Manulife Investment Management

Sustainability report

2024

What you'll *find*

Scope of this report

This report covers Manulife Investment Management (Manulife IM) activities. Manulife IM is the unified global organization that represents the institutional asset management arm of Manulife Financial Corporation (Manulife).

This report is designed to meet our clients' demands and expectations while also addressing the disclosure requirements of reporting frameworks that Manulife IM is either mandated to report against or to which Manulife IM is a signatory. It also seeks to voluntarily align with global climate reporting standards. The report sets out:

- Our role as investors and our strategy and overarching approach to sustainability and the related material risks and opportunities in the context of the assets we manage and operate on behalf of our clients
- Our sustainability strategy, sustainable investing practices, and client solutions that employ our diverse range of asset classes and products covering the spectrum of investment strategies
- Our stewardship approach and activities, which we believe can lead to better overall value creation for our clients while supporting capital markets' long-term health and efficiency through the responsible allocation, management, and oversight of capital
- How we incorporate climate-related risks and opportunities into investment oversight through appropriate governance, strategy, risk management, and metrics and targets

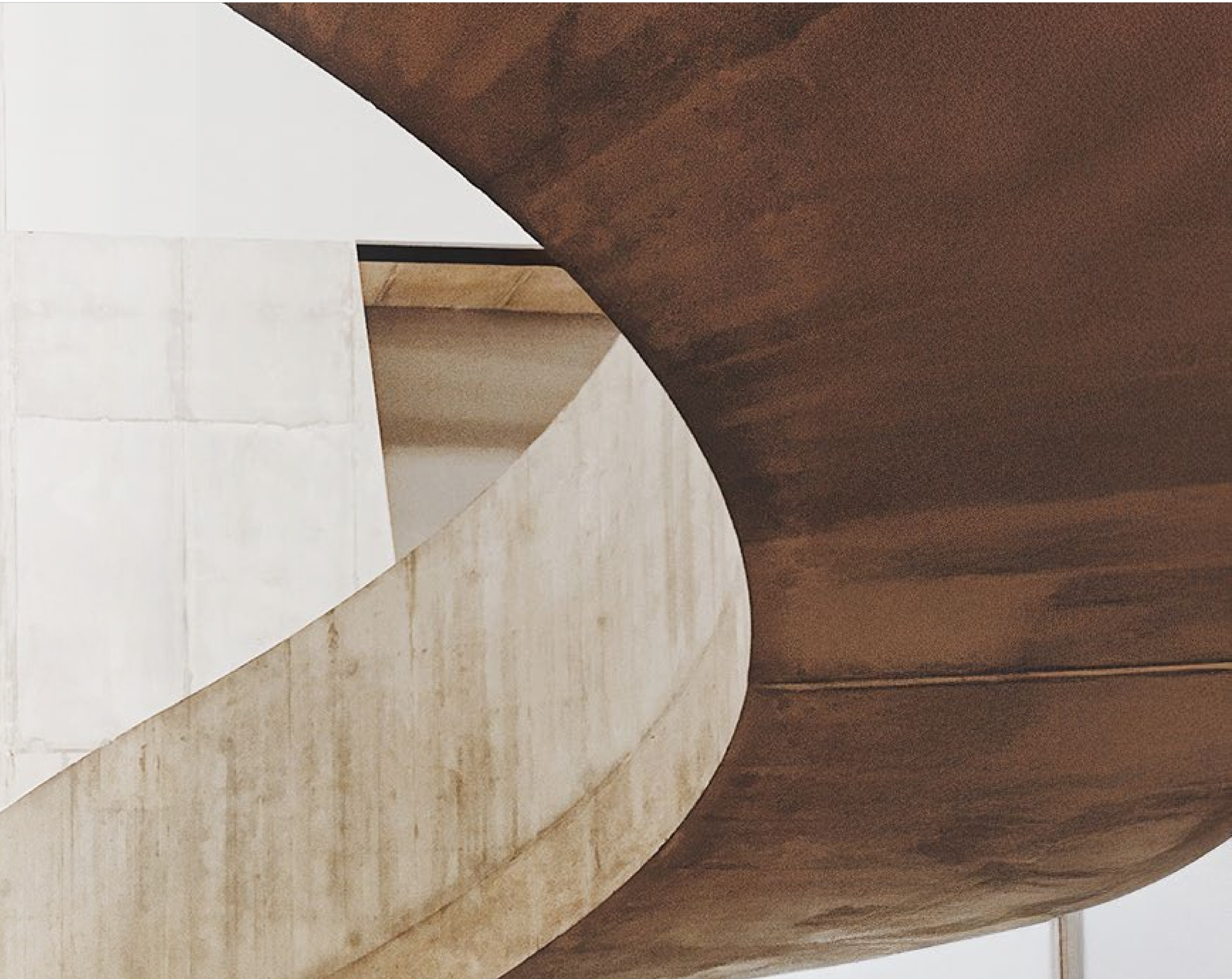
The information contained in this report was prioritized through stakeholder consultation, internal management review, and a materiality assessment.

Manulife IM functions as part of the broader Manulife group, not as a stand-alone entity and, as such, parts of this report must necessarily refer to processes at a wider corporate level while other sections relate only to Manulife IM.

This document doesn't purport to reflect the Manulife group's overall sustainability initiatives or to comprehensively disclose its approach to sustainability-related risks and opportunities. It seeks to holistically cover Manulife IM's capabilities across asset classes and may be supplemented by Manulife's sustainability disclosures (published annually) for a broader corporate perspective.

The disclosures in this report cover the activities of the investment management teams within Manulife IM. In this report, 'we' refers to Manulife IM. The report does not cover the activities of nonaffiliated asset managers who manage some client assets on our behalf, or the activities of CQS, which is a wholly owned multi-sector alternative credit manager acquired by Manulife IM in 2024. All information in this report is as of December 31, 2024, with monetary values quoted in Canadian dollars, unless otherwise indicated. This report was published in June 2025. Although this report sometimes indicates that sustainability factors are included in all aspects of our investment management processes, we work diligently with our various clients to ensure that any such sustainability considerations are only included when they meet clients' stated goals or objectives. Some of our investment solutions are also inappropriate for sustainability considerations, such as some specific asset classes or indexing strategies for which the index does not consider sustainability. All discussion in this report relates to circumstances where sustainability considerations are appropriate and applied in practice.

Introduction



A *message* from Paul R. Lorentz

Investors and stakeholders are increasingly seeking clear, transparent, and reliable information about sustainability performance and practices in wealth and asset management. Accordingly, I'm pleased to present our new Manulife IM sustainability report.

This report brings together our sustainable and responsible investing, stewardship, and climate-related financial disclosure reports into one package. By combining and streamlining this insight, we're making it easier to understand our approach to sustainability, to access key information, and to see how we're shaping better financial futures for our clients through our investment platform.

As a global wealth and asset manager, Manulife IM's investment teams operate across a broad range of differentiated capabilities and asset classes, offering solutions tailored to investor needs around the world. In sharing our data-driven insight through this report, we're outlining how we're progressing against sustainability standards while also providing an opportunity to learn more about the breadth of our future-ready investment solutions.

Our commitment to sustainable investing is driven by our belief that it's a source of enduring value creation. Our effectiveness as an asset manager is measured, in part, by our ability to identify and manage both investment opportunities and risks. That's why we consider the financially material impact of sustainability risks in our investment process and decision-making, as well as in our asset stewardship. Simply put, we believe we can deliver better long-term investment results for our clients by building portfolios that not only capitalize on growth opportunities but also incorporate resilience against significant financial risks. Engaging with the companies in our portfolios on financially material topics helps us fulfill our fiduciary responsibility as an asset manager.

In this report, we also showcase our strengthened internal governance framework and approach, focusing on three key themes: climate, nature, and people. Through these themes, you'll see how our team analyzes and applies sustainability factors they believe may impact future performance, where appropriate, to deliver investment solutions for our clients based on their stated goals and objectives.

You'll also see some of the recent initiatives driving our ongoing progress. For example, in the past year, we introduced the Manulife IM client-directed exclusions framework. This framework gives clients the opportunity to exclude or limit certain types of investments within their portfolio. We've introduced specific themes in the framework and are working to add additional exclusions to make it easier for clients to align their investments with their objectives.

Additionally, we published the Manulife IM water statement, reinforcing our commitment to integrating water-related risks and opportunities into our investment processes and asset management. This statement stands alongside our climate and nature statements, which serve to validate the importance of each topic with respect to investment processes and operational asset management.

Thank you for your continued trust and partnership. We hope you find this sustainability report useful, both to understand our comprehensive approach to long-term value creation and to see the progress we've made in our ongoing journey—for the benefit of our clients, stakeholders, and the broader community.

Paul R. Lorentz
President and CEO
Manulife Investment Management

Who we are

About Manulife Investment Management

Manulife IM is a segment of Manulife Wealth & Asset Management and the global institutional asset management arm of our parent company, Manulife.

Manulife has a storied history dating back more than 130 years in Canada, 125 years in Asia, and 155 years with our John Hancock brand in the United States. Leveraging our financial expertise and the extensive resources of our parent company to serve individuals, institutions, and retirement plan members worldwide, our mission is to make decisions easier and lives better by empowering investors for a better tomorrow.

With headquarters in Toronto and Boston, our robust capabilities in both public and private markets are bolstered by an investment presence in 20 countries and territories. Our resulting global expertise across private markets, asset allocation, fixed income, alternative credit, and equity investing allows us to capitalize on emerging trends and opportunities worldwide.

Committed to responsible stewardship and governance, we aim to be global leaders in creating long-term, sustainable value for our clients.

We're uniquely positioned to serve client investment needs

At Manulife IM, we seek to provide solutions for clients using a wide breadth of capabilities, and our commitment to sustainable investing is rooted in our belief that our clients' interests are best served by considering financially material sustainability factors across the full investment decision-making process. In addition, our role as stewards of real assets gives us a dual owner/operator perspective on sustainable business practices and concerns, as evidenced by being named one of the world's leading natural capital investment managers.[1] For additional information, please visit manulifeim.com.

1 IPE research, as of January 24, 2025. Ranking is based on total natural capital assets under management (AUM), which includes forestry/timberland and agriculture/farmland AUM. Firms were asked to provide AUM and as of dates vary from December 31, 2023, to December 31, 2024.

$714B

total Manulife IM AUM

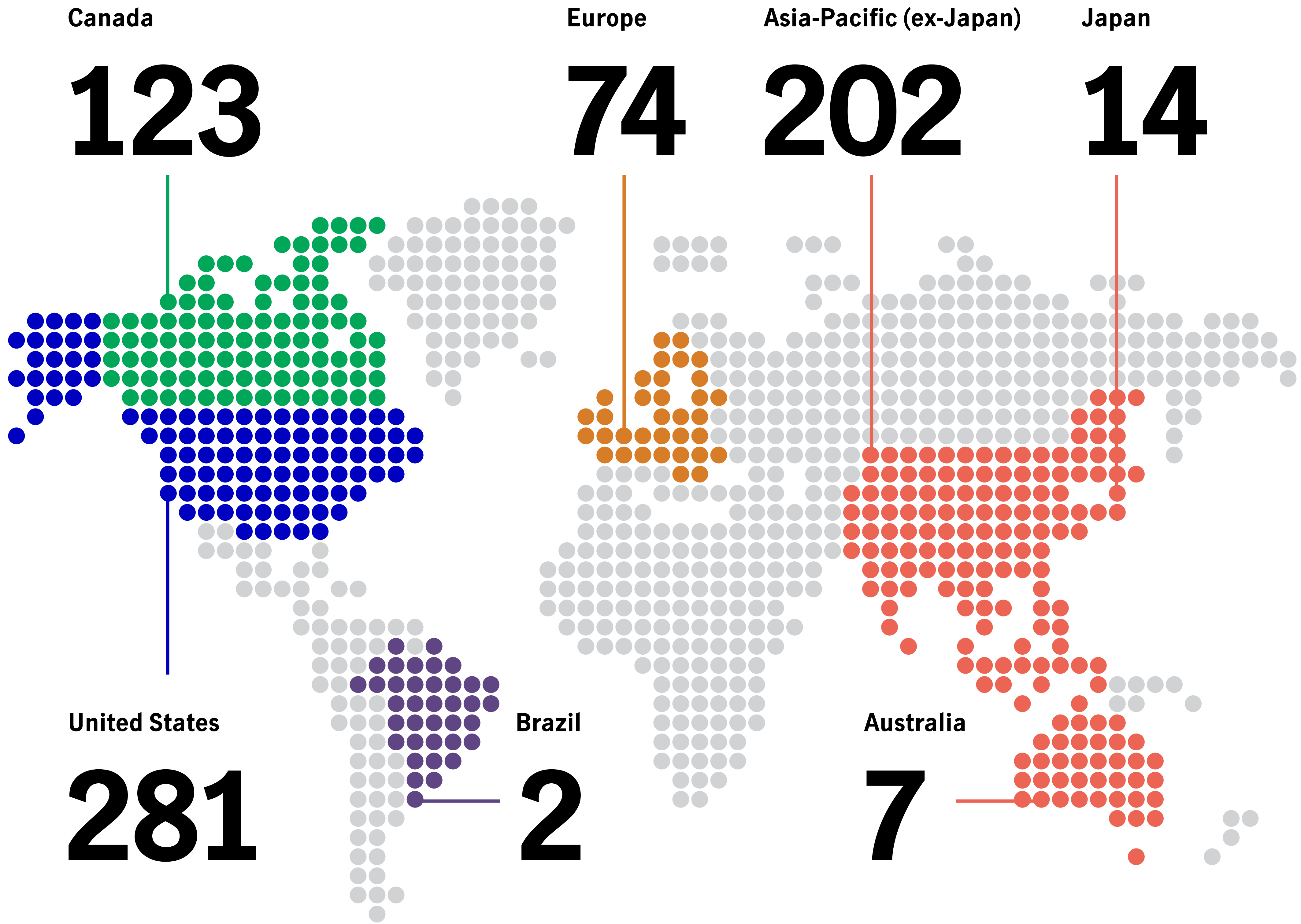
2,000+

institutional accounts

AUM include assets internally managed by Manulife Investment Management on behalf of external clients, the Manulife general account and other affiliated businesses, but excludes assets under management and administration (AUMA). The methodologies used to compile the total AUM are subject to change and may not reflect regulatory AUM as reported on certain affiliates' Form ADV.

Our asset management business

703[2] investment professionals with offices in 20 geographies



Source: Manulife Investment Management, as of December 31, 2024. Manulife Investment Management's team of global investment professionals includes expertise from several Manulife Investment Management affiliates and joint ventures; not all entities represent all asset classes.

2 Of which 400+ portfolio managers, analysts and traders are advised on sustainability-related issues.

Employee recognition

98% of our employees

were recognized through Podium in 2024, with 15,284 awards given.

Source: Manulife Investment Management, as of December 31, 2024.

Employee engagement scores

4.31
2023

4.35
2024

which puts us in the 84th percentile against Gallup's financial and insurance company benchmark.

Source: Manulife Investment Management, as of December 31, 2024. Engagement scores are rated on a five-point scale.

Our inclusive culture aims to inspire employees to bring their authentic selves to work, enabling them to provide high-quality service to our clients, business partners, and communities. We aspire to create an inclusive culture and brand with diverse talent that drives high performance and enhances our ability to meet our clients' needs.

At Manulife IM, we have a diverse and engaged workforce across our global offices.

Gender statistics for Manulife Investment Management

	Woman (%)	Man (%)	Another gender (%)
By region			
All	**40.9**	**59.0**	**0.1**
Asia	55.5	44.5	—
Canada	46.4	53.6	—
Europe	42.9	57.1	—
United States	32.0	67.8	0.2
Other	31.1	68.9	—
By organizational level			
VP and above	27.8	72.2	—
AVP, director, manager	41.4	58.5	<0.1

Source: Manulife Investment Management, as of December 31, 2024. Data excludes staff who chose not to respond/preferred not to disclose; globally, this represented 1.1% of staff. Other includes Australia, Brazil, Chile and New Zealand.

See the Manulife sustainability report for information on our diversity, equity, and inclusion strategy at our parent company level.

AUM by asset class

AUM in CAD

Infrastructure[3]
$28,405M

Multi-asset solutions[4]
$211,046M

Real estate[3]
$26,800M

Listed equity
$144,229M

Private equity[3]
$22,464M

Timberland[3]
$16,607M

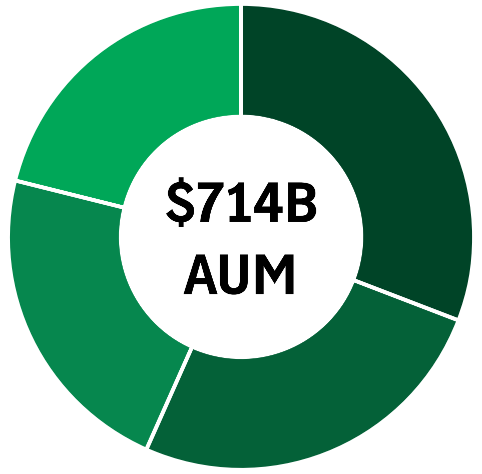
Fixed income
$253,668M

Private credit[3]
$4,565M

Agriculture[3,5]
$6,303M

AUM by distribution channel

AUM in CAD



- Insurance affiliates **30.9%**
- Retail **26.0%**
- Institutional **22.1%**
- Retirement **21.0%**

AUM by client domicile by market

- United States **44.7%**
- Asia-Pacific **27.6%**
- Canada **22.0%**
- Europe, Middle East, Africa (EMEA), and other **5.7%**

Asia-Pacific, EMEA, and other categories include emerging-market countries. Totals may not sum to 100% due to rounding.

Source: Manulife Financial Corporation, as of December 31, 2024. Excludes subadvised AUM. The methodologies used to compile the total AUM are subject to change and may not reflect regulatory AUM as reported on certain affiliates' Form ADV.

3 AUM for private market asset classes: All AUM is calculated on a fair value basis unless otherwise noted. Data includes assets managed by Manulife Investment Management and our affiliates on behalf of Manulife's Canadian and U.S. general accounts, as well as certain third-party investors.
4 Multi-asset solutions: AUM includes $2.5 billion in externally managed accounts and $332 million in balanced and other strategies. **5** Agriculture: Aggregate fund-level market value.

Governance

Sustainability governance structure

Manulife | Manulife Investment Management

Corporate governance and nominating committee	Audit committee	Management resources and compensation committee	Risk committee

Executive sustainability council

General counsel	Chief marketing officer—chair	Chief human resources officer	Chief executive officer	President and CEO, Manulife Investment Management	Chief sustainability officer, Manulife	Chief financial officer	Chief operations officer	Chief investment officer	Chief risk officer

Sustainability center of expertise (meets monthly)

- Comprises sustainability professionals across public markets, private markets, the general account, and the Manulife organization
- Provides a forum for information sharing and consultation on sustainability initiatives, performance, and reporting

Legal, compliance, and government relations sustainability council[6] (meets monthly)

- Comprises legal, compliance, and government relations members across business units and regions
- Provides legal, compliance, and regulatory affairs consultation
- Provides a forum for discussion and reviewing sustainability matters, identifying and working to mitigate risks alongside the business, and information sharing and consultation on legal, compliance, and government relations issues related to Manulife sustainability matters

Manulife IM sustainability committees

Public markets sustainability committee[7]

Global chief investment officer, public markets	Chief sustainability officer, Manulife IM	Chief investment officer, multi-asset solutions and global equities	Chief investment officer, fixed income	Global head, portfolio specialists

- Supports ESG integration, investment stewardship, and associated reporting across public markets
- Chaired by the global chief investment officer of public markets
- Includes input from functional specialists, including sustainability, strategy, risk, distribution, legal, compliance, and marketing

Private markets sustainability committee[8]

Global head, private markets	Chief sustainability officer, Manulife IM	Chief operating officer	Global head, private equity and credit	Global head, timberland	Global head, agriculture	Global head, real estate	Global head, infrastructure

- Supports ESG integration, investment stewardship, and associated reporting across private markets
- Chaired by the global head of private markets
- Includes input from functional specialists, including sustainability, strategy, risk, distribution, legal, compliance, and marketing

Our committees meet at least quarterly and are convened to enable regular decision-making oversight

6 Formerly the legal and compliance ESG center of excellence. **7** Formerly Public markets sustainable investing committee. **8** Formerly Private markets sustainable investing committee.

We've created a governance structure that enhances decision-making and oversight by leveraging the expertise of a range of functional experts and leaders from across the entire Manulife organization.

Governance of sustainability matters sits broadly with Manulife's board of directors and flows through to Manulife IM, where we focus on a committee structure for overseeing our investment teams' sustainable investing activities and our ongoing stewardship initiatives. This structure involves leaders from all asset classes and representatives from key functional areas, such as operations, legal, compliance, and risk, whose involvement is crucial to supporting our sustainable investing activities across the organization and ensuring the buy-in and commitment required for success. This range of expertise is ultimately intended to help pursue our clients' investment goals.

Manulife

Our sustainability governance structure is integrated with the larger sustainability governance at Manulife. The corporate governance and nominating committee (CGNC) of the Manulife board is charged with overseeing the company's sustainability framework and strategy and review of subsidiary governance. As part of this work, the CGNC oversees Manulife's executive sustainability council (ESC), which brings together representatives from multiple businesses and functional areas across Manulife to review and approve sustainability matters relevant to Manulife's business model and strategic business objectives. Part of the work of the ESC, with Manulife's chief sustainability officer as chair, is to drive the development of the firm's overall climate strategy, risk management activities on climate-related matters, performance tracking, and disclosures. The president and CEO of Manulife IM, alongside other senior leaders, sits on the ESC and ensures that key sustainability and stewardship information flows between Manulife IM and the Manulife board.

For more information, please see Manulife's sustainability governance web page.

Sustainability committees

We understand that sustainability and stewardship can look very different across asset classes, which is why we created two sustainability committees (SCs) within Manulife IM, one for public markets and the other for private markets. This split structure helps ensure that we leverage specific asset class expertise in the oversight of our environmental, social, and governance (ESG) integration, sustainability-themed products, and stewardship activities. These committees, which meet at least quarterly, are chaired by the chief investment officer (CIO) of public markets and the global head of private markets, respectively, with membership drawn from Manulife IM's asset class investment heads and including Manulife IM's chief sustainability officer (CSO).

The work of the SCs is ultimately intended to ensure implementation of the Manulife IM sustainable investing and sustainability risk statement and execute on Manulife IM's belief that our approach to sustainable investing helps us deliver attractive risk-adjusted returns to our clients over the long term. To this end, the committees, among other activities:

- Set direction for Manulife IM's sustainability strategy
- Provide oversight of sustainable investment frameworks and strategies
- Conduct ongoing risk assessments
- Steer our sustainability and stewardship initiatives
- Review sustainability reporting
- Review and approve our Manulife IM sustainability and stewardship policies, statements, and frameworks[9]

9 See sustainability policies, statements, and frameworks for more information andthe sustainability section of Manulife IM's website.

Sustainability team

Our chief sustainability officer and sustainability team

We aim to integrate material sustainability considerations across our products and beyond tactical public or private markets allocations because we believe that our scale and cross-asset expertise help us deliver comprehensive sustainable investing solutions across a broad spectrum of client portfolios. To reflect this belief, in 2024, we integrated the public and private markets sustainability teams into one combined team that now supports sustainable investing under the leadership of a single CSO.

Manulife IM's CSO works regularly with our asset class leaders to coordinate sustainable investment support across investment activities when developing and servicing our client portfolios. Sitting on the two respective SCs to connect sustainability strategy and oversight across asset classes, our CSO communicates directly with other leaders across Manulife businesses. At our parent company level, for example, our CSO works closely with Manulife's chief sustainability officer—a connection that ensures our governance structure is well aligned with the broader sustainability community and leadership across Manulife.

Reporting to our CSO is a newly combined sustainability team that supports investment teams with the implementation of our sustainable investing approach across asset classes. With reference to the three lines of defense risk management model,[10] this team reinforces our first-tier defense, with a focus on supporting the implementation of our sustainability and stewardship strategy.

Resources and incentives

We've built a wide-ranging support structure that enables investment professionals to incorporate sustainability and stewardship into their investment processes as they strive to successfully deliver their clients' goals. This structure includes a centralized team of sustainability professionals alongside the provision of tools, training, and data to enhance decision-making. We also support this work through an incentive structure that rewards advancement toward sustainability and stewardship goals.

Centralized support from sustainability professionals

To better serve our clients, our group of 30 sustainability professionals enables and strengthens ESG integration and stewardship activities across our investment teams.

This team is staffed by professionals with broad and diverse multidisciplinary skill sets that make them well suited to addressing the dynamic and complex requirements of sustainable investing and asset stewardship at a global firm. Some of these professionals have decades of investment experience while others have worked at sustainability data providers, possess legal backgrounds, or bring scientific credentials to their roles. Taken holistically, our team has the skill and experience to support complex investment research, robust client reporting, product development, financial modeling, proxy voting decision-making, issuer and regulatory engagement, and collaboration with peers through industry initiatives.

In addition, as part of the organizational change in 2024 and in alignment with our broader sustainability strategy, we designated three members of the sustainability team to lead strategy and activities under each of our three sustainability strategy pillars: climate, nature, and people.

10 As further explained in the risk management section. **11** Includes four dedicated analysts provided through our partner, Acuity. **12** Includes one staff member in a dual reporting role.

30

dedicated sustainability professionals[11,12]

400+

portfolio managers, analysts, and traders are advised on sustainability

- Analysis of sustainability risks and opportunities
- Development of tools to aid sustainable investing and stewardship
- Frequent communication on sustainable investing information
- Regional experts located across low-, middle-, and high-income countries
- Guidance on exercising rights
- Engagement and collaboration with investees and other stakeholders[13]
- Training and education

13 When we describe stakeholders in our investment and stewardship activities, we consider it a broad term to encompass a range of partners with whom we engage as we ultimately strive to achieve client goals. Stakeholders can vary by asset class, activity, and region, among other factors. In public markets collaborative engagements, for example, we engage with a range of partners, including asset owners, peer asset managers, companies, and nonprofits, and would consider all of these partners stakeholders. In our timberland business, in contrast, we may partner with indigenous community bodies, conservation departments, corporations, and local communities.

The sustainability team collaborates across the investment, product, and asset class lifecycles to provide support that includes:

- **Analysis of sustainability risks and opportunities—**Work with investment professionals to assist them in understanding and leveraging sustainability data and research, including differences across asset classes, markets, and sectors, in their investment analysis
- **Development of tools to aid sustainable investment—**Identify tools that help investment teams assess sustainability risks and opportunities and develop new tools where we see an opportunity to add value
- **Frequent communication on sustainable investing information—**Put in place recurring and ad hoc meetings with investment professionals to discuss sustainability research and data, review stewardship plans and activities, disseminate sustainable investing-related updates, and communicate updates to sustainable investing business plans
- **Engagement with investees and other stakeholders—**Support engagement with investees and other stakeholders by identifying material sustainability issues to inform the agenda for further conversation on their potential, which may have an effect on the risk/reward profile of a given investment; this support may extend to participation in collaborative initiatives intended to address systemic risks
- **Training and education—**Conduct training sessions for investment personnel on sustainability themes; this training can be part of ongoing professional development or ad hoc sessions at the request of investment teams to enhance their knowledge on a particular sustainability topic
- **Guidance on exercising rights—**Review the exercise of certain rights associated with ownership and/or management of an asset class by advising investment colleagues on the intersection of sustainability factors and the exercise of their rights; support can range from research that assists in proxy equity voting decisions to the identification of sustainability factors that may help us exert influence through a credit event in our fixed-income holdings
- **Product development—**Support the development of thematic and impact-related investment products and strategies, including sustainability reporting

Decades of experience in Asia emerging markets[14]—on-the-ground investment professionals with in-depth knowledge

Through a global footprint of investment professionals, we can apply a broad range of local and market expertise to our range of products. For example, our emerging-market equity team focuses on identifying high-quality companies in emerging markets while our emerging-market debt team focuses on strategic allocations to hard currency and sovereign and corporate debt. We also have investment professionals embedded in multiple emerging markets such as Mainland China, Indonesia, Vietnam, Malaysia, the Philippines, and India. We're able to leverage their local knowledge to support our investment decision-making.

Our data vendors are still expanding coverage for these markets as regulators are also increasing disclosure expectations, and our local teams remain invaluable when filling information gaps. For this reason, we also believe it's important to consider local expectations and practices and to compare investment opportunities on a like-for-like basis; therefore, for public assets portfolio reviews, we'll use corporate governance data that considers practices in a given issuer's home market. Similarly, our proprietary sovereign debt model only compares an issuer's sustainability characteristics with those of sovereign issuers within the same economic development tier.

14 Represents the time we have been in continuous operation in these markets, although our firm history in Asia markets can be traced back as far as 1897 in China, which we exited in 1946 before reentering in 1996.

Accountability for sustainability and stewardship in compensation structures

We believe that incentivizing our employees to align with the goals of our clients helps us to achieve clients' investment objectives. For this reason, the contribution of investment professionals toward sustainable investing and stewardship within their relevant portfolios is a consideration used in the annual discretionary bonus decision-making process across most asset classes.[15] Accordingly, each team is expected to contribute to the firm's advancement in sustainable investing overall and adhere to research processes that integrate sustainability considerations where financially material and in line with our fiduciary duty to clients. In addition, senior leaders have goals related to sustainability; for example, our asset class investment leaders have clear goals intended to consistently improve our sustainability integration practices, which are linked to their compensation.

Members of our sustainability team are evaluated on a range of annual performance goals related to the success of our sustainability program. This assessment criteria may vary depending on the asset class they support and can include consideration of their contributions to sustainability research, stewardship support, achievement of third-party certification standards, and other evidence of progress toward our sustainability goals.

Sustainability research, data, and tools

We have access to internal and external data, research, and tools that we can use to assess the potential impact of material sustainability factors on the valuation and risk/return profile of client portfolio investments. External sustainability data is sourced from a multitude of vendors, ranging from third-party global research specialists to ratings and sector/thematic data providers. We use these resources to support integration, engagement, collaboration, and proxy voting. We also support client needs by harnessing data to support investment screens that consider sustainability characteristics.

In 2024, we enhanced our suite of data and tools by licensing three new data platforms to support private asset class investments:

1. **Biodiversity data—**Supporting timberland, agriculture, real estate, and infrastructure, we now have a resource that integrates data regarding environmentally protected locations, key biodiversity areas, and threatened species onto one platform for our teams to consider during their investment analysis.
2. **Biomass and impact measurements—**Our timberland team onboarded a new tool that uses geospatial data to monitor forests and identify forest area gains, losses, and carbon impact.
3. **Supply chain monitoring—**Our timberland, agriculture, and real estate operations teams now have access to a tool that helps monitor their supply chains to manage associated risks, comply with legislation, and enhance transparency related to sustainability issues.

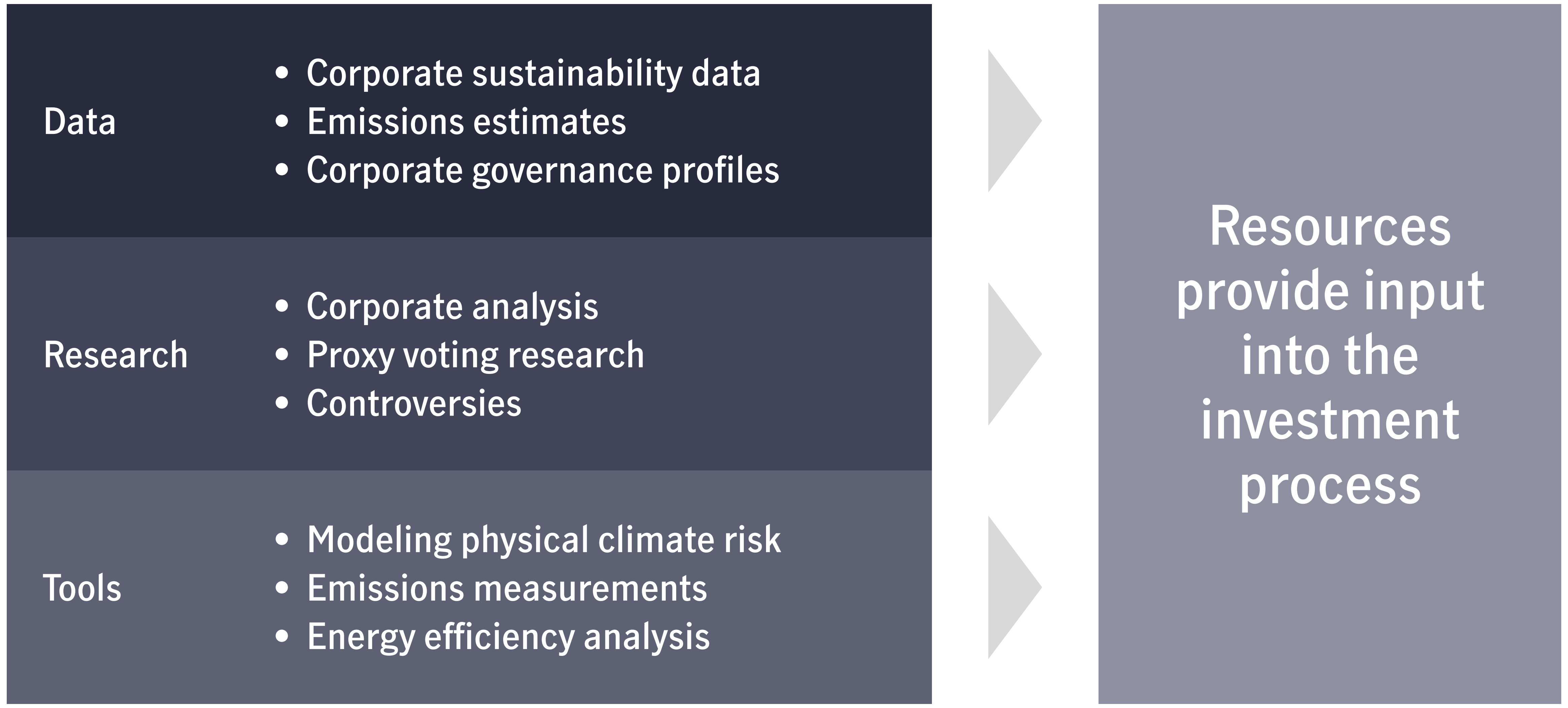


Illustration of our process (and information sources) may change over time. This data could include scoring and rating data compiled to help investment teams compare companies. Some data used to compile third-party sustainability scores, and ratings may be subjective. Other data may be objective in principle but are not verified and may contain estimated data. Third-party scores may also consider or weigh sustainability-related criteria differently, meaning that companies can receive widely different scores from different third-party providers.

