

Cambridge Associates Ltd. TCFD Report

1 January 2024 – 31 December 2024

INTRODUCTION

Cambridge Associates is a global investment firm. We aim to help private clients, endowments and foundations, pension plans, and corporations implement and manage custom investment portfolios through investment in third-party managers. Most of these assets represent advisory mandates where we work in partnership with clients to meet and exceed their investment goals. As at 31 December 2024, Cambridge Associates Limited (CA Limited) represents \$57.6 billion of assets, of which \$7.5 billion are discretionary mandates and in scope of this report. It is important to note that in all cases our discretionary client relationships are managed under individually negotiated Investment Management Agreements (IMAs) that specify our mandate, including how climate risks and opportunities are incorporated and if, and how, net zero goals may be incorporated. The inclusion of climate-related provisions in client mandates is not consistent across our client base, and in each case are driven by each client's specific frameworks, interpretations, and reporting needs. Further, our portfolios are implemented primarily by the choice of third-party investment managers. We do not offer products as total portfolio solutions or preset investment portfolios¹; therefore, there is no single approach, target, or metric that we impose on clients. This report aims to describe the general approach and resources we bring to advising and managing the assets of CA Limited in respect of climate risks and opportunities. As to our own business operations, we have identified that those interests are substantially aligned with those of our clients for two principal reasons:

1. Our business success is dependent on the ability to meet the growing climate analysis needs of current and prospective clients. This incentivises our development of thought-leading approaches to the incorporation of risk and opportunity from climate change.
2. Over the longer term, climate change under a 'business as usual' scenario is likely to result in substantial damage to the global economy and financial asset valuations broadly, impacting our clients' portfolios and our fee revenue. This incentivises both ourselves and our clients to contribute to the collective benefit of climate change mitigation and, hence, net zero approaches to investing.

GOVERNANCE

A) DESCRIBE THE BOARD'S OVERSIGHT OF CLIMATE-RELATED RISKS AND OPPORTUNITIES.

CA Limited operates under the stewardship of its Board of Directors, which provides strategic guidance, establishes corporate strategy, and supervises management operations. The Board holds ultimate accountability for governance issues, including those related to climate risks. Operational responsibilities concerning CA Limited strategy, oversight, and management are entrusted to the following specialised committees:

- CA Limited Risk Committee,
- CA Limited Benefits and Pension Committee,

¹ CA Limited's parent company (Cambridge Associates LLC) manages commingled vehicles which are intended to provide clients with access to select, niche asset classes where we believe a fund vehicle improves investing efficiency for our clients. CA Limited clients may invest in these fund vehicles.

- CA Limited Product Governance Committee, and
- Europe, Middle East & Africa (EMEA) Regional Operational Committee.

The CA Limited Committees above report regularly to the Board. Cambridge Associates' European Head of Sustainability and Impact (SII) sits on the Board and is also a member of the EMEA Regional Operating Committee. They ensure all pertinent issues are considered by the Board.

B) DESCRIBE MANAGEMENT'S ROLE IN ASSESSING AND MANAGING CLIMATE-RELATED RISKS AND OPPORTUNITIES

As the next section will show, the risks and opportunities our organisation faces from climate change relate primarily to our ability to serve existing and potential clients as well as from financial market asset values that drive a portion of our revenues. Assessing and managing climate-related risks and opportunities for our individual client mandates is integral to managing both these sources of business risk. Management of these risks is considered primarily at a global (group) level. However, the considerations of CA Limited and its clients are integrated into that process in a number of ways, including through significant representation from CA Limited staff in the firm's global management team.

Following on from our net zero commitments and the formation of the Net Zero Investment Consultants Initiative (NZICI), Cambridge Associates appointed an experienced investor and Partner in the firm as its first 'Head of Climate Strategy' (HCS), a role intended to coordinate delivery of the firm's commitment by integrating climate and net zero considerations throughout our investment work. The HCS role connects management with climate topics in two other important ways:

1. The HCS is a member of a five-person Sustainability and Impact (SII) Executive Committee, which oversees strategy and implementation for sustainability topics, including climate across the firm and recommends key decisions to firm leadership. This committee also includes the European Head of SII, who leads in identifying climate issues specific to CA Limited and bringing proposals which address these to the CA Limited Board.
2. The HCS chairs Cambridge Associates' global Net Zero Think Tank consisting of senior investment colleagues that represent different asset classes and client groups. The think tank's role is to manage Cambridge Associates' approach to meeting its commitments as part of the NZICI and to review investment research and policy on climate and net zero topics. It reviews and approves key climate-related investment policy positions before escalating them as necessary for decisions.

