

Morgan Stanley

INVESTMENT MANAGEMENT

Climate Report 2024

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Introduction

Morgan Stanley Investment Management (“MSIM”)¹ is the investment management division of Morgan Stanley² and provides broad-based specialisation across a range of asset classes in public and private markets worldwide.³ MSIM has been creating value for its clients for more than 45 years and operates in more than 20 countries. MSIM has \$1.7 trillion in assets under management (“AUM”) as of 31 December, 2024. MSIM’s independent investment teams leverage Morgan Stanley’s global resources to serve a diverse client base of governments, institutions, corporations, advisors and individuals worldwide. MSIM’s investment solutions include a broad range of high-conviction active strategies, alternatives, customisation strategies and sustainability expertise.

MSIM believes that environmental, social and governance (“ESG”) factors may present investment risks and opportunities. Understanding and managing these risks and opportunities may therefore contribute to both risk mitigation and long-term investment returns. Engagement and stewardship are a key part of this understanding. Investment teams may engage with the assets or companies they own, seeking to deliver long-term value. This approach aligns with our objective to be responsible stewards of our clients’ capital.

To support the delivery of tailored, value-added investment solutions to clients, MSIM takes a decentralised approach towards investment management, consisting of independent public- and private-market investment teams and asset class platforms. This decentralised investment approach allows investment teams to oversee, tailor and develop their individual approaches to sustainable investing, consistent with their fiduciary duty, using multiple factors including, but not limited to, the objectives of the product, asset class and investment time horizon, as well as the specific research and portfolio construction, philosophy and process used by each team. Investment teams assess the potentially financial materiality of sustainability-related risks and opportunities as appropriate for each investment strategy.⁴

This Climate Report has been prepared in accordance with the Task Force on Climate-Related Financial Disclosures (“TCFD”) recommendations and the rules and guidance set out in the Environmental, Social and Governance sourcebook of the Financial Conduct Authority’s (“FCA”) handbook.⁵ For the purposes of the FCA’s requirements, the reporting entities

¹ MSIM refers to the investment management business segment of Morgan Stanley, a global financial services firm. MSIM operates out of a number of wholly-owned subsidiaries of Morgan Stanley, including MSIM Ltd and EVAIL, and for the purpose of this Climate Report references to “MSIM” shall include Morgan Stanley & Co. International Plc (“MSIP”) in relation to the portfolio management activities undertaken by MSIP in relation to certain MSIM funds. Other legal entities included in the MSIM business segment, but which are out of scope for the FCA’s TCFD reporting requirements, are not covered by this Climate Report.

² Throughout this Climate Report, references to “Morgan Stanley”, “Firm” and “Firmwide” are referring to Morgan Stanley and its consolidated subsidiaries. In some instances, MSIM may leverage or be a part of Morgan Stanley’s processes and/or initiatives related to sustainable investing.

³ Throughout this Climate report, references to “MSIM”, “we”, “us”, “our”, “the investment management division and/or segment” are general references to the collective investment management subsidiaries of Morgan Stanley. Certain subsidiaries may differ in their approach to ESG investing; therefore, the discussion of ESG investing described herein may not be applicable to or representative of each Morgan Stanley affiliate.

⁴ Some investment strategies do not consider ESG factors where it is not currently feasible or appropriate to do so, e.g. certain passive investment strategies, certain asset allocation strategies, or if not in line with the specific research and portfolio construction, philosophy and process used by each team, or client requests.

are Morgan Stanley Investment Management Limited (“MSIM Ltd”), Eaton Vance Advisers International Limited (“EVAIL”) and Morgan Stanley & Co. International Plc (“MSIP”)⁶ (collectively, the “TCFD in-scope entities”). The TCFD in-scope entities are each wholly owned subsidiaries of Morgan Stanley, established in England and Wales and regulated by the FCA with respect to the provision of investment management services to clients.

This Climate Report has been produced at the MSIM business segment level, as the portfolio management activities in scope of the FCA’s TCFD reporting requirements under the ESG Sourcebook (“FCA TCFD in-scope business”) leverage and are a part of MSIM’s broader processes and/or initiatives relating to investment and climate risk management. Disclosures on our portfolio management services and specific approaches adopted at product level can be requested on demand by clients who have a legal or regulatory entitlement to receive TCFD-related information.

While this Climate Report is focused on climate-related issues, these are only some of the many considerations that we may take into account in the management of our funds and managed portfolios.

Please note that this Climate Report relates to the reporting period from 1 January, 2024 to 31 December, 2024. The organisational structures, governance, policies and practices in relation to the TCFD in-scope entities, as described in this Climate Report, may evolve and change over time as we continue to enhance our approach to investing and climate risk management, as well as our control framework generally (having regard to considerations such as changing regulatory expectations, best practice and client feedback, among others).

The disclosures in this Climate Report, including any third-party or group disclosures cross-referenced in it (insofar as they relate to the FCA TCFD in-scope business of the TCFD in-scope entities), comply with the requirements of chapter 2 “Disclosure of climate-related financial information” of the Environmental, Social and Governance sourcebook included in the FCA’s Handbook, as applicable.



RUAIRI O’HEALAI

Co-COO at Morgan Stanley Investment Management

⁵ See chapter 2 of the ESG Sourcebook. The content and/or structure of future reports may vary, as regulations and guidance evolve.

⁶ In relation to MSIP, the scope of this Climate Report is limited to portfolio management activities undertaken by MSIP in relation to MSIM funds. It does not cover (i) any MSIP activities that are in scope of TCFD reporting outside of these portfolio management activities; or (ii) any other MSIP activities which are not in scope of TCFD reporting. Please refer to MSIP’s Annual Report and Financial Statements for further entity level climate-related financial disclosures consistent with the TCFD recommendations concerning MSIP, which have been prepared in accordance with the Companies (Strategic Report) (Climate-related Financial Disclosures) Regulations 2022.



Governance

MSIM has implemented governance systems that aim to deliver effective management and oversight of sustainability issues including climate risk management.

MSIM's governance approach reflects its business structure as the investment management division of a global financial services firm, which comprises multiple legal entities in different jurisdictions, with respective boards of directors and governance structures that leverage MSIM's processes relating to investment and climate risk management.

Further information on our Firmwide sustainability-related governance structure can be found in Morgan Stanley's Firm-level ESG disclosures.⁷

We view effective management of ESG risks and opportunities as an important component of our business approach, as we believe it is fundamental to the long-term success of our organisation and our ability to deliver on the objectives of relevant financial products we manage for our clients. Our governance systems, risk management processes and controls seek to support the incorporation of sustainability considerations (including climate risk) within our business activities where relevant.

⁷ For more information see the [Morgan Stanley Firm-level ESG disclosures](#).

Board Oversight

Board-level oversight at MSIM extends across the organisation, with legal entities and funds having their own boards as required. Sustainability- and climate-related matters form a part of the strategy and risks overseen by boards of directors across MSIM, as appropriate. Boards across MSIM oversee the business activities of each relevant entity. Control and oversight functions have clear escalation channels to enable the boards to be informed of climate-related issues as part of their role overseeing management of sustainability matters for their applicable products.

TCFD IN-SCOPE ENTITIES BOARD OVERSIGHT

The responsibilities of the boards of the TCFD in-scope entities include the following activities as applicable:

1. Approval of the strategy in relation to the legal entity;
2. Approval of the legal entity's risk appetite and risk tolerance statements and limits; and
3. Approval of material regulatory filings or regulatory public disclosures relating to the legal entity.

In carrying out their responsibilities, the boards of the TCFD in-scope entities receive updates from the MSIM Sustainability team and other key stakeholders on sustainability and ESG matters as relevant and appropriate, including regulatory updates, product development and strategic initiatives related to climate matters. The frequency of these updates depends on the relevance for each TCFD in-scope entity board, in terms of scope of products and applicable regulations.

- **MSIM LTD BOARD:** Sustainability-related discussions at MSIM Ltd board meetings in 2024 included updates on regulations and key sustainability initiatives and enhancements.
- **EVAIL BOARD AND MSIP BOARD:** These boards received certain updates in 2024 on sustainability-related matters from other functions. However, due to the nature of their FCA TCFD in-scope business, the MSIM Sustainability team did not provide any updates on sustainability-related matters to them during the reporting period.

Several products managed by MSIM Ltd have climate-related targets. A framework is in place for the TCFD in-scope entity boards to monitor and oversee goals and targets for addressing climate-related issues as appropriate. Centrally, teams and working groups across the MSIM governance structure strive to ensure that investment teams have sufficient resources, insights and tools to provide long-term value to clients by taking into account climate-related issues and the investment objectives of such products where relevant and appropriate.

Management's Role

Management Committees, Working Groups and Teams

The table below provides an overview of the management-level committees, working groups and teams that have responsibility for overseeing and monitoring applicable sustainability- and climate-related issues, including for the FCA TCFD in-scope business of each of the TCFD in-scope entities.