15 Does not include securitized fixed-income and multi-asset solutions.

Sustainability policies, statements, and frameworks

Learn more about our sustainable investing policies and statements

Our policies, statements—also available on our sustainability section of the website—and governance practices guide our sustainable investment activities. We use our policy and statement framework to direct action across our investment activities, from integration to investment stewardship.

These policies and statements generally consider that leading practices and expectations may differ across markets, asset classes, and sectors, among other factors. Our fiduciary duty to our clients is always integrated into and considered at the forefront of our policies and statements.

Global policies, statements, and frameworks

- Sustainable investing and sustainability risk statement
- Climate change statement
- Nature statement
- Cluster munitions policy
- Global issuer engagement policy
- Global proxy voting policy and procedures
- Executive compensation statement
- Responsible contracting policy
- Timberland and agriculture policy on deforestation
- Water statement
- Client-directed exclusions framework

Asset class-specific sustainability frameworks

- Real estate sustainability framework
- Timberland and agriculture sustainable investing framework
- Infrastructure sustainable investing framework
- Private equity and credit (PE&C) sustainable investing framework[16]

16 This framework was updated to include the deforestation exclusion option in March 2025.

Our role as investors

Our approach to meeting our clients' needs

Risk management

As an asset manager, we aim to deliver strong risk-adjusted investment returns for our clients over time, operating within a flexible framework that's defined by each client's portfolio mandates and investment objectives.

Naturally, our success is judged by how well we meet our clients' needs and objectives, including how effectively we identify and manage investment risks and opportunities. Accordingly, we seek to address material risks and opportunities that we believe may arise from systemic global challenges such as climate change, nature loss, and inequality.

As part of that effort, we integrate what we consider to be financially material sustainability factors into our investment processes and strategies across asset classes and world geographies.[17] Our approach to doing so focuses on three broad core themes—climate, nature, and people—that are directly informed by and linked to financial materiality assessments we've conducted.

For more information, please see the sustainability strategy section of this report.

Our culture, values, and beliefs

As an active global asset manager with a corporate culture steeped in thoughtful collaboration combined with in-depth, objective analysis and research, we believe we've developed a firm understanding of how various sustainability factors and principles should help inform our investment activities and decisions.

At a high level, we believe sustainability is an important material driver of financial value creation for our clients, while active stewardship practices can help us build strong relationships with all our stakeholders, from clients and employees to tenants, borrowers, and investment partners.

Our core beliefs support our culture of sustainability

Sustainability factors can affect financial value

We integrate what we consider to be financially material sustainability-related risks and opportunities into our investment decision-making processes throughout the investment lifecycle.

Active managers have a built-in stewardship advantage

We draw on our deep knowledge of and relationships with our investees to encourage performance improvements aimed at achieving our clients' objectives and enhancing the long-term value of their portfolios. Where we operate assets, we pursue what we see as the best sustainability processes and standards on behalf of our clients, our firm, and our employees.

Clients need access to sustainable investing options to meet their unique requirements

Today's clients have increasingly sophisticated investment needs, goals, and expectations, ranging from ESG integration to high-caliber impact investments; therefore, offering a broad array of products and services enables us to better serve our clients.

17 We seek to incorporate material sustainability considerations throughout the stages of our investment and asset ownership lifecycles, taking into account the characteristics of the asset class and investment process in question, as well as industry and geography, among other factors. Each investment team operates in different markets and with different nuances to its approach to investing. Accordingly, each team integrates sustainability factors into its investment process in a manner that best aligns with its investment approach. Exception to this are strategies where sustainability integrated investment approach is impractical, impossible, or not-aligned with client objectives, for example in relation to certain instrument types where sustainable comparable alternatives are unavailable, passive products, funds that invest in derivative instruments, products managed in accordance with specific client objectives, and delegation to third-party asset managers. Refer to Manulife IM's sustainable investing and sustainability risk statement for more detail.

Our approach to meeting our clients' needs

We take a highly consultative approach to meeting our clients' sustainability needs and objectives. We seek to support their portfolio goals and expectations by leveraging our sustainability and investment expertise across a broad range of global geographies and asset classes, as well as by offering a variety of multi-asset class solutions. We continuously seek to enhance our product offerings and the quality of our reporting in line with industry standards and best practices.

The spectrum of our sustainable investing offerings

ESG integration

Consideration and analysis of financially material sustainability risks and factors as part of investment decision-making

Negative screening[18]

Industry sectors or companies excluded/divested from to avoid risk or to better align with client values

Positive screening[18]

Investments that target companies or industries with better sustainability performance

Thematic investments

Investments that specifically target sustainability themes (e.g., clean energy, green property, climate mitigation)

Impact investments

Investments that intentionally and additionally seek to generate positive, measurable social, and/or environmental impact as a core component of their investment thesis alongside a financial return, which emphasizes the optimization of social and/or environmental benefits and may result in a financial trade-off

For illustrative purposes only. A sustainability risk is any sustainability-related event that, if it occurs, could or will have a material negative impact on the value of investments we make for our clients. Sustainability factors include environmental, social, and employee matters; respect for human rights; and anticorruption and antibribery matters. Please see Manulife IM's sustainable investing and sustainability risk statement for more detail.

18 Applicable to public markets strategies only.

A broad, robust suite of sustainable investing solutions

We make decisions easier and lives better by empowering investors for a better tomorrow. Our clients rely on us to develop and offer a broad range of investment strategies designed to help meet their particular portfolio needs and objectives. To that end, our spectrum of investment offerings features a robust suite of sustainable investing strategies across asset classes.

Examples of our sustainable investing strategies[19]

- **Client-directed exclusions—**This optional investment exclusions framework offers clients the ability to screen out investments with exposure to thermal coal mining and thermal coal power generation. The framework sets timelines aligned with the International Energy Agency's (IEA's) finding that unabated coal phase-out is needed in Organisation for Economic Co-operation and Development markets by no later than 2030, and by no later than 2040 in the rest of the world. We anticipate adding other thematic exclusion screens in the future.[20]
- **Global Climate Equity and Climate Bond Strategies—**These strategies aim to align their portfolios with the overarching goal of reducing greenhouse gas (GHG) emissions and achieving real-world decarbonization while investing in companies that we believe may outperform through climate-related actions.
- **Global Environmental Transition Strategy—**This global thematic equity strategy offered in Asia seeks to achieve long-term capital growth by investing in companies that we believe positively contribute to the energy transition through low-carbon solutions and/or products and services that enable energy efficiency, promote electrification, or improve resource use.
- **Hancock Timberland and Farmland Strategy—**We offer fully integrated (property and investment management), sustainable global timberland investment solutions comprising diversified sources of return and cash-yield strategies.
- **Manulife Co-Investment Partners Strategy—**This private equity strategy focuses on investing within detailed sustainability criteria with the goal of promoting environmental and social thematic priorities, including people empowerment, a responsible digital economy, climate stability, and sustainable societies. The strategy will invest alongside certain private equity sponsors in equity co-investments.
- **Manulife Forest Climate Strategy—**This innovative impact strategy provides investors with the opportunity to promote climate change mitigation through sustainably managed forests, where carbon sequestration is prioritized over timber production. The strategy seeks to invest in a globally diversified portfolio of sustainably managed timberland assets with strong carbon sequestration potential and high conservation value while pursuing attractive risk-adjusted returns for investors.
- **Manulife Infrastructure Strategy—**This private equity infrastructure equity strategy focuses on core/core-plus, mid-market U.S. infrastructure assets and provides exposure to multiple sectors, including renewables, digital infrastructure, utilities and energy, and transportation, with sustainability considerations factored into investment decisions.
- **Manulife Permanent Cropland Plus Strategy—**Our vertically integrated, sustainable agricultural investment strategies include a variety of commodity types and global geographies, with each strategy implementing regenerative farming practices and providing opportunities to invest in midstream operating companies beyond the farm gate.
- **Sustainable Asia Bond Strategy—**This fixed-income strategy aims to invest predominantly in Asian bond issuers that we believe demonstrate strong sustainability attributes and/or adhere to enabling sustainable practices. We also offer an investment-grade version of the strategy that was one of the first sustainability-themed investment products offered to Mandatory Provident Fund participants in Hong Kong.
- **Sustainable Asia Equity Strategy—**Available to clients in Europe and Asia, this Asian equities strategy integrates sustainability in part through portfolio tilts toward companies that exhibit environmentally and socially responsible characteristics.

For more information on our approach to sustainability within each asset class, please see the sustainable investing in action section of this report.

19 Not all investments are available to all investors in all jurisdictions. For more information about specific products, please refer to their offering documents.
20 In early 2025, we enhanced the client-directed exclusions framework to include a screen that excludes companies we identified as having high exposure to tropical deforestation risk.

Soliciting regular feedback from clients

We make every effort to understand the needs and objectives of our clients through direct and regular interactions. At a minimum, we endeavor to speak with clients on an annual basis. We use these discussions to elicit clients' feedback on their overall investment goals and needs and to review their particular sustainability objectives. In addition, we use clients' specific requests and questionnaire responses to better inform our client reporting and ensure that we're continuously learning and evolving, being transparent, and tracking, identifying, and prioritizing emerging trends.

To help clients better understand the outcomes of our active engagements with issuers and our operational sustainable investing initiatives, we've continued to add new sustainable investing case studies to our institutional website. The situations presented in the case studies reflect the wide array of sustainability issues with which our professionals across the business regularly engage on behalf of our clients and stakeholders.

In addition, we frequently publish white papers and other thought leadership articles to share our latest research, viewpoints, and expertise on sustainable investing topics and trends. For example, in 2024, our publications explored natural capital investing, carbon markets, water, the circular economy, sustainability standards, investment stewardship, inclusive capital, and rising inequality.

In 2024, we also conducted outreach to clients at several industry events and responded to client and consultant requests to deliver bespoke training on sustainable investing trends. These conversations with clients and consultants covered climate risk, natural capital management, and the digital economy, among other topics.

Considering clients' investment time horizons

While Manulife IM investment time spans can vary by client mandate, asset class, investment strategy, and materiality of sustainability factors, we're generally considering longer-term time horizons across the assets we manage. Some examples of each factor and the associated timelines are:

Clients—Investment timelines are mandate specific, but we have clients such as endowments, foundations, family offices, and pensions with investment horizons that are intended to last in perpetuity.

Asset classes—Private assets are managed along timelines that can extend for significant periods. Our private infrastructure strategies consider an operational time frame of up to 50 years, with returns generally expected to mature 7 to 10 years after investment.[21]

Material sustainability factors—Risks and opportunities posed by climate change not only have an effect across asset classes, but also across the short-, medium-, and long-term time horizons. We strive to consider both the risks and opportunities associated with transition and physical risks and the associated timelines as we manage client assets.

21 The investment term of private strategies will vary from strategy to strategy depending on a number of factors, including asset class and products structure. Offering documentation should be reviewed for full details.

Clients are expressing views on sustainable investing

Some of our clients continue to elevate their expectations regarding sustainable investment and stewardship practices. Regular due diligence questionnaires (DDQs) and requests for proposals (RFPs) are an important means through which our clients articulate their priorities.

The most common operational themes addressed in our 2024 RFPs and DDQs were environmental risk management in real assets, climate strategy, and diversity, equity, and inclusion initiatives. In addition, we're often asked about our investment stewardship and engagement strategies and activities, ESG integration practices, and sustainability metrics.

Examples of recent client questions

ESG integration into the investment process

- How are you using sustainability factors to drive better outcomes for your clients?
- How does the sustainability team collaborate with other investment teams?
- How do you measure the portfolio's sustainability profile? Provide data on specific performance metrics. (Requests have included carbon footprinting, health and safety, diversity, equity and inclusion data, and alignment with UN Guiding Principles on Business and Human Rights.)

Active ownership and stewardship

- How do your active ownership practices affect your investment decisions?
- How do you measure if you've met your active ownership objectives, and who makes those evaluations?
- How do you assess and manage sustainability-related investment risks and opportunities? What are the key data, tools, and models used in your analysis?
- How do you identify engagement opportunities and subject matter?
- How do you consider sustainability risks and opportunities in your proxy voting decisions?

Communicating with clients

Our clients routinely request customized reporting to supplement the information found in our public and regulatory-mandated reports. For example, on request from a client, we may provide more detailed sustainability data at the fund level or about the engagement and/or proxy voting activities we undertake in relation to holdings in that client's portfolio.

Public reporting

In addition to this report, we make the following materials available to our clients and other stakeholders:

- **Asset class-specific sustainability reports—**We publish annual reports for our agriculture, timberland (natural capital), and real estate asset classes.
- **Nature-related financial disclosures—**Our timberland and agriculture nature disclosures are informed by the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD).
- **Manulife sustainability report—**Our parent company, Manulife, publishes its own separate annual sustainability report that describes its sustainability strategy, performance, and results.
- **PRI assessment—**As signatories to the Principles for Responsible Investment (PRI), we submit and publish reports in line with the PRI's reporting requirements.
- **External initiatives—**We submit sustainability data to certain industry benchmarks, including GRESB, the ESG Data Convergence Initiative (EDCI), and Finance for Biodiversity.

Risk management

Systemic risks in financial markets are generally non-diversifiable and, therefore, may have a negative impact on investment returns across client portfolios. As long-term investors, we've established a multilayered risk management structure to help mitigate the investment risks that may arise from systemic risk exposures in our portfolios. In addition, we participate in various initiatives to help protect the integrity of well-functioning financial markets in the face of these risks.

In the sustainability strategy section of this report, we discuss our approach to climate change, nature loss, and inequality risks that, in our view, will likely present systemic threats to financial, environmental, and societal stability—and, therefore, to our businesses and our clients' financial objectives—over the coming decades.

We believe that understanding and awareness of systemic risks across the capital markets remain fragmented and incomplete, leading to potential mispricing of investment assets, and that many companies may be inadequately prepared to respond to these risks (and to related opportunities). We may take a variety of steps toward managing sustainability-related risks and opportunities across our businesses and investments, including through stewardship, investment research, and investment decisions.

Systemic risk evaluation as part of our overall risk management framework

Building on our history as a trusted fiduciary, long-term investor, and engaged corporate citizen, we actively solicit input from external and internal stakeholders as we seek to evolve our capital allocation and sustainability practices.

Our culture of collaboration and innovation enables us to effectively leverage the range of capabilities across our platform to enhance our approach to sustainability by combining local knowledge with a broader global perspective. Because we operate across numerous asset classes and global markets, our investment teams are empowered to account for market and systemic risks in their respective investment processes and strategies, which are then monitored at an organizational level.

Manulife IM employs a risk management approach that consists of what we call three lines of defense, each of which has its own separate management structure and reporting authority to ensure independence.

While risks—particularly systemic risks—can never be entirely eliminated from investment portfolios and business operations, we believe our intersecting risk management processes help us to effectively manage and mitigate these risks in our clients' portfolios and for the assets we operate.[22]

We rely on both quantitative and qualitative risk management inputs

Across our investment capabilities, portfolio managers are ultimately responsible for managing risks in the portfolios they manage. In connection with a variety of systemic risks commonly defined in terms of sustainability factors, we participate in collaborative efforts, which helps us to amplify our influence across global capital markets and potentially minimize the impact of systemic risks.[23] Our public markets teams are supported by an investment risk group, a sustainability team, and models that collectively monitor and manage market risks. Across all asset classes, our sustainable investment professionals help portfolio managers stay on top of the systemic risks that arise from global issues such as climate change.

Line 1—Identify and assess

Investment professionals (investment decisions)

Sustainability team (investment research and support)

Line 2—Oversight and guidance supporting the first line

Compliance and risk teams

Line 3—Review and assurance regarding lines 1 and 2

Audit team

Our 3 lines of defense identify and manage different forms of risk

- **Liquidity**
- **Sustainability, including climate risks**
- **Operational**
- **Financial**
- **Regulatory**
- **Systemic**

For illustrative purposes only.

22 Please refer to the sustainability strategy section of this report for more information. **23** Even though we may collaborate with other stakeholders in engagement and collaboration activities, we retain the ultimate and unilateral discretion to make investment decisions and also address those issuers independently. See more in the engagement and collaboration subsections.

Sustainability strategy

A *message* from Brian Kernohan

In my role as chief sustainability officer for Manulife IM, I spend a great deal of time talking to clients, intermediaries, and partners about what's most important to them and how we can accomplish our goals together. Through my 30 years in the industry, I've experienced how sustainability has evolved from an optional consideration to an essential factor in assessing risks and opportunities. Our approach to asset management has progressed in a similar fashion, and I'm proud to outline our sustainability strategy in this section of the report.

I'll begin by reiterating that our approach to sustainability is deeply rooted in our commitment to value creation and value protection. Our core belief is that companies focused on business-relevant, material sustainability risks and opportunities can perform better and be more competitive.

Through collaboration and communication, we understand most investors aren't just looking for specific, short-term sustainable investment options. Instead, they want to use our expertise and capabilities to support large-scale sustainable investment strategies—with the potential to span both public and private markets. To ensure we continue to be in the best position to support them, we took multiple steps over the past year to strengthen our sustainability program, governance framework, and model.

1. **We combined our public and private markets sustainability teams,** which previously operated separately, into one group. This allows us to draw on the deep expertise of the broader team and foster stronger collaboration across our investment management organization. While we continue to provide focused support to meet the distinct needs of our investment and distribution teams and our clients, our new approach expands access to key disciplines to enhance our collective expertise and knowledge.
2. **We aligned the strategic direction of our sustainability efforts around three pivotal themes: climate, nature, and people.** Today, the long-term preservation of wealth is increasingly tied to how we address major global challenges such as climate change, loss of nature, and rising inequality. Our three themes are direct outcomes of our materiality assessment, which identifies and surfaces sustainability issues that may manifest to become financially material to our clients' portfolios and to our business.
3. **We continue factoring the impact of global megatrends into our analysis and approach, including the 4 Ds: decarbonization, demographics, digitization, and deglobalization.** These transformational trends present significant challenges for economic growth, as well as unique opportunities. As we address the challenges of today, we need to consider and prepare for how these megatrends will influence and shape the industry—and society overall—in the future.

Applying a systematic approach to climate, nature, and people (and factoring in the 4 Ds) helps us identify, manage, and, where possible, mitigate risks at the asset class level and across our full platform. Doing this well requires not just a sound strategy but diligence, dedication, and the agility to adapt our paradigm to stay ahead of evolving market dynamics and emerging or shifting opportunities and risks.

As ever, we look forward to working with you as we continue to refine and implement our strategy to create lasting value for all stakeholders. We hope the information presented in this report demonstrates our commitment and approach clearly, and we encourage your questions and feedback.

Brian Kernohan
Chief Sustainability Officer
Manulife Investment Management

We believe many investment opportunities and significant risks emerge from three of the world's biggest sustainability challenges—climate change, nature loss, and rising inequality—and we align our sustainability offerings and processes to address these themes across assets we manage.

Some systemic risks are so material that they threaten the continued smooth and sustainable operation of the economy, our society, and even the planet. Climate-related risks pose a systemic threat to financial, societal, and environmental stability, while business leaders consistently identify nature loss as one of the top risks to the global economy. As awareness of income inequality and discrimination grows, it increasingly represents an actionable frontier for sustainability-focused investors.

Materiality underpins our approach to sustainability and stewardship

These themes link directly to our materiality assessment, which identifies and communicates sustainability issues that may be financially material to our clients' investments and to our ability to operate on their behalf. Our goal as an asset manager is to identify and mitigate these risks to the extent we're able, adapt to the risks that can't be fully mitigated, and realize as many of the opportunities as we can.

The three themes are also linked to the global megatrends of decarbonization, demographics, digitization, and deglobalization. As long-term investors, we strategically consider and integrate these trends into our investment decision-making process because they're expected to significantly shape the future, both for our clients and for society.

Our three core themes

Climate—Intrinsically connected to decarbonization and energy transition by prioritizing future resilience and mitigation: Climate change represents a systemic threat with the potential to cause immediate and possibly irreversible damage impacting the global economy, financial markets, and society as a whole. It is a driving force behind shifting global demographics and the ongoing loss of biodiversity.

Nature—Closely linked to decarbonization, demographic shifts, and deglobalization: Protecting healthy ecosystems is immensely valuable to the vitality of communities and economies as nature loss is one of the top risks to the global economy, which is increasingly dependent on nature.

People—Directly linked to demographic shifts, uneven access to digital technologies, and fragmented effects of deglobalization is the rise in inequality: We believe social inequality is a systemic risk to societies and economies as a whole, and we strive to factor these social considerations into our investment decision-making processes.

Global megatrends—4 Ds

Decarbonization | Demographics | Digitization | De-globalization

Climate

This section builds on our previous Task Force on Climate-related Financial Disclosures (TCFD) reports[24] to align our responses with the International Financial Reporting Standards (IFRS) Foundation's recommendations related to the four core elements and asset managers' five supplemental recommendations. Here, we outline our approach to climate-related risks and opportunities and how we strive to demonstrate innovation and outpace the expectations of our clients. Sustainable investing is an evolving field, so we'll continue this journey with our clients as we navigate the changing regulatory and global environment, particularly around climate disclosures.

As a business, we believe we're stronger when people and the planet thrive. We recognize the threats posed by climate change to our business, public health, and the livelihoods of the communities in which we operate and the urgent need to preserve the quality of our natural environment.

This includes how we manage our operations, how we make investment decisions, and how we develop and offer financial products and services, always with a view to our clients' and investors' best interests and objectives.

For information on Manulife's corporate climate strategy, see Manulife's climate action and climate action implementation reports.

Manulife IM functions as part of the broader Manulife group, not a stand-alone entity. That said, this section does not purport to reflect Manulife's overall climate initiatives or to comprehensively disclose its approach to climate risks and opportunities. It seeks to holistically cover Manulife IM's capabilities across asset classes and may be supplemented by Manulife's climate-related risks and opportunities (or TCFD) disclosure, which is published as part of Manulife's annual sustainability report, as well as Manulife's climate action plan and climate action implementation plan, for a broader perspective. As an entity authorized and regulated by the Financial Conduct Authority in the United Kingdom, Manulife Investment Management (Europe) Limited fulfills the relevant reporting requirements through its entity TCFD report.

24 We support the adoption of industry-wide standards for disclosure, including the framework outlined by the TCFD and we have sought to voluntarily align with TCFD principles where possible.

Governance

In addition to the high-level governance of climate risk through the structure we describe in the governance section, we also established internal working groups to monitor the progress of our emissions reductions (e.g., scope 1 and scope 2 working group and financed emissions working group) and real asset decarbonization initiatives (e.g., decarbonization working groups in real estate, agriculture, and timberland).

For additional information on Manulife's climate strategy governance, please see the sustainability governance and climate-related risks and opportunities sections of Manulife's sustainability report.

Strategy

At Manulife IM, we believe that unmitigated climate-related risks may pose imminent or chronic material risks to investments. These risks present a systemic challenge to financial, environmental, and societal stability—and therefore to our businesses, assets, and clients' financial objectives—over the coming decades. The World Economic Forum (WEF) has consistently identified failure to mitigate climate change and climate change-linked natural disasters and extreme weather events among the top potentially damaging global risks over the next 10 years.[25] Our climate change statement[26] outlines our belief that asset managers should assess the transition risk, physical risk, and opportunities posed by climate change to the companies and assets in which they invest.

We aim to identify climate risks and opportunities over various time frames and, where material, reflect their financial impact in our investment analysis. Although there's no set rule for short-, medium-, and long-term time horizons for climate-related issues, short term usually refers to 1 to 5 years, medium term refers to 5 to 10 years, and long term refers to 10+ years.[27]

While we recognize that the economic impact of climate change will vary across companies, assets, sectors, industries, and geographies,[28] we generally believe that the companies we invest in must consider responding to the challenges of climate change. This involves adopting new technologies, responding to changing policies, shifting consumer preferences, and preparing for both acute and chronic physical consequences. These conditions and imperatives create risks and opportunities that have financial impacts that we need to act on today.

The response to climate change across capital markets remains varied, leading to the potential mispricing of assets and the possibility that many companies are inadequately prepared to respond to the risks and opportunities that a low-carbon transition could present. We build our sustainable investing capabilities to help clients guard against climate risks while also seeking to invest in companies and assets with appropriate risk-adjusted return profiles that we believe can contribute to sustainable climate solutions. We continue to develop strategies that support sustainability goals, including strategies oriented toward investors who wish to achieve structurally lower carbon emissions and want to identify with companies that are making strong progress on climate change goals.

25 See World Economic Forum's Global Risks Report 2023 and Global Risks Report 2024. **26** In parallel with Manulife IM climate statement, Manulife's environmental risk policy sets out an enterprisewide framework for the management of environmental risks within our operating business activities and owned assets. **27** The TCFD classifies climate-related risks relevant to investors over these time frames as physical (associated with acute or chronic changes in weather patterns) and transition related (effects resulting from the transition to a low carbon economy, including policy, legal, technological, and market changes to address mitigation and adaptation requirements). The TCFD framework also emphasizes that efforts to mitigate and adapt to climate change produce opportunities for companies, industries, and investors. We recognize that these risks and opportunities vary by sector and geography. **28** Please see the sustainable investing in action section for details on each asset class perspective.

A thematic framework for investing in the nature and climate transition strategy offering existing and new solutions capitalizing on megatrends

We believe the urgency of the nature and climate transition will continue to present a broad and deep investment opportunity set. Visit manulifeim.com to read more about how we've categorized these opportunities within five distinct themes.

Natural capital

Water

Circular economy

Clean energy

Decarbonization

Risk and impact management

Manulife IM is committed to advancing a risk and opportunity management framework that articulates how we identify and manage the climate-related risks and opportunities to which our client portfolios are exposed. We integrate the consideration of climate risks and opportunities into the investment processes of our investment teams as we seek to deliver long-term resiliency and sustainable investment outcomes for clients.

Manulife IM defines climate-related risks as the potential negative impact from climate change, which may be experienced directly (e.g., through financial loss) or indirectly (e.g., through reputational harm), resulting from the physical impacts of climate change (physical risks) or the transition to a low-carbon economy (transition risks). Climate-related opportunities refers to the potential positive effects arising from climate change for an entity (e.g., mitigation and adaptation efforts). These definitions are consistent with the International Sustainability Standards Board's (ISSB's) IFRS S2 Climate-related Disclosures standard, which leverages the TCFD framework.

Examples of climate risks and opportunities we may consider

Driver	Event	Principle risk or opportunity	Anticipated time frame of impact
Physical risks	Acute physical risks refer to those that are event driven, including increased severity of extreme weather events such as extreme heat, coastal flooding, and tropical cyclones.	Acute risk	Short and medium term
	Chronic physical risks refer to longer-term shifts in climate patterns, such as sustained higher temperatures and changing weather patterns, which may cause rises in sea levels or chronic heat waves.	Chronic risk	Medium and long term
Transition risk	Climate policy may seek to limit activities that have an adverse climate change impact and promote activities that enable adaptation to climate change. Policy risk will vary by geography, industry, and company, as climate policy is more likely to target high-emitting industries such as power generation, utilities, and transportation. Examples of policy risk include the possible implementation of a carbon tax and shifting energy use toward lower emissions sources.	Policy/legal risks	Short term
	Technological improvements or innovations that support the transition to a lower-carbon economy can significantly impact organizations. The development and use of emerging technologies such as renewable energy, battery storage, energy efficiency, and carbon capture can disrupt business models and shift market dynamics. The combination of targeted policy support and the maturation of climate technology has contributed to driving down the unit cost of these solutions, increasing their potential to disrupt previously stable industries.	Technology risk	Short and medium term
	Market risks can result from shifts in supply and demand for certain commodities, products, and services, as consumer behavior changes in response to growing awareness of climate-related risks and opportunities. Examples include reduced demand for goods and services, decreased revenues due to changes in product demand and revenue mix, and increased production costs due to changing input prices.	Market risk	Medium and long term
	Climate-related regulation in various jurisdictions has placed increased scrutiny on claims made by private sector companies and financial institutions related to their climate initiatives. Regulators are screening for greenwashing (false or misleading claims related to a company's sustainability or climate initiatives), which can have both financial and reputational risks for companies.	Reputational risk	Medium term
Opportunity	Individuals are growing more conscious of the relationship between their consumption and its impact on GHG emissions. This may result in a shift to consumer preference for goods and services with lower emissions profiles and entities that serve that need may also generate reputational goodwill.	Market and reputational opportunity	Short and medium term
	The demand for durable, high-integrity carbon credits is growing which leads to opportunities for nature-based solutions that can provide access to such credits (e.g., timberland assets).	Market opportunity	Short and medium term
	Energy efficiency in buildings lowers operational costs and appeals to tenants looking to reduce their carbon footprint. There are opportunities, therefore, in reducing energy consumption across a real-estate portfolio (i.e. real estate assets).	Operational opportunity	Short and medium term

Our processes for identifying climate risks are supported by our policies and engagement practices. Manulife IM's climate change statement outlines our position on identifying, managing, and integrating climate risks and opportunities in our investment processes.

Our fundamental investment process goes beyond financial statement analysis and involves ongoing monitoring of the strategies, capital structure, and management of sustainability risks and opportunities of a given company or entity. For public markets asset classes, we have an internal tool, our Sustainability Data Manager (SDM), which provides climate data for holdings within each investment strategy. SDM provides teams with information on absolute emissions, financed emissions, carbon footprinting, green revenues, climate value at risk (VaR), and emissions intensity, which helps them evaluate climate risks and opportunities within the portfolios they manage. Within our private markets direct equity, we monitor energy efficiency in real estate assets monthly and fertilizer use in agriculture, among others. These have the ability to reduce emissions alongside operational cost reduction.

There's no single dataset that perfectly captures the risks of climate change effects. We apply tools designed to analyze carbon emissions, conduct scenario analysis, examine fossil fuel reserves, and formulate conclusions about physical and transition risks, along with other topics across the climate-related risk spectrum.

Tools to measure climate impact by asset class

✓ Implemented ⊙ In progress — Not available

Activity	Listed equity	Fixed income	Infrastructure	PE&C
Carbon footprint analysis	✓	✓	✓	✓
Company transition assessment	✓	✓	⊙	—
Climate risk tool kit	✓	✓	✓	—

Activity	Real estate	Timberland	Agriculture
Carbon footprint analysis	✓	✓	✓
Scenario analysis	✓	✓	✓
Operational decarbonization targets	✓	✓	✓
Asset-level transition plans	✓	⊙	⊙

What it means

Carbon footprint analysis—Measures portfolio carbon to provide managers with decision-useful information for decarbonization, comparing against a baseline, benchmarking against peers, and prioritizing actions

Company transition assessment—A road map outlining how a company will transform its assets, operations, and business model to align with a low-carbon economy toward net zero emissions

Climate risk tool kit—A tool for investment teams to evaluate climate risk at portfolio and issuer levels, centrally housed on our global research platform

Scenario analysis—Within private markets, we assess climate physical risk through portfolio- and asset-level assessments during the acquisition process and annually as needed; within public markets, this entails aligning climate risk data to multiple scenarios within daily risk reports, focusing on investee companies with the highest climate risk exposure at the portfolio level

Operational decarbonization targets—Set mid-term targets for reducing operational scope 1 and scope 2 emissions where we have operational control of the asset and the ability to adopt decarbonization technology and adapt operating policies

Asset-level transition plans—Credible climate transition reports that outline cost-effective strategies to decarbonize assets, providing a road map for mid- and long-term carbon reduction targets, aligning capital to budget plans, and informing asset-level strategies

We believe scenario analysis is a particularly meaningful tool for understanding the impact of climate change. In those asset classes in which we've developed scenario analysis, most portfolios show that climate transition risk—the general cost associated with moving from a current business-as-usual scenario in the direction of reduced emissions and toward a carbon-neutral future—represents a significant portfolio risk. Within the firm, investment teams that use scenario analysis may apply a range of scenarios, including 1.5°C, 2°C, 3°C, and scenarios above 4°C, which are complemented by the inclusion of carbon pricing and assessment in their analysis.

