

Nikko Asset Management

Climate-related

Financial Disclosure

2018



This report reflects Nikko AM's response to the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD).

Executive Summary

Nikko AM was one of the earliest signatories to the Principles for Responsible Investment (PRI) in 2007. In 2018, The Investor Agenda was launched to aggregate investor climate actions to achieve the goals outlined in the Paris Agreement, and Nikko AM was the first Asian-headquartered asset manager to commit to addressing all four areas of impact in the Agenda. We serve as Vice-Chair of the Asian Investor Group on Climate Change, to collaborate and share best practices on climate risks and opportunities in Asia.

Governance

We firmly believe that activities addressing ESG, including climate change, should not be separated from investment activities. The ESG Global Steering Committee is chaired by the Global Head of Investment, mandated by the Global Executive Committee (GEC) and reports to the Board of Directors.

Strategy

Our firm-wide ESG policy sets out how we manage and govern ourselves sustainably. We developed a Position Statement on Climate Change to outline our approach, and have a strong emphasis on training, mandating that every investment professional undertake ESG training.

Risk Management

Our capabilities in ESG integration have secured us mandates with stringent ESG criteria. Clients appreciate our thorough research, vigorous debate and direct engagement with companies in appreciating complex ESG issues. We use third-party ESG research to support our analysis, and keep abreast of climate tools developing in the market. We also exercise our voting rights and engage companies both individually and collaboratively, for example through Climate Action 100+.

Metrics and Targets

We report our aggregate portfolio weighted average carbon intensity, as recommended by TCFD, which acknowledged the challenges and limitations of current carbon footprinting metrics. Our aggregate portfolio weighted average carbon intensity is 133.95 tCO₂e/US\$M sales, with coverage of 68% of assets under managements of our active equity strategies. We are actively exploring other climate scenario analysis tools, particularly those supported and listed by PRI.

This report serves as our inaugural TCFD report, covering January to December 2018, and will be updated annually. This transparency reflects our commitment to engage and develop our internal capacity, and promote greater collaboration within and beyond the investment community.

Governance

We firmly believe that activities addressing ESG, including climate change, should not be separated from investment activities. It is our fiduciary duty to evaluate climate change risks and opportunities when making investment decisions on behalf of our clients.

Fiduciary & ESG Principles are Nikko AM's highest guiding themes as an asset management company. The ESG Global Steering Committee governs the fulfilment of ESG commitments and is chaired by the Global Head of Investment, who is also a member of the Global Executive Committee (GEC). The Steering Committee is mandated by the GEC and reports to the Board of Directors at least once every quarter.

The ESG Global Steering Committee comprises leaders from our investment teams worldwide, who are in charge of ESG implementation in their individual investment processes. The Steering Committee is responsible for evaluating the effectiveness and improving our approach to ESG and implementation of the six Principles of the United Nations-supported Principles for Responsible Investment (PRI).

ESG specialists also support the investment teams, primarily through internal capacity building, with the aim of having all investment professionals integrate ESG into their investment processes to the fullest extent.

Furthermore, each regional office is also required to present its ESG implementation activities regularly to its respective boards.

At Nikko AM's Japanese operations, the ESG framework is also supplemented by our company's stewardship and voting rights governance structure, consisting of the Stewardship and Proxy Voting Committee (Voting Committee) and the Stewardship and Voting Rights Policy Oversight Committee (Oversight Committee). The Voting Committee is responsible for guidance related to Nikko AM's stewardship activities, including formulating its stewardship policy, as well as amendments of the proxy voting policy.

Comprised mainly of independent Board of Directors of Nikko AM in Tokyo, the Oversight Committee is an independent body with oversight authority, responsible for monitoring whether Nikko AM's company engagement and exercise of voting rights are in line with its policies and truly meet investor interests in its Japanese operations. The Oversight Committee is also fully integrated into Nikko AM's governance structure as it is required to report on its activities and decisions to the Board of Directors.

Strategy

Our firm-wide ESG policy sets out how we manage and govern ourselves sustainably, and our Code of Ethics describes our core values, corporate social responsibility and global citizenship. Where appropriate to the asset class, investment strategy and client requirements, certain investment teams may maintain specific ESG policies and procedures pertaining to their investment philosophy and process.

In 2019, we developed our Position Statement on Climate Change to reinforce our commitment and outline our approach to climate change. The Statement addresses all areas of impact under The Investor Agenda.