The SII Executive Committee and Net Zero Think Tank are closely coordinated through overlapping membership.

In September 2024, Cambridge Associates hired the firm's Head of Sustainable and Impact Investing Integration Strategy. Responsibilities for this role include overseeing climate data used by the firm, and ensuring that robust climate analysis is conducted on portfolios. They also sit on the SII Executive Committee.

STRATEGY

A) DESCRIBE THE CLIMATE-RELATED RISKS AND OPPORTUNITIES THE ORGANISATION HAS IDENTIFIED OVER THE SHORT, MEDIUM, AND LONG TERM.

As we wrote in our 2023 research report, “From Policy to Implementation: A Net Zero Playbook for Investors²,” the scientific community tells us that climate change is a threat to human well-being and that the window of opportunity to secure a liveable and sustainable future for all is rapidly closing³. If societies fail to act, there may be catastrophic impacts on the global economy, asset values, and portfolio returns.

From our clients’ perspectives, the potential risks from climate change are many and varied, but can loosely be categorised into:

Transition risk
The changing economics of businesses as they transition to a lower-carbon economy is driven by policy and consumer preferences. This can be further divided into the categories of technology, business model, regulatory, taxation, and litigation, along with changing consumer preferences. The principal overarching factor is the pace and manner of policy commitment to a low-carbon transition, over which there is substantial uncertainty. An understanding of transition risk comes from fundamental analysis of business and sector behaviour and the market, regulatory, and political environment in which businesses operate. These sources of risk are therefore quite well captured by existing analytical approaches and data, even if the range of uncertainty becomes very wide over the medium and longer term.
Physical risk
As average global temperatures continue to rise, assets and businesses will increasingly be impacted directly through the changing climate. In our view, physical risk may be manifested as follows: In the short run, there will be storm damage, disruption to specific crops, and rising sea levels. These impacts will initially be sensitive to geography and sector. As the time horizon extends, sea level rise will progressively become a large issue as it starts to impact major cities and the viability of low-lying agricultural land. Disruption to food crops will become increasingly generalised, and, as the horizon extends into the longer term, food shortages and flooding will likely drive mass migration and political turmoil that will have broad economic impact irrespective of geography or sector. Physical risks are less well captured by traditional financial analysis, and while increasing amounts of data are available, the investment industry is still exploring how this can best inform views on future earnings and asset values.

There are two overarching points to make about climate risks: 1) The very high levels of uncertainty regarding financial impact, making it not amenable to accurate modelling. 2) As the time horizon extends, the risks move from being specific and diversifiable to systemic and undiversifiable, which is important for long-horizon investors to recognise. In our judgement, there is no path to a prosperous and sustainable economy that does not involve tackling climate change. Runaway climate change is a systemic risk that no investor, however smart, can diversify away.

² For more information, please see Simon Hallett and Sarah Edwards, “From Policy to Implementation: A Net Zero Playbook for Investors,” Cambridge Associates LLC, January 2023.

³ IPCC, 2023: Sections. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 35-115, DOI: 10.59327/IPCC/AR6-9789291691647

In July 2023, Cambridge Associates' Capital Markets Research team published a report outlining areas of opportunity the firm has identified for clients to [invest in a low-carbon future](#) – examples include:

- Climate tech venture capital (VC) funds, which focus on early-stage companies in areas such as software, battery/storage technology, commercial transportation, renewable fuels, and solutions for complex industrial challenges. A [report](#) from 2023 covers opportunities specifically in climate tech.
- Private equity (PE) strategies with overlap in some climate tech VC areas, with more focus on scalable, cash-generative businesses in areas such as renewable developers, grid enhancement, and transportation plays.
- Private infrastructure funds will also see some overlap with PE strategies, though they can have different areas of focus depending on size. Smaller infrastructure funds will invest in areas like scaling solar developers and electric vehicle (EV) infrastructure, while larger funds with lower return targets may focus on acquiring contracted power assets.
- Public opportunities are varied and include managers that focus on a range of companies across the industrial, tech, utility, and mining sectors. There are also opportunities across both private and public markets to invest in the supply-chain resilience of green metals.