We continue to evolve our models and tools to assess the potential impact on our business of the Intergovernmental Panel on Climate Change scenarios. In addition, we made progress in assessing climate risk and resilience in our real estate portfolio by enhancing our internal assessment process and through scenario portfolio review.

The third-party climate assessment tool that we use applies a multi-year time horizon to assess risks and opportunities based on direct emissions, covering both physical and transition risks and opportunities. Policy risk is calculated based on nationally determined contributions, while technology opportunities are based on the IEA's Energy Technology Perspectives model (superseded by the IEA's Global Energy and Climate Model in 2022). Several teams at Manulife IM also apply other scenarios and carbon pricing estimates into their models, including the development of worst-case cost scenario assumptions. We also use a proprietary model that allows investment teams to assess their climate exposure across their portfolios.

In addition, our expertise is built through engagement, data availability, and our stewardship efforts to better understand the full spectrum of risks and opportunities related to the assets we manage and operate. We may seek to engage with companies/entities/investors throughout the investment lifecycle to enhance the long-term value of our clients' investments; in 2024, for example, we continued to identify and engage with the issuers within our public markets portfolios most exposed to climate risk. We may also participate in engagement activities with other investors, depending on the approach that's deemed to be in the best interests of our clients, the issuer's relevant circumstances, and our engagement objectives. Manulife IM has participated in a wide range of climate change-focused associations and organizations that contribute to more robust climate disclosure reporting.[29] For more information on our engagement activities, please see the stewardship in action section.

Our collaborative approach between asset classes enables mutual learning and the sharing of evolving leading practices around climate-related factors material to our business. Our global presence enables us to track climate regulations, consumer sentiment related to technology innovation and climate action, and the decarbonization efforts of individual companies. We believe our global view is an important differentiator that sets us apart from many of our peers.

Partnering with clients on their climate-related goals

Manulife IM aims to deliver long-term resiliency and sustainable investment outcomes for clients by partnering with them on their own climate-related goals. We also aim to engage with our investee companies to accomplish these outcomes. To this end, we use a variety of initiatives, including:

- Providing training for investment staff on topics such as climate science, analysis, and available tools
- Engaging with companies in relation to their climate disclosure, business strategies, governance, and emissions reduction plans/progress
- Developing strategies and policies such as the client-directed exclusions framework that supports our clients' sustainability goals
- Educating and reporting for our clients on climate risks and opportunities
- Identifying energy and operational efficiency opportunities associated with emissions reduction in our real estate, timberland, and farmland assets
- Advancing emissions reductions for the real assets we manage on behalf of Manulife's general account

29 See the engagement subsection and the global collaboration list in the appendix for more information.

Determining the materiality of sustainability factors requires a certain level of judgment from the investment team based on its understanding of the asset, company, and industry in which it operates. We generally feel that it's unlikely that any asset or company will be unaffected by climate change; however, some industries may have a higher risk of exposure than others, and the assessment identifies those industries.

Where we identify climate-related risks and opportunities as financially material, we seek to integrate them into our investment process and manage them as part of our business strategy and planning. As we have investment teams operating in various markets, this results in different applications of sustainability analysis. Accordingly, investment teams integrate material sustainability factors into their investment processes in a manner that best aligns with their investment approach. Each team bears responsibility for the evaluation of financially material sustainability factors throughout due diligence, decision-making processes, and ongoing stewardship.[30]

In our integration process, we focus on seeking attractive risk-adjusted returns and resiliency over the long term. We factor in differences across asset classes, industries, geographies, and operating models, and as climate science evolves, so too does our approach.

We may take a variety of actions toward managing climate-related risks and opportunities across our businesses and investments to appropriately price climate risk. Broadly summarized, our available actions relate to asset allocation and selection, investment analysis and research, proxy voting, mitigating direct GHG emissions, deploying robust sustainability management practices for operated assets, and participating in collaborative industry climate initiatives. In general, our preferred position is to engage with companies to encourage effective implementation of climate risk mitigation and adaptation strategies, reserving the right to divest from any investment.

For more information on the integration of material sustainability factors, including climate risks, throughout the investment lifecycle for each asset class, see the sustainable investing in action section of this report.

Metrics and targets

We use a variety of metrics to track and manage climate alignment and, depending on the investment strategy, these may include absolute emissions, corporate carbon footprinting, portfolio warming potential, sovereign climate risks, and strategy-level emissions. Reliance on third-party data is significant in some portfolios and, as such, the quality and reliability of disclosures are expected to evolve alongside changing regulatory and policy environments.

Where appropriate and relevant to clients' investment objectives, we manage and monitor our alignment and that of our investee companies and assets with the Paris Agreement's goal of limiting the global average temperature rise to well below 2°C compared with preindustrial levels. We also use these metrics to manage and monitor the potential financial effects associated with climate change on our business. By understanding the benefits and limitations of the tools we use, we're better able to analyze the risks and opportunities available. Some of the tools and metrics we use include:

- **Direct data collection—**Since 2021, we've collected data directly from assets and portfolio companies in our private markets direct equity portfolios (real estate, timberland, agriculture, infrastructure, and PE&C) to gain a better understanding of their performance and benchmarks over time. In infrastructure, we collect emissions data, the number of companies with targets or transition plans, and then calculate avoided emissions. We also track asset-level decarbonization in our real estate equity, timberland, and agriculture portfolios.
- **Carbon footprinting and absolute emissions—**We calculate annual GHG and carbon inventories for invested timberland, farmland, infrastructure, PE&C, and real estate portfolios. For some public markets portfolios, we may also use exposure to fossil fuel reserves, emissions disclosure to assess exposure to a potential increase in carbon pricing or transition risk, or weighted average carbon intensity (WACI) data in metric tons of carbon dioxide equivalent (tCO_2e/$M sales) to assess the relative efficiency of emissions.

30 Across our investment capabilities, portfolio managers are ultimately responsible for managing risks in their portfolios. Our public markets teams are aided by an investment risk group, sustainability team, and models that together help monitor market risk.

- **Implied portfolio warming potential—**We use implied temperature rise metrics to assess our listed equity and fixed-income portfolio alignment with the Paris Agreement. This warming potential methodology captures all emissions of issuers (scope 1, scope 2, and scope 3) as well as revenues from low-carbon technology to provide an aggregate forward-looking perspective versus the carbon budget at 2°C warming to compute an implied temperature in the year 2100.
- **Sovereign ESG model—**Our proprietary sovereign ESG model allows us to track climate-related risks—including the momentum of these risks—for around 200 countries and territories. It also seeks to identify those countries that are taking adaptation measures against physical risk.
- **Strategy-level emissions monitoring—**We measure emissions at a strategy level to better understand and incorporate risks related to business disruptions, stranded or impaired assets, and regulatory risk, among other physical and transition risks that stem from climate change. In our real estate portfolio, we've begun using the Carbon Risk Real Estate Monitor (CRREM) to understand and manage asset carbon risk against Paris-aligned science-based decarbonization pathways.
- **Private markets real assets investments—**We integrate physical climate risk assessments into the investment due diligence. These assessments provide the likelihood of acute and systemic physical hazards across various scenarios and time frames.

As these metrics change over time, we expect to incorporate more forward-looking metrics, location-specific data, and increasing material scope 3 emissions data.

This incorporation of forward-looking metrics is an area we expect to build on going forward; specifically, we expect to continue reviewing the high-emitting sector pathways needed to meet the goals of the Paris Agreement and net zero ambitions. Sector-level emissions intensity metrics at a unit level, rather than a revenue level, will likely be one area of further development.

Nature

This section builds on the Task Force on Nature-related Financial Disclosures (TNFD) framework recommendations and related four core elements. Sustainable investing is an evolving field, so we'll continue this journey with our clients as we navigate the changing regulatory and global environment, particularly around nature disclosures. Here we outline our approach to nature-related risks and opportunities as well as where we strive to demonstrate innovation and exceed the expectations of our clients.

Governance

In addition to our governance of nature risk through the structure described above in the governance section, in 2024, we convened a nature working group to develop nature-related subject matter expertise specific to each asset class.[31] The group functions as a clearinghouse for information, leading practices and strategic planning across the sustainability team. The group is developing asset-specific implementation documents to guide execution on expectations in Manulife IM's nature statement.

Strategy

As part of our commitment to helping our clients pursue their objectives and build resilient portfolios, we're committed to positively affecting nature and biodiversity through our business and investment activities. We aim to proactively assess and manage nature-related risks and opportunities across our investments because we understand how essential nature is for the future success of businesses, the economy, and society.

- **We invest in a global economy dependent on nature—**Nature and biodiversity are critical for the functioning of society and the global economy. According to the WEF, over half the world's total GDP—about $58 trillion of economic value generation—is moderately or highly dependent on nature and the services it provides to society.
- **We believe water-related risks and opportunities can be financially material factors—**These risks and opportunities should be integrated into investment processes and operational asset management, where appropriate. In 2024, we released our firmwide water statement.

For more information, please read our nature statement, which can be found on our global institutional website.

Bringing investors together to discuss investing in natural capital

In 2024, we collaborated with the Cambridge Judge Business School in the United Kingdom to bring together parties from the financial industry to discuss investing in natural capital. Our Manulife and Manulife IM CSOs both attended this event, where they discussed the importance of acknowledging the crisis of nature loss to an audience of multidisciplinary experts and delegates from some of the world's largest asset owners. Attendees gathered for three days of discussions on stewardship and nature-related investments. This was an important opportunity for us to engage in meaningful dialogue with other key investors as we continue toward a collective perspective on intergenerational stewardship of natural capital.

31 This group was initially focused on private asset classes in 2024 and has since expanded to public asset classes in 2025.

Risk and impact management

We take a multipronged approach to managing nature-related risks and impacts.

- **Investment research and due diligence—**We believe that companies that better manage natural resources and environmental impact from operations can offer investors a better risk/reward profile over the long term as nature-related risks begin to manifest both physically and financially. We consider nature-related risks and opportunities associated with our investments at the due diligence stage. Across asset classes, we leverage our proprietary sustainability research templates, materiality assessment frameworks, and sustainability standards to identify and quantify sustainability risks, including nature.
- **Active ownership, engagement, and management—**Nature considerations are a key part of our stewardship approach, including issuer engagement, proxy voting, and real asset stewardship. We've developed internal investment and stewardship guides to inform interactions with companies and have begun to research issuers with high impact and dependencies on nature as potential partners for future engagement. In real assets, we pursue certifications and adherence to third-party standards for sustainably managed forests, farmlands, real estate, and infrastructure, and we provide tools and resources for our third-party property managers to enhance sustainability practices.
- **Impact measurement and reporting—**Setting targets around nature is challenging because it requires good baseline data and the ability to measure aspects of nature (such as biodiversity) that have historically been difficult to do. Measuring contributions to, or effects on, nature is challenging, and there's a wide variety of tools being developed in concert with the TNFD that will help to address this challenge. We recently made substantial investments into our ability to accurately assess nature-related risks and opportunities across our investment platform. These include partnering on the launch of a platform for nature-related spatial data and rolling out the use of the biodiversity assessment tool, among others.
- **Collaboration and commitment—**We collaborate with other investors, standard setters, and policymakers to encourage leading practices in natural capital and biodiversity reporting and management. We participate in collaborative initiatives addressing nature loss, and some examples include the Finance for Biodiversity Pledge and Foundation, PRI Spring, Leading Harvest, and the World Business Council for Sustainable Development (WBCSD). Please see the collaborations list in the appendix for more information.
- **Allocating capital—**We aim to help our clients achieve their objectives by delivering biodiversity-focused investment solutions. In our real assets business, we have a dedicated sustainable forest strategy and focus on investing in sustainable agriculture. We also have a client-directed exclusionary framework available for interested clients.

For illustrative purposes only.

Valuing nature is an economic imperative

Valuing nature and the wealth of natural systems can play a greater role in how we approach investing. Read more about why this matters for the economy and our world.

Metrics and targets

As signatories to the Finance for Biodiversity Pledge, we pledged—and in 2024 fulfilled the four targets below:

Collaborate and share knowledge on assessment methodologies, metrics, targets, and financing approaches—In 2022, we launched our nature-positive ecosystem, a practical guide to major initiatives focused on protecting and restoring nature.

Assess the impact of our investments on biodiversity and identify drivers of its loss— We've built a system of natural capital accounts across our U.S. operations to capture, quantify, and potentially monetize the relationship between our operations and nature. This will help us understand how our timberland investments interact with biodiversity, land, and water.

Engage with companies and incorporate criteria for biodiversity into our sustainability policies—Incorporating biodiversity into our sustainability policies is directly relevant to our real assets investments. We have policies on biodiversity and deforestation, and we incorporate multiple biodiversity-related considerations into both investment due diligence and property management.

Set and disclose science-based targets to increase positive and reduce negative effects on biodiversity—We've engaged in multiple external workstreams focused on applying emerging guidance from the TNFD and Science Based Targets for Nature, and we'll leverage this work to inform our nature target-setting process.

In line with our commitment to the pledge, we set four targets at the end of 2024 aimed at quantifying the impact of our investments on nature.

1. **Training—**Provide at least one training session to all investment teams on nature-related issues most relevant to our investments by the end of 2025
2. **Assessment—**Complete nature impact and dependencies assessment of corporate fixed-income and equity holdings by the end of 2025
3. **Engagement—**Develop a nature engagement framework for equity and corporate fixed-income asset classes and engage with a minimum of 10 issuers in industries identified as having high impacts and dependencies on nature by the end of 2025
4. **Reporting—**Issue an expanded TNFD-aligned report in 2026

We aim to meet these targets by the end of 2025 (and the TNFD report by the end of 2026) and will report our progress in subsequent reports.

People

This section is inspired by the TCFD and TNFD frameworks and recommendations and related four core elements. Sustainable investing is an evolving field, so we'll continue this journey with our clients as we navigate the changing regulatory and global environment, particularly around social disclosures. We outline our approach to people-related risks and opportunities, as well as where we strive to demonstrate innovation and exceed the expectations of our clients.

Governance

We use our current governance framework to assess and address material risks and opportunities related to our people pillar.

Strategy

Our strategy is focused on addressing inequalities. We acknowledge the role we play in addressing inequalities as outlined in our recent thought leadership on rising inequality. In 2024, we became one of the founding partners of the Taskforce on Inequality and Social-related Financial Disclosures (TISFD).

Human rights due diligence forms the foundation of our strategy as it's the minimum requirement for avoiding the exacerbation of inequalities. Manulife IM uses a human rights-based approach for people-related considerations, ranging from avoiding harm to creating positive social impact. This means we use international human rights standards as the fundamental framework for assessing and addressing risks and impacts and for identifying opportunities. This helps us to have a comprehensive approach in terms of the type of impact we have, the range of stakeholders we include, and our accountability, from due diligence to remedy.

As demonstrated in the Manulife global human rights statement, our parent company is firmly committed to respecting human rights and upholding the principles set out under the International Bill of Human Rights, the United Nations Guiding Principles on Business and Human Rights, the International Labour Organization's core conventions, and the United Nations Global Compact in our business operations and relationships, including our supply chain.

Manulife IM's commitment to human rights doesn't stop at our own business, we're committed to promoting these principles in our supply chain. Our responsible contracting policy states that all Manulife IM-affiliated contractors, such as property managers and construction/plant managers, are obligated to comply with applicable federal, state, and local laws, regulations, and ordinances and are expected to cascade Manulife IM's human rights standards in their own and their subcontractors' businesses.

We also actively engage with global networks and industry associations, influencing asset managers' priorities toward people. In addition to the TISFD, in 2024, we were members of PRI's Human Rights and Social Issues Reference Group, the International Limited Partners Association's Diversity in Action initiative, and the WBCSD Forest Solution Group Equity Working Group. Please see the global collaborations list in the appendix for more information.

Rising inequality: a global sustainability challenge that needs our attention

The systemic risks of rising inequality include limits to productivity and innovation, constraints on economic growth, and entrenching political instability. Read more about how we explore the drivers of these risks and what can be done to mitigate them.

Risk and impact management

Our research and due diligence frameworks identify financially material considerations on:

- Salient human rights issues
- Responsible contracting and supply chain oversight
- Inclusive human capital and goods/services
- Community engagement
- Indigenous peoples
- Access to remedy

In order to uphold our commitments articulated in the Manulife human rights statement, we identified salient human rights risks and impacts to inform our due diligence processes throughout the investment lifecycle and integrated findings into our asset management strategies and procedures.[32]

Strategies, policies, and procedures to prevent, mitigate, and remediate human rights risks and inform asset management vary from one asset class to another.

Salient human rights risks for private markets asset classes are accessibility; privacy; health and safety; rest and leisure; freedom of association; forced labor and child labor; housing and an adequate standard of living; clean and healthy environment, water and sanitation; indigenous rights; protection from discrimination, exploitation, abuse, and violence; and rights of migrant workers.[33]

For real assets, our existing mitigation measures for these risks are discussed in detail in the natural capital report and real estate report (e.g., conducting farm labor contractor audits in agriculture or property management standards in real estate).

In public markets, in addition to our research and due diligence framework (which includes a controversy tracker), we use engagement as a key strategy for addressing human rights topics in our asset management. Our investment and stewardship guides inform our efforts and are available on specific topics related to the financially material considerations listed. These include diversity in leadership, minimum and living wages, and indigenous reconciliation, among many others.

While the effectiveness of these measures is monitored within each business line together with other procedures in place, a dedicated resource oversees progress toward human rights due diligence.

In 2024, we trained more than 750 of our employees on responsible contracting and conducted human rights sessions with business leaders, investment teams and select business partners. We also started working with a third-party vendor to assess a set of contractors' processes that are in place for managing human rights risks.

To provide access to remedy, the Manulife ethics hotline is available as a grievance mechanism to report any issues. While the hotline is intended primarily for the use of employees, third parties (e.g., shareholders, vendors, suppliers, and subadvisors) may also report suspected unethical, unprofessional, illegal, or fraudulent activity.

Metrics and targets

Our people-related metrics differ depending on the asset class, region, and industries in which we invest, as reported in our asset- and fund-specific reports. Examples include human rights controversies, modern slavery incidents, lost time incident rates, and diversity in leadership. While this approach allows us to customize our metrics and targets in alignment with the most relevant and material elements of the impact we have on people, we're committed to complement and improve our approach with standard metrics and targets as they arise and become standardized.

32 To date, this work has been finalized for each private markets asset class and is currently ongoing for public markets asset classes. **33** Salient human rights issues are those human rights that are at risk of the most severe negative impacts through a company's activities or business relationships. It does not mean that there have been incidents violating these rights. It is a method of prioritization to shape risk management efforts.

Case study—Canadian railroads and indigenous rights

Issue—Prompted by the news of the mass resignation of their high-profile Indigenous Advisory Council, we engaged with a Canadian rail transport company to understand what drove the resignation and the company's plans to address indigenous rights moving forward.

The company identifies indigenous rights and reconciliation as a material issue due to the historical role of rails in the colonization of Canada and the present-day positioning of rails across 230 reserve lands. Company management had initially formed the council, which included a broad representation of First Nations, Métis, and Inuit leaders across Canada, to provide advice and to demonstrate authentic engagement with indigenous communities.

However, the Indigenous Advisory Council accused the company of neither engaging with them nor adhering to the council's advice. When news of the resignation broke, we had concerns about possible performative actions by the company rather than genuine action toward reconciliation and the risks that might pose to the company's ability to operate across reserve lands.

Action—We began with an education session for our investment professionals with an indigenous business leader to better understand the intersectionality between indigenous rights and corporate behavior, which informed our views and expectations for issuers on this topic.

We then engaged with the company to explore the conditions around the resignation of the Indigenous Advisory Council, the company's response, and the potential legal risk related to legacy actions and infrastructure.

In the wake of the council's resignation, the company promptly adopted a new strategy of hiring indigenous liaisons in nine locations that are material to its operations, engaging meaningfully with these local communities, and looking to expand employment and business partnership opportunities. We supported this strategic pivot as a first step to developing trust-based relationships with rights holders and to building out additional and deeper partnerships and inclusive economic activities.

As part of our engagement, we requested an updated indigenous engagement or reconciliation plan with meaningful targets and timelines, developed in partnership or consultation with indigenous rights and title holders and other affected parties.

Outcome—Within six weeks of our engagement, the company published a new policy on indigenous reconciliation, which vastly improved on any previously available public information.

The policy is centered around five guiding principles that broadly aligned with our expectations:

1 Cultural awareness and employee engagement
2 People and employment
3 Community engagement and relationships
4 Economic reconciliation
5 Environmental stewardship and safety

Encouragingly, the company listed several concrete commitments and priorities under each of these principles.

The company also committed to developing and publishing its first reconciliation action plan, with defined commitments, targets, and measures on key deliverables such as hiring, retention, and procurement.

Given this is an active, ongoing engagement, we continue to monitor the company's progress and its delivery on coherent targets and timelines.

Stewardship in action

Engagement

Collaboration

Escalation

We recognize the critical connection between making investments and acquisitions and maintaining a strong program of stewardship to protect and enhance the value of investments. The central objective of our stewardship approach is to strengthen the potential risk/reward profile of our clients' invested capital.[34]

Building on our history as a trusted fiduciary and long-term investor, we seek to exercise rights, responsibilities, and influence to improve investment resiliency for our clients. While implementation may differ across asset classes, the aim is to support our clients in meeting their investment goals. Our culture of collaboration and innovation allows us to fully leverage the range of expertise across our platforms. We enhance our approach to stewardship by combining local knowledge with a global outlook as we strive to achieve the best possible outcomes for our clients.

We believe engagement with stakeholders across asset classes on sustainability issues, either bilaterally or as part of a collaborative engagement, may lead to improved strategies and actions that enhance longer-term financial performance. It's not just about how investments are managed, but also about the outcome these investments help achieve.

Where we directly operate assets, we weave sustainability into our operational strategies and execution. Where we don't operate assets ourselves, we build meaningful partnerships with leading operators and sponsors.

Through our dialogue with industry partners, policymakers, and sustainability-focused organizations, we seek to identify and address systemic industry and asset class-specific risks. This dialogue often focuses on the development of frameworks, standards, and policies that enable a more sustainable operating environment for our investments, ultimately aiming to improve the resiliency of client investments over time.

As part of this work, our investment teams, with input from sustainability professionals, carefully consider how to execute rights and responsibilities and improve the risk/reward profile of our client investments. Rights and levers of influence differ by asset class, from those where we directly control and operate assets to those where management is delegated to third parties. The mechanisms we may choose can also depend on the severity of the issue or our history of stakeholder engagement. For example, where we've been engaging parties for several years to address an issue, or if the issue suggests an imminent impact on investment value, we may choose to escalate our concerns using the rights and influence mechanisms at our disposal.

Stewardship activities aim to advance financial objectives and operating strength

Levers of influence

- Collaboration
- Proxy voting
- Debt rights
- Escalation
- Public policy and advocacy
- DDQs
- Investment agreements
- Bilateral engagement
- Direct asset management (real assets)
- Representation on the board of directors

Spheres of influence

- Policymakers
- Standard setters
- Industry associations
- Service providers
- Direct operations
- Investment partners
- Sovereign issuers
- Portfolio companies

For illustrative purposes only.

34 We strive to execute best-in-class stewardship activities and reporting on behalf of our clients. We're proud signatories of several stewardship codes in key markets whose principles help guide our program of stewardship. These include Hong Kong Principles of Responsible Ownership, Japan's Stewardship Code, Taiwan Stewardship Principles, UK Stewardship Code, and Canadian Coalition for Good Governance Stewardship Principles.

Engagement

We believe that engaging with companies and a broad variety of stakeholders on their material sustainability issues can enhance our understanding of the risks and opportunities of a given investment while also creating a channel for encouraging actions that may lead to improved value creation for our clients. We achieve these benefits through both one-on-one engagements with companies and investment partners and our collaborative engagements with peer investors.[35]

Our approach to engagement

We use engagement, both bilateral and collaborative, as a tool for gathering information and influencing the adoption of leading practices.[36] Engagement with companies and a broad variety of stakeholders helps to deepen our understanding of the financially material sustainability issues associated with a given investment while providing opportunities for those stakeholders to better understand our investment process and objectives. Through engagement, we may, as investors, play a key role in encouraging companies to adopt sustainable business practices that promote stable long-term growth and reduce the potential impact of material sustainability risks over time. We engage with companies on a range of substantive corporate, strategic, and sustainability matters that could alter their valuation, fundamental standing, or strategy, thereby affecting portfolio value over time.

Given our global multi-asset class platform, engagement priorities may differ by asset class, and in each asset class, from investment team to investment team, depending on their investment strategy, portfolio focus, and/or holdings profile. The size of a holding within portfolios and the varied nature of any given emerging risk or severe controversy are among the factors that can prompt and shape these engagements. We appreciate collaborative engagement specifically as it opens up opportunities for peer information sharing that can give us new insight into investments and allow us to access high-level leadership at companies.

35 Manulife IM conducts engagements with issuers but does not engage on all sustainability issues, or with all issuers, in our portfolios. We also frequently conduct collaborative engagements in which we do not set the terms of engagement but lend our support in order to achieve a desired outcome. Where we own and operate physical assets, we seek to weave sustainability into our operational strategies and execution. The relevant case studies shown in this section or in the appendix are illustrative of different types of engagements across our in-house investment teams, asset classes, and geographies in which we operate. While we conduct outcome-based engagements to enhance long-term financial value for our clients, we recognize that our engagements may not necessarily result in outcomes that are significant or quantifiable. In addition, we acknowledge that any observed outcomes may be attributable to factors and influences independent of our engagement activities. **36** For more information on our approach to issuer engagement please view Manulife IM's global issuer engagement policy where we identify bilateral issuer engagements as interactions with issuer representatives as part of the fundamental research process and collaborative engagements as engagement activities with other investors. We note that through our collaborative engagement activities we maintain independence in determining how to prioritize engagements, how to vote proxies, and investment decision-making at all times.

Bilateral engagements focused on outcomes

Manulife IM conducts engagements using internal staff, rather than delegating this responsibility to a third party.[37] We take this approach because we believe that the insight gained from engagements is an important component for determining intrinsic valuation, which results in an improved risk/reward profile for our portfolios. Individual engagements are prioritized with companies when our assessment finds that sustainability factors are potentially material to an investment's risk/reward profile. We may also consider the significance of the investment's sustainability profile within a given portfolio, the degree of influence, the regional or market context, or the expected contribution to long-term value creation derived from successful engagements.

We may establish objectives in engagement efforts related to greater disclosure, or adoption, of leading practices related to financially material sustainability issues. In such instances, we aim to collaborate with the company when addressing any given issue. The company's progress is then tracked toward resolving the issue over a reasonable timeline, regularly evaluate improvement, and, in the event that we're unsatisfied with the progress made, may employ escalation methods to encourage action.

Public markets investment teams use a centralized recordkeeping and tracking system to track progress and document outcomes.

Highlighting engagements for clients through the year—Our case studies web page is populated with examples of engagements and their associated outcomes. We believe this provides clients and other stakeholders with insight into our activities in a dynamic format as we update the page throughout the year.

Recent examples of outcomes achieved in 2024[38]

Case study	Asset class	Outcome
Protecting the endangered blue duck, or whio, population in our New Zealand forests	Timberland	An initiative to control introduced predator populations in our New Zealand forests led to more productive breeding seasons for the endangered whio.
Working with a medical device company on climate and diversity	Listed equity	After several years of partnership with the management team at this medical device issuer, the company improved diversity data disclosure and committed to set emissions reduction targets.
Retaining an engaged healthcare workforce	PE&C	Through collaboration and encouraging robust benefits for skilled workers, the average tenure for nurses and personal support workers has increased at this healthcare provider.
Biodiversity impact assessment and disclosure for bond issuers in Japan	Fixed income	We engaged with issuers to emphasize the importance of biodiversity assessments while building on our own understanding of biodiversity risk.

37 Note that where we support collaborative efforts, CDP for example, these entities may also engage with issuers on the same, or a similar, matter. While we may at times provide input into such third-party engagement activities, those engagement activities are independent of Manulife IM and we ultimately do not control any aspects of those engagements, including issuer identification, dialogue, and/or recordkeeping among other common engagement activities. **38** The sustainability-related case studies shown here are for illustrative purposes only; do not represent all of the investments made, sold, or recommended for client accounts; and should not be considered an indication of the ESG integration, performance, or characteristics of any current or future Manulife IM product or investment strategy.

Bilateral engagement in public markets

Given the varied composition of both our portfolios and assets, each investment team drives its engagement priorities alongside consideration of any relevant factor, including sector, size of holdings, level of risk or opportunity identified, and regional differences.

Regarding our public equities and fixed-income investment activities, for example, investment teams may use our proprietary ESG research framework to identify financially material sustainability issues unique to a given issuer. This can then inform engagement discussions with the issuer.

660+ unique issuers

1,260+ unique interactions with issuers

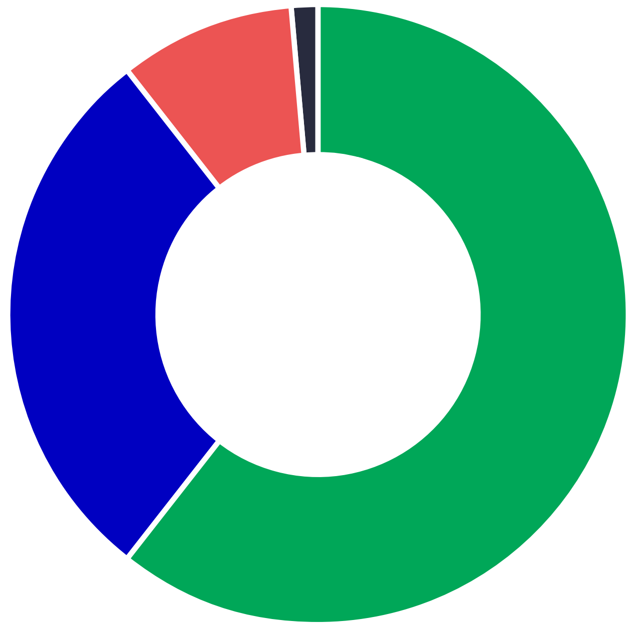
Who do we engage with?

Dialogue with participants can vary by asset class. In listed equities and corporate bonds, for example, we seek to interact with senior management teams or boards. When engaging with sovereign bond issuers, we look to speak with a government representative in an environmental or financial role.

What topics do we engage in?

We have conversations with issuers across our holdings on a range of financially material sustainability matters, encouraging actions that mitigate risks or leverage opportunities.

When we seek to encourage new disclosure or adoption of leading practices, we recognize that these dialogues with companies can take months—if not longer—to achieve results. However, we conduct these activities because we believe them to be beneficial to both our portfolios and clients over the longer term.



Unique issuers engaged by region

- Asia and Oceania **60.7%**
- North America **29.0%**
- EMEA **9.1%**
- Latin America and the Caribbean **1.2%**

As of December 2024. Mexico is included in the Latin America and Caribbean category. Percentages may not add up to 100% due to rounding.

Top sustainability discussion topics in public markets

Governance

Governance is always a centrally important theme for engagement with all types of investees. We continue to discuss key governance topics, including executive compensation, shareholder rights, board diversity, board chair/CEO independence, capital structure, and oversight of key environmental and social risks such as climate, nature, and human capital.

Climate

We raise climate risk regularly across our engagements with companies worldwide as we work to understand the different impacts of climate change across industries, particularly when climate is identified as a material issue to the issuer. Regarding transition risks, we discuss topics that include GHG emissions reductions, energy management, and net zero or decarbonization targets. Discussions around physical climate risk are a fast-climbing priority as extreme climate events become more common and concern grows about corporate and sovereign readiness to adapt or build resilience to changing realities. Conversely, climate change also presents an opportunity to discuss revenue growth with companies in areas of cleantech, and green energy, as well as other solutions that are needed to help transition our economy.

Nature

Nature and biodiversity risk is also covered in dialogue with issuers in which our investment teams have identified it as a material risk. We believe company understanding and management of nature and biodiversity risk are growing through conversations we have had on topics that include sustainable sourcing practices, biodiversity, water management, the circular economy, and waste management. In some cases, we may request better disclosures from companies on their dependencies and impact; in others, we may seek to understand how individual companies improve their management of nature-related risks and opportunities.

People

Recognizing that businesses may have various impacts on employees, suppliers, and communities, we may discuss related-themes with issuers when deemed material to the issuers. Some topics we address through issuer dialogue include human capital management, employee engagement, diversity, equity, and inclusion, collective bargaining and labor relations, human rights, product responsibility, health and safety, data security, customer privacy and data rights, responsible use of technology, and access and affordability.

Case study—supporting engagement with CDP

Manulife IM supports the ongoing work of CDP, which aims to provide investors with climate, water, and forest/biodiversity data that enables the comparison of issuer performance around the globe. We believe the importance of CDP reporting will likely grow as the reporting platform aligns with the International Social Survey Programme and the TNFD.

We used CDP's Forests Champions program tools and resources to conduct an in-depth analysis of CDP responses from issuers of interest to us. Findings and analysis provided by CDP were leveraged in our subsequent conversations with companies to discuss deforestation exposure and risk management across their supply chains. These conversations covered specific areas, including certification schemes, grievance reporting, commodities volumes, revenue dependencies, and traceability.