GROUP	RESPONSIBILITIES	MEMBERSHIP STRUCTURE
Investment Management ESG Committee	Oversees and guides MSIM's support for the sustainable investment strategies of each investment business.	Co-chaired by the MSIM Co-Head and Chief Investment Officer of the Solutions & Multi-Asset Group and MSIM's Global Head of Risk & Analysis. Consists of senior representatives from the MSIM Sustainability team and other advisory and related functions.
MSIM Sustainability Team	Supports MSIM's collective sustainability-related processes and governance. Works with the sustainability leads from our investment teams to coordinate global sustainable investing and stewardship initiatives. Provides quarterly and ad hoc updates to the Investment Management ESG Committee and periodic updates to relevant boards as required.	A group of sustainability professionals with experience across regulation, strategy and solutions, stewardship and technology and data, led by the Global Head of Sustainability for Investment Management.
Global Stewardship Team	Supports and helps investment teams coordinate MSIM proxy voting and investee engagement activities as required.	Stewardship analysts with experience across corporate governance and proxy voting, led by the Global Head of Stewardship.
MSIM Sustainability Leads	Work with their respective investment teams to help encourage incorporation of ESG factors where relevant, in line with each team's investment philosophy and strategy.	Many of MSIM's investment teams or asset class platforms have appointed at least one dedicated Sustainable Investing/ESG specialist to co-ordinate and support the sustainable investing approaches for the relevant team.
ESG Technology Working Group	Defines and develops technology expertise and ESG data programmes to support client needs for MSIM.	Investment teams and Technology leads led by the Head of Sustainability Data and Technology for MSIM.
Investment Management Risk Committee	Provides a regular forum for different functional groups to identify and discuss key risks and make recommendations to senior managers on managing those risks, which may include climate-related risks where appropriate.	Led by the Chief Risk Officer for MSIM and appointed by the Firm Risk Committee.
Global Risk and Analysis Team	Provides ongoing monitoring for emerging risks in the market, including sustainability and climate-related risks where relevant. Provides periodic reporting on ESG risk to Risk Committees, relevant boards and investment teams, where relevant.	Led by the MSIM Head of Risk Management, who chairs the Investment Management Risk Committee.

In addition to the MSIM groups in the table above, MSIM also benefits from involvement in relevant management-level committees, working groups and teams at the Firm level (for example, the Global Sustainability Office).

MSIM adopts a decentralised approach to investment management, with investment teams primarily responsible for assessing and monitoring the issues expected to impact the products being managed, including climate-related issues where relevant. Several management-level operating committees and subcommittees across the division share responsibility for the governance of the Investment Management business and strategy. Several Risk Committees have delegated responsibilities from legal entity boards across the MSIM division.

Sustainability-related issues, including climate risks and opportunities, may be considered by certain investment teams alongside other risks in investment team-level processes, as appropriate for each investment strategy. Further information on how investment teams consider ESG factors in their decision-making, where relevant, is detailed in the Strategy section of this Climate Report.

MSIM management is informed and monitors sustainability matters (including climate-related issues) on a regular basis, as appropriate, including through the committees and groups as set out in the table above.

One aspect of MSIM management's role, per the committees described above, is to feed into workshops and top-down sustainability risk analysis, to identify climate-related physical and transition risks that are most relevant to business activities. For example, MSIM's GRA team works closely with the Firm's Global Sustainability Office to design and develop long-term climate-related scenarios as described in this Climate Report. More detail on climate-related risks and opportunities is included in the Risk Management section of this Climate Report.

Remuneration

A primary objective in designing compensation programmes for MSIM employees is to ensure that compensation incentives are aligned with our business strategy of driving performance and adding value for clients, shareholders and other Firm employees.

Further, the Firm has a Global Incentive Compensation Discretion ("GICD") Policy. The GICD Policy requires and directs compensation managers to consider only legitimate, business-related factors when exercising discretion in determining incentive compensation. Such factors include adherence to Morgan Stanley's core values, conduct, disciplinary actions in the current performance year, risk management and risk outcomes. The GICD Policy also requires and directs compensation managers to escalate circumstances which may warrant cancellation or clawback of previously awarded compensation for further investigation. Compensation managers are required to certify their compliance with the GICD Policy in advance of exercising discretion in determining incentive compensation, and Morgan Stanley's Human Resources coverage team works directly with compensation managers to ensure that they understand their responsibilities.

Where required by regulation, such as the EU SFDR,⁸ the UCITS Directive⁹ or MiFID II,¹⁰ MSIM's local entities have adopted remuneration policies to promote sound and effective risk management of sustainability risks, including discouraging excessive risk-taking with respect to sustainability risks. Risk is considered at every stage of the compensation planning process, from the initial determination of the bonus pool to individual compensation decisions.

⁸ Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector.

⁹ Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities.

¹⁰ Directive 2014/65/EU of the Parliament and of the Council of 15 May 2014 on markets in financial instruments and Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 collectively known as MiFID II.



Strategy

MSIM evaluates the impact of sustainability-related issues, including climate risks and opportunities, as appropriate to the business and managed investments in an ongoing effort to deliver long-term value for our clients while meeting changing demands.

As a client-centric organisation, our approach is premised on delivering investment and risk management solutions tailored to a wide range of clients' preferences, including sustainability preferences, where relevant. MSIM investment teams act as responsible long-term investors, and our collective purpose in delivering long-term value for our clients guides our approach to sustainable investing, which we seek to deliver in three main areas:

■ **DELIVER GLOBAL DEPTH AND BREADTH IN SUSTAINABLE INVESTING**

EXPERTISE: Certain MSIM investment teams employ designated sustainability specialists or individuals responsible for particular aspects of sustainability. These efforts are supported by the MSIM Sustainability Team and other centralised resources.

■ **OFFER CLIENTS A SPECTRUM OF FLEXIBLE AND INNOVATIVE**

SUSTAINABLE INVESTING SOLUTIONS: We aim to provide our clients with investment and risk-management solutions across asset classes that seek alignment with their return objectives with their sustainability preferences as appropriate.

■ **MAINTAIN EFFECTIVE STEWARDSHIP STANDARDS:**

MSIM has a duty to be a good steward of clients' capital. It fulfils this duty by seeking to engage with selected companies in which it invests as fiduciaries of client assets, and by exercising its various rights as shareholders, including proxy voting. Where appropriate, MSIM investment teams endeavour to engage in constructive dialogue with companies. This helps MSIM manage risk, enhances its understanding of investee companies, and, where possible, create relevant positive sustainable outcomes, as explained in other sections of this Climate Report, particularly the Governance and MSIM Engagement Framework sections. This enables overall accountability of our investee companies, and in turn, our clients' assets.

Climate-Related Risks and Opportunities

In our ongoing strategic vision to deliver long-term value to clients, we recognise the importance of identifying, understanding and managing climate-related risks and opportunities that may impact our business both directly and, with respect to our role as an investment manager, indirectly through our portfolio companies where this is in line with the disclosed objectives of our products. GRA conducts central risk assessments across the business, some of which are presented in this section.

CLIMATE-RELATED RISKS

As set out below, our largest exposure to climate risk arises indirectly from the physical and transition risks affecting the companies and securities in which we invest. These risks could affect companies and securities in myriad ways, which ultimately may impact investors in our products and MSIM through, for instance, changing portfolio valuation. Additionally, we have identified several climate risks which may impact MSIM's TCFD in-scope entities directly as corporate entities and indirectly through investments held on behalf of clients over different time horizons.

The climate-related risks and opportunities identified in this Climate Report are broadly similar to the risks and opportunities identified in previous years' reports, as there have been no significant changes to MSIM's risk and opportunity exposures over the course of the last year.

Time Horizons

The GRA team monitors emerging risks in the market and expects climate-related risks and opportunities to typically impact over the following time horizons:

0-1 year: Short term

1-5 years: Medium term

5+ years: Long term

However, investment teams may use their own interpretation appropriate to their investment strategies across different asset classes on the time horizons they expect climate-related risks and opportunities to impact their products.

The Risk Management section of this report provides further information on the process for identifying, monitoring and managing climate-related risks. This section focuses on the climate-related risks and opportunities that may materially impact portfolio companies over the above-noted time horizons.

Climate-related risks and opportunities are typically divided into two categories through which they are assessed for potentially material impact on portfolio companies or on MSIM.

TRANSITION RISKS AND OPPORTUNITIES

This considers the financial and reputational impact associated with the consequences of transitioning to a low-carbon economy. The response to climate change will result in changes to society and the economy driven by governments, industries and consumers as society adapts to climate change and mitigates its causes. Transition risks and opportunities generally fall into one of three categories: 1. policy and legal changes, such as local, national or international regulation of carbon emissions; 2. technology advancements, such as replacement of existing products with lower-emission options; 3. market developments, such as changes in consumer and business sentiment or impacts resulting from public perception of an organization's action or inaction on climate change.

PHYSICAL RISKS AND OPPORTUNITIES

This considers the financial and reputational impact arising from acute climate-related events such as hurricanes, heatwaves, droughts, floods, or wildfire, and chronic, longer-term shifts in climate patterns, such as higher average temperatures, rising sea levels and long-term droughts. Specifically, physical risks may impact investors in our products through deterioration in valuation of investments caused by direct damage to physical assets and indirect impacts from supply-chain disruptions and market volatility. Mitigating risks associated with these impacts may also present opportunities for portfolio companies and MSIM corporate entities.

