment Fund Managers Directive (2011/61/EU). Any reference to individual securities does not constitute a recommendation to purchase, sell or hold the investment. Details of the entire portfolios of the Global Equity strategy are available on request. Further, this communication does not constitute investment research. Opinions expressed are current opinions as of the date of appearing in this material. Any projections, market outlooks or estimates are forward-looking statements and are based upon internal analysis and certain assumptions that reflect the view of Generation, and which may not be indicative of actual events that could occur in the future. No assurances can be given that the Fund's investment objectives will be achieved. Past performance is not a guide to future performance and the value of investments may vary substantially from month to month, and can go down as well as up. Future returns are not guaranteed and a loss of principal investment may occur.

If you require more information, please contact Generation Client Service (clientservice@generationim.com or +44 (0)207 537 4700).

MSCI DISCLAIMER:

Although Generation's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

generation

GENERATION INVESTMENT MANAGEMENT LLP
20 Air Street, London W1B 5AN, United Kingdom
clientservice@generationim.com
+44 (0)207 537 4700