Bilateral thematic engagement programs

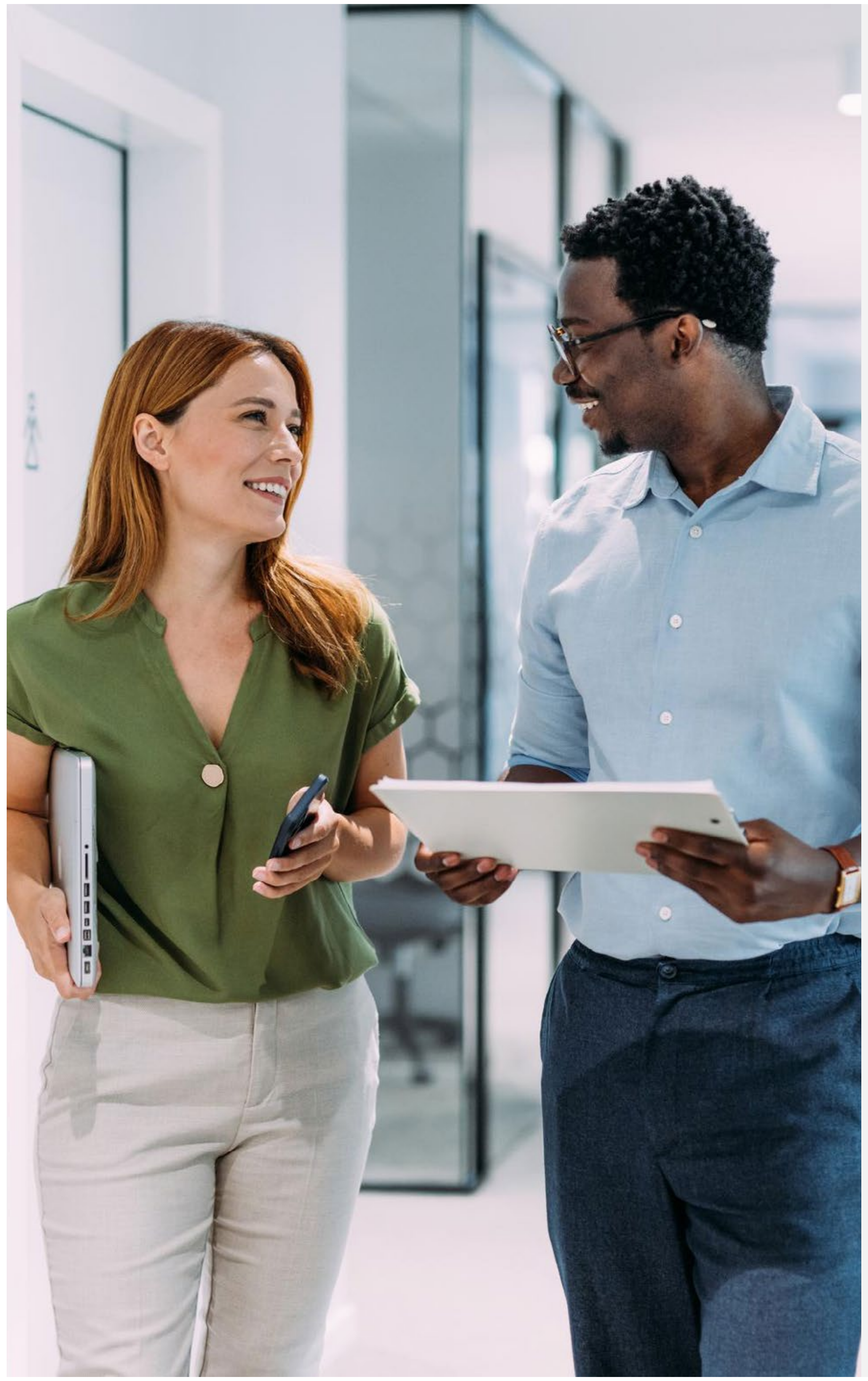
In addition to the hundreds of bilateral engagements that arise through the course of day-to-day portfolio management, we simultaneously assess our global portfolio for systemic risks related to climate and nature. In 2024, we conducted an analysis to identify the highest at-risk corporate issuers related to transition or physical climate risk, and these were prioritized for engagement throughout the year as part of an overall effort to reduce systemic risk. We also undertook an assessment of relevant nature-related risks by partnering with CDP to access data available through their forests module, which informed our engagements with nearly 20 companies on their deforestation policies and practices over the course of the year.

Bilateral engagement in private markets

Where we own and operate assets and businesses, we have a direct line into the business and can influence it through our board seats and management teams. For private investments in which we don't have control or board seats, we seek to interact with sponsors or general partners (GPs).

Throughout the investment lifecycle of all private asset classes, we regularly engage with our co-investors, investees, and/or business partners to encourage adoption of leading practices, and we monitor the sustainability-related data available to help ensure the efficacy of our approach.

Once invested, our investment team maintains a close relationship with our investment partners in order to continue monitoring material aspects of the investment, including sustainability factors. In some cases, we may take a position on a board; in other cases, we can request protective governance rights and controls.



Engaging PE&C partners on a sustainable digital economy

As long-term investors, we view technology as an important value driver for investors globally and across all sectors. Technology continues to evolve at an unprecedented pace, and it's important for our investment teams to understand and assess the emerging systemic risks and impact of the digital economy. We believe a better understanding of AI, automation, and digitization across various sectors, along with the ability to identify emerging leading practices in responsible governance and the implementation of technology, can help our investment teams to enhance the risk/reward profile of our investment portfolios.

Since 2023, our PE&C team has researched topics related to a sustainable digital economy (SDE), also referred to as responsible technology innovation and implementation (RTII), to build their understanding of the risks, opportunities, and leading governance practices related to the topic. The team has engaged with stakeholders on the issue through multiple channels: In 2024 for example, we established an internal working group with members of our private equity investment team and our sustainability team to promote and share research and knowledge surrounding RTII topics. We include RTII questions in our annual questionnaires to our sponsors and portfolio companies, and in 2025, we'll initiate engagements with core GPs across our PE&C portfolio to better understand their governance of, and approach to, RTII in private equity. These questionnaires will prompt discussions regarding policy and oversight, as well as GPs' processes and the management of technology-related issues across their portfolios.

We believe these engagements help build a better understanding of the RTII landscape in private markets, encourage more holistic thinking, identify key risk areas, and explore emerging themes and opportunities across investments.

Collaborative engagements aligned with our sustainability strategy[39]

We value engagement with stakeholders through industry groups that support partnering with companies to understand and address investment risks, including systemic risks. Manulife IM participates in a wide variety of collaborative engagements around the globe with a range of stakeholders, including industry peers, asset owners, nonprofits, nongovernmental organizations (NGOs), and supranational entities. This work allows us to expand the scope of our sustainability-focused activity as we seek to build more resilient portfolios on behalf of our clients. We participate in these engagements in alignment with our sustainability strategy outlined earlier, focusing on the themes of climate change, nature, and people.

Climate

We participate in several collaborative engagements with issuers to address the transition and physical risks associated with climate change, engaging on a range of transition risks and strategies, including capital allocation, emissions costs, and operational resiliency. Some of the initiatives in which we participated over the last year include:

- **Climate Action 100+**—We joined this initiative in its inaugural year (2017) and have participated in various engagements with our focus list issuers in North America and Asia since. Topics of focus in 2024 included transition planning, a just transition, decarbonizing capital expenditure, and board climate risk oversight.
- **Climate Engagement Canada**—We joined this initiative when it launched in 2022 and have engaged with several of our focus list companies on climate transition planning, disclosure, and a just transition.
- **Asia Utilities Engagement Program**—This program is supported by the Asia Investor Group on Climate Change (AIGCC), and we participated in various engagements with focus list companies since the program was founded in 2021. Over the past year, key topics included linking director compensation to climate performance, disclosure of plans to phase out coal fired plants, and dialogues with national regulators on climate policy.

Nature

We've joined several collaborative engagements focused on issuers whose operations have a significant impact on nature or depend heavily on it. Much of this work is focused on encouraging companies to assess their impact and dependencies on nature and disclosing the results of those assessments to investors. As the management of these risks and opportunities develops, our expectations for these companies will evolve accordingly.

- **Nature Action 100**—We joined this initiative when it was launched in 2023. Issuer engagements began in 2024, and we participated in several company engagements in North America and Asia. Key topics included commitments to halt and reverse nature and biodiversity loss and company dependencies on nature.
- **PRI Spring**—We're a member of the Signatory Advisory Committee for this initiative, which launched in 2023. Several company engagements began in 2024 with companies headquartered in North America and Asia. We had key discussions around deforestation driven by conversion of land for agricultural commodities, target setting, and better tracking of impacts in supply chains.
- **Ceres Valuing Water in Finance Initiative**—Since 2023, we've been co-leaders on a company engagement that resulted in the issuer making a commitment to conduct an assessment of its impact and dependencies on water in 2024, despite not previously recognizing water as a financially material topic.

39 Through all collaborative engagements we retain our independence and discretion in our investment decision-making and remain attuned and committed to our duties to our clients and to applicable legal and regulatory considerations.

People

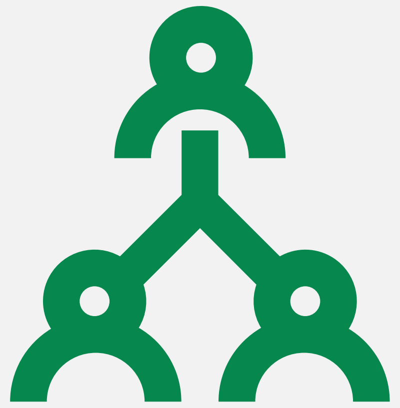
For several years, we've participated in collaborative engagements focused on encouraging greater gender representation in leadership roles across multiple markets. More recently, we've expanded our focus to include a collaboration on customer and employee safety.

- **30% Club Investor Group Canada**—In the five years since we joined the 30% Club Investor Group in Canada, companies on the TSX60 have moved from <20% representation by women on boards to >34%, and the group has encouraged companies to aim for gender parity by 2030.
- **30% Club Investor Group Hong Kong**—We're the co-founder and an ongoing supporter of this engagement, highlighting the importance of diversity in leadership among Hong Kong listed entities. Companies on the Heng Seng Index had on average 19% female representation on boards as of 2024, up from 14.4% in 2021.
- **Asia Corporate Governance Association—China Working Group**—We engage with several large Asian technology companies on data, responsible technology, customer protection, and employee safety as a participant in this program. Two large companies made significant progress on their disclosures on the use of artificial intelligence and customer privacy and data protection during 2024.

Focused on collaboration in emerging markets

Given our investments and local presence in emerging markets, our collaborative activities extend to those regions as well. We're able to leverage our local expertise and knowledge of sustainability matters across several initiatives, including:

- **The Emerging Markets Investors Alliance—**We're part of the extractive industries' working group focused on good governance and sustainability within that industry. We also co-chair the Brazil sovereign decarbonization group, which seeks to work with Brazil on its climate transition and plan.
- **AIGCC—**We co-lead engagements with several key electricity generators and providers in emerging markets under the Asian Utilities Engagement Program about climate adaptation and mitigation.



Collaboration

Ongoing industry dialogue is key to our collaborative efforts. Around the globe, we collaborate with industry peers, nonprofit organizations, supranational entities, and others on a wide variety of initiatives.[40] These efforts allow us to expand the scope of our sustainability-focused activities while helping us build more resilient operating environments for our portfolios as we respond to systemic risks through policy work, standard setting, education, and other means using a client-centric approach. The overriding objective, as always, is to improve investment outcomes for our clients over time.

Our client-driven approach to collaboration

The collaborative efforts described allow us to freely exchange perspectives with our peers, clients, and industry experts while also amplifying our influence as we encourage improvements across capital markets. We consider these efforts as part of our investment stewardship program, and the activities are ultimately intended to build and strengthen portfolio resiliency for our clients.

Collaboration can take many forms for us, most of which focus on identifying and navigating systemic risks, opportunities, and policy developments that are likely to impact long-term performance across our clients' portfolios. Common topics for collaboration include corporate governance, risk management, climate change, human rights, diversity and equity, and sustainability disclosures.

The various steps we take to address these issues can better position us to leverage our influence and enact meaningful change, with the goal of reducing investment risks and capturing opportunities. Our collaborative activities may target specific changes at both the systemic and market levels. We may, for example:

- respond directly to regulatory consultations in advance of new government policy regulations,
- contribute to an industry association response to new government policy regulations, and/or
- collaborate with peers to facilitate the development or refinement of sustainability standards.

Through these and other initiatives, we aim to encourage entire industries or markets to adopt leading practices in governance, operating, or disclosure standards. In addition, these activities help us to better articulate what practices and information we find most useful in managing our clients' investments. We're also often able to glean valuable research findings and insight from peers and third parties.

Policy work	Industry standards	Partnerships
• Support efforts to formalize sustainable investing practices • Strive toward uniform sustainability data disclosure globally • Encourage policy work to create long-term, sustainable operating environments for our investments	• Identify financially material sustainability risks and opportunities across sectors • Build and refine disclosure frameworks aimed at achieving comparability across investments • Develop tools and resources to help investors assess financially material sustainability issues	Collaborate with our various partners to address risks and opportunities, particularly in areas in which we own and operate assets

40 Through all collaboration we retain our independence and discretion in our investment decision-making and remain attuned and committed to our duties to our clients and to applicable legal and regulatory considerations.

Protecting the endangered blue duck, or whio, population in New Zealand forests

Issue—Blue ducks, otherwise known as whio, are endemic to New Zealand, meaning they're found nowhere else in the world. They're a unique species whose population is critically low, with fewer than 3,000 individuals currently remaining in New Zealand.

Whio are river specialists, living year-round in clean, fast-flowing rivers and streams within the forested upper catchments of rivers. To survive and thrive, they require high water quality, low sediment loadings, stable riverbanks, overhead canopy cover, and a variety of invertebrate communities.

Whio are heavily preyed on by introduced mammals, particularly stoats, which follow scent trails to nests, attack females, steal eggs, and take young ducklings. Feral cats, domestic dogs, ferrets, rats, and possums are other known predators. Unless the causes of their population decline are successfully addressed, whio face a very real risk of species extinction.

Action—We're proud to share that one of the forests we manage in New Zealand is home to a small population of whio, present along the margins of the Pungapunga Stream in Waituhi Forest.

In 2011, to help protect this whio population, Manulife Forest Management (NZ), with support from Horizons Regional Council, the Department of Conservation, and Genesis Energy, established a trapping network over a 5 kilometer stretch of the Pungapunga Stream. Since 2011, this network has been maintained and monitored, with stepped-up levels of protection provided during whio breeding season.

Outcome—The Pungapunga predator control initiative aims to reduce whio predator numbers and increase the likelihood of successful whio breeding. This initiative also provides additional benefits in the form of enhanced ecological balance and greater biodiversity.

The implementation of the trapping network has led to improved breeding success for the whio population in Waituhi Forest and has also likely helped boost their numbers in adjacent Pureora Forest Park. Annual whio population surveys are conducted to track their population and breeding outcomes. The most productive breeding season to date resulted in 12 chicks being born and reared.

The sustained presence and breeding success of whio are key indicators of healthy rivers and streams, which in turn signal the health of the neighboring land and forests.

Whether through policy work, standard setting, or partnerships, we leverage collaboration to build iterative resiliency across our clients' portfolios. The following examples provide additional context around our involvement in these activities and the intended benefits.

Working with stakeholders on public policy

The regulatory backdrop and industry momentum around sustainable investing, and sustainability generally, have shifted markedly over the past several years. As we navigate these changes, we seek to influence policymakers and advocate for an operating environment that fosters sustainable business operations, protects and enhances investor rights, and provides better disclosure of material sustainability data/information.

In part because our views on these matters often align with those of our peers, we've reaped substantial benefits from partnering with global investor associations to influence regulatory developments across markets.[41] We also benefit from the ongoing peer dialogue these forums offer, including the opportunity to discuss the potential impact of proposed policies and provide constructive feedback to regulators and others through comment letters and related engagement.

In 2024, Manulife IM responded to public policy developments in several areas. For example:

- **We signed a statement supporting the end of plastics pollution—**This statement was drafted by several bodies of which we're members, including PRI, CDP, and the Finance for Biodiversity Foundation. It called on global governments to target an end to plastics pollution through policy measures, disclosure frameworks, and other avenues.
- **We contributed to recommendations to an EU commission on shareholder rights—**We collaborated through an industry body to encourage further work by the EU to facilitate proxy voting, harmonize annual general meeting and shareholder proposal practices, and progress toward comparable sustainability disclosures from issuers.

Developing frameworks and standards

We also engage, indirectly or directly, with standard setters worldwide to create global standards and to ensure interoperability of disclosure regulation. These efforts have become increasingly important to us in recent years.

Because our investment professionals benefit from decision-useful and comparable datasets, we encourage continued transparency across asset classes by working with industry groups and other stakeholders to develop disclosure standards and frameworks intended to provide more consistent disclosures to inform our investment decision-making. We collaborate with asset managers, asset owners, academia, vendors, and other partners on this front. In 2024, for example:

- **We contributed to standards for climate transition projects in Canada—**Through a multidisciplinary working group organized by the Canadian Climate Institute, we contributed to a taxonomy intended to lay the groundwork for transition projects to decarbonize upstream oil and gas production.
- **We continued to assess national adaptation plans (NAPs) in Asia—**As co-chair of the AIGCC working group on physical climate risk and resilience, we continued to assess NAPs across nine Asian markets last year and published the results in March 2025.
- **We responded to PRI consultation on strategy and reporting framework—**Through direct response and engagement with PRI representatives, we provided feedback on PRI strategy and on proposed changes to the reporting framework for PRI signatories.
- **Canadian Sustainability Standards Board (CSSB)—**As a member of the CSSB, we participated in a due diligence process to review and issue ISSB standards for voluntary use by Canadian companies (and as a resource for securities regulators).
- **EDCI—**In 2024, we continued working toward a more unified approach to sustainability data reporting and benchmarking across the private company capital structure. We joined the first cohort of private credit investors to submit data to the EDCI benchmark.
- **The human rights and nature nexus—**As the member of UNPRI's Human Rights and Social Issues Reference Group, we contributed to the development of policy reform options to address synergies and trade-offs between human rights and nature.

41 Please see global collaboration list in the appendix for the list of associations.

Focusing on climate change in Asia

Our strong partnership with the AIGCC allows us to collaborate with our peers on both physical climate and energy transition risks and opportunities across Asia. Our 2024 activities through the AIGCC included:

- **Establishing an energy transition working group—**We chaired this working group, formed to examine the role of emerging markets in the transition to a lower-carbon economy through consideration of policy, technology, and financial developments.
- **Chairing a physical climate risk and resilience working group—**As chair of this group, we collaborated on a number of issues, including climate resilience and physical risk assessment methodologies, investor expectations for NAPs, and Asian banks' exposure to rising sea-level risks. In 2025, this group published an analysis of the NAPs of several Asian markets, including China, India, Indonesia, Malaysia, and Thailand.

We also contributed to and supported many additional collaborative efforts in our capacity as a member of, or participant in, various other groups. For a full list, please see our global collaboration list in the appendix.

Escalation

Manulife IM encourages the adoption of prevailing leading practices with regard to management of sustainability-related risks and opportunities. In certain instances, our investment professionals may choose to escalate a given issue of concern based on its perceived materiality, severity, and the pace of progress.

Our approach to escalation

Encouraging best practices and opportunity maximization

Through our investment stewardship practices, we collaborate with investees and stakeholders to encourage robust management of financially material sustainability risks and to capture related opportunities. We engage collaboratively with investees when we believe the mechanisms they have in place to manage such risks and opportunities could be improved. We may opt to escalate a given risk or issue only when we determine, after careful review, that the issuer/investee hasn't satisfactorily responded to our engagement efforts, leaving further room to optimize the risk/reward profile of our clients' investments.

Escalation decisions rest entirely with our investment teams/professionals, who may leverage the views of other functional experts across the firm as part of an escalation process. As part of their stewardship activities, for example, the investment teams may consult our sustainability team, legal and compliance departments, investment risk group, and others. The specific escalation process and stakeholders involved vary by asset class and investment strategy. We have a responsive, flexible approach to escalation that we continually seek to strengthen and evolve in pursuit of positive, tangible outcomes for our clients and issuers/investees alike.

We may consider escalation on case-specific time frames

As we monitor our investments on an ongoing basis, we seek to identify issues that we feel, if left unaddressed, could affect the value of individual investments or entire portfolios. We collaborate closely with investee management teams and other stakeholders to address these identified risks over time.

Depending on the progress being made on the issue, the remedial actions taken by the issuer, and their timing, our investment teams may choose to escalate the issue in some cases. Our preferred time frame for seeing substantial, demonstrable progress on an issue is generally 24 months, but we may set longer or shorter intervals in certain instances. An investment team may decide to escalate before the specified time frame ends if, for example, the investee is unresponsive to outreach or fails to take action.

We tailor escalations based on the facts and circumstances

The levers at our disposal for escalating issues of concern vary by asset class and global market. Accordingly, it's necessary to chart the appropriate course of action for a given issue on a case-by-case basis. Regardless of asset class or geography, however, we may choose escalation options based on the materiality of the issue, the time horizon of the risk in question, and the size of our investment exposure to the investee.

A menu of escalation options for equity and fixed income

In 2024, we updated our global issuer engagement policy, which now spells out the potential steps our investment professionals may take to escalate a given matter of concern for the public fixed-income and equity asset classes. The options available to our investment professionals include, but are not limited to:

- **Communication to directors—**We may communicate our concerns directly to the company's board of directors.
- **Dialogue with directors—**We may request further dialogue on the issue with responsible company directors.
- **Shareholder proposals—**We may vote for shareholder proposals to address an issue. Shareholder proposals are generally nonbinding but can be an effective signaling mechanism to company management.
- **Voting against directors—**We may vote against responsible company directors due to lack of a satisfactory response to an issue.
- **Requesting a formal commitment—**We may request a formal written commitment from an issuer to address a matter of concern.
- **Adjusting valuation or investment outlook—**Investment professionals may choose to adjust their valuation of, or investment outlook for, the issuer's securities.
- **Screening out an issuer—**We may choose to exclude an issuer from a sustainable investment strategy's investable universe, if appropriate, given client objectives.
- **Issuing a public statement—**We may release a public statement highlighting our concern over a given matter and suggesting the need for an issuer to address the concern.
- **Filing a shareholder proposal—**In rare circumstances, when deemed to be in our clients' best interests, Manulife IM may consider filing or co-filing a shareholder resolution directed at a particular issuer.
- **Divestment—**Manulife IM may decide to divest itself of all or some of its holdings in an issuer if portfolio managers are dissatisfied with the company's financial performance, strategic direction, and/or management of material risks or opportunities.

Our influence in private asset classes

Our approach to choosing escalation options in private markets is the same approach we apply to public markets across asset classes: We escalate matters of concern on a case-by-case basis, dependent on the specific situation and circumstances at hand.

In some instances, we own or own in partnership with others substantial equity interests in private companies or assets. Alternatively, we could be a private company's largest creditor, which may give us significant leverage in decision-making. In other cases, our control over issues of concern may be limited. When we become aware of an issue, we typically engage with our investment partners to discuss the situation and voice our concerns. In our fund investments, these discussions may lead to a limited partner advisory committee (LPAC) vote.

We enter into our infrastructure investments only after having performed significant due diligence on their other owners and management teams. Through this pre-investment due diligence, we seek to have clear expectations around the investment and alignment of interests within the shareholder group. In rare instances of meaningful misalignment, we propose and may implement solutions. If other parties are unwilling or unable to address our concerns, we consider strategies to exit the investment and may curtail our future business engagements with those parties.

Sustainable investing in action

- Infrastructure
- Listed equities and fixed income
- Multi-asset solutions
- Private equity and credit
- Real estate
- Timberland and agriculture

Our investment spectrum

Manulife IM offers highly differentiated strategies across public and private markets, leveraging our heritage of risk management, fundamental research, and outcome-focused investing.

Across all asset classes, we're committed to continuing to integrate sustainability-related analysis alongside our fundamental research process, and we seek to create a positive impact by engaging stakeholders to mitigate sustainability-related challenges and enhance opportunities. As we emphasize throughout this report, we believe that identifying and assessing material sustainability issues enable us to better protect and enhance the value of the assets we own or operate.

Infrastructure

Multi-asset solutions

Real estate

Listed equity

Private equity

Timberland

Fixed income

Private credit

Agriculture

Investment lifecycle

ESG integration process across asset classes[42]

Due diligence

- Employ a materiality approach to due diligence based on our own expertise and external resources
- Conduct an assessment of material sustainability factors of investment risks and opportunities

Investment decision

- Incorporate sustainability data into an investment decision model
- Identify significant risks or potential areas for improvements
- Negotiate investment terms where applicable

Stewardship

- Engage and collaborate with key stakeholders
- Update and monitor the sustainability performance of each investment
- Execute long-term asset management plans
- Exercise rights and responsibilities

Monitoring and reporting

- Communicate through our annual reporting (e.g., sustainability report)
- Continue dialogue with key stakeholders

Our approach to integration

Our investment teams are empowered to make decisions in line with their respective investment philosophies and client objectives. Each investment team has responsibility for its own investment process, from research through to implementation. The inclusion of material sustainability factors into investment processes aligns with this approach, ensuring that our analysis is relevant and meaningful to each team's investment process. The global heads or CIOs of each asset class have oversight of the investment processes of the individual investment teams, which includes responsibility for evolving our sustainable investing approach over time.

We seek to incorporate material sustainability considerations throughout the stages of our investment and lending lifecycles, from prescreening during the pre-investment phase through to documentation and monitoring in the post-investment phase, taking into consideration the characteristics of the asset class and investment process in question, as well as industry, geography, and other factors.[17]

We combine active investment management with a deep understanding and integrated analysis of sustainability issues. Our integration practices grow from the investment strategies and approaches of our investment teams across asset classes. The approach of each team practicing this integration is reinforced and strengthened by the global and regional perspectives of our 30 sustainability professionals. This support extends across the investment, product, and asset class lifecycles and includes:

- Analysis of sustainability risks and opportunities
- Development of tools to aid sustainable investment
- Frequent communication on sustainable investing information
- Engagement with management teams and other stakeholders
- Training and education
- Guidance on exercising rights

42 The exact approach for each asset class may vary somewhat based on level of ownership/control, jurisdiction, investment strategy, or other relevant factors. Please refer to the sustainable investing in action section to see our approach to sustainability by each asset class.

Infrastructure

AUM: $28,405 million[3]
Investment professionals: 30+[43]

Highlights

- The infrastructure team invests across diverse infrastructure companies in digital infrastructure, utilities and energy, and transportation, including renewables across solar, wind, hydro, biomass, battery storage, and transmission.
- We're a member of the PRI Infrastructure Advisory Committee.
- We're a member of the EDCI, which aims to drive convergence toward meaningful, performance-based sustainability data in private markets. Our annual infrastructure sustainability questionnaires are now aligned with the initiative.
- All infrastructure employees completed responsible contracting training, and a firmwide human rights risk assessment identified actionable recommendations that we incorporated into our teams' investment processes.

Our approach to sustainability in infrastructure

The importance of sustainable investing in infrastructure is particularly apparent due to the long-term nature of the assets and investment horizon—our private markets infrastructure strategies consider up to a 50-year operational time frame, with returns generally expected to mature 7 to 10 years after investment.[44] As such, we believe that the management of sustainability risks and opportunities in our infrastructure investments can lead to attractive risk-adjusted returns over the long term.

Our team's ESG integration practices include the following key steps and apply to all of our investments:

- We employ a materiality-based approach to sustainability due diligence based on a combination of external resources from the Sustainability Accounting Standards Board (SASB) and the PRI as well as our own industry expertise.
- We document the outcomes of our sustainability due diligence in the investment memorandum, which is discussed during the investment committee approval process.
- Once an investment is made, the infrastructure team continues to monitor all material aspects that might affect an asset or company, including sustainability factors. We actively partner with portfolio companies to identify opportunities for the continuous improvement of relevant sustainability risks and opportunities.

43 Manulife IM's team of global investment professionals includes expertise from several Manulife Investment Management affiliates and joint ventures; not all entities represent all asset classes. **44** The investment term of private strategies will vary from strategy to strategy depending on a number of factors, including asset class and product structure. Offering documentation should be reviewed for full details.

Stewardship

As a long-term investor with a commitment to sustainable growth, we seek to integrate sustainability across the investment lifecycle. As part of our post-investment process, we work together with our portfolio companies to actively monitor and manage material aspects of the investment, including sustainability factors identified during due diligence.

We're mindful that some portfolio companies may be at different points in their sustainability journeys. We view this as an opportunity to help advance their sustainability performance, acting as a trusted advisor to help better align their strategy, governance structure, risk management, and metrics and targets with leading sustainability practices.

To provide our investment and portfolio company management teams with a resource to enhance their understanding and advance sustainability in line with leading practices, we've developed our asset stewardship playbook. While the playbook is constantly evolving to stay current with new developments, it currently includes our:

- **Sustainability policy template—**The sustainability policy template acts as a key resource for portfolio companies to help formalize governance and oversight of and commitments across material sustainability factors.
- **Sustainability risk management framework—**We've developed guidance on sustainability-related risk management practices, including a proprietary sustainability risk assessment matrix, that portfolio companies can use to identify, assess, and monitor material sustainability risk factors.
- **Support for sustainability data collection, benchmarking, and performance improvement—**To support sustainability-related data collection and performance benchmarking efforts, we've implemented an annual data collection process that's focused on material sustainability metrics and aligned with the EDCI and Sustainable Finance Disclosure Regulation indicators. This may include GHG emissions, energy consumption, biodiversity, and health and safety. As a result, our portfolio companies are better equipped to improve performance measurement and monitoring across material sustainability factors.

In addition, we selectively engage and work with entities in which we invest to help them become more sustainable in the context of our investment horizon.

Our infrastructure team typically seeks to monitor and influence an investment through a board seat, protective controls, governance, or a combination of these approaches. These rights enable the investment team to exert influence or veto power regarding key decisions made with respect to a company's commercial or financial operations, as well as management and oversight of relevant sustainability risks and opportunities. Board seats, in particular, allow us to engage directly in the activities of a given investment.

Our collaborative efforts

We work with a range of market participants, regulators, and NGOs to address global sustainability challenges.

Our infrastructure team recognizes the importance of collaborating with other investors and industry experts, both to gain insight into evolving leading practices and to contribute to the development and adoption of ESG integration globally. With this in mind, the infrastructure team has been involved in the following initiatives:

- **PRI Infrastructure Advisory Committee—**Our global head of corporate finance and infrastructure was the former chair and active member of the PRI Infrastructure Advisory Committee from 2021 through 2024 as a representative for Manulife IM. The committee advises the PRI on the overall strategic direction of the infrastructure workstream and supports the delivery of key projects and initiatives within the workstream.
- **Long Term Infrastructure Investors Association (LTIIA)—**Our global head of infrastructure equity sits on the LTIIA board. LTIIA works with a wide range of stakeholders, including infrastructure investors, policymakers, and academics, to enable the long-term, responsible deployment of private capital in public infrastructure projects around the world.

Climate

Governance and strategy

Assessing the risks and opportunities related to climate change is integral to our infrastructure business, and we rely on the mechanisms and structure described in the governance section to identify and assess material climate-related risks and opportunities.

Please see the governance section of this report for information on how climate matters are managed at Manulife IM.

Risks and opportunities

Climate change is one of the biggest challenges of our time, but it also presents unique opportunities for investors to support the transition to a lower-carbon economy through large-scale decarbonization efforts across infrastructure sectors. To help us better identify climate-related risks and opportunities, we've introduced a number of initiatives across our infrastructure strategies. These include:

- We use a formalized process for identifying and assessing physical climate risks. This approach is used alongside our due diligence work, which is focused on evaluating material sustainability considerations and is used for all new investments.
- We use a third-party natural hazard and physical climate risk assessment tool, which provides asset-specific and total portfolio physical risk exposure over short-, medium-, and long-term time horizons and across various climate scenarios.
- Our infrastructure investment team works collaboratively with our sustainability team to leverage their expertise on climate and will then consider engaging technical consultants to further analyze any risks identified through the assessment. For example, one transportation investment identified storm and flood risks as a key consideration due to its coastal location and proximity to rivers. A technical consultant was engaged to review the risks, with additional due diligence conducted to identify key mitigants for the flooding and storm risks. The findings were included in the investment memo for the investment committee discussion and decision.
- Through our active stewardship approach, we partner with our portfolio companies to engage on any findings and to better understand any plans in place to address such risks. We monitor potential risks over the holding period through our board seats and board observer rights as well as through regular engagement with asset management teams.
- We assess climate transition-related risks through our annual portfolio carbon footprint assessment. In 2024, we completed our third annual carbon footprint assessment, which builds on the continued enhancement of our methodology. We saw improved reporting of GHG emissions from our portfolio companies, with year-over-year data building on our first carbon footprint assessment in 2022.
- At the end of 2024, we engaged an external consultant to conduct a portfolio transition risk assessment. Transition risks and opportunities identified for the portfolio highlight insight across key renewables, transport, and digital infrastructure sectors. The main themes include the need for decoupling emissions from energy consumption, transport sector decarbonization, and value creation opportunities driven by growing demand for electrification. Examples of key transition risks include increasing carbon pricing, regulatory shifts; conversely, opportunities may arise for renewables and transportation investments to benefit from increasing clean energy demand and transportation electrification. Through climate scenario analysis in 2025, we aim to identify potential financial effects to help enable better strategic planning and risk management across our funds.