In January 2025, Cambridge Associates published a [report](#) outlining that the investment thesis of the energy transition remains attractive. The report provides an overview of the favourable unit economics of solar and explores which energy transition sub-sectors might demonstrate growth.

Cambridge Associates' manager research function focuses on these opportunities through the [Sustainable & Impact Investing \(SII\) research team](#). The SII team identifies and evaluates funds that can meet financial objectives, mitigate long-term risk, and achieve intentional impact outcomes, including managers who focus on the areas above.

B) DESCRIBE THE IMPACT OF CLIMATE-RELATED RISKS AND OPPORTUNITIES ON THE ORGANISATION'S BUSINESSES, STRATEGY, AND FINANCIAL PLANNING

Integrating climate issues into the way we advise and manage client assets is a journey, not an event. The way the investment world understands climate has been steadily evolving, and as the industry has developed its thinking, we have been evolving our processes and capabilities. For us, incorporating climate considerations into investment is fundamentally a forward-looking idea; it means seeking to understand the potential path of real-world greenhouse gas (GHG) emissions over the next 30+ years along with the policy, business, and consumer response. It does not mean reacting solely to backward-looking data such as portfolio emissions, even if they remain helpful for risk management. It is important to us to avoid getting bogged down in detail and process, so our approach is to prioritise pragmatic action over perfectionism and to focus where interested clients can make the biggest difference most easily.

As an investment manager, our approach to climate change is determined by distinctive features of our business model: Firstly, almost all the portfolios we manage are bespoke, for single clients. We cannot impose policy criteria or limitations on them, but we can educate clients on the potential approaches and their benefits and implement for them should they make that decision. The second distinctive feature is that our clients' portfolios are almost entirely implemented through third-party investment managers and are across a wide range of public and private

asset classes. Therefore, our tools for climate risk and opportunity management are primarily how we select manager mandates (asset class/strategy) and how we select managers to implement them. Our decision point is never whether to hold or not a certain security.

To meet our clients' needs for 'climate-aware' investing our strategy is to embed consideration of climate risk and opportunity across all our manager research (as discussed in more depth in the risk section), while producing thematic policy level research to identify and articulate the most effective ways to implement climate-aware or net zero investment approaches for our clients. Please see more detail under risk management.

C) DESCRIBE THE RESILIENCE OF THE ORGANISATION'S STRATEGY, TAKING INTO CONSIDERATION DIFFERENT CLIMATE- RELATED SCENARIOS, INCLUDING A 2°C OR LOWER SCENARIO.

Cambridge Associates does not build products but tailors investment strategies to meet different client goals. Therefore, we do not offer a preset or single investment strategy to our discretionary clients. We seek to incorporate consideration of climate change risks and opportunities into our manager research and into asset allocation design. In this way, we believe we will be able to deliver higher relative returns in a 2-degree-or-lower scenario as we seek to invest with managers capable of identifying the sectors and companies better positioned for a low-carbon transition. Temperature scenarios are most relevant for the longer term – 2050 and beyond. Over this horizon, as we have noted before, we believe climate risk becomes principally systemic and non-diversifiable. For example, it will be much harder to preserve, let alone make a return on, the value of assets in a 4-degree world. While of course we endeavour to protect client portfolios as much as possible from adverse environments, runaway climate change poses risks that are beyond our control or our ability to manage. The same would be true of any investor. We are sceptical of the usefulness of climate risk models in quantifying the financial risk to portfolios; hence, they do not form a major part of our management approach. Please see our additional comments on climate risk models under 'Metrics & Targets'.