Direct risks for MSIM's TCFD in-scope entities as corporate entities

RISK	DESCRIPTION	HORIZON	MSIM IMPACT
Transition (Reputation)	Associated with perception of responding inadequately to climate challenges linked to our investment products and operational impact	Short and medium term	Decreased revenues as a result of clients not allocating their capital with MSIM due to reputational loss
Transition (Policy and Legal)	Associated with changes to sustainability-related legal and regulatory requirements impacting our products or other aspects of our investment business and operations	Short and medium term	Increased compliance costs and expenses as a result of volume and scale of complex regulatory obligations
Physical (Acute and Chronic)	Associated with the impact on our global facilities due to weather events and long-term shifts in climate patterns	Long term	Increased capital expenditure, decreased revenue and increased costs due to impacts on MSIM's operations

Indirect risks impacting investments held on behalf of clients

Transition and physical risks affecting the companies in which MSIM's investment teams invest may have an indirect impact on MSIM through lower assets under management as a result of potentially decreased security values. The level of risk may vary across different investment teams or products.

RISK	DESCRIPTION	HORIZON	PORTFOLIO COMPANY IMPACT	MSIM IMPACT
Transition (Policy and Legal)	Associated with changes to current climate-related law and regulation impacting portfolio companies' operations, revenue and profitability	Short and medium term	Increased costs	Decreased MSIM portfolio valuation and AUM
Transition (Technology)	Associated with technology advancements, such as replacement of existing products with lower-emission options	Medium term	Increased costs, decreased revenues, increased competition	Decreased MSIM portfolio valuation and AUM
Transition (Reputation)	Associated with perception of not responding appropriately to climate change or making misleading claims about a product or service (e.g., a company's lack of transition plan or greenwashing)	Short and medium term	Decreased revenues	Decreased MSIM portfolio valuation and AUM
Transition (Market)	Associated with an unfavourable shift in client demand away from existing products and services as preferences change	Short and medium term	Decreased revenues	Decreased MSIM portfolio valuation and AUM
Physical (Acute)	Associated with the impact on physical assets or operations of portfolio companies due to weather events or changes in temperature	Long term	Staff disruption, increased damage, increased expenditure, increased insurance costs	Decreased MSIM portfolio valuation and AUM
Physical (Chronic)	Associated with sustained long-term shifts in climate patterns impacting operations, asset values, or increased business costs, including the cost or availability of insurance coverage	Long term	Increased capital expenditure, decreased revenue, increased costs	Decreased MSIM portfolio valuation and AUM

CLIMATE-RELATED OPPORTUNITIES

The transition to a lower-carbon economy may also present opportunities for investment managers generally. These opportunities could manifest directly by growing MSIM's business through new products and services. Additionally, opportunities may arise indirectly through the financial

outperformance of companies and securities that manage climate risk effectively.

We outline examples of some of the direct opportunities that we expect may impact our business, as well as some indirect opportunities we expect may impact our clients and investors in our products over different time horizons.

Direct opportunities for MSIM's TCFD in-scope entities as corporate entities

OPPORTUNITY	DESCRIPTION	HORIZON	POTENTIAL MSIM IMPACT
Products and Services	Developing products and sustainability services in response to emerging evidence on sectors deemed likely to benefit from climate transition	Short and medium term	Increased AUM; may also result in an improved competitive position
Market/Client Demand	Capturing changing client preferences to demand for more sustainability- or climate-themed products	Short and medium term	Increased AUM; may also result in an improved competitive position and increased market share

Indirect opportunities impacting investments held on behalf of clients

OPPORTUNITY	DESCRIPTION	HORIZON	POTENTIAL PORTFOLIO COMPANY IMPACT	POTENTIAL MSIM IMPACT
Energy Efficiency	Investing in companies that are supporting energy efficiency initiatives	Short and medium term	Decreased portfolio company operating costs, potentially increasing their associated profits, which could impact asset valuation and AUM	Increased MSIM portfolio valuation and AUM
Technology	Investing in companies or sectors that might benefit from technology breakthroughs (e.g., cleaner energy sources)	Medium term	Increased portfolio company revenue, potentially leading to increased company value and increased dividends	Increased MSIM portfolio valuations and AUM
Incentives	Portfolio companies benefiting from incentives provided by governments (e.g., technologies cutting greenhouse gas emissions)	Short and medium term	Increased portfolio company revenue and potential diversification of financial assets	Increased MSIM portfolio valuations and AUM
Reputation	Investing in companies that are early movers on climate issues, or using engagement practices to encourage portfolio companies to act	Short and medium term	Increased portfolio company revenue	Increased MSIM portfolio valuations and AUM

MSIM PHYSICAL AND TRANSITION RISK AND OPPORTUNITY ASSESSMENT

In addition to the above assessment of potentially relevant climate-related risks and opportunities for MSIM, a risk assessment was performed by GRA in collaboration with Morgan Stanley's Global Sustainability Office across each of the different types of climate risks and time horizons in order to help facilitate the risk identification process and compare relative to MSIM's overall exposures. This analysis

was used in the construction of the climate scenarios set out in this Climate Report. This analysis is qualitative in nature and based on MSIM's exposures across a diversified portfolio of global equities, government bonds, corporate bonds, real estate and commodities. This is a separate process from the quantitative assessment that is performed by GRA¹¹ and described in more detail in the Scenario Analysis section of this Climate Report.

TIME HORIZON	Physical Risks		Transition Risks			
	ACUTE	CHRONIC	POLICY AND LEGAL	TECHNOLOGY	MARKET	REPUTATION
0-1 year: Short-term	■	■	■	■	⬡	■
1-5 years: Medium-term	⬡	■	⬡	⬡	●	⬡
5+ years: Long-term	⬡	⬡	●	●	●	●

■ Low Risk or Opportunity
 ⬡ Medium Risk
 ● High Risk

¹¹The assessment is part of an independent risk process. It was not delivered to, nor actioned by, MSIM's investment teams or the Boards during the reporting period.

Types of Climate Risks

PHYSICAL RISKS

Acute

Acute physical risks are primarily related to severe weather events, including hurricanes, wildfires, windstorms, drought, heat waves and floods. In the short term, moderate rises in global temperatures may marginally increase the frequency and severity of these weather events, resulting in property damage.

The frequency and severity of weather events may increase over time, heightening the overall risk in the medium- and long-term time horizons.

Chronic

Chronic physical risks are related to longer-term shifts in climate patterns, such as higher average temperatures, rising sea levels and long-term droughts. Over the short and medium term, there may be relatively low portfolio exposure to these chronic risks, as the issues are typically long-term in nature.

MSIM expects the risk level to its portfolios to be moderate in the long term, although it may be heightened if average global temperatures increase faster than anticipated. The real estate, energy and utilities sectors may face higher chronic risk relative to other sectors, as companies are expected to increase investment in physical infrastructure to account for the changes in geography and climate.

TRANSITION RISKS

Policy and Legal

While many governments are already setting emissions reduction targets, there remain differing views across countries regarding the best approach and timeline and differing degrees of implementation of these targets. As a result, coordination on impactful climate action is expected to be unlikely in the short term, limiting the overall policy and legal risk. Sectors that rely heavily on fossil fuels, such as energy, utilities or materials, may face relatively higher risk, as they are more likely to be directly

impacted by new climate policy and regulation. However, policymakers may potentially face mounting pressure from severe weather events over time, increasing the likelihood of a more coordinated global regulation of emissions and carbon pricing. Policy and legal risk may become progressively heightened over the medium- and long-term time horizons as a result.

Technology

In the short term, new low-carbon technology is expected to remain expensive in relation to existing technologies. Until newer technologies become cost competitive, there may be limited risk that existing technology or infrastructure is replaced.

In the medium term, new technology may become more cost competitive, creating a moderate risk that existing technology or infrastructure becomes obsolete. Companies are expected to start investing broadly in developing new low-carbon technologies.

Over the long term, technologies are expected to shift from traditional fossil fuels to low-carbon alternatives. Companies that have not invested in updating their technologies may face heightened risk from stranded assets or asset write-downs.

Market

In the short term, market risk is expected to be moderate, as increased costs in raw materials due to inflation and geopolitical risks may accelerate changes in consumer preferences. Over time, fossil fuels are expected to become more expensive, and companies that have no viable alternative energy sources may face heightened risk as they experience asset write-downs.

Reputation

In the short term, the reputation of companies may be partially based on their progress toward emissions reduction, but the overall risk is expected to be limited. Progressively more emphasis may be placed on this progress over the medium and long term, heightening the reputational risk to companies over these time horizons.

Deliver Global Depth and Breadth in Sustainable Investing Expertise

MSIM's investment teams incorporate the assessment of material ESG risks and opportunities into investment decision-making processes as appropriate and according to investment teams' particular investment strategies. Incorporation of such ESG risks and opportunities may occur at various stages of the investment lifecycle, including due diligence and research, valuation, asset selection, portfolio construction and ongoing engagement and investment monitoring.