Quantifying the financed emissions and carbon footprint of our investments helps us to assess portfolio exposure to high-emitting sectors and informs active discussions with our portfolio companies on their transition planning.

Infrastructure

Climate risk management

Climate-related risk factors are incorporated into the due diligence process. We apply a materiality-based approach to identify climate risk and opportunity factors that are most relevant to a specific investment.

Our assessment of climate-related risks may include, but aren't limited to, consideration of the following factors:

- Effects of existing or anticipated regulations and standards pertaining to GHG emissions and climate policy
- Company GHG emissions (scope 1, scope 2, and scope 3)
- Renewable and nonrenewable energy consumption and generation
- Climate change readiness, including a review of existing transition plans
- Decarbonization initiatives under way and/or planned

Metrics and targets

In 2024, we completed our third annual portfolio carbon footprint assessment inclusive of all infrastructure strategies, with year-over-year data building on our first carbon footprint assessment in 2022. We've enhanced our methodology through the annual collection of GHG emissions data from our portfolio companies. Currently, we use a combination of reported emissions and third-party estimates. However, we're committed to supporting and encouraging our investment partners toward providing actual emissions data points over time, thereby improving our ability to analyze and drive insight from the data.

Listed equities and fixed income

Listed equities

AUM: $144,229 million
Investment professionals: 160+[43]

Fixed income

AUM: $253,668 million
Investment professionals: 208+[43]

Highlights

- We completed the rollout of our proprietary ESG research framework and added a high-level indicator scale as to the financial materiality of a given sustainability factor.
- We published our client-directed exclusions framework, which offers clients the option to screen out investments exposed to thermal coal mining and thermal coal power generation. We anticipate adding other thematic exclusion screens in the future to make it easier for clients to align their investments with their preferences.[20]
- We updated our proxy voting infrastructure to offer differentiated voting policies for ESG-integrated and thematic products, as articulated in the Manulife IM global proxy voting guidelines.

Our approach to sustainability in listed equity and fixed income

Each team integrates sustainability factors in a manner that best complements its own unique strategies. Although each team has a unique investment process, the overall approach to ESG integration is globally consistent for the respective asset class and occurs throughout the investment lifecycle, from due diligence to risk monitoring and active ownership.

Listed equities

The sustainable investing framework employed within our equity portfolios is an extension of our fundamental, bottom-up research. Each equity team bears responsibility for the evaluation of sustainability factors throughout the due diligence and decision-making processes in the pursuit of attractive risk-adjusted returns and capital preservation objectives.

Through their fundamental research process, our investment teams derive a risk/reward profile incorporating sustainability risks and opportunities that can help shape the teams' modeling and define sensitivities around their estimates of fair value.

Fixed income

For fixed-income portfolios, sustainability risk analysis is an integral part of our credit research process (excluding securitized and money market assets). Our investment teams adapt their approach to ESG integration, stewardship, and collaboration with both internal and external stakeholders to meet the unique considerations of their respective strategies and the regions in which they operate.

Our approach to fixed-income ESG integration is adapted to identify the material issues within each industry that have the capacity to cause spread widening. In addition to the materiality of sustainability risks, where appropriate, our investment professionals seek to assess the timing of their likely impact.

Listed equities and fixed income

A suite of tools and research

Our investment teams have access to a variety of tools that support their ESG integration processes. Examples include our:

- **ESG research framework—**This framework, used by both equity and credit analysts, prompts the analysis of sustainability indicators for a company in which we've identified those indicators as likely to be financially material to that firm.
- **Proprietary sovereign ESG risk model—**In addition to our ESG research framework, this model is a unique product of collaboration between our sustainability team and veteran sovereign debt and multi-sector fixed-income professionals.
- **Integration and stewardship guides—**These proprietary tools outline the financial effects of multiple sustainability issues, summarize research on an individual matter, and identify how it may arise in proxy voting considerations. These are resources for our investment teams used not only as they integrate sustainability factors into their investment decisions, but also to supplement proxy voting and engagement discussions.

Stewardship

Our most prominent stewardship activity across both equity and fixed income is issuer engagement. Our investment teams meet with board directors, executive leadership, sustainability professionals, general counsel, and investor relations from issuers throughout the year. The parties we engage may also depend on the fixed-income asset type. While we engage with the parties for corporate bonds, we may engage with government representatives for sovereign and municipal bonds. For securitized debt, we may also engage with originators, sponsors, investment banks, rating agencies, and industry trade associations.

Regular communication with issuers is a key activity for our investment professionals. This work is often conducted to better assess a portfolio company's operations and provide investment professionals with a more complete view of investment risk and opportunity. These bilateral engagements can provide valuable insight into business models, strategic priorities, capital allocation, and risk mitigation.

Investment professionals may also use these meetings to encourage public disclosure and reporting of financially material sustainability matters, improvements to shareholder or debt holder rights, and changes to executive compensation structures, among other matters. Through these relationships, we're ultimately striving to improve investment outcomes for our clients over the long term through the reduction of idiosyncratic risk.

Timing of rights in fixed income

As fixed-income investors, our rights differ depending on the point at which we hold a bond within its lifecycle. Our global fixed-income teams regularly review prospectuses and transaction documents as part of their initial due diligence, ongoing risk monitoring, and credit research processes. This provides them with an evolving view on which improvements to instrument characteristics might benefit debt holders.

As an example, in the syndication process, our teams may offer feedback on terms, conditions, and covenants that would make the investment offer more attractive for our clients, and this dialogue can result in covenant changes. By engaging with companies when they need to fund-raise, we may also influence those issuers to adopt leading practices in sustainable risk mitigation. Finally, through credit events, we may also have the opportunity to renegotiate terms or may emerge from the event with equity and voting rights that we exercise to protect our interests. Ultimately, we aim to strategically time our engagements in order to maximize our influence.

We continue to build our influence with debt issuers and are finding companies receptive to our input regarding advancement of sustainable outcomes. For example, we've heard from some issuers that they're generally not engaged by debt holders on sustainability risks and opportunities and can be appreciative when we approach them. This feedback is encouraging, and we've learned that firms are receptive to our opinion as debt holders.

Listed equities and fixed income

Exercising proxy votes for clients

Manulife IM's global proxy voting policy and procedures outline the processes and governance structures we have for public markets investments to help guide our execution of proxy voting rights. In 2024, we separated out the policy and procedures from the global proxy voting guidelines, which articulate broad principles that we believe generally encourage practices that preserve value and drive positive company performance.[44] We understand that leading practice can differ by location and, therefore, we apply market-specific frameworks that consider such geographic differences. The investment teams have responsibility to vote proxies, and this is done in the best interest of their clients.

We use a third-party proxy voting research, execution, and disclosure vendor to aid us in our proxy voting efforts. This vendor provides us with initial proxy voting research reports and voting recommendations that consider sustainability factors and align with our voting guidelines. While we'll most often use the initial recommendation of the vendor, we can—and will—override the initial recommendation, in cases where after considering all facts and circumstances, the investment team determines to vote contrary to the recommendation.

Considering all the information available, the exercise of our voting rights is always completed with our clients' best interests in mind. We have a global proxy operations group that oversees the proxy voting execution and account maintenance in coordination with investment professionals, the public markets sustainability team, our vendor, and other stakeholders. Manulife IM ensures that proxies are executed in a timely manner and maintain appropriate records of votes cast and records of proxy statements received in connection with annual general meetings. The proxy operations team performs various administrative functions associated with voting and supports reporting of proxy voting activities. Ultimately, it's through this team and its daily collaboration with the vendor that we track our voting rights. This team also ensures that we're executing our voting rights wherever we can and are doing so as efficiently as possible.

When an account or fund is onboarded, proxy operations provide a signed letter of authorization (LOA) to the custodian. The LOA directs the custodian to forward ballots to our vendor. Proxy operations work with the vendor to set up the accounts and connect our our proxy voting policy and procedures and proxy voting guidelines to those ballots. Proxy operations generate a daily positions report that's sent directly to the vendor's secure server. The vendor reviews that report to identify securities with an upcoming meeting and reconciles holdings against ballots received from the custodian. We receive daily reports to highlight any reconciliation issues and act accordingly to ensure we can execute voting instructions across portfolios.

Periodic review of proxy voting guidelines

We periodically review the proxy voting guidelines that drive our voting decisions. We keep pace with the evolution of proxy voting rules and regulations, as well as best practices and expectations regarding corporate governance, and we work to keep current with leading practices. We also engage with our vendor to aid us in our effort to encourage outcomes that preserve and enhance share value over the long term. We consistently evaluate if amendments are necessary for our proxy voting policy and our guidelines.

44 In early 2025, we amended these guidelines further to articulate our new ability to provide different voting policies depending on the underlying product. We apply different voting guidelines depending on whether a product is an ESG integrated strategy (including ESG integrated and quantitative screening products) or thematic strategies (including sustainable, sustainable thematic, and impact). There are broad commonalities across the two policies, and we believe the differences between each set of guidelines represent the expectations of clients in the different products represented.

Listed equities and fixed income

Special arrangements with clients and securities lending considerations

Working together, Manulife IM and our clients shape the proxy voting relationship by agreement. Generally, our clients delegate proxy voting decision-making to us, and client shares are therefore voted in line with proxy voting policy and procedures and our guidelines. We may also agree with clients on other proxy voting arrangements in which we don't assume proxy voting responsibility.

We also take action through our share-lending program to better preserve proxy voting rights. Shareholders can lose voting rights if shares are on loan during a certain period before a shareholder meeting. To preserve our influence through voting rights, we follow a process that, on a best-efforts basis, instructs our lending agents to restrict and recall shares from loans for issuers in which we own 2% of shares outstanding or more. We believe this is in clients' best interests as it strikes a balance between generating additional revenue for our client funds through lending and ensures we hold our rights where we have significant influence.

In 2024, Manulife IM voted on over 106,000 proposals across more than 11,000 shareholder meetings globally. We voted at approximately 99% of meetings where shares were held in our internally managed portfolios.[45] Where Manulife IM votes proxies for client accounts, it seeks to ensure proxies are voted in the best interest of the client, with a view to maximizing the economic value of the securities.

Voting actions we took related to sustainability matters

Proposal type	Rationale for vote
Votes for disclosure of environmental and social data	• Greater disclosure of workplace safety data • More comprehensive reporting on climate risk, including emissions data • Encourage assessment of plastics use and impact of reduced demand • Report on water risk exposure in operations
Votes for improved shareholder rights	• Support elimination of dual class shares with differential voting rights • Support right to call special meetings and written consent • Support removal of poison pills • Support majority voting standard
Votes against executive compensation plans	• Misalignment between pay and performance • Lack of performance-based remuneration • Short vesting periods • Lack of rigor in performance metrics • Outsize pay versus peers • Discretionary payments • Problematic severance arrangements • Potentially dilutive equity authorizations
Votes against directors	• Poor attendance • Lack of independence • Diminishment of shareholder rights • Problematic executive remuneration practices • Oversight negligence of sustainability factors

45 Manulife IM may refrain from voting at certain meetings for several reasons, including where costs to vote may outweigh benefits to clients, voting would incur liquidity risk, or there is a requirement to vote in person among others. More information on where we may refrain from voting is available in Manulife IM's global proxy voting policy and procedures.

Climate

Governance and strategy

For public markets assets, we rely on our oversight framework described earlier in the governance section along with our policy and statement infrastructure, including our climate statement, our proxy voting policy and guidelines, and our global issuer engagement policy.

Risks and opportunities

Within public markets asset classes, we assess transition risk by using a blend of qualitative analysis and quantitative sustainability metrics such as climate VaR, which seeks to quantify the estimated financial impact of climate change. The severity of physical risks tends to be more certain over the longer term (apart from acute weather events, which can be unpredictable) and typically depends on where an asset is physically located. Transition risk is also an input to this measure and considers sectoral decarbonization pathways, technology readiness, and country-level factors, including the local policy environment, energy mix, and electricity pricing. Scenario analysis, in which the effect of climate change can be modeled through a range of possibilities, is one of the key tools we use to place a financial value on climate risk based on the rate of global decarbonization.

We've also developed climate change-themed investment strategies for both equity and fixed income, with a focus on portfolio resilience.

While climate risks exist, so do opportunities, including the promise of new technologies such as green hydrogen, biofuels, and batteries. We attempt to identify issuers who are leveraged to these themes and track their competency to capture the opportunities. One way we measure this is by assessing the value of low-carbon technology patents filed by issuers, which we believe can provide useful insight into innovation and progress.

Understandably, tackling climate change is an integral part of our corporate engagement program, particularly when it's a material factor for an issuer or industry. We aim to share our knowledge and findings with investee companies in the hope that this can help them strengthen their sustainability footprint and reduce risk exposure to climate factors. Our collaborative approach with issuers enables mutual learning and the sharing of evolving leading practices around climate-related disclosure and management.

Risk management

Our public markets teams are aided by an investment risk group, a sustainability team, and models that combine to help monitor market risk. In addition to consideration of climate risks and opportunities in our investment portfolios, we also try to address climate at a systems level through policy work and collaboration as described in the engagement section and policy work and standard setting within the collaboration section.

Metrics and targets

The overwhelming consensus among scientists is that there's a limited amount of carbon dioxide that the world can afford to emit into the atmosphere if we're to limit the global average temperature rise to 1.5˚C. Consequently, we live in a carbon-constrained world, so we believe it's important to analyze the emissions of the portfolios we manage on behalf of our clients. This helps us understand our current contribution to global climate change mitigation and where we have opportunities to address these risks and opportunities in line with our fiduciary duty to clients.

While climate risks and opportunities may materially affect the enterprise value of a portfolio company, that impact may change depending on a portfolio company's geography, regulatory regime, industry, and size, among other factors. For this reason, we believe climate risks and opportunities should be analyzed, managed, and prioritized in connection with the unique profile of each investment.

Listed equities and fixed income

Defining the scope of our analysis

Our portfolio carbon analysis includes all equity and fixed-income portfolios for which carbon emissions data is available for the underlying holdings.

Scope of the analysis and our approach to selecting key performance metrics

For the purposes of this report, we've chosen to use an array of emissions calculations. We believe this allows us to get at different facets of climate issues, including disclosure, and provide a more granular analysis when it comes to managing portfolio-level climate risks and opportunities.

Accordingly, we've calculated our portfolios' GHG emissions profile based on multiple calculation methods as well as different combinations of the emissions categories. We regard this as particularly important for two reasons: First, direct emissions are known to be more easily measured and are easier for companies to control, and second, indirect emissions are larger and involve a higher degree of estimation.

As a result of their indirect nature, companies might argue that their ability to control these categories of emissions is more attenuated. For these reasons, we believe it's critical to employ several methods of measuring emissions and to use these in dialogue with investee companies.

How to measure responsibility for emissions within the capital structure

Carbon performance metrics have evolved from using market capitalization as a denominator for calculating and normalizing GHG emissions, which previously dominated industry practice, to using enterprise value, including cash (EVIC). The former methodology holds only shareholders to account for all the emissions of a company while the latter enables accounting for issuer debt as part of the emissions allocation/apportioning practice. In effect, this means that those providing finance to companies through equity ownership or through lending are assigned emissions responsibility but in subtly different ways. Equity is measured by current market value, whereas debt is measured based on book value.

Carbon footprint calculation methods

1 Equity ownership only

Total carbon emissions for a portfolio normalized by the market value of the portfolio, expressed in tons CO_2e/$M invested.

$$\frac{\sum_{n}^{i}\left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's scope 1 and scope 2 GHG emissions}_i\right)}{\text{Current portfolio value (\$M)}}$$

2 Equity ownership and debt holder

Equity carbon footprint

$$\frac{\text{Current value of investment}}{\text{Issuer's enterprise value + Cash}}$$

Debt holder carbon footprint

$$\frac{\text{Book value of investment}}{\text{Issuer's enterprise value + Cash}}$$

Source: tcfdhub.org, October 2022.

Listed equities and fixed income

Our carbon footprint and carbon exposures

In an effort to help stakeholders understand our exposure, we may disclose certain metrics regarding our aggregated portfolio exposure to transition risk. Following are some metrics we may consider as we continue to address that risk.

Total carbon emissions—In terms of absolute emissions by ownership, our clients' representative fixed-income and equity portfolios were collectively responsible for 15.5 million metric tons of CO_2e of scope 1 and scope 2 in 2024. This represents 0.04% as a percentage of the world's total absolute emissions in 2024. While this is a small share of global emissions, it's important to recognize that whenever an investee company reduces emissions, the effect applies across the total emissions of that firm, not just the financed portion of those emissions. Through engagement with investee companies, we can potentially have a stronger influence on emissions reduction than suggested by the size of our individual positions or by our public markets AUM.

Carbon intensity—We believe it's important to consider data on emissions intensity as well as total emissions. It's unrealistic to expect two broadly identical companies where one is twice the size of the other to have the same amount of absolute emissions. However, it's reasonable to measure their emissions per unit of sales or other standardized metric, as this provides insight into the emissions efficiency of each company's operations, product development, and/or service execution.

That said, we must remind ourselves that limiting total emissions is the real-world outcome we're trying to achieve; therefore, too much emphasis on intensity figures carries the risk of missing a critical sustainability objective. So, while a company may indeed become more efficient at reducing carbon emissions per unit of production or per $1 million of sales it generates, its absolute emissions could be increasing at a faster rate than the rate of its intensity reduction. For this reason, we believe the rate of absolute emissions reduction should be considered alongside changes in carbon intensity.

We calculate our carbon footprint using the Partnership for Carbon Accounting Financials methodology, which has gained traction in the market and among standards-setting bodies. To achieve a more representative footprint, we removed securities that lack emissions data, such as cash, derivatives, and other noncorporate issues, and focused the calculation on securities that have underlying carbon and EVIC figures. This weight is then redistributed to the remaining investment holdings.

WACI—WACI is the standard metric used by investors to assess the emissions management efficiency of investee companies. We show our equity and fixed-income carbon intensity figures versus a general representative benchmark for each asset class. While these aren't the applicable benchmarks for many of the strategies, they provide a barometer against which we measure our carbon exposure. We chose these benchmarks as we believe they provide an unbiased view of the carbon intensity for the companies globally. It also enables us to evaluate portfolio intensity in a global context and identify portfolios that may require closer monitoring, which tend to be Asia focused.

For our equity portfolios, we've presented information against the MSCI All Country World Index (MSCI ACWI). The WACI (scope 1 and scope 2) across our equity portfolios, based on AUM per portfolio, is 8.6% lower than that of the MSCI ACWI. The primary driver for the lower carbon intensity is the low carbon intensity for our U.S.-domiciled portfolios. The median carbon intensity of our equity portfolios is higher than that of the benchmark by 16% assuming each portfolio is equal weighted. A key difference in the variance to the MSCI ACWI benchmark is the weighting in the U.S. technology sector, which is outside of the investable universe for our Asia-based strategies. Technology stocks in general have a lower carbon intensity than many other sectors.

For our fixed-income portfolios, we've presented information against the Bloomberg Global Aggregate Corporate Index (BGACI). The WACI of our fixed-income portfolios is 33% higher than that of the BGACI, with median carbon intensity remaining higher than the representative benchmark at 9.9%. There are three key reasons why our carbon intensity is higher. First, the financials sector weight in the benchmark is higher while the diversification of our portfolios results in a lower weight in financials. Financial entities tend to have lower scope 1 and scope 2 emissions and are typically still in the process of building out their modeling capabilities for reporting scope 3, or financed, emissions. Second, which also speaks to diversification, is that our portfolios generally have larger weights in the energy sector, and third, the carbon intensity of our Canadian fixed-income funds is higher, as Canada has a higher exposure to natural resource companies, which operate with higher relative levels of carbon intensity.

Our listed equity and fixed-income portfolios' carbon exposures

Absolute carbon emissions and equivalents

The absolute quantity of emissions that our equity and fixed-income portfolios are responsible for based on the amount invested (vs. EVIC) in the portfolio companies

Metric	Fixed income ($MtCO_2e$)	Equity ($MtCO_2e$)	Weighted average of fixed income and equity ($MtCO_2e$)
Scope 1 + Scope 2	495,930	107,425	361,813
Scope 1 + Scope 2 + Scope 3 (upstream)	653,513	195,387	495,362
Scope 1 + Scope 2 + Scope 3 (upstream and downstream)	1,354,678	978,058	1,224,664

Source: Manulife Investment Management. Figures in each column represent absolute emissions based on aggregate assets under management of all portfolios. EVIC refers to enterprise value, including cash.

Carbon footprint/EVIC

Carbon footprint normalized to value invested (apportioned by EVIC) enables us to compare carbon intensity across different portfolio sizes

Metric	Fixed income (millions $MtCO_2e$)	Equity (millions $MtCO_2e$)	Weighted average of fixed income and equity (millions $MtCO_2e$)
Reweighted based on data availability			
Scope 1 + Scope 2	136.6	53.9	108.1
Scope 1 + Scope 2 + Scope 3 (upstream)	195.2	95.7	160.8
Scope 1 + Scope 2 + Scope 3 (upstream and downstream)	680.7	504.9	620.0

Source: Manulife Investment Management. Figures in each column represent carbon footprint based on aggregate assets under management of all portfolios. EVIC refers to enterprise value, including cash.

Our listed equity and fixed-income portfolios' carbon exposures (continued)

WACI

Weighted average GHG intensity per $1 million of sales that underlying securities generate enables us to conduct GHG attribution analysis

Metric	Fixed income ($MtCO_2e$/$1M sales)	Equity ($MtCO_2e$/$1M sales)	Weighted average of fixed income and equity ($MtCO_2e$/$1M sales)
Scope 1 + Scope 2	313.6	126.8	249.1
Scope 1 + Scope 2 + Scope 3 (upstream)	432.4	240.7	366.3
Scope 1 + Scope 2 + Scope 3 (upstream and downstream)	1,423.1	1,240.5	1,360.0

Source: Manulife Investment Management.

Geographical comparison

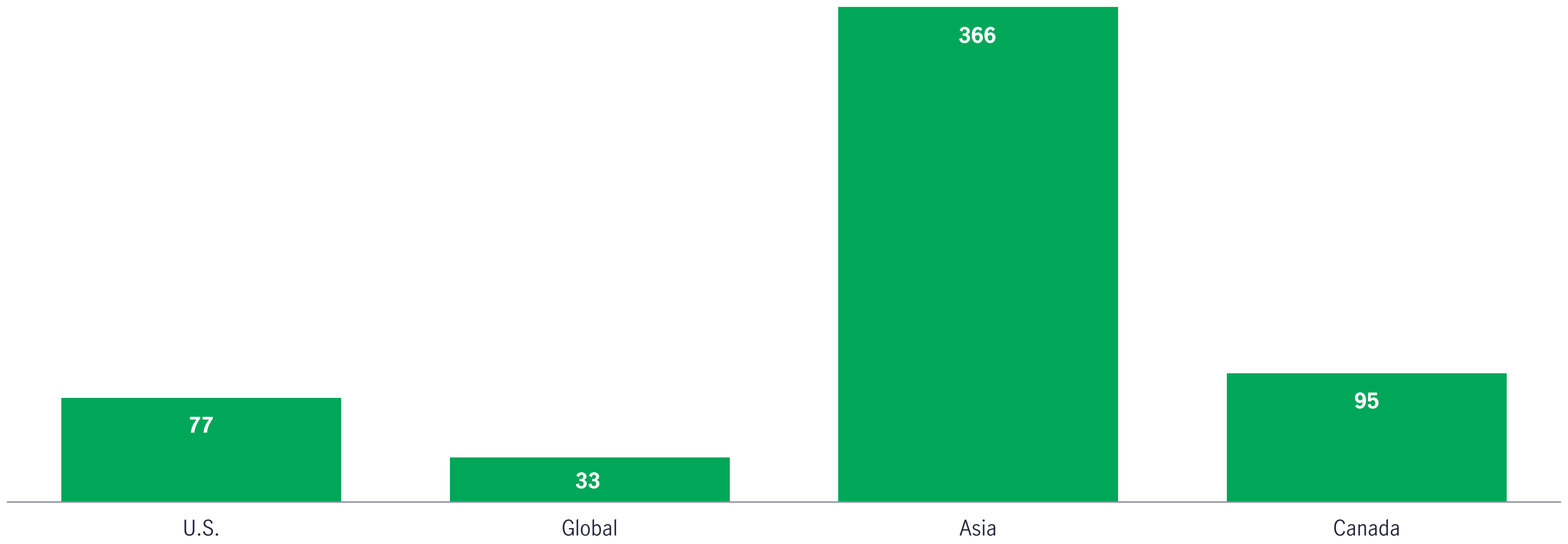
As a global investment manager, investing across different geographies gives us a perspective on emissions quantities across countries as well as sectors. Using our equity and fixed-income businesses, we compared weighted average emissions across each of the climate metrics of absolute emissions, carbon footprint, and WACI using our largest 25 portfolios in each asset class by AUM.

Absolute carbon emissions and equivalents

From an absolute financed emissions metric, we can see that there's a dichotomy for those assets based in the United States. From an equity perspective, the financed emissions are low relative to other regions, while for fixed income, the United States ranks the highest for financed emissions. A key reason for this is a larger allocation of assets to the utilities and energy sectors, which are sectors with high scope 1 and scope 2 emissions. From a regional perspective, our U.S. fixed income portfolios carry higher financed emissions due to their allocation to hard-to-abate sectors.

Financed emissions: equity

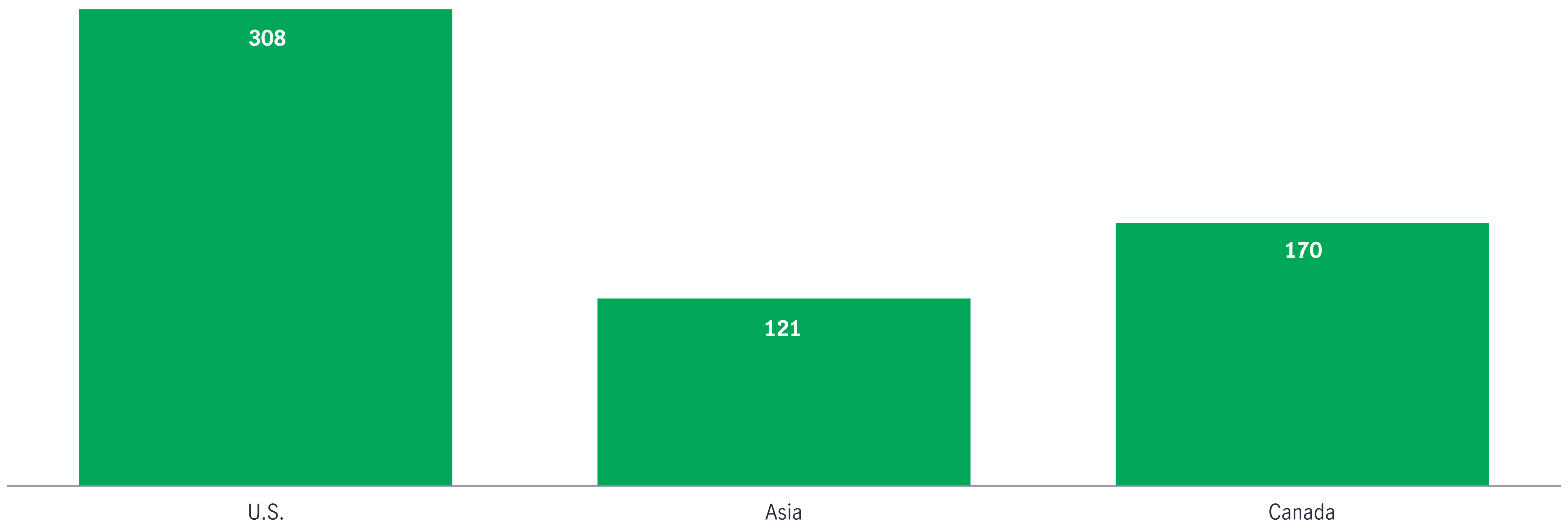
Absolute emissions in thousands per CO_2e



Source: Manulife Investment Management, 2024. Values in the bar chart have been rounded while bar chart heights reflect true underlying values.

Financed emissions: fixed income

Absolute emissions in thousands per CO_2e



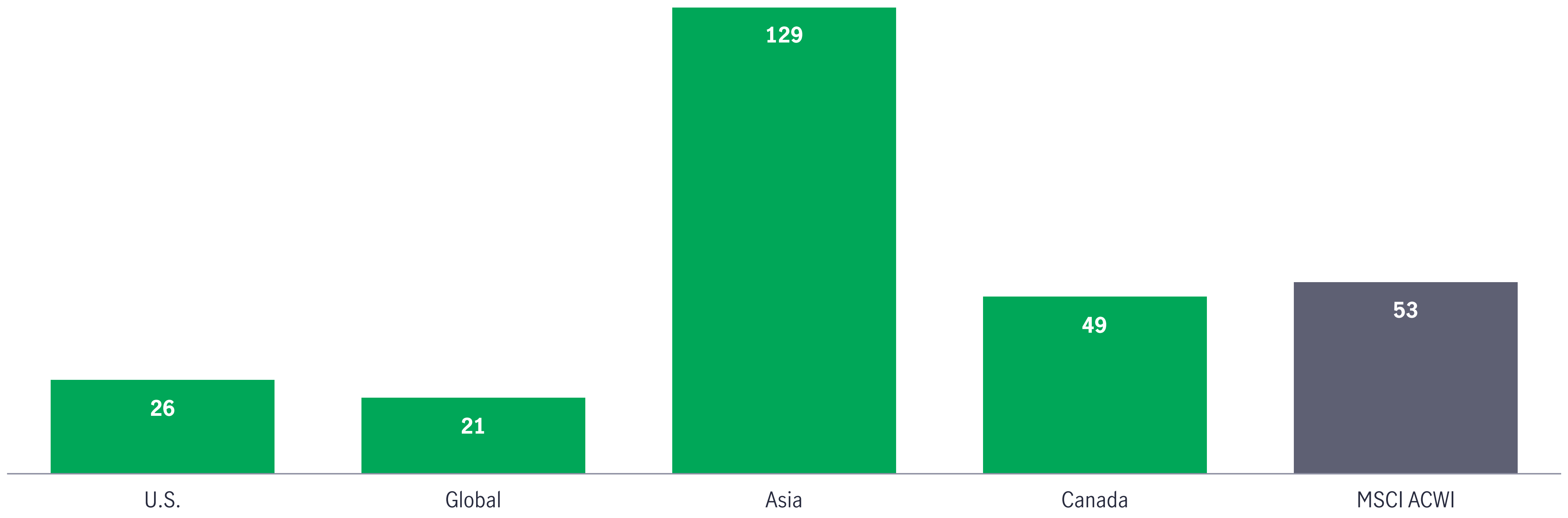
Source: Manulife Investment Management, 2024. Values in the bar chart have been rounded while bar chart heights reflect true underlying values.

Carbon footprint/EVIC

From a portfolio footprint perspective for equity, Asia ex-Japan has a higher carbon footprint on both a regional basis, and when compared to the MSCI ACWI. For fixed income, the regions of United States and Canada possess a high carbon footprint. This exposure comes from hard-to-abate sectors such as utilities, materials, and chemicals.

Carbon footprint/EVIC: equity

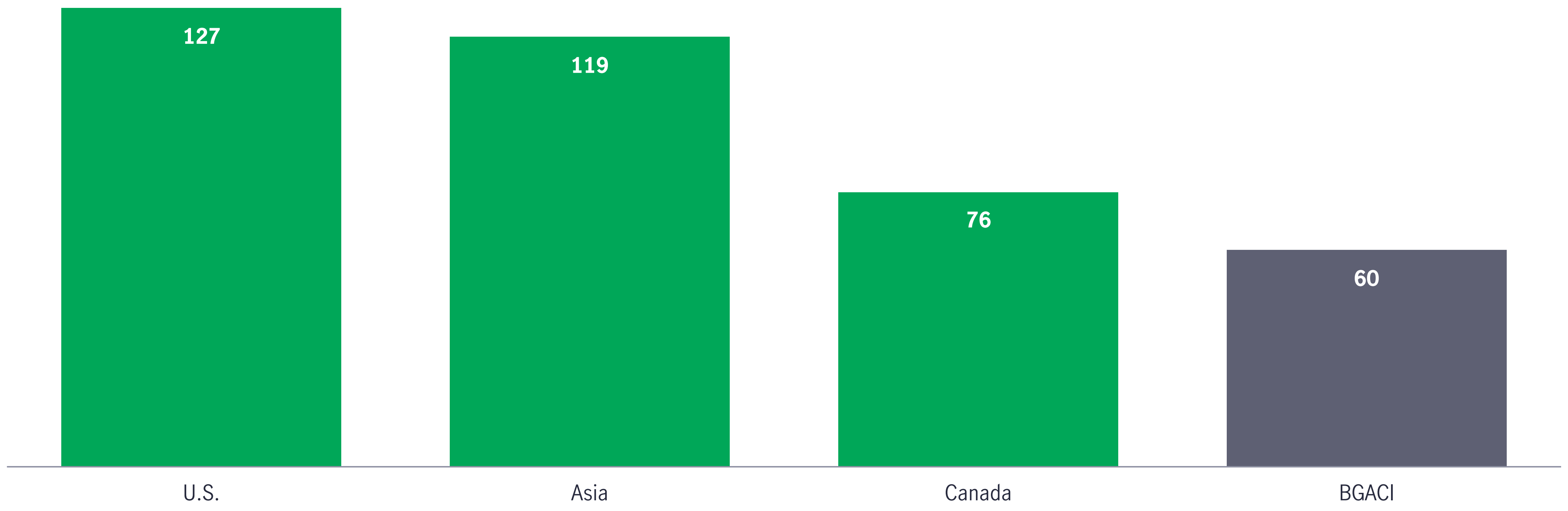
Absolute emissions/carbon footprint



Source: Manulife Investment Management, 2024. MSCI ACWI refers to the MSCI All Country World Index. It is not possible to invest directly in an index. Values in the bar chart have been rounded while bar chart heights reflect true underlying values. Carbon footprint data is presented on an average based on AUM by region.