RISK MANAGEMENT

A) DESCRIBE THE ORGANISATION'S PROCESSES FOR IDENTIFYING AND ASSESSING CLIMATE-RELATED RISKS

MANAGER RESEARCH

Since our clients' portfolios are implemented through third-party managers, the principal way we can identify and manage climate-related risks is by assessing how those managers approach the problem as well as the message and comprehensiveness of the relevant data they report.

We embed sustainability analysis across our research platform such that it considers material climate factors as part of every manager due diligence. In 2024, we implemented an enhanced manager assessment process that considers climate in more granular and consistent ways. With this approach, managers are assessed for climate competence and net zero alignment across these dimensions:

Policies & governance	Formal policies are verified, hold leadership accountable, and involve specific climate action.
Communications & transparency	Intentional, transparent, and consistent reporting that covers key climate factors and is consistent with internationally recognised standards (e.g., TCFD); demonstrates thought leadership that advances the field.
Investment process	Thorough assessment of climate risk and opportunities is systematically integrated into investment process; buy-in from team; regular impact on investment selection.
Investment outcomes/portfolio construction	Clear, consistent impact of climate perspectives on portfolio construction; efforts to quantify and provide evidence of positive climate outcomes.
Net zero alignment	Portfolio holdings have net zero ambition for 2050 and earlier time scales; robust engagement with portfolio investments; systematic reporting; significant investment in climate solutions; and full emissions disclosure.

In each of these areas with the exception of 'net zero alignment', managers are graded onto a maturity scale as follows:⁴

NO INTEGRATION
MINIMAL INTEGRATION
DEVELOPING
ADVANCED INTEGRATION
VERY ADVANCED

As at 23 April 2025, 470 manager assessments have been completed using this enhanced process.

⁴ When grading 'net zero alignment', the following scale is used: N/A; Not aligned, not aware; Not aligned, but aware; Committed to aligning; Aligning; Aligned. Certain strategies are out of scope as no methodology or guidance exists from industry groups (e.g., some risk managed strategies or hedge funds). As such, this category may be marked as "N/A". An assessment of N/A requires an explanation, and there is an expectation that over time there will be methodologies to assess net zero alignment for these strategies in the future.

As part of the manager assessment process, we also gather security level information where possible that can be aggregated to augment our understanding of climate risks at the manager and portfolio level. Examples include various carbon intensity measures and the setting of science-based targets. These are described in more detail under Metrics and Targets. For private funds, holdings level climate information is much more restricted, so we seek to use sector proxies to understand the likely risks at the fund and portfolio level.

B) DESCRIBE THE ORGANISATION'S PROCESSES FOR MANAGING CLIMATE-RELATED RISKS.

CLIENT ADVICE AND PORTFOLIO MANAGEMENT

The foundation of our climate risk management is the manager assessment process described above. Our investment teams use this information (as well as our thematic and policy research) to incorporate climate factors with the aim of meeting or exceeding return objectives. This approach is tailored to the needs and preferences of each client. This may include pursuing specific impact goals such as net zero, excluding certain sectors such as fossil fuels, and/or emphasising specific opportunity strategies such as climate tech or renewable infrastructure.

In September 2024, Cambridge Associates' published a report, [Simplifying Net Zero Implementation: Possible Pathways to a Portfolio That Can Be Good for the Climate](#), outlining a simplified approach to implementing net zero in clients' portfolios.

Building on the earlier report 'From Policy to Implementation: A Net Zero Playbook for Investors', the new paper prioritizes practical and pragmatic steps towards real world emissions reductions. It offers both a feasible pathway to climate impact for investors with a mature portfolio and a template for building a net zero portfolio from scratch. Specific advice is focused on the three levers available to asset owners – manager selection, manager engagement, and investment in climate solutions.

STEWARDSHIP AND ENGAGEMENT

- Stewardship is the responsible allocation, management, and oversight of capital with the aim of creating long-term value for investors. Engagement puts stewardship into action – it is purposeful dialogue with a specific objective, promoting disclosure and accountability. CA works on stewardship and engagement to meet climate objectives in three ways:
 1. We assess how investment managers engage with their underlying portfolio companies.
 2. We engage with asset managers to promote transparency and disclosure, as well as to set science-based targets and credible transition plans.
 3. We support interested clients in direct engagements with their investment managers and help them participate in collaborative groups of their choosing.