MSIM's investment teams seek to leverage such assessment of ESG risks and opportunities, along with other relevant information, in a way that is aligned with the specific investment philosophy, asset class and time horizon of a given strategy or product.

Offer Clients a Spectrum of Flexible and Innovative Sustainable Investing Solutions

We offer clients a wide range of sustainable investing solutions across asset classes in actively and passively managed vehicles that seek to align clients' return objectives with their sustainability preferences as appropriate. These include products that may consider ESG factors at a security and/or portfolio level, by deploying a variety of ESG tools and investing approaches, including, without limitation, minimum criteria for inclusion, exclusionary screens (e.g. sector/norms-based/sovereign/environmental/social controversies, etc.), utilising proprietary quantitative and qualitative assessment processes, and intentional tilts towards certain sustainability factors, and/or requiring a threshold allocation to certain thematic labelled/certified securities,¹² such as a focus on sustainable/thematic outcomes and/or seek to achieve attractive financial returns alongside positive environmental and/or social impacts. We also strive to provide relevant quantifiable metrics and reporting for our products and solutions,¹³ as data availability and access improve over time.

Assessing the impact of climate change on MSIM investment strategies

We have developed a range of tools and analytics to equip investment teams and our business segments to assess and quantify the impact of climate-related risks and opportunities across the investment portfolio, where relevant. Our investment teams may use these tools, along with their independent approaches, where these are relevant, to assess climate-related risks alongside other risks impacting their portfolios.

To assess, quantify and respond to the impact of climate-related risks and opportunities, we continue to develop our sustainability data, tools and research capabilities. As noted previously, our investment teams are responsible for and employ a range of approaches to assess the materiality of climate risks and opportunities impacting portfolio companies, where relevant. Our portfolio managers and investment teams have access to active support from our centralised MSIM Sustainability team, and other working groups and teams across the Firm.

Investment team-level capabilities (where applicable):

We continue to enhance our ESG data portfolio analytics tools and capabilities, enabling investment teams to quantify and assess the impact of climate-related risks and opportunities on their products and portfolios, where relevant. This allows teams to access data insights to support their climate strategies' investment approaches, where relevant, and to respond to the needs of clients. Approaches adopted by investment teams to assess, respond to and report on climate-related risks and opportunities may include, but are not limited to:¹⁴

- Material risk indicator tools, which capture the portfolio managers' assessment of any potentially financially material ESG-related risks or opportunities a company might face. The conclusions of these assessments may be integrated into the investment decision-making process and portfolio construction;

¹² Examples include green bonds or climate bonds, the latter of which can be issued according to the Climate Bonds Standard & Certification Scheme.

¹³ These include products' sustainable features and information and data required for regulatory disclosures, where relevant.

¹⁴ Please note that some investment teams do not use these approaches, for example, where it is not currently feasible or appropriate to do so, e.g. with certain passive investment strategies, with certain asset allocation strategies, or if not in line with the specific research and portfolio construction, philosophy and process used by each team, or client requests.

- Qualitative reviews to assess portfolio companies' climate resiliency, transition and adaptation strategies, including analysis of reputational risks, potential litigation and associated exposures;
- Engagement approaches which included, for example, one engagement programme adopted by an investment team to identify holdings that were yet to release carbon targets, in order to drive future engagement opportunities;
- Proprietary tools and frameworks to measure and track the carbon footprint and intensity of investments;
- Analysis of internal analytics dashboard, which provides access to sustainability data, including metrics on climate risks;
- Investment team-level scenario analysis to assess the resilience of strategies under a range of climate change scenarios.

Further information on how our investment teams incorporate climate-related risks and opportunities into certain strategies can be found in relevant product-level disclosures.

MSIM centralised support functions

We recognise that the potential positive or negative impacts of ESG factors on the economy and our investments are rapidly evolving. Processes at the MSIM level to assess the impact of these sustainability factors include, but are not limited to:

- **Independent scenario analysis** capabilities run by GRA (further detail can be found in the Scenario Analysis section of this Climate Report).
- **Periodic assessments** conducted by GRA to assess and quantify the relative severity of different risk types within the MSIM risk inventory. The Risk Management section describes in more detail how sustainable investing risks, including climate-related risks, are embedded into the MSIM risk management framework and therefore are assessed against other risks, as appropriate. For public-market portfolios, the team conducts periodic position screenings to quantify MSIM's exposure to potential risks, and it also develops market-driven downside scenarios to seek to ensure that changing market conditions are taken

into account. For private markets, ESG risks or opportunities may be raised as part of the relevant Investment Committee process and evaluated in coordination with Morgan Stanley's Environmental and Social Risk Management (ESRM) group.¹⁵

We recognise that the impact of sustainability factors on our investments and assets and the tools and best practices for assessing those impacts are rapidly evolving. We have several processes in place designed to ensure that we are well positioned as a business to address climate-related risks and opportunities related to our investment management activities as appropriate, including:

- Ongoing monitoring and tracking of **global ESG legal and regulatory developments** by the MSIM Sustainability team and the Compliance department, which supports MSIM's compliance with these requirements.
- **Internal assurance processes** that assess **compliance with ESG external laws and regulations** and ongoing work with MSIM Legal and Compliance and various external consultants to monitor the legal and regulatory landscape and prepare road maps for disclosures, as well as continual improvement.
- **Ongoing training:** Topical training and knowledge-sharing is provided periodically to investment teams and relevant stakeholders on global sustainability regulations and frameworks, client ESG/stewardship requirements and interests, sustainable investing and engagement trends and best practices, and mitigation of greenwashing risks.

MSIM Engagement Framework

MSIM has a duty to be good stewards of our clients' capital. We fulfil this duty by seeking to engage with selected companies in which we invest and by exercising our proxy voting and other rights as shareholders. These stewardship activities give us the opportunity to help guide companies in which we invest toward better ESG practices, which we believe could contribute to attractive returns for our clients over the long term.

Our investment teams, where appropriate to their strategies, endeavour to engage in constructive dialogue with companies, which may encompass activities ranging

¹⁵ The Firm's Environmental and Social Risk Management Group ("ESRM") provides internal subject matter expertise to MSIM's private markets teams on environmental and social risk, conducts due diligence on relevant transactions, engages with stakeholders and monitors emerging risks and developments in partnership with the Firm's business units, Global Sustainability Office and other relevant control functions.

from meetings and discussions on a particular issue to multi-year engagements on a range of topics specific to the company or asset to encourage the improvement of companies' practices where relevant. This can encompass a range of topics that may affect the long-term value of a business or asset, including strategy, capital structure, operational performance and delivery, risk management, executive pay and corporate governance, recognising that different approaches to engagement may be appropriate in different regions. This helps us manage risk in the near and long-term, enhance our understanding of our investee companies/issuers, and, where relevant, create positive sustainable outcomes—all of which we believe may contribute to the long-term returns of our clients.

MSIM has identified five common themes which certain of our investment teams focus on in their engagements, based on respective strategies, where relevant and appropriate. These five MSIM engagement themes we believe are aligned with the United Nations Sustainable Development Goals, which are areas that may cause risk to our society and well-being, global economy or capital markets, but may also present opportunities for improved sustainable and financial outcomes.

MSIM believes sustainability-related engagement, when effective, is mutually beneficial as it enables companies/issuers to explain how their approach to sustainability relates to their broader business strategy and also allows investors to work closely with companies/issuers on specific ESG issues which they believe pose a downside risk or opportunity to the business. To that end, when MSIM identifies financially material sustainability-related or other issues impacting companies/issuers in which we hold significant positions, we seek to proactively engage in active dialogue with companies/issuers where possible and the results of such interactions in turn inform our investment processes.

On the public markets side, MSIM's investment teams who manage active investment portfolios that consider ESG factors apply an active approach to stewardship. Our investment teams exercise proxy voting and other rights as shareholders. Our investment teams also periodically monitor and engage with companies/issuers in the normal course of their investment process and leverage the support of the MSIM Global Stewardship team where needed. MSIM engages with companies across their capital structure, including through our debt holdings, and leverages our Fixed Income platform to engage with bond issuers beyond listed companies, including sovereign states, agencies and private companies. Engagement on ESG issues helps to foster productive dialogue, focusing on sustainability risk management and value-generation opportunities.

On the private-markets side, engagement approaches are idiosyncratic to the investment strategy and asset class, differing across equity and credit, real estate and infrastructure. The ability to influence and engage companies on sustainability-related issues will also be bespoke to the strategy, and level of ownership and control. As well as engaging with portfolio companies, MSIM private markets teams may also engage with other relevant stakeholders, such as other general partners ("GPs") on the private credit and equity side, or property managers and tenants on the real estate side.

Investment teams prioritise their engagements based on a variety of factors including position size, cadence of annual general meetings, headline events and potential financial materiality of engagement topics. Engagement objectives also differ based on these factors and can range from information gathering to encouraging specific disclosures and improved sustainability and governance practices, such as adopting longer-term vesting schedules or adopting science-based carbon reduction targets, where appropriate.