Carbon footprint/EVIC: fixed income

Absolute emissions/carbon footprint



Source: Manulife Investment Management, 2024. BGACI refers to the Bloomberg Global Aggregate Corporate Index. It is not possible to invest directly in an index. Values in the bar chart have been rounded while bar chart heights reflect true underlying values. Carbon footprint data is presented on an average based on AUM by region.

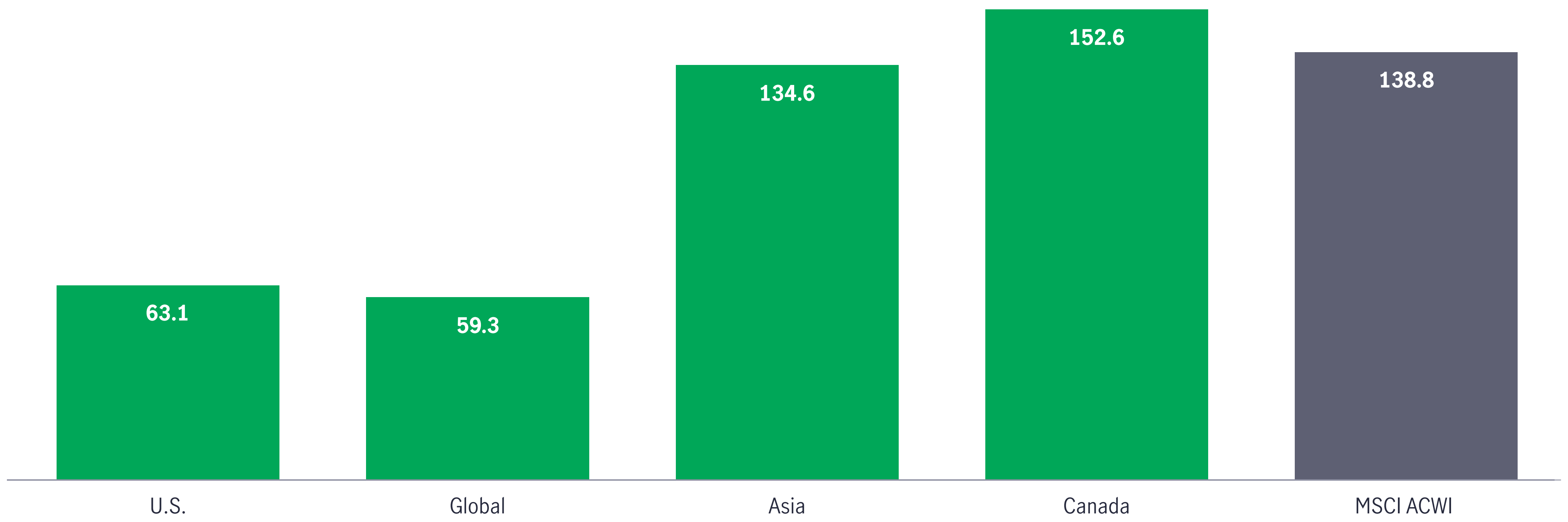
Listed equities and fixed income

WACI

From a carbon intensity perspective our U.S. and global-based strategies are on the lower end of WACI for equity portfolios. This is primarily due to our equity portfolios investment in technology companies in the U.S. and globally. Within fixed income our portfolios have a higher carbon intensity due to our exposure to energy and utilities with an underweight to financials.

Weighted average carbon intensity: equity

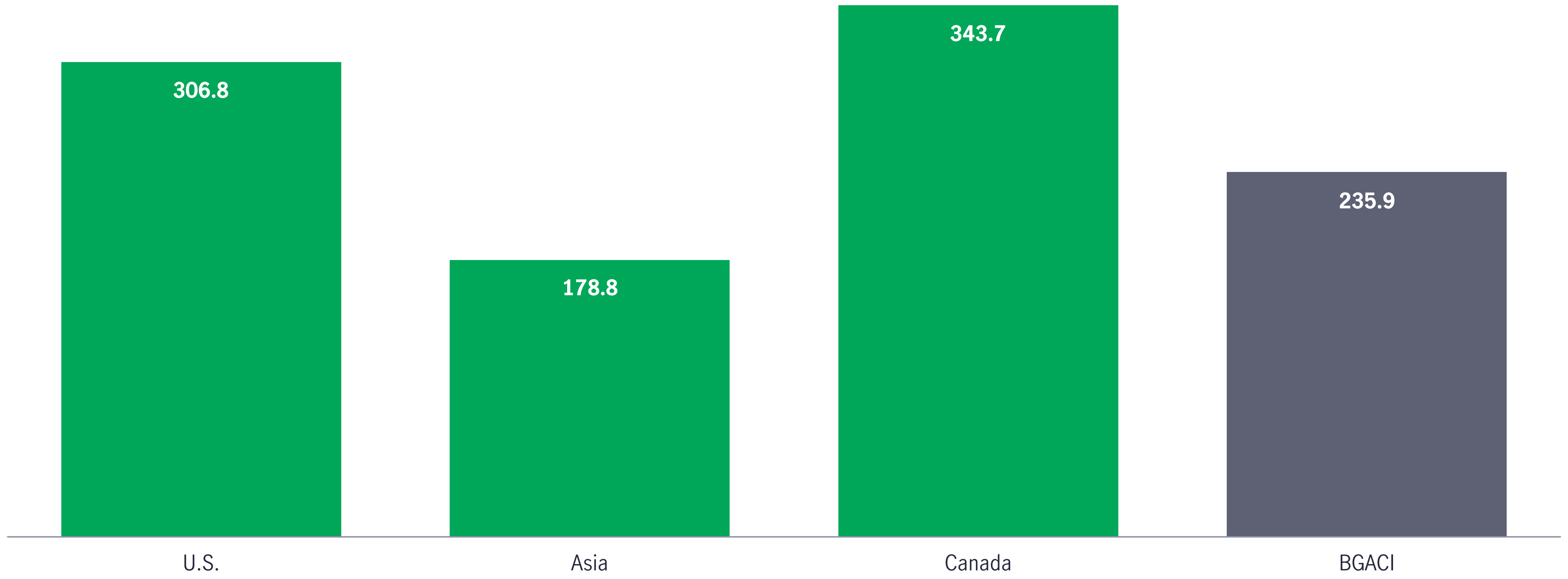
Scope 1 + Scope 2 carbon intensity



Source: Manulife Investment Management, 2024. MSCI ACWI refers to the MSCI All Country World Index. It is not possible to invest directly in an index. Values in the bar chart have been rounded while bar chart heights reflect true underlying values.

Weighted average carbon intensity: fixed income

Scope 1 + Scope 2 carbon intensity



Source: Manulife Investment Management, 2024. BGACI refers to the Bloomberg Global Aggregate Corporate Index. It is not possible to invest directly in an index. Values in the bar chart have been rounded while bar chart heights reflect true underlying values.

Listed equities and fixed income

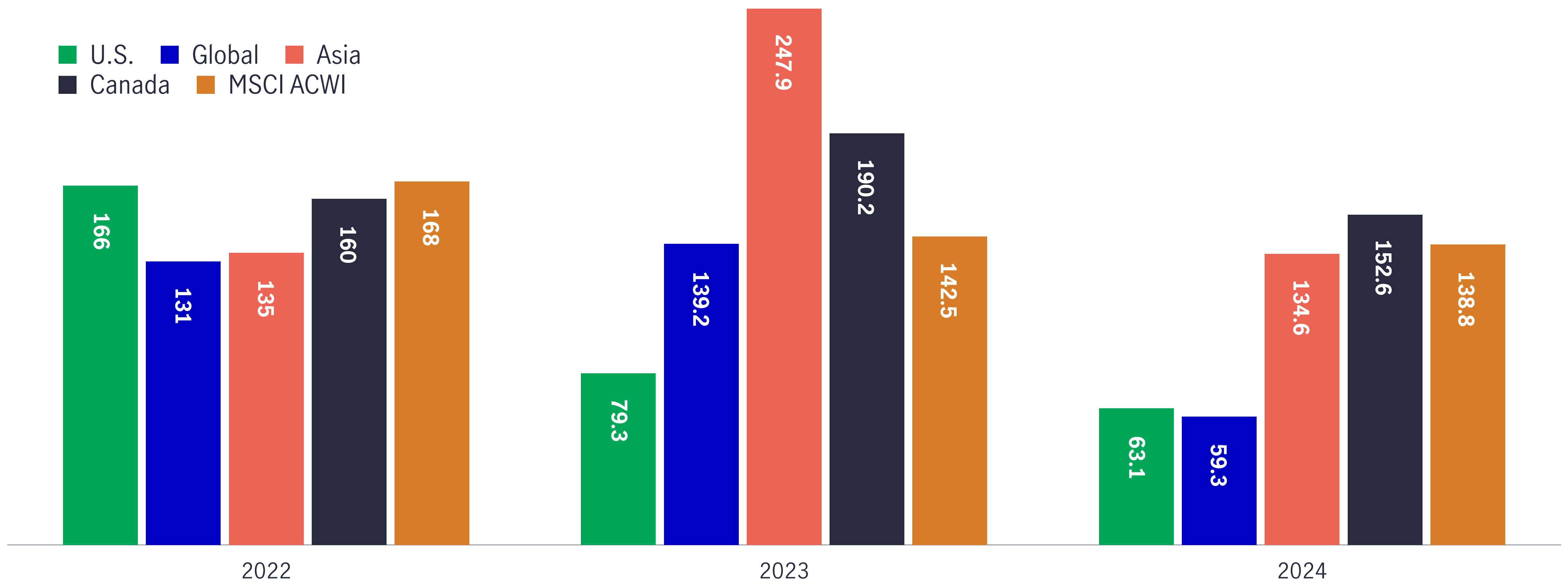
Three-year trend carbon intensity

On a three-year trend basis, portfolio carbon intensities for equities have moved broadly in line with the benchmark, with increases in 2023 and decreases in 2024. While the MSCI ACWI remained at a similar level between 2023 and 2024, our portfolios showed decreasing carbon intensities over the same period.

For fixed income, our U.S. and Asia portfolios remained broadly level on a trend basis, while Canada portfolios showed a decreasing trend. The variables as part of carbon intensity are wide; however, the two most sensitive variables are sector allocation and security selection, both of which are primarily driven by valuation attractiveness. The purpose of this chart is to take a top-down view of how the carbon intensity is modifying over time.

Trend carbon intensity: equity

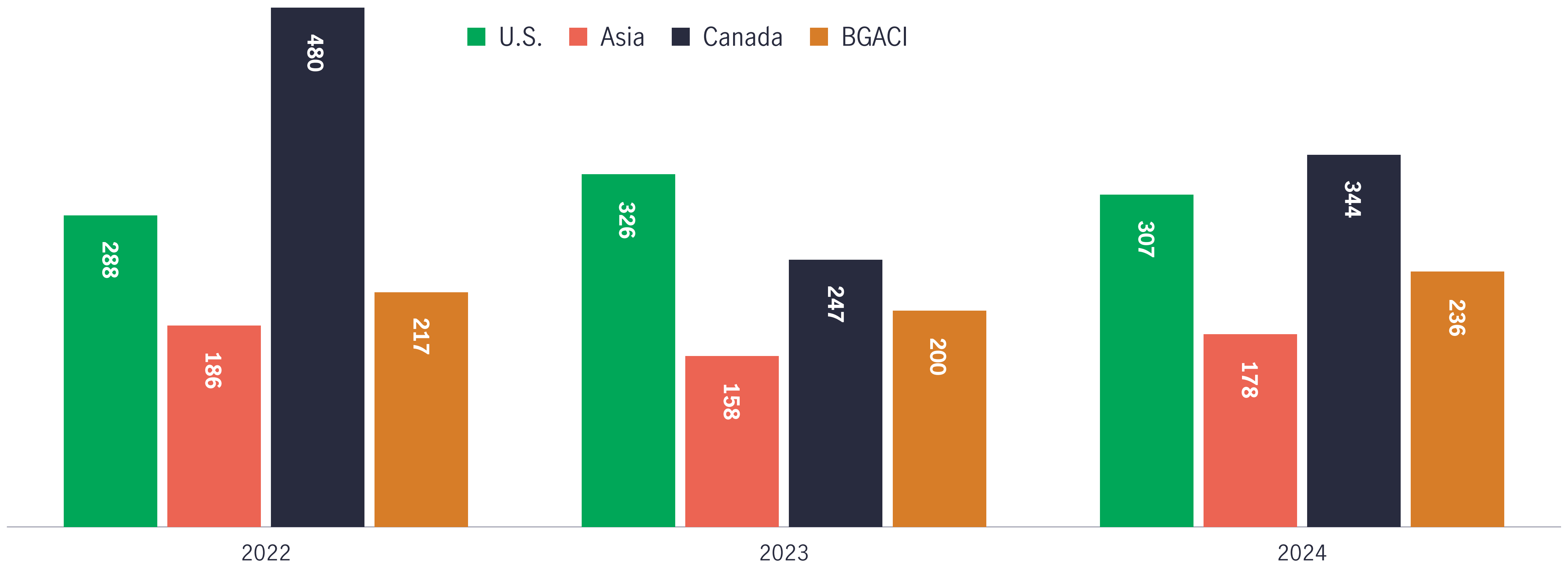
Scope 1 + Scope 2 carbon intensity



Source: Manulife Investment Management, 2024. MSCI ACWI refers to the MSCI All Country World Index. It is not possible to invest directly in an index.

Trend carbon intensity: fixed income

Scope 1 + Scope 2 carbon intensity



Source: Manulife Investment Management, 2024. BGACI refers to the Bloomberg Global Aggregate Corporate Index. It is not possible to invest directly in an index. Values in the bar chart have been rounder while bar heights reflects true underlying values.

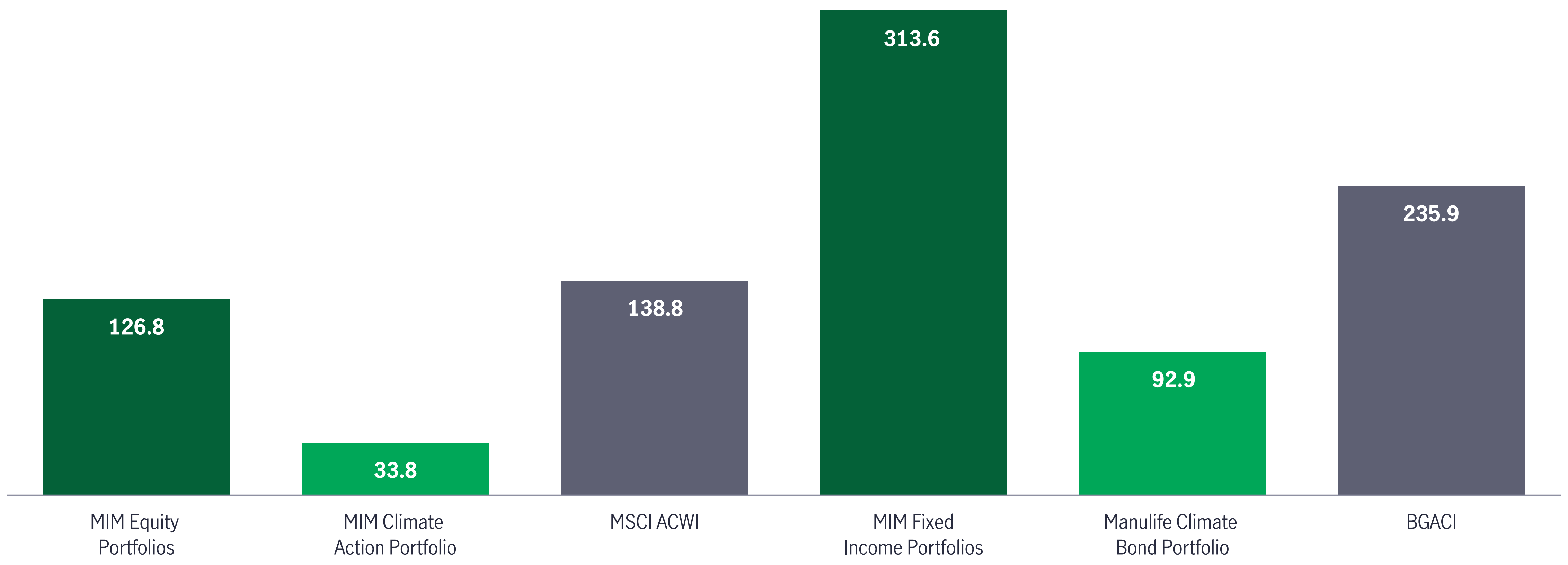
Listed equities and fixed income

Climate-themed equity and fixed-income strategies

We've presented an analysis of WACI and carbon intensity related to our climate-themed equity and fixed-income strategies and broader industry benchmarks. As evidenced, there's a significant reduction in the carbon intensity compared with the asset class representative benchmark and the overall average of the asset class we presented earlier in this report. Where appropriate, and in line with our fiduciary duty to clients, our investment teams specifically seek to find attractive and appropriate investment opportunities with lower-carbon investment profiles.

Weighted average carbon intensity

CO_2e/revenue



Source: Manulife Investment Management, 2024. MSCI ACWI refers to the MSCI All Country World Index. BGACI refers to the Bloomberg Global Aggregate Corporate Index. It is not possible to invest directly in an index. Values in the bar chart have been rounded while bar chart heights reflect true underlying values.

Multi-asset solutions

AUM: $211,046 million[4]
Investment professionals: 62+[43]

Highlights

Overview

As allocators of capital, our Multi-Asset Solutions Team (MAST) has taken a top-down approach to constructing diversified portfolios across multiple asset classes and sectors, combining dynamic asset allocation with holistic risk management. The team is focused on evaluating potential opportunities and risks to achieve tailored investment outcomes and solutions on behalf of clients. The analysis and integration of sustainability factors are a natural complement to the research put out by MAST. Further, the team believes sustainability factors play a meaningful role in the evolution of capital markets and, as such, embraces the principles of sustainability that help drive improved outcomes for stakeholders.

Our approach to sustainability in multi-asset solutions

MAST has achieved our highest internal level of ESG integration and uses a framework for evaluating aspects of sustainability risk and opportunity that aligns with the team's investment process. This framework consists of the following:

- Partnership with our sustainability team
- Coordination across the equity and fixed-income teams and MAST to share sustainable investment views, enabling MAST to develop fundamental top-down views of risks and to construct opportunities across industries
- Collaboration with the internal global manager research (GMR) team to assess depth and quality of ESG integration for investment managers of individual actively managed asset classes to construct multi-asset solutions
- Research into, and publication of, macroeconomic analyses on sustainability topics and their potential impact on the capital markets
- Incorporation of sustainability adjustments and scenarios into economic and fundamental market inputs driving asset class forecasts
- Enhancement of data aggregation and analysis, quantitative approaches, and portfolio construction tools to incorporate sustainability considerations

ESG integration in multi-asset is different from funds focused on security selection

Security selection ESG integration	Multi-asset ESG integration
• Bottom-up security analysis • Analysis of disclosed financial and sustainability-related statements • Analysts directly engage with corporate management related to sustainability initiatives • Ability to affect investments through active ownership • Impact potentially incorporated into relevant price targets/ discount rates	• Incorporation of sustainability factors within top-down macro research and forecasting • Build-out of sustainability data infrastructure for cross-asset analysis • Inclusion of sustainability factors into MAST's research framework • Stewardship of capital through engagement with underlying managers • Portfolio construction that incorporates material sustainability factors affecting capital market forecasts

Stewardship

A partnership with our global manager research team

Our MAST partners regularly with our GMR team to assess external managers and their products as an input into MAST's investment process. Our GMR team is responsible, in part, for investment evaluation and oversight of public equity and fixed-income assets where Manulife IM has delegated some, or most, investment management functions to a third-party manager. This team applies a combination of quantitative and qualitative processes to monitor and assess our delegated management of client assets. This team regularly reviews sustainable investment practices of delegated investment managers, including reviews of ESG integration, proxy voting, and engagement activities, and maintains tools that keep pace with the rapidly changing global climate risk disclosure environment. The team strives to ensure its processes and overviews provide the same rigorous standard of investment manager oversight to all delegated managers, including through the following activities:

- **Sustainability-dedicated sessions—**Held with portfolio teams during annual due diligence meetings; for larger strategic partners, the team will also meet with dedicated sustainability-focused roles, where applicable; GMR analysts look for specific examples of successful engagement activity from the investment team
- **Quarterly calls—**Coverage of ESG integration in the context of fundamental drivers of portfolio positioning during quarterly calls with investment teams
- **DDQ—**Sustainability-specific questions in the annual DDQ sent to managers
- **Access to ESG data—**Team analysts have access to sustainability reporting tools and data through several vendors and sources delivered through a proprietary system, allowing each portfolio's sustainability profile to be evaluated at the position level to ensure each holding in a portfolio aligns with the GMR team's expectations for that strategy
- **Proxy voting review—**Proxy voting records for each investment manager are reviewed annually to ensure proxies are being voted thoughtfully and in line with manager proxy voting policies; key considerations include votes for/against management on shareholder proposals and executive compensation packages
- **Formal internal assessments—**Holds formal sustainability assessment discussions between analysts and the regional heads in which the regional heads check analyst reviews against a broader market perspective
- **Defined escalation processes—**Where an analyst believes a manager may be deviating from expectations, the analyst will escalate internally through the monthly GMR team's global analyst call; where the global team believes it's warranted, the strategy will be added to the GMR team's closely monitored list with the deviation noted at the relevant investment committee or fund board; if an investment team on the closely monitored list fails to satisfy the GMR team's concerns, it may be slated for replacement

Robust manager oversight process

1 **Daily—**Monitor performance and positioning; ad hoc interactions with managers
2 **Weekly—**Team meetings; sharing of leading practices
3 **Monthly—**Global research meetings; investment risk oversight committee meetings
4 **Quarterly—**Board and investment committee meetings; strategy investment reviews
5 **Annually—**Bue diligence meetings with portfolio managers, risk managers, and key executives; comprehensive DDQs encompassing firm- and strategy-level questions; sustainability topics are included throughout the questionnaire; proxy voting review

Relates to public markets manager oversight processes. For illustrative purposes only.

Private equity and credit

Private equity

AUM: $22,464 million[3]

Private credit

AUM: $4,565 million[3]

Combined investment professionals: 59+[43]

Highlights

- We were selected to join the EDCI Steering Committee as one of eight LP committee members. This appointment recognizes our continued support of efforts to enhance the availability and standardization of sustainability data in the private equity industry.
- We achieved 100% completion of PE&C's inaugural climate change training program, which was rolled out to all PE&C employees globally. The training was developed in house by our sustainability team, with input from our investment teams and functional partners, to create content tailored to our PE&C investment strategies.
- We continued to advance our SDE and RTII thematic work that was launched in 2023. We formed an internal PE&C working group, contributed viewpoints to external thought leadership, and hosted expert-led panel discussions with clients and industry professionals to contribute to the evolution of the private equity industry's maturity on this emerging issue.
- We supported firmwide initiatives to enhance internal capabilities and processes for assessing, monitoring, and managing social-related risks. All PE&C employees completed responsible contracting training, and a firmwide human rights risk impact assessment identified actionable recommendations that we incorporated into our teams' investment processes.

Our approach to sustainability in PE&C

Within PE&C, the ability to analyze potential material sustainability issues prior to making an investment allows us to better assess potential downside risks.

Across investments and geographies, our PE&C investment teams conduct a material sustainability issues assessment of each investment during due diligence and incorporate findings into their fundamental analysis. To inform their assessments, the teams employ a materiality-based approach that leverages an internally developed sustainability due diligence tool. The tool is based on external resources from SASB as well as our own proprietary expertise. For our co-investments, secondaries, senior credit, and junior credit, investment teams also complete a sustainability assessment of the sponsor. Our manager maturity assessment framework guides the investment teams' review of the following due diligence areas:

- Governance and oversight
- Culture, capacity building, and training
- Policy, standards, and leading practices
- Due diligence
- Value creation and risk management
- Incident reporting
- Investment exit
- Sustainability reporting, communications, and contractual commitments
- LP engagement
- Approaches to diversity equity and inclusion and climate change

We document the outcomes of this sustainability due diligence in the final investment memorandum, which we present during the investment committee approval process. Sustainability documentation in the investment memorandum includes a summary of material sustainability risk and opportunity factors, areas for improvement, the sponsor's plans to address any gaps, and areas in which the portfolio company is already well advanced.

Once an investment is made, the teams work closely with their investment partners to monitor material items that might affect the investment or company, including sustainability factors. The investment teams leverage a variety of tools, such as shareholder rights, board seats, and our broader relationships with investment partners (who typically control the underlying portfolio companies), to help ensure material sustainability issues aren't overlooked. Moreover, we monitor the sustainability performance of our investments through the annual collection of sustainability and climate data, including metrics aligned to the EDCI assessment framework. The data we collect may further enhance our own practices and allow us to report to investors on sustainability-related activities and metrics.

Stewardship

In addition to the monitoring practices and tools mentioned, we aim to work with our investment partners and portfolio companies to support sustainability objectives during the holding period of our PE&C investments.

We seek to actively engage with the GPs of funds in which we invest and with the lead sponsors of our direct co-investments, secondary investments, and private credit. Typical conversation topics may include the firm's recent investment activities, notable business updates, and personnel and quarterly performance updates. In instances in which board seats or board observer rights are applicable, we may participate in quarterly board meetings as well as any interim update calls. Where investments don't have boards, it may be possible to participate in key decisions as a member of the investment company or as a member of the LPAC; this gives our team access to all key decision-makers at the ownership and management levels. When holding a seat on an LPAC, we may specifically review certain matters, including conflicts of interest and waivers of LP restrictions. Although we may be one investor as part of a consortium, most significant decisions are made at the board or member level with the full support of all parties.

Navigating toward a sustainable digital economy in private equity

To advance private equity investor understanding of, and dialogue regarding, digitization impact, we partnered with a financial data provider to host a dedicated event for investors on this rapidly evolving sustainability trend. We invited investors to discuss how taking a holistic approach to assessing investment risks and opportunities related to generative AI, automation, and digitalization can uncover valuable new insight. The expert panel included a Manulife IM private equity investment professional along with private equity research and data professionals who shared their perspectives on technology as a new systemic risk, the sectors most affected by it, the associated potential effects, and how private equity managers might effectively navigate an SDE.

Climate

Governance and strategy

Assessing the risks and opportunities related to climate change is an integral part of our sustainable investment approach for our PE&C strategies.

In addition to the governance structure we describe in the governance section, the PE&C sustainable investing committee oversees PE&C's climate strategy, which outlines near-term priorities and longer-term objectives for evolving the integration of climate considerations across the investment cycle and into each PE&C investment strategy. Core pillars of this strategy include monitoring climate-related risk and opportunity metrics, enhancing our investment teams' climate knowledge, generating climate-focused market insight, and partnering and engaging with industry groups and private equity peers through external initiatives.

As one of the core pillars of PE&C's climate strategy, we're committed to enhancing climate competency within our investment teams. To that end, we rolled out an inaugural climate change training program to all PE&C employees globally. The training program was developed in house by members of Manulife's sustainability team and covered fundamental concepts, proprietary tools, and external resources that support the identification, assessment, and management of climate-related investment risks and opportunities. We achieved a 100% completion rate across all PE&C investment team members globally, which demonstrates a commitment from senior leadership to advancing our climate ambitions as well as engagement from employees at all levels through continuous learning and development.

Risk management

Within PE&C, climate-related transition and physical risks and opportunities are assessed as part of the underwriting process and monitored post-investment, when material, to the underlying investment. Through our annual sustainable investing questionnaire, we also monitor core climate metrics, including GHG emissions, climate governance and oversight, and the usage of decarbonization strategies at our portfolio companies and sponsors.

We conduct an annual carbon footprint assessment to analyze the financed emissions and carbon risk exposure of our PE&C strategies. This exercise allows us to monitor the emissions profile of our portfolio companies and the financed emissions of our portfolios over time with the goal of managing potential climate-related risks on our platform. We've enhanced our annual sustainability monitoring activities and reporting questionnaire to survey our GPs and portfolio companies on their decarbonization plans, including short- and long-term emissions reduction targets. We plan to incorporate this insight into our carbon footprint assessment to inform climate risk management and future assessments of transition risk readiness.

Metrics and targets

In 2024, we completed our third annual portfolio carbon footprint assessment, inclusive of all PE&C strategies, with year-over-year data building on our first carbon footprint assessment in 2022. We also enhanced our methodology through the annual collection of GHG emissions data from our portfolio companies and sponsors. Currently, the majority of our emissions data points are estimated, but we're committed to supporting and encouraging our investment partners to provide more accurate emissions data points over time to improve our ability to analyze and drive insight from the data. Through our ongoing membership of the EDCI and recent appointment to the EDCI's Steering Committee, we continue to advocate for improved, standardized, sustainability data disclosures from the private equity industry, including core metrics such as GHG emissions.

Real estate

AUM: $26,800 million[3]
Investment professionals: 77+[43]

Highlights

- Manulife IM earned a Green Star ranking and outperformed the GRESB average in all five of our GRESB 2024 submissions. In 2024, our general account was designated a Regional Sector Leader for the Americas region.[46]
- Our real estate platform also introduced a comprehensive program to reduce carbon emissions, creating detailed asset-level transition plans (decarbonization plans) for 121 assets in our portfolio. These decarbonization plans outline steps for meeting both mid- and long-term goals, focusing on immediate building efficiency and optimization along with more capital-intensive, deep retrofit opportunities during major lifecycle equipment renewals. As of December 31, 2024, over 120 decarbonization plans have been completed, accounting for >75% of our operational emissions footprint and >90% of direct scope 1 emissions.[47]
- We published a case study in partnership with the WBCSD that focused on companies taking action on nature within the built environment. This outlines how Manulife IM real estate is navigating its journey toward nature action, offering valuable insight into the particular and specific challenges that businesses encounter on this path.
- We joined the Fitwel Leadership Advisory Board, an invitation-only cohort of individuals at companies that are leading the healthy building movement through the continued implementation of the Fitwel Building Certification.
- We've identified human rights risks for real estate and integrated them into our business processes. This included responsible contracting training for real estate operations and investments teams as well as property managers.

46 GRESB Real Estate Assessment for the Standing Investments Benchmark Regional Sector Leader, North America | Diversified Office/ Industrial. Based on GRESB results released October 2024 covering the 2023 time period. Most current data shown. Manulife IM paid a fee to be considered for the ranking. For more information, please visit 2024 Real Estate Assessment Results—GRESB. **47** As of December 31, 2024, based on Q4 2024 budgets.

Real estate

Our approach to sustainability in real estate

We incorporate sustainability considerations into our investment management and operational practices across the real estate value chain, from construction and acquisition of an asset through all aspects of asset management. These practices are supported by resources such as our proprietary sustainability in investment and due diligence tool, sustainability clauses in our standard lease, and our proprietary Sustainable Building Standards. Our real estate sustainable investing framework outlines our approach, and our five sustainability commitments detail our key areas of focus. The framework is based on responsible property investment and aligns with global standards. We validate our practices and performance through public and investor reporting and industry benchmarking standards such as GRESB and aspire to advance our sustainable real estate commitments across our global platform.

As asset managers, we undertake five sustainable real estate commitments:

1. Minimize our environmental impact
2. Support health and wellness
3. Promote responsible business practices
4. Engage our stakeholders on sustainability
5. Be accountable for our performance

For more information, please see our real estate sustainability report.

Stewardship

Good stewardship is good business. Our clients' financial success directly depends on how we manage our properties. Property operations make up the bulk of our environmental and social impact and are the focus of our interaction with our employees, tenants, and community members. Developing a comprehensive approach to asset management and operations relevant to individual funds, assets, and geographies is critical to ensure material sustainability factors are tracked, monitored, and improved on. To support this, we've developed proprietary tools such as our property management Sustainable Building Standards and our sustainability budget dashboard, which provide asset managers with guidance on sustainability improvement opportunities to be included in annual asset plans and budgets for our clients.