SATISFYING REGULATORY REQUIREMENTS

- We research current and forthcoming regulation so that both we and our clients can meet our compliance commitments regarding climate and ESG in relevant jurisdictions.

COLLABORATION WITH EXTERNAL GROUPS

- Where appropriate, we seek to exercise industry leadership on our clients' behalf. We selectively collaborate with investor groups, trade associations, and/or the academic community to support evolution of industry practices that benefit our clients and ensure our thinking remains leading edge. During 2024, we were active members of:
- UN PRI – United Nations Principles for Responsible Investing
- NZICI – Net Zero Investment Consultant Initiative (Founder and co-chair)
- IIGCC – Institutional Investors Group on Climate Change
- ICSWG UK and US – Investment Consultant Sustainability Working Group
- iCI – Initiative Climat International
- EDCI – ESG Data Convergence Initiative

C) DESCRIBE HOW PROCESSES FOR IDENTIFYING, ASSESSING, AND MANAGING CLIMATE-RELATED RISKS ARE INTEGRATED INTO THE ORGANISATION'S OVERALL RISK MANAGEMENT.

We seek to manage portfolio risk on a holistic basis in respect of a client's ability to meet their financial and other objectives for their portfolio. Climate risk is integrated into this process primarily as part of the assessment of manager suitability – our judgement on managers' effectiveness at managing climate risk. Secondly, climate risk may feed into our views on the relative attractiveness of specific sectors or asset classes.

METRICS AND TARGETS

A) DISCLOSE THE METRICS USED BY THE ORGANISATION TO ASSESS CLIMATE-RELATED RISKS AND OPPORTUNITIES IN LINE WITH ITS STRATEGY AND RISK MANAGEMENT PROCESS.

We look to continually improve the tools and resources available to investment and research teams for the purposes of assessing managers on material sustainability and climate considerations. There is an evolving plethora of data regarding climate issues, and we aim to filter the noise to focus on decision-useful information. This also means using data to prioritise further work and attention. We are not interested in data for data's sake since this distracts attention and impedes timely decision making.

Using either actual or proxy data, climate-related metrics that are quantified for client portfolios include:

- Absolute carbon emissions (tCO₂e),
- Relative carbon emissions metrics, including carbon intensity, weighted average carbon intensity, and tCO₂e/\$M invested,
- Portfolio exposure to companies with science-based targets (SBTs),
- Portfolio implied temperature rise (ITR) and climate value-at-risk (CVAR)⁵,
- Portfolio exposure to 'green revenues,' referring to areas such as alternative energy, energy efficiency, and sustainable agriculture.

⁵ Please note that we have de-emphasized the use of ITR and CVAR models, as discussed in the following section 'Climate Risk Models'. We continue to monitor the development of climate models for suitable approaches.

These metrics represent both a snapshot ‘point-in-time’ assessment (carbon footprinting metrics and green revenues), and an assessment of a portfolio’s future trajectory (SBT, ITR, and CVAR exposure). Cambridge Associates uses two main data sources for climate-related information. The first is to assess data provided by fund managers. The second is the use of an external data provider, currently MSCI. The firm has exposure to a broad range of asset classes across public and private securities with varied degrees of data availability. In public markets such as equity and credit, widespread security level data is available, albeit of varying quality, that can be accessed through managers or through data platforms such as MSCI. In private markets, very few companies currently report climate data and, where they do, it is not centrally available. To assess the emissions of private investment programs, we use public market proxies at the sector level. For example, we assume that a company’s emissions characteristics are equivalent to the average of public companies in the same Global Industry Classification Standard (GICS®) sector. However, there is no equivalent way of proxying alignment data.