MSIM Engaging Companies Themes

 <p>DECARBONIZATION & CLIMATE RISK</p>	<p>Supporting the transition to a low-carbon economy in line with Paris Agreement goals</p>	<ul style="list-style-type: none"> Renewable energy and clean tech Energy efficiency Physical impact adaptation 	   
 <p>DIVERSE & INCLUSIVE BUSINESS</p>	<p>Supporting business practices that create a more just and inclusive society</p>	<ul style="list-style-type: none"> Affordable access to essential services Investing in communities Racial justice Pay equity Board/employee diversity 	   
 <p>NATIONAL CAPITAL & BIODIVERSITY</p>	<p>Supporting business models that reduce negative impact on biodiversity in line with the Post 2020 Biodiversity Framework</p>	<ul style="list-style-type: none"> Sustainable sourcing and use of resources Land and sea use change Deforestation Pollution reduction 	   
 <p>CIRCULAR ECONOMY & WASTE REDUCTION</p>	<p>Supporting business models that reduce impact on natural resources and that innovate to reduce waste generation, with a focus on plastic waste</p>	<ul style="list-style-type: none"> Recycling and reuse Sustainable sourcing Lifecycle analysis Water stewardship 	   
 <p>DECENT WORK & RESILIENT JOBS</p>	<p>Supporting decent work across the entire value chain and making workforces resilient in the face of innovation and change</p>	<ul style="list-style-type: none"> Automation and the workforce Supply chain management Living wage Workforce well-being 	   

Investment teams may also engage on other areas not limited to these five themes. MSIM recognises that the UN Sustainable Development Goals (SDGs) were written by Governments for Governments and therefore engagement themes with corporates and the SDGs may not be perfectly aligned. The content of this publication has not been approved by the United Nations and does not reflect the view of the United Nations or its officials or Member States. See <https://www.un.org/sustainabledevelopment/sustainable-development-goals> for more details on the Sustainable Development Goals.

Scenario Analysis Overview

Climate-related scenario analysis involves the use of modelling techniques to assess the potential exposure of investment portfolios to climate-related risks and opportunities based on projecting variables according to chosen future uncertain scenarios. Climate scenarios are a set of plausible futures for the operating context of the business and are not predictions about any single “most likely” future. MSIM has scenario analysis capabilities across different layers of the business performed at the aggregate MSIM level and the product level as part of our risk management function, which is independent from the investment teams.¹⁶

GRA performs scenario analysis to help assess the potential impact of climate-related risks and opportunities on investments and to identify vulnerabilities over the assessed time horizon from a risk perspective. Specifically, GRA has the capability to conduct forward-looking scenario analysis to centrally monitor climate risk of certain portfolios across different asset classes in order to measure the financial impact of climate change. Currently, and with respect to the reporting period, the strength of GRA’s capabilities is in quantifying the potential impact of transition risks and opportunities on our public portfolios.

A number of short-, medium- and long-term physical risks have been identified that could impact our aggregated investment portfolio, as noted previously. We currently consider these risks in the scenario analysis processes based on their impact on macroeconomic factors. Additionally, some investment teams may assess the physical risk exposure to their portfolios, while others may not, depending on the financial products and the team’s ESG approach. We are seeking to advance our physical risk methodologies to assess and monitor exposure. Firm Risk Management continues to work with the Global Sustainability Office to advance physical risk methodologies and proprietary modelling capabilities over time to provide a consolidated view.

Results are shared with investment teams and monitored for changes over time by GRA to ensure that climate-related risks are being appropriately identified, tracked and managed. Investment teams may consider this analysis together with their own analysis and factor it into the investment process as relevant, taking into account relevant product and regulatory requirements and their obligation to act in the best interests of clients.

Climate Scenario Analysis Methodology

The Global Sustainability Office has developed long-term climate scenario narratives focusing on several proprietary scenarios and simulated impacts on numerous macroeconomic indicators out to 2050. GRA has used three scenarios that are aligned to narratives by the Network for Greening the Financial System (“NGFS”). These scenarios have been applied to the quantitative analysis performed over several, but not all, MSIM products. This has been developed and delivered independently of the investment teams.

These scenario outputs have been derived from a suite of models comprising an Integrated Assessment Model, which is a recommended technique by certain industry standard bodies, as well as macroeconomic and industrial models.

The Integrated Assessment Model is then linked to more granular models to generate macro-financial and sector outputs across the different scenarios. These outputs include market variables, commodity prices, regional GDP, sector revenues and others. GRA uses these as inputs for quantifying the market shocks. These shocks are then constructed in risk management systems in order to calculate the stress profit and loss returns at the product and benchmark levels.

GRA uses these scenarios and runs product-level assessments for products across the business. Centrally, the team assesses prospective portfolio returns and compares them with market benchmarks, seeking to identify any potential areas to investigate further.

¹⁶ For more information on the Firm analysis, see the [Morgan Stanley Firm-level ESG disclosures](#). More information on the product-level scenario analysis processes will be provided in the TCFD product reports, available on-demand to those entitled to receive such information.

Scenario Narratives

NET ZERO 2050

Net Zero world narrative (“**orderly transition**”)— Increased international collaboration and technological advancement results in the globe being on track to limit global warming to 1.5-2 degrees Celsius.

In this scenario, global total CO₂ emissions continue to decline, hitting net zero by 2050. Global temperature rise is limited to 1.5°C by 2100 through immediate climate action with global coordination across policymakers. The policy includes a global harmonised carbon price, and a thriving sustainable finance market fuels significant investment in clean energy. Notably, developments in artificial intelligence and other technologies lead to higher power demands but supports innovations in clean tech and energy efficiency. Costs falls for decarbonisation solutions such as energy storage and carbon capture. Sectors such as transport and power experience significant decarbonisation. Real estate construction booms as buildings are renovated or replaced with more climate-resilient and efficient tech. Consumers also help to accelerate the transition with higher demand for low-carbon products.

FRAGMENTED WORLD

The Fragmented World narrative (“**disorderly transition**”) concerns the global fragmentation of financial markets due to global success against net zero targets being hampered by division and ulterior motives.

In this scenario, global total CO₂ emissions are reduced gradually, but net zero targets are not achieved by 2050. Global temperature rise is limited to 2.3°C by 2100 through fragmented climate action lacking coordination globally. Global total CO₂ emissions are taxed only starting in 2030, enabled through a surge in carbon prices that differ by region. Deferred climate policies lead to higher physical risk, especially in the tropical regions, while also incorporating transition risk from a disorderly sudden transition. Despite growing need in power demand for artificial intelligence and other technologies, alternative energy sources fall short, and there is a lack of technological breakthroughs for decarbonisation solutions in the early years. While there are some ambitious and meaningful climate efforts, global success is ultimately hampered by division and misalignment between countries.

HOT HOUSE WORLD

The Hot House World narrative (“**hothouse world**”) concerns growth results in a shift away from curtailing emissions with climate regulations being relaxed, leading to significant physical and economic impacts due to climate change.

In this scenario, policymakers take insufficient climate action to reduce global total CO₂ emissions. Instead, they prioritise economic growth, and global temperature rise climbs to 3.5°C by 2100. Global CO₂ emissions are not taxed, and there is no further policy action for climate mitigation. Despite growing power demand for artificial intelligence and other technologies, alternative energy sources fall short, and there is a lack of technological breakthroughs for decarbonisation solutions in the early years with the gap filled with coal and gas. Critical temperature thresholds are exceeded, leading to severe physical risks and irreversible impacts.

Climate Scenario Analysis Output

The scenario narratives described above seek to enable impacts to be simulated across a number of indicators out to 2050. The current focus of the GRA team is to quantify impacts over the long-term time horizon corresponding to a period of ten years. Typically, GRA looks at exposures across asset classes, sectors and industries in order to understand how changes in the macroeconomic environment may impact them. This data is inputted into existing proprietary impact models to ascertain potential impact to the underlying securities and the potential impact to MSIM in terms of components such as portfolio value.

To enhance our analysis of the material climate risks and opportunities linked to transitioning to a low-carbon economy, GRA has conducted an assessment based on holdings as at the end of the reporting period, covering products within our FCA TCFD in-scope business. We performed analysis across a number of climate-related metrics that assess portfolio companies' climate impact and readiness for transition and exposure to shocks across different sectors.

The below heatmap illustrates a summary of the sector-level outputs from this transition risk and opportunity assessment, through simulating impacts over a long-term horizon. The assessment also considers the potential damage from physical risk.

While MSIM has a diverse portfolio with product-level exposure to most sectors, the following sectors and industries are featured in the below heatmap, as we believe

they may face heightened risks or opportunities based on the modelling of these specific climate scenarios. The outperformance or underperformance of a given sector or industry may ultimately have an impact on the valuation of assets that MSIM manages.