Our collaborative efforts

We actively engage and collaborate with our stakeholders, including tenants, employees, investors, business partners, contractors, suppliers, service providers, third-party managers, communities, and interest organizations, to manage and improve sustainability in our owned and asset-managed real estate properties. We aim to continuously share lessons learned with tenants, contractors, suppliers, service providers, third-party managers, industry peers, industry organizations, academia, and regulatory bodies.

The following are some of the organizations we actively partnered with in 2024, whether through program participation, research funding, or charitable contributions.

- We sponsored a collaborative industry initiative to update the CRREM to better reflect North American assets. These more granular North American CRREM curves were needed to enable U.S. and Canadian real estate owners to set accurate 1.5°C Paris Agreement-aligned decarbonization targets.
- We were a contributing organization to the 2024 publication of Decarbonizing Canada's Commercial Buildings: The Owner & Investor Perspective, an effort by Real Property Association of Canada (REALPAC), PLACE Centre at the Smart Prosperity Institute, and the Canada Green Building Council to raise awareness of the barriers faced and actionable recommendations for accelerating decarbonization in commercial real estate.
- We chaired the REALPAC Zero Carbon Working Group, which convenes Canadian real estate owners and managers to advance industry knowledge on carbon reduction in real estate.
- We're also a member of a vendor's customer advisory board, which aims to discuss the overall state of the real estate industry as it relates to sustainability and identify opportunities to accelerate shared sustainability success by informing the vendor's business and product innovation.

Climate

Governance and strategy

For our real estate asset class, we rely on the governance infrastructure described in the governance section to review and identify climate risks and opportunities at a high level while our investment teams consider these risks at the asset class level.

Climate risks and opportunities

As a manager of real estate investments, our business is exposed to risks and opportunities from the environment in which we operate, and we recognize that physical climate risk has progressively become a core real estate issue. As the effect of climate change is increasingly felt, it's vital for our investors, employees, and tenants to understand the importance of addressing the issue. We seek to integrate climate considerations into each stage of the real estate investment lifecycle, using a stepwise process to ensure that teams are putting into place essential measures to make our portfolios more resilient. While we continue our efforts to mitigate climate change by transitioning our operations and supply chain to low carbon, we also recognize the importance of building climate resilience within our real estate portfolios and across our management practices.

The nature and level of climate risks are dependent on structural forces that will shape our short- and long-term decisions, and we expect our business will be affected in both positive and negative ways by the climate transition. The opportunities that emerge will likely depend on our action and response, while reducing our carbon footprint is critical to our transition to a low-carbon economy and a sustainable future.

Transition risks and physical risks present the greatest climate-related challenges and opportunities within our real estate assets, and identifying and understanding a company or portfolio's climate risk enables the development of resources and tools to manage that risk and effectively improve resilience. We keep a record of our existing resilience practices and identify improvement opportunities for climate change management, including conducting evaluations at both the portfolio and asset levels.

For more information on identified transition and physical risks and opportunities, see our real estate sustainable investing report.

We've conducted climate scenario analysis to further understand how climate change might affect the real estate business and what actions we can take to prepare for it. This involved members from real estate senior leadership and identified risks and opportunities based on two scenarios:

1. **Failure to act (>4° warming from pre-industrial levels[48])—**Participants believe that physical climate risks will increase costs and reduce value; supply chain disruptions and market variability from changing climate conditions will also affect our business.
2. **Paris Agreement aligned (<2° warming from pre-industrial levels)—**Participants expect sizable investments to overcome transition risks; despite these costs, they identified significant opportunities for early movers in transitioning to net zero.

The study identified risks and associated business implications from future climate conditions and assessed current and potential preparedness strategies to address climate risks. The results of the assessment were shared and presented to senior leadership and have been used to inform internal processes as well as our responses to industry frameworks.

48 The Intergovernmental Panel on Climate Change defines 'pre-industrial' as "The multi-century period prior to the onset of large-scale industrial activity around 1750. The reference period 1850–1900 is used to approximate pre-industrial Global Mean Surface Temperature."

Real estate

Risk management

Our real estate platform has built a risk management approach and framework that lay out how we identify and manage the climate-related risks and opportunities to which we're exposed, which is outlined below.

1. **Raise awareness—**Raising awareness is vital to educating our property and asset management teams and stakeholders about the science of climate change and builds internal capacity to manage climate risk and improve resilience. We've implemented two key approaches to improving climate risk and resilience awareness: training and access to climate data.
2. **Evaluate risks and opportunities—**Identifying and understanding the climate risks within portfolios enable the development of resources and tools for effectively managing those risks and improving resilience. We inventory our existing resilience practices and identify improvement opportunities for climate change management. Our approach includes evaluation at both the organizational and portfolio levels.
3. **Integrate leading practices—**Once opportunities for climate change management have been identified, it's necessary to develop operational standards to enhance the resilience of current practices. We seek to integrate leading practices into each stage of the real estate investment lifecycle. We use a stepwise process to ensure that investment and asset management teams are putting into place essential measures that make our portfolios more resilient, which we supplement with training, guidance, and tools to support action while incorporating new initiatives to help teams to progress and improve.

Assessing our physical climate risks and evaluating our resilience align us with the recommendations of the TCFD and keep us focused on delivering attractive risk-adjusted performance across our global portfolio. More information on our approach to climate-related risk management can be found in our sustainable investing real estate report.

Metrics and targets

We use a variety of metrics and targets to manage and monitor our progress, which are also used to identify and monitor the potential financial effects of climate change in our real estate business.

GHG emissions reduction

Metric	2024	2023	2022
Scope 1 emissions (tCO_2e)	28,440	39,645	39,149
Scope 2 emissions (tCO_2e)	67,911	103,602	99,775
GHG intensity ($kgCO_2e$/SF)	2.7	3.1	3.6
Scope 3 emissions			
Scope 3 cat.13—downstream leased assets (tCO_2e)	68,653	36,797	—
Scope 3 cat.5—waste (tCO_2e)	5,961	5,404	2,092
Scope 3 cat.3—upstream fuel and energy impacts (tCO_2e)	8,397	—	—
Scope 3 total, tracked (tCO_2e)	83,001	42,201	2,092

Source: Manulife, as of December 31, 2024. SF refers to square feet. Scope 1 includes emissions from natural gas, diesel, and refrigerant emissions. Scope 2 includes emissions from purchased electricity and steam. GHG intensity is based on gross unadjusted consumption and excludes properties without a full year of whole building data and anomalies. Scope 3 includes measured emissions from waste and downstream leased assets and does not include estimates. Only tenant data collected is represented in this table.

Energy, water, and waste reduction

We monitor property and portfolio energy, water, and waste performance annually through our proprietary Sustainable Building Standards. These include a 6% energy and water reduction target over a rolling three-year period and a 65% waste diversion rate target for buildings in which we have operational control.

Physical risks

We track property resilience scores, which combine third-party physical risk data with property resilience survey results. We also track the number of properties located in 100-year flood zones and report in alignment with the SASB through our insurance program. Our progress toward our targets is reported annually in our real estate sustainability report.

Timberland and agriculture

Timberland

AUM: $16,607 million[3]

Agriculture

AUM: $6,303 million[3,5]

Combined investment professional headcount: 72+[43]

Highlights

- We publish an annual timberland and agriculture natural capital report to share our sustainability progress and highlight examples of sustainability in action.
- We continued to work toward scaling our regenerative agriculture efforts, and 100% of our agriculture properties now employ at least one regenerative practice.[49]
- We continued to pursue comprehensive third-party certification of our properties:
  - 100% of our managed forests were certified under either the Sustainable Forestry Initiative® (SFI®) or Forest Stewardship Council® (FSC®), and our forests in Australia and New Zealand carry both FSC certification and the Programme for the Endorsement of Forest Certification (PEFC).[50]
  - 100% of our clients' farmland properties in the United States and Australia are certified to the Leading Harvest Farmland Management Standard, and we participated in a pilot in Canada in 2024.[51]
- We identified human rights risks for timberland and agriculture and integrated them into our business processes. This included a review of existing mitigation measures and a responsible contracting training for timberland and agriculture operations and investments teams.

Our approach to sustainability in timberland and agriculture

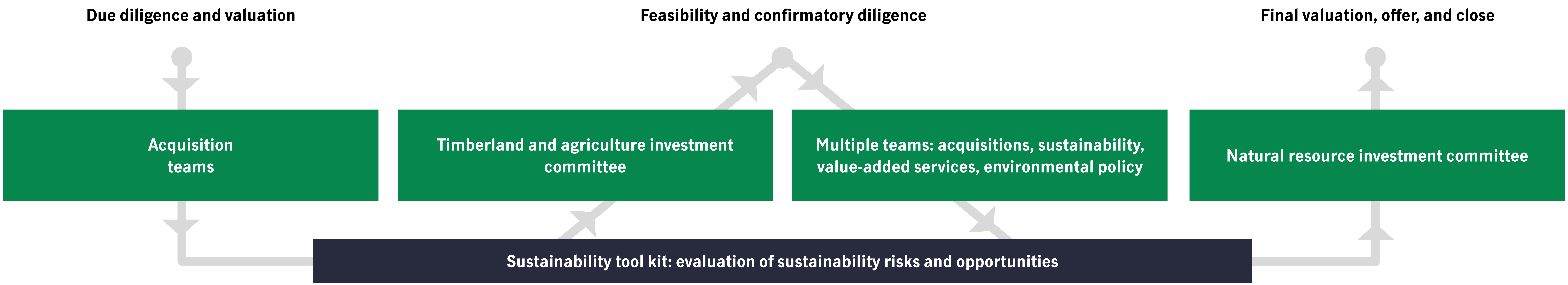
Sustainable forestry and farming practices allow us to actively manage and protect our clients' timberland and agriculture investments in ways that generate competitive risk-adjusted returns, maintain or enhance sustainability values, and reduce operating risk.

Since 2021, we've used a proprietary question-based tool kit co-developed in house by our sustainability, acquisitions, and operations teams to identify, assess, and score sustainability factors of every deal we consider. We call this our sustainability tool kit, which highlights both potential risks and opportunities, and enables us to quantify risk using stoplight indicators to rate inherent risk, risk mitigation potential, and residual risk. We then aggregate these upward to produce an overall numerical sustainability score for the asset that can be used in our underwriting. The completed tool kit assessment is provided in every deal package presented to our natural resource investment committee to ensure that investment decisions explicitly consider relevant sustainability risks and opportunities.

Together with our policy on deforestation, carbon principles, and carbon tool kit (used specifically for forest carbon project evaluation), this approach is designed to systematically consider all identified material sustainability risks and opportunities in our investment process. For more information, please see our natural capital report.

49 Includes farms employing one or more of the following practices: conservation tillage or no till, cover vegetation/crop, crop residues, crop rotation, intercropping, non-productive vegetation, rotational grazing, and soil amendment. **50** 100% of our forests were certified under either SFI (3.4 million acres in the United States and Canada) or FSC (2.2 million acres in Australia, New Zealand, and Chile). Most current data shown. **51** Certification as of June 2023, by Leading Harvest and is based on an annual assessment of the conformation to the Farmland Management Standard. Re-certification takes place on a three-year cycle. Most current data shown. Please see leadingharvest.org/certification documents for further information.

Investment process



Sustainability theme	Climate	Nature		People	
Material risks and opportunities	• Climate change impacts • Emissions • Deforestation • CO_2 sequestration	• Sensitive lands • Protected areas • Biodiversity • T&E species • Mitigation banking	• Water quantity/quality • Flood, drought risk • Groundwater depletion • Water banking	• Health and safety • Training and development • Labor practices • Human rights	• Community relations • Indigenous peoples • Job creation • Research, internships

Source: Manulife Investment Management. For illustrative purposes only. T&E refers to threatened and endangered.

Stewardship

Since good stewardship is good business, our clients' financial success directly depends on the health of our forests and farms. Our vertically integrated teams have the ability to craft and execute long-term asset management plans that promote forest and farm health and resilience, which are intrinsic to generating financial returns. Our sustainable investment practices are in line with key environmental and social objectives set out by third-party sustainability standards, such as the SFI, FSC, and Leading Harvest.

To ensure we operate consistently within these standards, we follow a comprehensive set of stewardship principles integrating the development, management, and operation of working lands to produce useful products alongside commitments to conserve soil, air, and water quality; biological diversity; wildlife habitats; and participation in vibrant, healthy communities. These principles inform more granular stewardship policies that guide our property management professionals in day-to-day asset management decisions relating to individual funds, assets, and geographies.

We're proud that 100% of our forests are certified by either the SFI or FSC and that our Australian and New Zealand forests carry dual FSC and PEFC accreditation.[50] Similarly, in our agriculture business, 100% of our clients' properties in the United States and Australia are certified to the Leading Harvest Farmland Management Standard,[51] and we participated in a Canadian pilot scheme in 2024. We believe these certifications demonstrate our commitment to stewardship and provide our key stakeholders with an assurance of sustainable practices, robust management, and continuous improvement.

Our collaborative efforts

Getting things done together is one of our core values, with collaboration being a cornerstone of our business. We recognize that we can't specialize in everything, and so we seek to establish mutually beneficial relationships with organizations and companies that can complement our strengths and that have similar cultures and values.

These partnerships not only help to improve our sustainability performance but also reflect our conviction that collaboration is crucial to solving global challenges. The following are some of the organizations we actively partnered with in 2024, whether through program participation, research funding, or charitable contributions:

- We actively participated in the WBCSD's Forest Solutions Group, Nature Action, and Equity Action projects in collaboration with industry partners, focused on scaling both forestry and agriculture as natural climate solutions and on incorporating business actions to tackle inequality in the forestry sector, respectively.
- We supported the Michigan State University Department of Forestry's Forest Carbon and Climate Program's mission to increase the understanding and implementation of climate-smart forest management.
- We supported the Pollinator Partnership's efforts to promote pollinator health—critical to food and ecosystems—through conservation, education, and research.
- We provided funding to the American Bird Conservancy for its work in conserving wild birds and their habitats throughout North America, including threatened and endangered species.
- In our agriculture operations, we worked with the U.S. state of California's Fresno Irrigation District to develop an eight-acre recharge basin for improving the health of the local aquifer and reducing flood risk for our neighbors.
- We worked with Washington State University on a biochar pilot on our apple platform, looking at applying biochar alongside other fertilizers to determine what was most effective when replanting apple orchards.
- In our timberland operations, HQPlantations, our investor-owned timberland management company in Queensland, Australia, hosted an inaugural community open day at the Toolara Depot.
- Our Canadian property management team celebrated the 10th anniversary of our partnership that works to formalize public access to the Cumberland Forest's trails.

Climate

Governance and strategy

In addition to using our governance infrastructure described earlier, we have decarbonization working groups across our timberland and agriculture investment capabilities. Chaired by our global heads of operations, staffed by our timberland and agriculture sustainability team, and consisting of representative operational leaders across each of our major investment regions, these working groups are designed to identify and pursue practical opportunities to reduce GHG emissions and increase carbon removals in line with the Paris Agreement and corporate climate goals.

Please see the governance section for information on how climate matters are managed at Manulife IM.

Climate risks and opportunities

Climate-related risks to the biological assets we manage include wildfire, drought, high winds, flooding, pest outbreaks, and increased costs (transition risk associated with carbon pricing), among others. These risks may vary in prevalence and magnitude depending on location and asset type but can also be directly influenced by climate-related weather changes, such as temperature or precipitation extremes or volatility. We have a variety of levers at our disposal to mitigate these risks, such as crop or tree genetics, species diversification, nursery practices, planting density, forest thinning, automation, fuel switching, and insurance. We account for such risks, as well as our ability to mitigate them, from investment due diligence all the way through asset management.

Climate-related opportunities also influence our timberland and agriculture business strategy: Forests and farms are both natural capital assets that represent natural stocks of value that produce flows of ecosystem services, benefiting both their owners and society at large. In addition to basic services in the form of food and fiber, they provide a host of other benefits, such as climate change regulation, water filtration, and recreational opportunities. For example, carbon sequestration is a key capability of timberland, and we see considerable opportunity to leverage the natural capital assets we manage to help our investors reduce their carbon footprints—increasingly so as markets for carbon sequestration and other payments for ecosystem services develop and mature.

We recognize that despite our ability to identify many risks and opportunities, the actual impact of climate change is far from certain, and we plan for multiple possible future pathways through climate scenario analysis. We use a third-party climate scenario analysis tool to evaluate potential acquisitions and use the analysis to inform our longer-term planning.

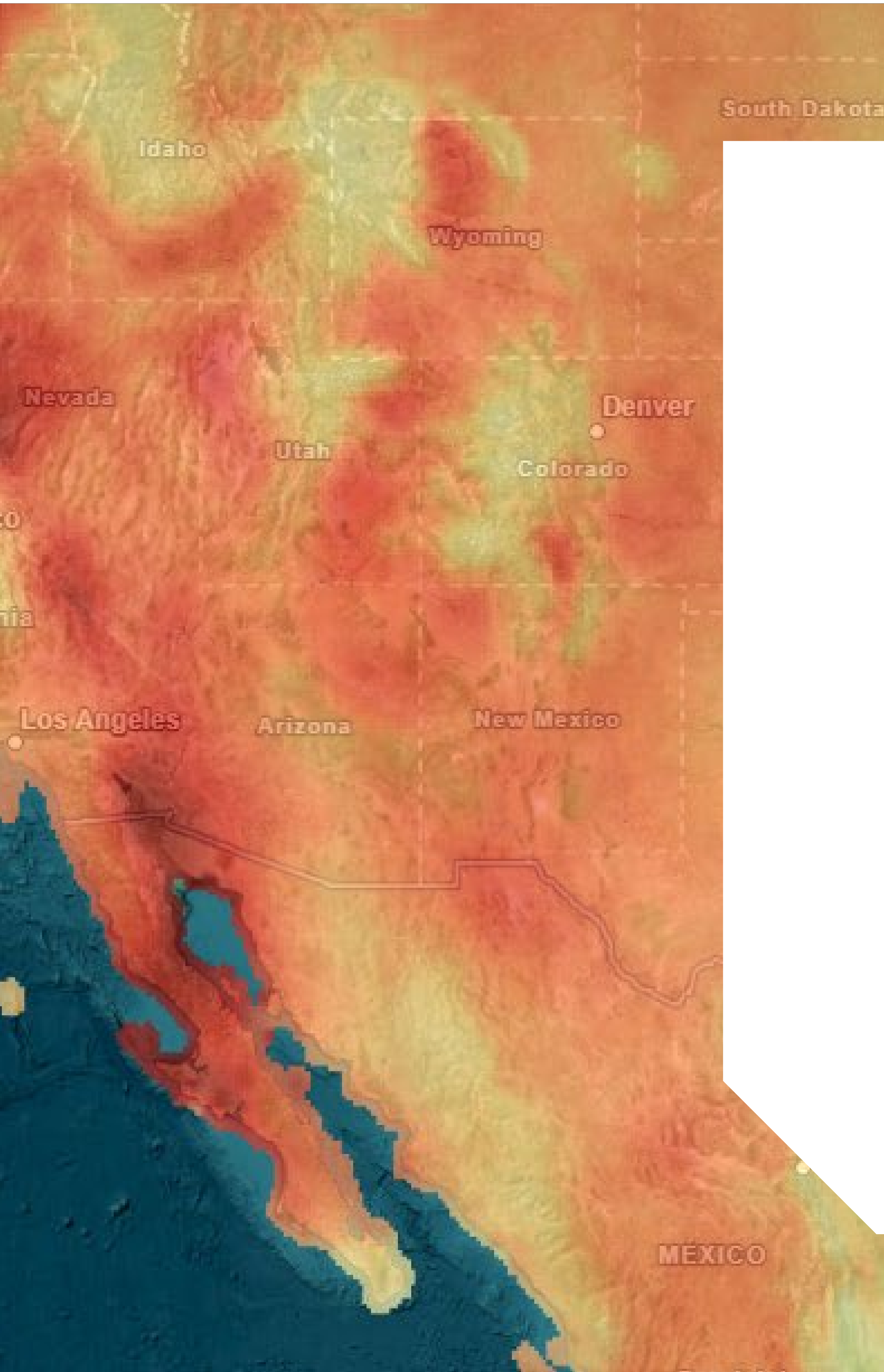
Risk management

Comprehensive, portfoliowide scenario analysis of our farmland and timberland assets requires accurate, long-term, site-specific data and sector-specific transition models. While the availability of globally recognized and peer-reviewed data for timberland and agriculture assets is still limited, we continue to explore ways of obtaining or developing information tailored to sector-relevant scenarios to achieve fuller results, both now and in the future.

We integrate climate risk management throughout our due diligence and our asset management, using our proprietary tool kit to identify, assess, and score sustainability components of every deal we consider.

Metrics and targets

Integrating climate-related risk management into our farmland management requires high-quality data enabling accurate quantification of our existing emissions and removals because decarbonization plans and progress monitoring require measurement against a reliable baseline. Straightforward and scalable methods for calculating emissions—especially soil carbon sequestration—have historically been lacking, so we've spent the past three years progressively improving our capabilities in this area, and it's an essential supporting element of our decarbonization plan.



Using geospatial analysis to navigate climate risk

As climate change continues to affect the landscape of real asset investing, understanding and mitigating climate risk is a top priority for Manulife IM. We use Munich Re's Location Risk Intelligence Platform to gain a detailed understanding of potential climate risks facing each property. This enables us to make informed decisions during the due diligence process and implement management practices that support long-term, sustainable operation.

Climate risk manifests in various ways, from drought and wildfire to heat stress, and may affect long-term asset health and productivity. Using a systematic approach to evaluating these risks helps us take steps to promote the resilience and sustainability of our investments.

We use the platform in two ways: for screening and due diligence and when thinking about working in new geographies.

1. During the due diligence phase, we use the platform to assess the climate risks associated with potential assets. This information complements our sustainability tool kit, allowing us to evaluate the long-term sustainability and resilience of each investment.
2. The platform also serves as a resource for our economic research team, identifying emerging geographies where new crops may thrive in the near future, thereby unlocking opportunities for growth.

Results and insight

As we continue to leverage the system's capabilities, we believe we'll be better positioned to navigate the challenges posed by climate change while uncovering opportunities that align with our long-term sustainable management practices.

100% of our investments consider climate risks and opportunities.

Source: Munich Re's Location Risk Intelligence Platform, 2025. This image shows drought stress across the United States using an RCP8.5 (representative concentration pathway emissions scenario), often referred to as the 'business as usual' scenario. Drought stress indicates areas of the United States which will likely suffer from drought stress in 2040. The platform allows us to explore alternative scenarios under different time frames.

Timberland and agriculture

Climate

Timberland	2024	2023	2022
Total standing forest carbon stock (tCO_2e)[1]	626,848,156	611,123,524	638,506,302
Scope 1 GHG emissions (tCO_2e)[2]	59,083	66,703	47,704
Nonbiological emissions (fuel and fertilizer) (tCO_2e)	14,382	16,354	8,353
Anthropogenic biogenic emissions (prescribed burning) (tCO_2e)[3]	44,701	50,349	39,397
Scope 2 GHG emissions (tCO_2e)	—	—	—
Scope 3 GHG emissions (tCO_2e)	400,648	406,428	359,298
Biogenic stock change (tCO_2; +ve = sequestration; -ve = emissions)[4]	200,526	1,936,166	-1,339,974
Carbon stored in harvested wood products (tCO_2e)[5]	2,329,081	2,426,167	2,557,633
Net sequestration (tCO_2; +ve = sequestration; -ve = emissions)[6]	2,069,697	3,889,202	810,658
5-year average sequestration (tCO_2; +ve = sequestration; -ve = emissions)[7]	3,637,260	1,492,609	1,791,934
Percent of net productive area[8]	82.3%	82.1%	82.3%
Percent of net productive area harvested	2.7%	2.8%	2.8%
Percent of net productive area planted	2.4%	2.5%	2.7%
Percent of harvest to solid wood	58.9%	59.1%	63.4%
Percent of harvest to fiber	40.7%	40.7%	35.6%
Percent of harvest to biomass	0.5%	0.2%	1.1%
39-year history of number of trees planted	1,402,246,662	1,354,509,684	1,304,430,265
Agriculture	**2024**	**2023**	**2022**
Scope 1 GHG emissions (tCO_2e)[9]	36,009	38,716	31,736
Scope 2 GHG emissions (tCO_2e)	16,227	20,703	18,935
Scope 3 GHG emissions (tCO_2e)	119,570	106,960	192,602
Out-of-scope GHG emissions (tCO_2e)[10]	1,174	—	—
Biogenic removals (tCO_2e)[11]	290,000	310,215	329,853
Net sequestration (tCO_2; +ve = sequestration; -ve = emissions)	118,193	143,835	86,581
Percent of net productive area[12]	81%	84%	87%

1 Forest stock currently includes merchantable timber, aboveground biomass, belowground biomass, deadwood, and litter. Soil carbon potentially represents a major carbon storage pool. There is uncertainty associated with measuring soil carbon accurately, especially without site-specific sampling data, so it has been excluded. **2** Scope 1: According to the GHG Protocol, scope 1 emissions are all direct GHG emissions, which are "emissions from sources that are owned or controlled by the reporting entity." Scope 2: According to the GHG Protocol, scope 2 emissions are "indirect GHG emissions from consumption of purchased electricity, heat or steam." Scope 3: According to the GHG Protocol, scope 3 emissions are "other indirect emissions, such as the extraction and production of purchased materials and fuels, transport related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc." Fluctuations in scope 1 and 3 emissions from year to year are related primarily to increases or decreases in harvesting and silvicultural operations, which are themselves related to dynamic timber markets. All results are presented using the AR5 global warming potential values. **3** These emissions refer to the CH_4 and N_2O emitted from Manulife Investment Management's prescribed burning of timberland. With recognition that these emissions are within Scope 1, but uniquely anthropogenic biogenic emissions, they have been separated from Scope 1 non-biogenic emissions as their own line item. **4** Net change in total forest carbon stocks over calendar year 2024. Positive values indicate more forest grew than was harvested (net sequestration); negative values indicate more forest was harvested than grew (net emission). **5** Quantity of carbon assumed to be stored in harvested wood products (from trees harvested over calendar year 2024) after 100 years. Represents long-term storage and calculated using market-specific (geography/species) conversion factors. It is a fraction of biogenic stock change, as only some of the carbon transferred from forest carbon pool to wood products pool goes into long-lived wood products. **6** Biogenic stock change, plus carbon stored in harvested wood products, minus scope 1, 2, and 3 emissions. **7** The average net sequestration per year over the last five years. **8** Fractional area of timberland under management that is managed for commercial production of wood products. Area not managed for commercial production of wood products may include areas with high conservation value, old growth forest, buffer zones, conservation easements, threatened and endangered species habitat, or areas with historical or cultural significance. **9** Fluctuations in scope 1 and 3 emissions from year to year are related to several factors including global commodity prices, weather patterns, and irrigation requirements, among others. The large reduction in scope 3 emissions from 2022 to 2023 is due primarily to data quality improvements. All results are presented using the AR5 global warming potentials. **10** These emissions refer to biologically sequestered CO_2 that is released through Manulife Investment Management's use of renewable diesel. Per GHG Protocol guidance, we report these emissions out-of-scope. **11** Estimated soil carbon sequestration over the reporting period (calendar year 2024), using publicly available crop-specific soil carbon sequestration rates. The figure does not include data from Downforce Technologies as their dataset covers only a proportion of the total portfolio. **12** Fractional area of farmland under management that is managed for the production of crops. Area not managed for the commercial production of crops may include essential infrastructure, conservation easements, buffer zones, or threatened or endangered species habitat.

Investment process oversight

Conflicts of interest

Review and assurance

Monitoring service providers

Conflicts of interest

Manulife IM is fully committed to conducting business with integrity and treating customers fairly and consistently. Our obligation extends to managing conflicts between ourselves and our clients, our employees and our clients, and between clients. We manage conflicts across the range of our investment activities, including decisions to invest and stewardship activities such as engagement, collaboration, and proxy voting.

Our approach to managing conflicts of interest

We always strive to act in the best interests of our clients and seek to actively avoid, identify, and mitigate material conflicts of interest, whether potential or otherwise, across all our business activities. To that end, the firm has established a framework of policies, training, and governance to address real and potential conflicts of interest and—in adherence to our fiduciary duty—to always put the interests of clients first.

Governance

	Boards and oversight committees	Policies and procedures
Oversight mechanisms	• Public markets risk • Private markets risk • Global ethics • Trade oversight	Policies designed to address conflicts of interest tailored to market challenges

Conflict management expectations start with our parent company

Individual employee activities related to conflicts of interest are also covered by the Manulife code of business conduct and ethics (the code). The code directs employees to consider situations in which their activities or interactions with clients, vendors, or other employees could present an actual, potential, or perceived conflict and to report such employee conflicts to compliance for further review and action. The code also emphasizes that potential or actual employee conflicts can often occur within all normal business operations; it's the responsibility of our staff to always act honestly, ethically, and with integrity to protect our clients' interests. Separately, Manulife IM maintains a more detailed code of ethics and related policies (the code of ethics) that's tailored to conflicts inherent in the investment management business and also addresses certain detailed regulatory requirements related to the firm's fiduciary duty and personal trading requirements. Specifically, the code of ethics addresses in detail employee conflicts such as personal trading, gifts and entertainment, outside business activities, and U.S. political contributions.

Our employees are required to complete training sessions throughout the year as directed by the global code of ethics administration team on both the code and code of ethics. These sessions include content on managing conflicts within gifts and business entertainment, participation in business activities that could benefit an associate or close relative, and outside activities.

Employees learn both how to identify a real or potential conflict and the steps that they should follow when it's identified. Training sessions then test employees to confirm both their understanding of the training and their responsibility to abide by the firm's ethical standards.

Global policy network within Manulife IM public markets

Manulife IM is composed of various affiliated legal entities across the globe. We've established a network of policies that supports our efforts to identify and mitigate real or potential conflicts of interest. These policies are further tailored to each entity according to the different legal and regulatory environments in which the entities operate. For example, Manulife Investment Management (Europe) Limited, our U.K. legal entity, has a stand-alone conflicts of interest policy that's designed to protect the interests of our clients while also meeting the specific expectations of the Financial Conduct Authority Principles for Business and the requirements of the EU Markets in Financial Instruments Directive II.

Regarding stewardship specifically, both our Manulife IM's global proxy voting policy and procedures and our global issuer engagement policy address conflicts in proxy voting and engagement.

Employees tasked with engagement and proxy voting responsibilities are required to disclose any real or potential conflicts to their manager and our legal and compliance departments, as needed, to determine appropriate steps to mitigate a given conflict.

Several standing bodies throughout Manulife IM are tasked with overseeing the network of conflicts of interest policies, training, and mitigation efforts. Our standing oversight committees, for example, comprise senior management and risk and compliance officers from the various entities that make up our firm.[52]

52 Standing oversight committees include, but are not limited to, those with mandates to oversee areas such as brokerage practices, operations, ethics, compliance, valuation, proxy voting, sustainable investing, distributor oversight, and risk management.

Addressing potential conflicts in private markets

For private markets assets, we've established a conflict of interest and investment allocation oversight committee. The primary purpose of this committee is to carry out investment manager duties relating to oversight of the investment allocation process and address conflicts of interest. This includes conflicts of interest (i) between an investment manager and its supervised persons, affiliates, or advisory clients and (ii) between and among an investment manager's advisory clients. The committee reviews actual and potential conflicts of interest and provides advice and recommendations regarding the mitigation of these actual and potential conflicts. Potential material conflicts of interest can include:

- Investments in the same company at different levels of capital structure
- Financially troubled investments
- Loans or additional equity to portfolio companies
- Purchases or sales at different times or in different proportions
- Investment refinancing or liquidation events
- Financing of real estate purchases

In our timberland and agriculture businesses, we have an established conflicts of interest policy designed to address conflicts between Manulife IM and our timberland and agriculture clients as well as conflicts between and among clients themselves. The timberland and agriculture conflicts policy also has an itemized list of potential conflicts that may arise, and our business teams in timberland and agriculture were trained on the policy. One example from this training includes a situation in which one client may wish to sell timberland assets to another client. Our teams involved in timberland and agriculture investments are now better positioned to recognize and manage this and other types of potential conflicts of interest.

The timberland and agriculture property management businesses use subsidiary companies (affiliates) to perform services. As these are related party transactions, we have conflict protocols in place to ensure we're not favoring our affiliates to the detriment of our clients.

These costs vary by region and geography, but our goal is to have one global benchmarking standard for how fees are assessed and charged to our clients.

When conflicts can't be resolved

In exceptional circumstances, an unmanageable material conflict may arise. In these cases, Manulife IM will disclose the conflict to the client in order to agree on the best way forward for the client.

This disclosure is important in circumstances in which other means of conflict management have proved insufficient and provides sufficient detailed information to allow the client to make informed decisions.

Managing identified conflicts in proxy voting

In 2024, we identified proxy voting rights across several affiliated funds. In order to mitigate our conflict of interest across these holdings, we chose to instruct abstain from all voting items. This allowed these entities to achieve meeting quorum while not having an impact on the ultimate voting outcome.

Review and assurance

Manulife IM provides regular updates on improvements to our investment and stewardship processes. We believe that full transparency of our policies and procedures ensures that our clients and stakeholders have a clear and accurate understanding of our activities and decisions.