CLIMATE RISK MODELS

Many investment organisations use asset risk models to estimate the impact on portfolios of different climate scenarios. We have spent some time understanding the considerations behind such models and have concluded that at the present state of practice, they convey outcomes that are misleading at best and perverse at worst in mis-ranking different scenarios and hugely understating the plausible downside potential. Such models necessarily require layer upon layer of assumptions to consider how a complex dynamic system might evolve over a period of decades under circumstances that have never occurred before in the data history, but common usage is to distil the output down to a single number. We have taken note of a number of independent studies⁶ that raise multiple significant methodological concerns with such approaches. In our capacity as the co-chair of the NZICI, we convened a meeting of other advisory and consulting firms with NGO Carbon Tracker who have published work in this area to debate the problems and potential solutions. While there is important work ongoing to refresh and improve climate risk models, we are concerned that they presently do not lend themselves to use in a prudent risk management process. Therefore, quantitative climate risk models do not form a significant component of our climate risk management process.

B) DISCLOSE SCOPE 1, SCOPE 2, AND, IF APPROPRIATE, SCOPE 3 GREENHOUSE GAS (GHG) EMISSIONS, AND THE RELATED RISKS.

We do not create standardised products and our discretionary clients’ portfolios are managed under bespoke IMA’s that define the degree climate is incorporated into both decision making and reporting. Both data coverage and base level emissions will depend on the nature of the mandate and asset classes included. Therefore, it is not possible for us to aggregate total figures for client GHG emissions or for it to be meaningful to interpret. We repeat our earlier observations about climate risk models.

⁶ These studies include: Steve Keen, “[Loading the DICE Against Pension Funds](#),” Carbon Tracker, July 2023; Sandy Trust et al., “[The Emperor’s New Climate Scenarios](#),” Institute and Faculty of Actuaries, July 2023; and Luca Bongiorno et al., “[Climate scenario analysis: An illustration of potential long-term economic & financial market impacts](#),” *British Actuarial Journal*, Volume 27, March 2022.

C) DESCRIBE THE TARGETS USED BY THE ORGANISATION TO MANAGE CLIMATE-RELATED RISKS AND OPPORTUNITIES AND PERFORMANCE AGAINST TARGETS.

We do not determine the targets used by our clients to manage climate-related risks and opportunities from a top-down perspective. These are developed in partnership with our clients on an individualised basis. The table below indicates the default target-setting framework we would use for discretionary client portfolios with a net zero goal, though in practice these may vary somewhat between clients.

Baseline	2019 is the preferred base date for emissions and climate solutions comparisons but individual portfolios may differ according to availability and recency of relationship.
Targets	<p>2025 – 70% of portfolio emissions from in-scope⁷ assets are from companies/assets aligned/aligning with net zero or held by managers whose voting and engagement policies support alignment. Rising to 90% in 2030.</p> <p>2030 – Allocation to climate solutions either double from the base date or reach 10% of in-scope assets.</p> <p>2030 – Portfolio decarbonisation milestone: 50% emissions decline by 2030 from a 2019 base, net zero by 2050. Preferred measure tons CO₂e per \$ AUM.</p>
GHG scopes included	Scope 1 and 2 emissions currently included and Scope 3 for material sectors, where data is available. We will look to include Scope 3 emissions in our reporting and targets when data coverage and quality improve sufficiently.
Methodology	We take the Net Zero Investment Framework as a benchmark of good practice for target setting and adapt as necessary for our business model and client needs. Science Based Targets initiative ('SBTi') data are used to define corporate alignment, but more development is needed in this area.
Scenarios	IPCC Special Report on 1.5°C, P1/P2/P3 pathways interpreted as requiring 50% GHG reduction by 2030 from a 2019 base.
Fossil Fuels	Portfolios designated as net zero will have no manager strategies wholly or largely focused on upstream oil, gas, or coal production & exploration and no strategies with more than de minimis exposure to thermal coal production or coal-fired power generation. Natural run-off is allowed for legacy assets.
Additional Observations	Our approach to net zero focuses on contributing to real-world decarbonisation with the levers we and our clients directly control. Financed emissions are not directly in our control and are a backward-looking metric. We would not rebalance a portfolio solely to meet an emissions level in a specific year since this may undermine both real-world climate goals, such as funding climate solutions, as well as a client's financial objectives.

⁷ Assets are in scope where there is sufficient transparency, established methodology, and relevance to incorporate in net zero strategy and target setting.