This climate scenario analysis has been undertaken by the GRA team during the reporting period using appropriate data. The results of this climate scenario analysis are broadly consistent with the results of the climate scenario analysis reported in the 2023 Climate Report. However, there have been a couple notable developments given the update to the scenario narratives over the last year. The time-horizon in focus has been extended from the short-term to the long-term, so the positive impact of new climate opportunities are more pronounced in the Net Zero 2050 and Fragmented World outputs.

Another change for this year is the incorporation of physical risk, which is reflected in the outputs for the Fragmented World and Hot House World scenarios. The risks and opportunities presented by the below sectors/industries remain mostly unchanged during the past year. However, there was one notable update in the ratings for the utilities sector in the Net Zero 2050 and Fragmented World scenarios to reflect the additional climate opportunities over the medium-term time horizon based on the growing power demand to support artificial intelligence and other technologies.

Sector and Industry Risks and Opportunity Heatmap

SECTOR/ INDUSTRY	NET ZERO 2050	FRAGMENTED WORLD	HOT HOUSE WORLD	SECTOR/ INDUSTRY	NET ZERO 2050	FRAGMENTED WORLD	HOT HOUSE WORLD
Consumer Discretionary	Medium Risk	Medium Risk	Medium Risk	Information Technology	Low Risk or Opportunity	Low Risk or Opportunity	Low Risk or Opportunity
Consumer Staples	Medium Risk	Medium Risk	Medium Risk	Real Estate	Low Risk or Opportunity	Medium Risk	High Risk
Energy	High Risk	High Risk	Medium Risk	Communication Services	Medium Risk	Medium Risk	Medium Risk
Materials	High Risk	High Risk	Medium Risk	Utilities	Low Risk or Opportunity	Low Risk or Opportunity	Medium Risk
Industrials	Medium Risk	Medium Risk	Medium Risk	Renewables	Low Risk or Opportunity	Low Risk or Opportunity	Medium Risk
Healthcare	Medium Risk	Medium Risk	Medium Risk	Transportation	Low Risk or Opportunity	Low Risk or Opportunity	Medium Risk
Financials	Low Risk or Opportunity	Medium Risk	Medium Risk				

■ Low Risk or Opportunity
 ⬡ Medium Risk
 ● High Risk

Net Zero 2050

IMPACT OF SCENARIO SUMMARY

In the short term, rising carbon prices may drive moderate increases in inflation and unemployment. This is expected to result in a mild economic contraction before returning to prior trends in the medium term. There may also be some dislocations across sectors in the short term as companies adjust to changing consumer preferences and declining demand for fossil fuels. Over the medium to long term, the global economy is expected to benefit from the climate opportunities and new technology innovations spurring positive long-term growth.

ENERGY SECTOR

Sectors and companies that are carbon intensive but have not yet started to transition to reduce their emissions may be at heightened risk in this scenario. As such, traditional oil and gas companies may be particularly vulnerable to changing patterns in energy consumption, higher prices from carbon legislation, or losses from stranded assets. A material demand for decarbonisation technologies could benefit companies that invest in adjacent carbon reduction or alternative fuel assets.

FINANCIALS SECTOR

The financials sector is expected to play a key role in facilitating the reduction in emissions through lending, insurance underwriting, asset management or trading activities with energy and clean tech companies. As a result, it may face relatively low transition risk, and financial services companies may in fact benefit from new opportunities from the heightened investment in climate solutions.

MATERIALS SECTOR

As carbon prices are expected to increase in the Net Zero 2050 scenario, the materials sector may face heightened transition risk. A sizeable proportion of companies in this space continue to rely heavily on fossil fuels and may be impacted by higher costs.

UTILITIES SECTOR

The successful path to net zero is expected to require the decarbonisation of the utilities sector. Gas utility companies may struggle to adjust initially as they face higher costs of emissions and the challenges of maintaining a fixed rate base given shrinking demand. Over the medium to long term, investments in new technologies and changes in the power grid may present new opportunities for utility companies.

INFORMATION TECHNOLOGY SECTOR

The information technology sector is expected to benefit from significant investments in this space. New technological innovations may help to drive economic growth during the transition to a Net Zero World.

REAL ESTATE SECTOR

The real estate sector may benefit from additional construction activity in order to build more climate-resilient properties and modernise existing buildings with the newest efficient technologies. This investment across the sector may help to mitigate physical climate risks over time.

RENEWABLES INDUSTRY

In this scenario, significant investments are expected across the renewable energy market to support the changing global energy mix. Existing and new companies in the space may benefit from these opportunities along with the rapid development of renewable energy technology.

TRANSPORTATION INDUSTRY

Transportation is expected to play a key role in the net zero transition as significant investment is made in electric vehicles and infrastructure as part of the decarbonisation effort. While there may be some headwinds from higher carbon prices and changing consumer preferences, companies may benefit from technological innovations and the flurry of new money moving to this space. Modal shifts may be more significant given the challenges of decarbonising certain forms of transportation.

Fragmented World

IMPACT OF SCENARIO SUMMARY

We expect a moderate decrease in economic growth in the short term. However, the impact may be more muted than in the Net Zero 2050 scenario. Likewise, there may also be some dislocations across sectors in the short term, but they are expected to be less pronounced in this scenario, as the rate of change in demand for fossil fuels is not as rapid. Over the medium to long term, prior trends in growth may resume, and the global economy may experience some moderate benefits from climate action and technological progress. Due to the delayed and fragmented policy action, physical risk is expected to have a notable impact over time with direct damage to physical assets and indirect impacts from supply-chain disruptions and market volatility.

ENERGY SECTOR

Sectors and companies that are carbon intensive but have not yet started to transition to reduce their emissions may be at heightened risk. As such, traditional oil and gas companies may face losses from changing patterns in energy consumption, higher prices from carbon legislation, or losses from stranded assets. Demand for decarbonisation technologies could benefit companies that invest in adjacent carbon reduction or alternative fuel assets, but government support is still required in initial stages.

FINANCIALS SECTOR

The financials sector may not experience as much opportunity as in the Net Zero 2050 scenario, as overall lending activity and investment in new climate solutions is lower. However, the sector is not expected to face heightened risk in this scenario.

MATERIALS SECTOR

The materials sector may face heightened risk in this scenario, as a sizeable proportion of companies continue to rely heavily on fossil fuels. With carbon prices expected to be higher regionally, these companies could be subject to headwinds from increased costs during the transition.

REAL ESTATE SECTOR

In the Fragmented World scenario, the real estate sector may not experience as much opportunity as in the Net Zero 2050 scenario, as overall investment in building new green properties and modernising existing properties is lower. However, the sector is not expected to face heightened risk either.

INFORMATION TECHNOLOGY SECTOR

The information technology sector may benefit from investments in the space. New technological innovations are expected to help to drive economic growth in this scenario.

UTILITIES SECTOR

Efforts to decarbonise utilities may cause dislocations in this sector in the short term. The speed of decarbonisation may vary across companies based on differing regulatory frameworks. During the transition, companies are expected to face headwinds from lower demand for gas utilities and higher demand for electric utilities over time. Gas utility companies may also face higher costs of emissions and the challenges of maintaining a fixed rate base given shrinking demand regionally. In the medium and long term, the sector will begin to experience some benefits from investments in new technologies and the changing power grid.

RENEWABLES INDUSTRY

New investments are expected in the renewable energy market to support the changing global energy mix. Companies in the space may benefit from these opportunities along with the development of new renewable energy technology.

TRANSPORTATION INDUSTRY

The transportation industry may benefit from new investments in electric vehicles and infrastructure as part of the decarbonisation effort. These benefits may be uneven according to regional incentive schemes. While there may be some headwinds from higher carbon prices and changing consumer preferences, companies are expected to benefit over time.

Hot House World

IMPACT OF SCENARIO SUMMARY

In the short term, the economy may continue to grow as policymakers and businesses operate under business as usual. Carbon prices remain relatively low, so there are fewer dislocations across sectors compared to the other scenarios. However, physical risk is expected to have significant impact over the long-term time horizon with direct damage to physical assets and indirect impacts from supply-chain disruptions and market volatility.

ENERGY SECTOR

The energy sector may not face heightened transition risk in the Hot House World scenario. Investment is expected to continue in the exploration and production activities of traditional oil and gas companies.

MATERIALS SECTOR

Companies in the materials sector may continue to benefit from relatively low carbon prices in the short term. However, over time, the sector may face additional physical risks impacting the operation of physical assets.

FINANCIALS SECTOR

As policymakers continue to focus on economic growth, the financial sector is expected to face limited risk in this scenario.

INFORMATION TECHNOLOGY SECTOR

The information technology sector is expected to benefit from continued investment into the space, with technological developments fueling higher productivity.

UTILITIES SECTOR

The utilities sector is not expected to face heightened transition risk in this scenario, as the transition from gas to electric utilities may be slow-moving. Carbon prices may also continue to remain relatively low. Rate affordability may be strained by reliance on legacy fossil assets.

RENEWABLES INDUSTRY

Although money may continue to flow into traditional oil and gas exploration and production companies, there may also be moderate investment in renewable energy in this scenario.