Our approach to review and assurance

Throughout 2024, Manulife IM continued to review investment and stewardship practices and policies, soliciting input across functional expertise, including the legal, compliance, operational risk, investment, and sustainability teams. From those reviews, we made several updates to our sustainability and stewardship policy infrastructure.

Internal oversight

Manulife IM has adopted a three lines of defense model for risk management.

1. **The work carried out by our investment and sustainability professionals—**Our investment teams with the support of the sustainability team is responsible for identifying, monitoring, and mitigating risks in their daily activities, including as they conduct stewardship activities and consider sustainability matters.
2. **The operational risk and compliance functions—**The risk function provides independent oversight of risk-taking and risk-mitigation activities within our sustainable investment and stewardship processes. Operational risk achieves this primarily through facilitating risk and control self-assessments, incident management reporting, and issues and action resolution tracking. Operational risk also attends SC meetings and may be asked to comment on topics discussed.

   Our compliance function provides regulatory advice and guidance, monitors our investment activities, and conducts independent assessment and testing to validate that we have reasonably designed policies and procedures. Our compliance program is designed to ensure that our disclosures accurately and adequately describe our sustainable investing and stewardship practices.
3. **The internal audit function—**This function provides independent assurance of the effectiveness of controls grounded in a risk-based cycle.

Ultimately, both our second and third lines of defense have prompted improvements in our sustainable investment and stewardship practices and processes. For example, we established a common sustainable investment research framework for use across our public equity and corporate fixed-income investments to harmonize our processes across our global fixed-income and equity teams. The research framework has allowed us to consolidate sustainability issues for consideration by individual issuers and by sector and to standardize and centralize documentation by investment teams regarding considerations of those sustainability issues.

Moving our policies and practices forward

We strive to remain aligned with the evolving understanding of sustainability risks, leading practices in sustainability integration highlighted by PRI, and market-specific stewardship codes of which we're signatories, and review our policy framework through these lenses. At Manulife IM, we evaluate policies, statements, and frameworks from time to time. To improve on our sustainable investing practices and to respond to the dynamic regulatory environment, our legal, compliance, sustainability, and investment teams may also review our policies as and when necessary.

Following these reviews, we may recommend changes to the relevant policies, statements, and frameworks. These changes can be reviewed and approved by working groups before final approval by either our public or private markets SCs for implementation within our business functions.

Policy	Change	Year
Client-directed exclusions framework	**Adopted** this framework to provide clients with the option to screen exposure to companies involved in thermal coal with additional screen options forthcoming	2024[20]
Engagement policy	**Amended** the policy to define engagement activities and articulate a menu of escalation options for public markets assets	2024
Proxy voting policy and procedures	**Amended** the policy to streamline the proxy voting decision-making process and separate out voting principles into guidelines	2024
Proxy voting guidelines	**Adopted** this set of guidelines previously articulated in the proxy voting policy to better meet client needs	2024
Water statement	**Adopted** to articulate our general consideration of water-related risks and opportunities in our activities	2024
Responsible contracting policy	**Amended** to outline our methodology to promote human rights in supply chains in our investments and operations differentiated as per our control over procurement activities	2024

Leveraging functional expertise for accurate reporting

Manulife IM's major reporting initiatives are supported and reviewed by functional experts from across the firm. Review is performed by our compliance, legal, risk, marketing, and sustainability teams, among others, to ensure a comprehensive review of drafted content. These individuals interact regularly during the drafting process to provide feedback, provide additional substance, or recruit additional experts for their input and review of draft materials.

Draft reports are circulated to the firm's leadership through the public and private markets SCs. The sustainability team then incorporates feedback into a final draft before ultimate approval by the committees.

Additional checks to this progress are provided by our internal compliance team, which is trained to assess documents intended for a public audience. With their assistance, the team can work to ensure that materials are fair, transparent, and not misleading, using processes that ensure that all data and claims are both valid and verified by internal stakeholders.

Monitoring service providers

Manulife IM is committed to ethical business practices and good governance, both of which are integral to how we want to do business and to our clients' long-term success. Achieving this requires a commitment to integrity and consistent high standards from all partners, including our sustainability research and data vendors.

Our approach to working with providers

A vendor code of conduct promoting human rights and environmental protection

To best ensure that our sustainability vendors act with integrity and consistently meet our high standards, we ask them to adhere to the requirements of Manulife's vendor code of conduct:

- Vendors, and the products and services they provide, must be in full compliance with all applicable laws and regulations at all times.
- Vendors must act with integrity and ethical behavior in all business dealings.
- Vendors must ensure that all information and data provided to them remain confidential and secure.
- Vendors must maintain policies and practices that respect human rights (e.g., health and safety, modern slavery, workplace harassment) in accordance with applicable laws and global principles on human rights.
- Vendors are encouraged to minimize or mitigate the environmental impacts associated with their business activities, including the mitigation or reduction of emissions.

For more information, please see the responsible procurement section of Manulife's sustainability report.

Ongoing evaluation and oversight

We monitor vendor risk and performance throughout the life of a partnership with a vendor through both formal and informal avenues. Our vendor management team partners with business units to rate vendors on a risk scale and conduct regular reviews of rated service providers to monitor that risk. Each review provides a snapshot of a vendor's performance at a specific moment.

Aggregated over time, these snapshots reveal performance trends over the term of the business relationship. We score vendors through these assessments on:

- Quality of products and services
- Knowledge and technical expertise
- Data integrity
- Billing and invoicing
- Focus on generating efficiencies
- Timeliness of services and reporting
- Incident response
- Relationship management
- Adequacy of staffing and resources
- Commitment to collaboration

Committed to responsible contracting practices

Manulife IM recognizes the value that contractors bring to the operation of our investments and the importance of working with responsible partners to maintain sustainable operations. The complexity of supply chains and the diverse nature of our business activities and geographies in which we operate translate into diverse contracting needs. We've adopted the Manulife IM responsible contracting policy to guide our operations and investment teams and contractors to take proactive and ongoing measures to mitigate human rights risks in supply chains.

For more information about our approach to responsible contracting, see the people subsection with sustainability strategy section.

We remain focused on the integrity of sustainability data

Where relevant and appropriate to do so, we use sustainability data and research across our products and services.[53] The dynamic nature of sustainable investing requires us to identify and partner with vendors that provide robust data and research today and that also demonstrate the ability to innovate and anticipate the needs of tomorrow.

We regularly assess new products, emerging datasets, and tools to ensure that we continue to engage providers that best match the needs of our clients, our firm, and our stakeholders. In 2024, for example, we adopted a new web-based platform from a provider that allows us to track, and report on, engagement activities for public equity and fixed income. This tracker will allow us to monitor improvements to portfolio companies that we've requested and will enable us to report granular engagement data to clients.

We also work regularly with our existing sustainability research and data providers to help them improve their services; we've generally found, for example, that sustainability data and research are more widely available for publicly listed equities than for public debt. We're working with our providers to expand debt issuer coverage, especially for smaller issuers, emerging-market issuers, and issuers that don't have equity shares listed on a public exchange. We perform regular data-quality assessments of our vendors and provide input on proposed methodology changes.

Confronting data errors

As data providers rely on a number of sources of information to generate their data, and with corporate disclosures still evolving with respect to sustainability reporting, we may find that some data is inaccurate or incomplete. When we identify such issues with third-party information, we may engage with the vendor to have the data updated or corrected. We may also seek assurance from the service provider that its processes are improved to prevent similar issues in the future. We may track vendor engagements and requests for improvement for regular review so that we can address any substantial issues during the contract renewal process.

Due diligence of our proxy voting vendor

Manulife IM holds a due diligence review of our proxy voting vendor on an annual basis. Functional specialists from across the firm attend this meeting, including leaders from procurement, compliance, legal, operations, information security, and investments, to ensure that various aspects of the proxy voting vendor's operations and business are closely scrutinized. We reviewed ethics and conflicts of interest policies, regulatory updates, holdings management, vote execution, research, policy development, information security, service updates, and material changes to the vendor business over the past year. Items from this meeting can drive dialogue between Manulife IM and the proxy voting vendor over the following months as we gather relevant information and work toward service enhancements. We, with peers and other stakeholders, also provide feedback on the proxy voting policy development process and enhancements to the proxy voting research reports.

53 Unless where such ESG integration doesn't apply to a specific product or service, or at a client's request.

Appendix

Global codes that guide stewardship in action

Stewardship principle	Canada Last updated in 2020	Hong Kong Last updated in 2016	Japan Last updated in 2020	Taiwan Last updated in 2020	U.K. Last updated in 2020[54]
Purpose, strategy, and culture	Not explicitly referenced	Not explicitly referenced	Not explicitly referenced	✓	✓
Governance, resources, and incentives	✓	Not explicitly referenced	✓	✓	✓
Conflicts of interest	✓	✓	✓	✓	✓
Promoting well-functioning markets	✓	Implied	Implied	Partially referenced	✓
Review and assurance	Not explicitly referenced	Not explicitly referenced	✓	✓	✓
Client and beneficiary needs	✓	✓	✓	✓	✓
Stewardship, investment, and ESG integration	✓	✓	✓	✓	✓
Monitoring managers and service providers	Not explicitly referenced	Partially referenced	Partially referenced	Partially referenced	✓
Engagement	✓	✓	✓	✓	✓
Collaboration	✓	✓	✓	✓	✓
Escalation	✓	Implied	Implied	Implied	✓
Exercising rights and responsibilities	✓	✓	✓	✓	✓

Source: Stewardship codes by location, Manulife Investment Management, as of May 2025. Manulife Investment Management is a signatory to the Canada, Japan, Taiwan and UK stewardship codes and voluntarily adheres to the HK Stewardship Code.

54 This report covers the 2024 calendar year during which the UK Stewardship Code from 2020 was in effect. The Financail Reporting Council has updated the Stewardship Code in 2025 which will come into effect in 2026.

Stewardship code crosswalk

Principles for asset owners and asset managers	Section(s)	Page(s)
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2 Governance, resources, and incentives	Who we are	8
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3 Conflicts of interest	Investment process oversight	100–102
4 Promoting well-functioning markets	Our role as investors	24–25
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Principles for asset owners and asset managers	Section(s)	Page(s)
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9 Engagement	Stewardship in action	49–56
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10 Collaboration	Stewardship in action	57–60
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11 Escalation	Stewardship in action	61–62
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12 Exercising rights and responsibilities	Stewardship in action	47–62
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Global collaboration

Below are examples of current sustainability industry groups and initiatives with which we're engaged.[55]

Organization	Year joined	Region	Focus	Manulife IM's involvement
30% Club Canadian Investor Group	2019	Canada	A group of asset owners and asset managers committed to exercising their ownership rights to encourage increased representation of women on corporate boards and in executive positions	We have a target list of Canadian companies established annually; we engage with select companies from this list.
30% Club Hong Kong (formerly Board Diversity Hong Kong Initiative)	2018	Asia	Commits to an ongoing engagement with investee companies on matters of diversity	We're one of the founding members of this initiative.
30% Club Japan Investor Group	2021	Asia	A group of investors committed to achieving a minimum of 10% female representation on TOPIX 100 boards around 2020 and 30% female representation on TOPIX 100 boards around 2030	We participate regularly in working groups.
Asia Investor Group on Climate Change (AIGCC)	2016	Asia	Works with Asian asset owners and financial institutions to create awareness about the risks and opportunities associated with climate change and low-carbon investing	We're an active member of the group. We co-lead engagements under the AUEP program and chair the physical risk and resilience and energy transition working groups.
Asian Corporate Governance Association (ACGA)	2016	Asia	Promotes implementation of effective governance practices in Asian companies on behalf of institutional investors and regulators	We're an active member in the association in addition to participating in the China and Korea working groups.
Building Owners and Managers Association (BOMA) Canada	2018	Canada	Implements timely, responsible, and consistent policy positions on important issues to the Canadian real estate industry; acts as the voice representing the industry by advocating on members' behalf on a national or provincial platform	We're an active participant in green building programs and initiatives.
Cambridge Institute for Sustainability Leadership (CISL)—Investment Leaders Group	2020	United Kingdom	A global network of pension funds, insurers, and asset managers committed in its mission to advance the practice of responsible investment	We're an active member of this group, contributing to work on measuring impact, nature and biodiversity, and physical climate risks.
Canadian Sustainability Standards Board (CSSB)	2023	Canada	Mandated to facilitate the implementation of ISSB standards in the Canadian context	We're a member of this initiative.
CDP	2018	Global	Advocates for disclosure of company data to measure and manage the environmental impact (carbon, water, forestry); one of the first ESG disclosure initiatives in the financial industry	We're a member of CDP and participate in various initiatives such as the Science Based Targets initiative (SBTi).

55 This list refers to groups and initiatives we were engaged in during 2024, and remain engaged in, by the publication of this report. This list is not exhaustive.

Organization	Year joined	Region	Focus	Manulife IM's involvement
Ceres Investor Network	2016	Global	Promotes discussion and collaboration on how to address climate risk and other sustainability challenges among institutional investors	We participate in discussions and initiatives brought forward by Ceres. We're also a member of the Private Equity Working Group, and founding member of the Valuing Water Investor Working Group.
Ceres Investor Network on Climate Risk	2016	Global	Comprises institutional investors advancing responsible investment practices and policies that improve long-term portfolio value and build a cleaner, more resilient economy	We're a member of this initiative.
Ceres Investor Network Private Equity Working Group	2023	Global	Largest in the work based on its members' collective AUM; Ceres supports GPs and LPs to transition private equity portfolios toward a sustainable net zero economy	We participate in quarterly discussions alongside a larger group of LPs and GPs.
Ceres' Valuing Water Finance Initiative	2022	Global	Promotes discussion and collaboration on how to address climate risk and other sustainability challenges among institutional investors	We're signatories to the initiative.
Climate Action 100+	2018	Global	Collaborative engagement with the largest corporate GHG emitters	We lead and support collaborative engagements with companies.
Climate Engagement Canada (CEC)	2021	Canada	A finance-led initiative that drives dialogue between finance and industry to promote a just transition to a net zero economy	We're a founding participant.
Concordia University	2020	Canada	Sustainable Investing Practicum (SIP) enables undergraduate business students to better understand the principles of ESG investing in a capital market environment; students make fund management recommendations to a supervisory committee based on sustainable investing criteria	Concordia's John Molson School of Business (JMSB) signed a partnership agreement with Manulife Investment Management that established the first sustainable investing practicum at a Canadian university.
Emerging Markets Investors Alliance (EMIA)	2015	Global	Engages institutional emerging markets investors to support good governance, promote sustainable development, and improve investment performance	We're members of the extractive industries and consumer staples working groups.
ESG Data Convergence Initiative	2022	Global	Aims to streamline the private investment industry's historically fragmented approach to collecting and reporting ESG data in order to create a critical mass of meaningful, performance-based, comparable ESG data from private companies	We're a supporter of this initiative. Within our PE&C and infrastructure business, we've aligned our annual sustainability questionnaires with this initiative.

Organization	Year joined	Region	Focus	Manulife IM's involvement
Farm Animal Investment Risk and Return (FAIRR) Initiative	2022	Global	Focused on sustainability issues within the food supply chain, including the protein producer industry and consumer-facing food companies	We're a network member with access to FAIRR data and indexes.
Finance for Biodiversity Pledge and Foundation	2021	Global	Commitment of financial institutions to protect and restore biodiversity through their financing activities and investments	We're a signatory to the pledge.
GRESB	2015	Global	Validates, scores, and benchmarks ESG performance data for real assets, providing business intelligence and engagement tools to investors and managers	We're a supporter of this initiative. We report to the GRESB real estate and infrastructure assessments on an annual basis.
ICI Europe Regulatory and Policy Committee (IPC)	2023	Europe	Addresses key European regulatory, legislative, and policy issues affecting regulated funds, their management companies, and their investors, as well as retail investors more broadly	We're a member of this initiative.
ICI Global Asia Regulatory and Policy Committee	2023	Asia	Addresses key regulatory, legislative, and policy issues affecting regulated funds, their management companies, and their investors, as well as retail investors more broadly	We're a member of this initiative.
ICI Global SFDR Working Group	2023	Europe	Monitors developments around the SFDR review throughout the commission's assessment, legislative proposal, and final adoption	We're a member of this initiative.
Institutional Limited Partner Association (ILPA)	2022	Global	Engages, empowers, and connects LPs to maximize their performance on an individual, institutional, and collective basis	We're a member of the Diversity in Action Initiative.
International Corporate Governance Network (ICGN)	2019	Global	Promotes effective standards of corporate governance and investor stewardship to advance efficient markets and sustainable economies worldwide	We're members of the EU Working Group, Future Leaders Committee, Global Policy Committee and North America Policy Working Group.
International Emissions Trading Association (IETA)	2023	Global	Global nonprofit group with the mission to empower businesses to engage in climate action, advancing the objectives of the United Nations Framework Convention on Climate Change and the Paris Agreement and to establish effective market-based trading systems for GHG emissions and removals	We're a participant of this initiative.
International Sustainability Standards Board (ISSB)—ISSB Investment Advisory Group (IIAG)	2019	Global	A group of leading asset owners and asset managers in various markets who are committed to improving the quality and comparability of sustainability-related financial disclosures	We're a member of the IIAG.

Organization	Year joined	Region	Focus	Manulife IM's involvement
Nature Action 100+	2024	Global	Supporting greater corporate action and ambition on tackling nature and biodiversity loss	We're a participant in this initiative
Principles for Responsible Investment (PRI)	Various	Global	United Nations-supported international organization that works to promote the incorporation of ESG factors into investment decision-making	We're a signatory and an active member of various working groups, including the sovereign debt advisory committee, and human rights and social issues reference group, as well as chair of the Real Estate Advisory Committee.
PRI Spring	2023	Global	Aims to address the systemic risk of nature loss to society and long-term portfolio value creation by enhancing corporate practices on forest loss and land degregation	We're a member of the Spring Advisory Committee and a member of the initiative.
PRI Sustainable Systems Investment Managers Reference Group (SSIMRG)	2023	Global	SSIMRG provides a unique opportunity for investment managers to share developments, questions, concerns and feedback with the PRI Executive related to: • Innovative solutions to barriers to responsible investment and a sustainable financial system; • The role of investment managers on system level issues; • PRI's sustainable systems change plan; • And PRI's Progression Pathways.	We're a participant in the reference group.
REALPAC Canada ESG Committee	2018	Canada	Members include publicly traded real estate companies, real estate investment trusts (REITs), pension funds, private companies, banks and life insurance companies with investment real estate assets.	We participate in monthly meetings and engagement on federal, provincial, or municipal policy. We're also chair of the zero carbon working group.
Task Force on Inequality and Social-related Financial Disclosures (TISFD) Working Group	2024	Global	The TISFD is a global initiative to develop recommendations that enable businesses and investors to effectively identify, assess, and report on their inequality and social-related risks, opportunities, and impacts	We're a steering committee member.
TCFD Consortium (Japan)	2019	Asia	Has corporate and investor members and aims to foster best practice in TCFD reporting	We're a member of the investor group to support companies to provide decision-useful disclosure.
Task Force on Nature-related Financial Disclosures (TNFD)	2020	Global	The TNFD is a global initiative to develop recommendations that enable businesses and investors to effectively identify, assess, and report on their nature-related dependencies, impact, risks and opportunities	We were members of the Informal Working Group developing the scope for TNFD. We are now TNFD forum members.

Organization	Year joined	Region	Focus	Manulife IM's involvement
UK Stewardship Code	2020	UK	UK Stewardship Code 2020 comprises a set of 12 Principles for asset managers and asset owners, supported by reporting expectations which indicate the information that organizations should publicly report to become a signatory	We're a signatory to the Stewardship Code.
World Benchmark Alliance (WBA)	2018	Global	Seeks to increase the private sector's sustainability impact; creates benchmarks to incentivize and accelerate companies' efforts toward achieving the UN's SDGs	We're a supporter of this initiative.
World Business Council for Sustainable Development (WBCSD)	2019	World	CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world	We're a council member and liaison delegate. Our timber and agriculture teams actively participate in the WBCSD's Forest Solutions Group, as well as the Nature Action and Equity Action cross-industry groups.
WBCSD Forest Solutions Group	2024	Global	Industry group focused on sustainable forest management across global forest products value chain	We're a member of the steering committee.

TCFD crosswalk

Recommendation	Location
Governance	
a) Describe the board's oversight of climate-related risk and opportunity.	Please refer to the governance section on pages 10–13; climate section on pages 29–37; and sustainable investing in action section and the climate disclosure for each asset class on page 64 onward. Please also refer to Manulife's sustainability report.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	Please refer to the governance section on pages 12–13.
Strategy	
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	Please refer to the climate section, page 29; sustainable investing in action section and climate disclosures within each asset class.
b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.	Please refer to the climate section, pages 32–35; sustainable investing in action section and the climate disclosure for each asset class on page 64 onward.
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	

Recommendation	Location
Risk management	
a) Describe the organization's processes for identifying and assessing climate-related risks.	Please refer to the climate section, pages 32–36.
b) Describe the organization's processes for managing climate-related risks.	
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	
Metrics and targets	
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management processes.	Please refer to the climate section, pages 36–37, and sustainable investing in action section and the climate disclosure for each asset class on page 64 onward.
b) Disclose scope 1, scope 2, and, if appropriate, scope 3 GHG emissions and the related risks.	Please refer to the following pages of the sustainable investing in action section:[56] • Listed equities and fixed income, page 74 onward • Real estate, page 92 • Timberland and agriculture, page 96 onward
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Please refer to the climate section, pages 36–37, and sustainable investing in action section and the climate disclosure for each asset class on page 64 onward.

56 We support the adoption of industry-wide standards for disclosure, including the framework outlined by the TCFD and we have sought to voluntarily align with TCFD principles where possible. Due to partial availability of data, we are limited to disclosing emissions data for our listed equity, fixed income, real estate, timberland and agriculture asset classes.

Our impact: sustainable investing case studies

We believe active ownership practices are at the center of good stewardship, helping drive strong risk-adjusted investment return potential for our clients over time. Below is a list of the outcomes from case studies published in 2024. These highlight our stewardship work across themes of climate, nature, people, and sustainability and governance. Please view our full case study library for complete case studies and additional information.

Case study	Assets class(es)	Description
Climate		
Contributing to standards for climate transition projects	Policy level	In January 2024, the Canadian Climate Institute published its paper "Fueling the Transition: Categorizing emissions-reducing oil and gas projects according to Canada's climate investment taxonomy," which was drafted in part through the insight, research, and analysis of the CCI's oil and gas working group. This taxonomy lays the groundwork for financing transition projects to decarbonize upstream oil and gas production.
The importance of a green financing ratio	Listed equity	After reviewing peer commitments and practices and considering a shareholders' proposal to disclose a green energy financing ratio, the financials company committed to releasing a green financing ratio in 2025. This ratio will help inform investors of the company's proportion of low-carbon energy-financed to fossil fuel-financed activity.
Encouraging validated emission targets at a Canadian power company	Listed equity	The company reviewed its carbon footprint strategy, and in late 2022, committed to set targets and have those targets validated through the SBTi. In late 2024, the SBTi validated the company's emissions reduction targets including a commitment to reducing Scope 3 emissions per kWh produced and sold by 97% from a base year of 2022.
Improving cybersecurity disclosure at a global insurance firm	Listed equity	This property and casualty insurance firm reported on several aspects of its cybersecurity program, including information regarding oversight by the board's risk management committee, annual audits testing the effectiveness of risk management, training for employees, and third-party tests to evaluate firm readiness to respond to data breaches and ransomware. The issuer also appointed a new chief information security officer.
Building a sustainable finance taxonomy in Singapore	Listed equity, fixed income	This new taxonomy articulates its objectives in support of climate change mitigation and classifies eligible green and transition economic activities across its energy, transport, construction, forestry, industry, carbon capture and storage, and agriculture sectors, among others. While the initial version focuses on climate mitigation activities, future iterations may address climate adaptation and activities focused on promoting healthy ecosystems, the circular economy, and pollution prevention.
Seeking emissions reduction targets at an oil and gas company	Listed equity, fixed income	The company announced that it was adopting targets to reduce scope 1 and 2 emissions significantly by 2035 through reductions in methane and improvements in efficiency through technological innovation around carbon capture, utilization, and storage. The company also committed to providing assurance on the data it intends to disclose in the future and disclosed more details regarding board oversight of climate risk.
Encouraging policy action on methane emissions	Listed equity, fixed income	In December 2023, at the world's largest annual climate conference—COP 28—the Canadian Ministry of Environment and Climate Change announced new draft regulations to cut methane emissions. The release estimates that "from 2027 to 2040, the draft methane regulations will reduce cumulative emissions by 217 megatons (carbon dioxide equivalent). They'll also have positive social and economic benefits of $12.4 billion from avoided global damages."
Overcoming challenges in scope 3 emissions estimates	Listed equity, fixed income, multi-asset	We engaged with one of our data vendors regarding Scope 3 estimates for a producer of wind energy equipment. After having a dialogue with the data provider on this issue over several months, the provider confirmed that it will change the methodology to better reflect actual business activities. Ultimately, it will provide data that distinguishes downstream scope 3 emissions by business activity across issuers.

Case study	Assets class(es)	Description
Enabling energy efficiency for customers across the U.S.	Private equity, private credit	Through our investment we are enabling this provider of heating, ventilation, and air conditioning services to strive to position itself as a leader in sustainability within its industry due to its deep experience of energy-efficiency planning, suite of sustainability advisory services, and continued focus on decarbonization at both the corporate and customer level.
Addressing climate change resilience through our Sustainable Building Standards	Real estate	Our property resilience toolkit identified climate-related risks at our properties and potential measures to mitigate risks. After identifying wildfire risk, for example, our property team implemented new projects including an emergency response plan for wildfires, measures to minimize any effects on indoor air quality, and defensible landscaping design.
Nature		
Improving the efficiency of water resources in Fresno, California	Agriculture	Once construction of an 8-acre water recharge basin on a section of our agriculture property is complete, we expect the recharge basin will be able to recharge 11 acre-feet per day, equivalent to approximately 3.6 million gallons of water.
Managing water risk with an apparel company	Listed equity	The apparel products manufacturer continues to improve its disclosure on water risk and has set a goal to reduce water use in its industrial processes 20% by 2030 from a 2018 baseline.
Biodiversity impact assessment and disclosure for bond issuers in Japan	Fixed income	Through this engagement activity, we developed a better understanding of the biodiversity objectives companies have laid out. Across all engagements, we expressed the importance of biodiversity assessments going forward and cited the parallels between the quickly ramped-up significance of climate-related disclosures, which began to take global prominence in 2019. And while we discovered issuers are at different stages of their biodiversity assessment journey, they all recognized its growing importance alongside climate-related topics.
Finding an environmental diamond in the rough	Private equity	This flexible packaging company has expanded its sustainable product suite through internal R&D initiatives as well as strategic acquisitions and partnerships, enabling the company to achieve its goal of offering 100% sustainable alternatives ahead of its target date. The company continues to be globally recognized for its efforts in sustainable packaging. Progress toward its sustainability goals is closely monitored and documented in an annual environmental, social, and governance report, which was first published shortly after our investment in the company.
People		
Encouraging human resource disclosures at a global insurance brokerage firm	Listed equity	The company enhanced its employee management disclosures by articulating processes in place to manage, attract, and retain a skilled workforce across the organization. The company also reached out to third-party sustainability research firms to discuss their approach to human capital management.
Encouraging diversity of leadership at a large Canadian retailer	Listed equity	At its 2023 annual general meeting, the company fielded two new independent female directors with backgrounds in finance and accounting, enterprise risk, retail, digital marketing, and global operations. Both were elected by shareholders, bringing the total to 5 women out of 16 board members and putting the board at just over the 30% minimum standard.
Engaging with a financial institution on indigenous rights	Listed equity	In November 2023, the company articulated their commitment to indigenous peoples' inclusion and prosperity and amended their human rights statement to specifically reference their consideration of free, prior, and informed consent (FPIC). They also indicated in that statement that they include questions for certain projects that touch on FPIC and perform enhanced due diligence where client operations impact indigenous communities or lands.

Case study	Assets class(es)	Description
Canadian railroads and indigenous rights	Listed equity, fixed income, multi-asset	The company committed to publishing its first reconciliation action plan and published a new policy on indigenous reconciliation centered around five guiding principles including cultural awareness and employee engagement, people and employment, community engagement, economic reconciliation and environmental stewardship and safety.
Retaining an engaged healthcare workforce	Private equity, private credit	Programs to offer employees access to competitive wages and benefits, signing bonuses, a "flexible days" campaign, and establishment of retirement savings accounts have contributed to longer-term employee retention and engagement.
Improving accessibility and improving the user experience through certification	Real estate	Two of our Manulife corporate headquarter buildings achieved Rick Hansen Foundation Accessibility Certification (RHFAC). RHFAC indicates a comprehensive approach toward diversity, equity and inclusion by incorporating disability and accessibility considerations into building design and operation.
Driver safety in our New Zealand timber operations	Timberland	After rolling out safety cameras across all logging trucks in our New Zealand operations quarterly fatigue and distraction monitoring data revealed a dramatic decline in events (including mobile phone use) between August 2022 to July 2023. Between week 9 to week 36 of 2023, seatbelt compliance moved from 52% through to 100%. Having initiated the roll out of safety cameras across our New Zealand operations, they're now common in many log trucks operating across the road network.
Sustainability and governance		
Improving cybersecurity disclosure at a global insurance firm	Listed equity	This property and casualty insurance firm reported on several aspects of its cybersecurity program, including information regarding oversight by the board's risk management committee, annual audits testing the effectiveness of risk management, training for employees, and third-party tests to evaluate firm readiness to respond to data breaches and ransomware. The issuer also appointed a new chief information security officer.
Escalating the executive compensation discussion	Listed equity	Our team held a meeting with the members of the compensation committee to discuss executive compensation. We stressed our preference for rigorous performance metrics in the compensation program and the value we place on ROIC as an indicator of financial health and performance for this issuer. The compensation committee took on our comments, and we anticipate seeing some changes to compensation.
Engaging our proxy voting research provider and an issuer on executive compensation	Listed equity	After we communicated with our proxy voting research provider regarding our review and understanding of severance arrangements at a specific issuer, the provider amended its research assessment and voting recommendation and recommended a vote for the advisory vote on executive compensation.
Collaborating with debt holders to engage with a North American internet provider	Fixed income	The company released more details about its capital expenditure plans, explicitly noting that a large portion of the capital expenditures for the quarter consisted of nonrecurring expenses carried over from the previous year. Additionally, the company indicated that having concluded its multi-year fiber optic network buildup, it expected capital expenditure intensity to be more subdued, enabling a gradual increase in free cash flow generation.
Counseling good governance and sustainability disclosure	Listed equity, fixed income	its board appointed a new female director with significant brand and marketing experience. The company also released its first annual sustainability report with SASB-aligned data points on employee diversity, human capital management, energy consumption, and data privacy, among other factors.

The case studies shown here are for illustrative purposes only, do not represent all of the investments made, sold, or recommended for client accounts, and should not be considered an indication of the ESG integration, performance, or characteristics of any current or future Manulife Investment Management product or investment strategy.

Manulife Investment Management conducts hundreds of sustainability engagements each year but does not engage on all issues or with all issuers in our portfolios. We also frequently conduct collaborative engagements in which we do not set the terms of engagement but lend our support in order to achieve a desired outcome. Where we manage and operate physical assets, we seek to weave sustainability into our operational strategies and execution. The case studies shown are illustrative of different types of engagements across our in-house investment teams, asset classes and geographies in which we operate. While we conduct outcome-based engagements to enhance long term-financial value for our clients, we recognize that our engagements may not necessarily result in outcomes which are significant or quantifiable. In addition, we acknowledge that any observed outcomes may be attributable to factors and influences independent of our engagement activities. Our approach to sustainability investing and incorporation of sustainability principles into the investment process differs by investment strategy and investment team. It should not be assumed that an investment in the company discussed herein was or will be profitable. Actual investments will vary and there is no guarantee that a particular fund or client account will hold the investments or reflect the characteristics identified herein. Please see our sustainability policies for details. We consider that the integration of sustainability risks in the decision-making process is an important element in determining long-term performance outcomes and is an effective risk mitigation technique. Our approach to sustainability provides a flexible framework that supports implementation across different asset classes and investment teams. While we believe that sustainable investing will lead to better long-term investment outcomes, there is no guarantee that sustainable investing will ensure better returns in the longer term. In particular, by limiting the range of investable assets through the exclusionary framework, positive screening and thematic investment, we may forego the opportunity to invest in an investment which we otherwise believe likely to outperform over time.

Investing involves risks, including the potential loss of principal. Financial markets are volatile and can fluctuate significantly in response to company, industry, political, regulatory, market, or economic developments. These risks are magnified for investments made in emerging markets. Currency risk is the risk that fluctuations in exchange rates may adversely affect the value of a portfolio's investments.

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Manulife Investment Management

Manulife Investment Management is the global wealth and asset management segment of Manulife Financial Corporation. We draw on more than a century of financial stewardship to partner with clients across our institutional, retail, and retirement businesses globally. Our specialist approach to money management includes the highly differentiated strategies of our fixed-income, specialized equity, multi-asset solutions, and private markets teams—along with access to specialized, unaffiliated asset managers from around the world through our multimanager model.

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