REAL ESTATE SECTOR

While real estate may benefit from the continued economic growth in this scenario over the short term, the sector is expected to face heightened physical risks from the lack of climate action in the medium- to long-term time horizon.

TRANSPORTATION INDUSTRY

The transportation industry is not expected to experience the same benefits from new investments in electric vehicles and infrastructure as in the other two scenarios. Companies which are laggards in the energy transition may be given a chance to catch up.

TAKEAWAYS FROM MSIM CLIMATE SCENARIO ANALYSIS

Climate scenario analysis will continue to inform our risk measurement and management processes. We continue to seek opportunities to enhance our scenario analysis capabilities in the future, where methodologies and data allow.



Risk Management

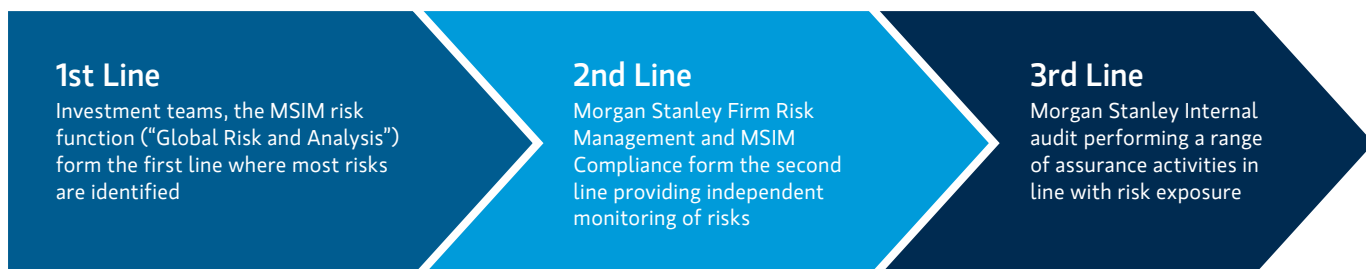
Risk is an inherent part of MSIM’s investment management business. MSIM believes that climate-related risks can be financially material to the assets we manage and ultimately to our business. To act in the best interests of our clients, MSIM seeks to implement effective risk management practices that incorporate climate-related risks as appropriate.

Structure of Risk Management

MSIM’s Global Investment Management Risk Management Policy and Risk Committees are responsible for supervision

of risk exposures and risk processes. Periodic risk updates are presented to the boards of the TCFD in-scope entities by the GRA team, as required. These provide information on the level of risk within the funds, details of oversight activities, and any breaches of internal or regulatory limits, including adherence to sustainability-related fund objectives and (where relevant) climate-related issues.

MSIM’s processes for identifying, assessing and managing climate-related risks are integrated into MSIM’s existing overall risk management framework, which is based on a “three lines of defence” model illustrated below. Various other control and oversight functions form part of the first line and second line that are not listed within the diagram.



Risk Appetite

All TCFD in-scope entities produce a Risk Appetite Statement in relation to the MSIM business (reviewed and approved on an annual basis) that articulates the aggregate level and types of principal risk that the legal entities are willing to accept to achieve strategic objectives consistent with the business segment and wider Firm strategy, as well as applicable capital, liquidity and other requirements.

At MSIM, we continue to consider the potential impact of climate change-related transition and physical risks. Sustainable investing risk, which includes climate change-related transition and physical risks, is one of the principal risk categories monitored under our Global Investment Management Risk Management Policy. Principal risks are formalised risk categories managed in a manner consistent with the framework established under this policy.

The risk committees across MSIM oversee, address and prioritise risks, including climate risks, taking into account the MSIM Risk Appetite Statement, as well as emerging regulatory and external events. MSIM has implemented systems, controls and procedures to identify, track and ultimately manage climate-related risks at security, portfolio and entity level. Our investment teams are the primary risk owners, and identify these risks and manage them, together with other risks, as part of their investment process.

Risk Management Life Cycle

MSIM's Risk Management Framework outlines the standards, guidelines and procedures implemented by MSIM to proactively identify, assess, monitor and manage risks on behalf of our clients and across the business in an objective, transparent and systematic manner.

MSIM GLOBAL INVESTMENT MANAGEMENT RISK FRAMEWORK

Risk Identification and Assessment

- Risks are identified, quantified and evaluated within the MSIM Risk Identification Framework
- Although most risks are identified at the business segment level by investment teams, GRA maintains and monitors the risk inventory of all risks stemming from MSIM activities
- Investment teams are responsible for assessing risks impacting their respective portfolios with GRA conducting materiality assessments to evaluate the relative significance of risks
- Climate is embedded within sustainable investing risk, which is defined as a principal risk

Risk Monitoring and Management

- Investment teams work with other first line functions (e.g., the MSIM Sustainability Team) to mitigate and manage risks associated with their respective strategies
- MSIM Risk Management supports several key committees, including the MSIM Risk Committee and EMEA MSIM Risk Committee, to perform independent monitoring and ensure the effectiveness and consistency in approach across all risk categories

Risk Identification

Risk identification and the effective quantification and assessment of material risks are critical to the risk management framework at MSIM. On a quarterly basis, senior management of MSIM, in coordination with the relevant Risk Management and Finance teams, review the established risk inventory and assess emerging risks. Within this process, sustainable investing risk is classified as a principal risk and defined as the risk stemming from climate change transition and physical risks; natural resource depletion; waste intensity; labor retention, turnover and unrest; supply chain disruption; corruption and fraud; and human rights violations.

Investment teams, along with support, control and oversight teams within the first line of defence, monitor and assess climate risks which may materially impact investment portfolios, as appropriate. Certain investment teams have their own approaches and proprietary frameworks for identifying and assessing climate risks as appropriate to their investment styles and the asset classes they cover. Additionally, material climate-related risks may be incorporated into team research processes and assessed alongside other material risks as appropriate to the financial product.

The MSIM risk function, GRA, is led by the MSIM Global Head of Risk and Analysis, who chairs the Investment Management Risk Committee. This committee provides a regular forum for representatives of different functional groups to identify and discuss key risk issues and make recommendations to senior managers.

The MSIM and Firm Risk committees oversee and assess risks that are escalated from the business and control functions. The relevant MSIM entity boards provide oversight and challenge on a number of market-wide and systemic risks from a legal entity perspective, which are assessed and monitored by committees across the division.

As noted previously, MSIM categorises climate change as a key systemic risk. Several workshops have been conducted with representatives across the wider Morgan Stanley business lines to identify, measure and assess future climate risks according to business activities. Our climate risk identification processes continue to evolve in line with external developments, with GRA and Global Sustainability Office working in close collaboration with the ESRM Group to consider emerging climate risks and ensure our risk registers are updated as needed.

Risk Assessment

Climate change is embedded into the wider risk framework and investment teams' existing monitoring and exposure analysis processes at MSIM, where relevant. To monitor, assess and measure climate-related risks across the assets that we manage, we continue to develop our scenario analysis capabilities in assessing our exposure to transition and physical risk over different time horizons.

Along with the investment team-level processes we refer to below, for public markets portfolios, GRA conducts top-down sustainability risk analysis to monitor and measure exposure to key risks relative to regulatory rules, prescribed risk limits and any defined benchmarks.

As described in the Strategy section, MSIM conducts climate-related scenario analysis to test vulnerabilities, assess exposure to transition risks, and measure the potential financial impact. Research is performed on emerging climate-related risks and topical ESG issues to ensure that our scenarios remain appropriate.

In addition to the above-mentioned product-level analysis, GRA has conducted a qualitative assessment covering a subset of the investment portfolio to evaluate and identify the sectors that may be more exposed to climate shocks, which is described in more detail in the strategy section.

A number of short-, medium- and long-term physical risks have been identified that could impact MSIM's aggregated investment portfolio, as detailed previously. However, we do not currently incorporate these risks into scenario analysis processes. We consider investment teams to be best placed to assess the physical risk exposure of their portfolios since they engage with portfolio companies regularly. We are seeking to advance our physical risk methodologies to assess and monitor exposure. Firm Risk Management continues to work with the Global Sustainability Office to advance physical risk methodologies and proprietary modelling capabilities over time to provide a consolidated view.

Risk Timeframes

Transition and physical risks can develop and materialise over different time horizons compared to traditional risk types. As described in more detail in the Strategy section, our investment teams adopt approaches to incorporating climate transition and physical risks into decision-making processes, and will have their own interpretations on the time horizons associated with these risks.

Centrally, GRA assesses and monitors risks within the context of the following timeframes: 0-1 year, short-term; 1-5 years, medium-term; 5+ years, long-term. We have defined each of the key climate-related risks detailing the time horizon against which they are being assessed in the Strategy section.

Climate Risk Management

INVESTMENT TEAM LEVEL

Climate-related risks may be considered by the investment teams and integrated into decision-making within portfolio strategies, as relevant to the financial product. Our investment teams are informed by and derive insights from wider Firm functions, such as the MSIM Sustainability team, and adopt their own risk management approaches.

To manage climate-related risks, a number of proprietary tools and screening frameworks have been developed across investment teams to support the understanding of climate-related risks and opportunities where appropriate. The scope of our strategies to integrate climate considerations is guided by mandates agreed with clients and the investment policies of our products. Our investment teams integrate material climate considerations into decision-making, given the long-term impact on portfolio companies, where relevant.

Examples of investment team climate risk management approaches adopted include, where relevant:

- Exclusion frameworks
- Tilting away from carbon-intensive sectors
- Product-level decarbonisation targets
- Incorporation of material climate risks and opportunities in research processes, including through the use of proprietary “ESG scorecards” and evaluation frameworks to assess exposure to climate risks
- Climate-themed engagement programmes

BUSINESS AND CONTROL FUNCTION OVERSIGHT

GRA conducts top-down sustainability investment risk analysis, including assessment of sustainability risk exposures, controversial business exposures and the potential impact of different climate change and transition risk scenarios. Where relevant, certain products have enhanced controls and processes to monitor that they are being managed in line with their stated sustainability characteristics.

To facilitate and oversee management of climate-related risks, ESG risk updates are reported into the quarterly MSIM EMEA Risk Committee in the same manner as other risks. This committee is attended by various functional stakeholders across investment teams and support functions, and provides guidance on the management of risks, including sustainable investing risks, where relevant.

In addition to the above noted formal discussions, GRA may engage directly with portfolio managers across certain investment teams at MSIM on climate risks, where relevant, enabling oversight and challenge of activities. There is also ongoing dialogue between Morgan Stanley’s ESRM Group and other Morgan Stanley business segments, including MSIM and the Global Sustainability Office, to address key risks and issues that may pose a reputational risk to the Firm.



Metrics and Targets

MSIM uses a selection of product-level metrics, including climate-related metrics and targets, where relevant, to deliver effective management of sustainability issues in relation to the assets we manage. For the purposes of the FCA's requirements, the reporting entities are Morgan Stanley Investment Management Limited ("MSIM Ltd"), Eaton Vance Advisers International Limited ("EVAI") and Morgan Stanley & Co. International Plc ("MSIP")¹⁷ (collectively, the "TCFD in-scope entities").

Metrics

Across MSIM, investment teams may use data to monitor and assess climate risks in the investments they manage, as appropriate. MSIM's centralised Sustainability Technology and Data team continues to develop internal ESG data infrastructure and analytical capabilities to facilitate climate analysis and reporting by our investment teams.

MSIM leverages data from various external vendors in order to support the investment teams' ability to monitor climate-related metrics for their portfolios. This data is collected and stored in Morgan Stanley's centralised data repository to allow any Morgan Stanley business segment, including MSIM, to access the information for research, portfolio analysis and construction, and client and regulatory reporting.

¹⁷ In relation to MSIP, the scope of this Climate Report is limited to portfolio management activities undertaken by MSIP in relation to MSIM funds. It does not cover any MSIP activities that are in scope of TCFD reporting outside of these portfolio management activities, or any other MSIP activities which are not in scope of TCFD reporting. Please refer to MSIP's Annual Report and Financial Statements for further entity level climate-related financial disclosures consistent with the TCFD recommendations concerning MSIP, which have been prepared in accordance with the Companies (Strategic Report) (Climate-related Financial Disclosures) Regulations 2022.

Methodology

In accordance with the TCFD Recommendations, MSIM seeks to adhere to the Partnership for Carbon Accounting Financials ("PCAF") methodology for Financed Emissions when calculating carbon emissions metrics across all of our portfolios, wherever possible. PCAF is a common standard used in the financial service industry. Carbon accounting methodologies, including PCAF, are continually evolving, and MSIM will consider updated guidance whenever it is issued.

METRIC	UNIT	FORMULA
1 Total Financed Greenhouse Gas ("GHG") emissions	tCO ₂ e	$\sum_n^i \left(\frac{\text{current value of investment}_i}{\text{investee company's enterprise value incl. cash}_i} \times \text{investee company's Scope (x) GHG emissions} \right)$
2 Total carbon footprint	tCO ₂ e/\$MM invested	$\frac{\sum_n^i \left(\frac{\text{current value of investment}_i}{\text{investee company's enterprise value incl. cash}_i} \times \text{investee company's Scope 1, 2 and 3 GHG emissions} \right)}{\text{current value of all investments} (\$MM)}$
3 Total Weighted Average Carbon Intensity ("WACI")	tCO ₂ e/\$MM revenue	$\sum_n^i \left(\frac{\text{current value of investment}_i}{\text{current value of all investments} (\$MM)} \times \frac{\text{investee company's Scope 1, 2 and 3 GHG emissions}_i}{\text{investee company's \$MM revenue}} \right)$

As noted above, Scope 3 is included in the calculation methodology for these metrics. As such, this number may not be comparable to other investment managers that are reporting on Scopes 1 and 2 only.

Investment teams may track several additional metrics on individual products. MSIM has developed an internal analytics dashboard to provide investment teams with real-time access to sustainability data and insights, including in-depth metrics on climate-related risks and opportunities. Further information on product-level metrics can be found in relevant product-level disclosures.

MSIM also continually seeks to improve data quality by liaising closely with different external data providers and obtaining updates to the datasets, as well as performing due diligence over the methodologies used by data providers. Data quality is a known limitation across the industry, and we expect this to improve considerably over the coming years.

2024 Metrics

In accordance with the TCFD guidance, we are reporting these metrics to enable the assessment of the exposure of MSIM's FCA TCFD in-scope business to the risks and opportunities linked to climate change.

Assets Under Management Metrics

As at 31 December 2024

METRIC		2024	2023
1 Total Financed GHG Emissions	Scope 1 GHG emissions	† 4,595,419	4,868,307
	Scope 2 GHG emissions	† 717,661	902,133
	Scope 3 GHG emissions	† 47,153,960	49,544,351
	Total GHG emissions	† 52,467,040	55,314,791
2 Total Carbon Footprint (Scope 1, 2 & 3)	Carbon footprint	† 325	345
3 Total WACI (Scope 1, 2 & 3)	GHG intensity of portfolio companies	† 852	855

† The metrics have been subject to independent limited assurance by KPMG LLP in accordance with ISAE (UK) 3000 / ISAE 3410. The limited assurance reports are available upon request, and it is recommended they are read in full.

The decreases in 2024 versus 2023 values for GHG Emissions and Carbon footprint were primarily due to decreases in Scope 1,2 and 3 GHG emissions intensities across underlying holdings.

Certain securities, such as cash, FX forwards, liquidity and hedging instruments, are determined by MSIM as not having any impact on the metrics presented in this Climate Report. In some instances, it was not possible to collect data where products and/or holdings were not held on MSIM strategic systems. This includes investments such as mutual funds, ETFs, securitised products and certain derivatives, which are excluded from the calculation of metrics, as we are currently not able to gather an adequate level of data on the underlying constituents of these investments. Such excluded investments, in aggregate, constitute a very low percentage of FCA TCFD in-scope business, such that their exclusion does not in our view result in a material difference to the values reported.

The calculation of the above metrics is based on available data from a third-party data provider, although significant data gaps exist for certain metrics and sectors.¹⁸ Where issuer-reported data was not available, our data provider utilised proxy methodologies to estimate the data. Such data may be subject to methodological limitations, data lags, coverage gaps, mapping challenges or other issues impacting the quality of the data. There are also instances where neither issuer-reported data nor estimated data is available through our third-party data provider. Overall, we receive a combination of reported and estimated data for a broad universe of listed companies that covers more than 80% of MSIM FCA's TCFD in-scope AUM in listed equities and corporate fixed income securities.

MSIM takes steps to ensure that ESG data, including TCFD metrics, adheres to the Firm's data governance and quality standards by evaluating the appropriateness and delivery of third-party data feeds. Additionally, investment teams may review data on a qualitative basis, in line with the information gathered during company engagements. Follow-up with data vendors might also be arranged to discuss data discrepancies.

For the purpose of this Climate Report, a single data source has been used, which may differ from the data source(s) used by the investment teams for their TCFD product reporting and other client reports. For funds and mandates investing in private markets, data is sourced directly from portfolio companies or assets, where they provide relevant reporting.

Targets

As noted previously, MSIM consists of independent investment teams with their own strategies for managing client assets. As a client-centric organisation, we provide products to investors and solutions to clients that are managed in line with their investment policies. In many instances, this is also dependent on our clients' own regulatory environments and preferences.

MSIM does not set climate-related targets outside of its products, although we do track and monitor climate-related risks as outlined above.

Where investment teams seek to embed climate-related targets into their strategies or where clients embed climate-related targets into their mandates, MSIM will seek to provide our investment teams with the resources and expertise to measure, track and report on these targets and to manage assets in the best interests of our clients. Further information on climate-related targets in our products can be found in product-specific climate-related disclosures.

MSIM will also continually review the appropriateness of any other sustainability-related targets that are deemed appropriate.

¹⁸ For total carbon footprint, we only consider the market value of securities for which we have underlying GHG emissions data when calculating the current value of investments. For total WACI, we calculate as a market value weighted average of all securities for which we have underlying GHG emissions data.

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