Nikko AM Position Statement on Climate Change

We recognise climate change as one of the greatest challenges the global community faces, and our fiduciary duty to address it in managing our clients' assets.

This position statement sets out our approach to climate change. It should be read in conjunction with our Commitment to Responsible Investing and our latest Climate-related Financial Disclosure report.

1. Develop internal capacity

Our investment approach focuses on 'ESG integration'. Thus, we strive to keep abreast of and continuously improve how we assess climate change risks and opportunities. This includes appreciating the science as well as the changing operating environments for the companies we analyse, and scenario analysis at portfolio level to include a 2°C or lower scenario.

2. Collaborate with the investment community

We believe collaborative relationships can help to accelerate common objectives within the investment community, such as peer learning through the Global Investor Coalition on Climate Change and policy engagement through the 2018 Global Investor Statement to Governments on Climate Change.

3. Active stewardship

We recognise that active dialogue and exercising voting rights, where appropriate, can promote positive outcomes for the investee companies, our firm and our clients in relation to climate change. We participate in relevant corporate engagement initiatives such as the Climate Action 100+, and also communicate our expectations to investee companies below.

4. Report on our activities

We are an early adopter of the Task Force on Climate-related Disclosures (TCFD) initiative in 2018. Where clients have specific reporting requirements, we are responsive in addressing such needs.

In line with TCFD recommendations, we encourage our investee companies to take steps to:

- Identify material climate change risks and opportunities, over relevant time horizons and across different scenarios including a 2°C or lower scenario.
- Integrate material climate change risks and opportunities into their overall strategy, risk management and
- Disclose policies, processes and performance in relation to the above

This Position Statement will be revised to reflect our continued capability enhancement in the sustainable and responsible investing space.

We have a strong emphasis on internal training, and mandate that each investment professional undertakes ESG training. Our strategy towards climate change is consistent towards our steadfast attitude in comprehensively analysing potential and existing portfolio companies, including ESG factors. The investment horizon of our core active strategies is medium to long term in accordance with our clients, which include pension funds, sovereign wealth funds, insurance companies and banks, who may have correspondingly long outlooks and are increasingly concerned with climate change. We recognise long-term macro and mega trends such as demographic changes and climate change, while acknowledging the level of uncertainty that requires us to factor these trends into our valuation differently. This is best illustrated with examples (see the Risk Management section).

Climate change is an issue that potentially impacts all sectors, over varying time horizons. Impacts may be direct, as with carbon tax policies, or indirect, as with strains on geopolitical relationships. Beyond known impacts, we also acknowledge the systematic impacts that can arise given the increased instability of the physical systems as the global mean temperature rises. While estimates exist for the impact of climate change on a global scale, there is currently a high level of uncertainty for impact at a more granular level. As an active asset manager seeking value from thoroughly researching companies, below are examples of what impacts we consider:

- Regulatory and operating environment, which influences the level of adaptation and vulnerability
- Physical impact, which differ across industries and locations
- Stakeholder pressures, which may influence consumer preferences and the license to operate

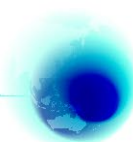
One way to categorise climate change risks and opportunities, corresponding to considerations we have undertaken, is described by TCFD (Table 1) below. As noted by TCFD itself, the categories are not mutually exclusive and overlaps exist.

Table 1: Climate change risks and opportunities

Transition risks	Policy and legal risk
	Technology risk
	Market risk
	Reputation risk
Physical risks	Acute risk
	Chronic risk

Opportunities	Resource efficiency
	Energy source
	Products & services
	Markets
	Resilience

In addition to integrating climate change considerations across all our funds, we work with clients to provide specific low-carbon investment solutions aligned to their investment beliefs. Investing in securities that finance climate change mitigation and adaptation projects allows for the highest level of transparency for investors keen to avoid “greenwashing”. We have recently expanded to include Global AAA rated sovereigns, supranationals and agencies (SSAs) with the strongest sustainable development credentials, such as the Asian Development Bank and European Investment Bank.



Risk Management

In the previous section, we describe the risks, opportunities and impact climate change can pose on companies that we analyse and our strategy as set out in the Nikko AM Position Statement on Climate Change. In this section, we explain the processes and tools in assessing and managing climate change risks and opportunities against the four building blocks of our climate change strategy.

1. Develop internal capacity

Our capabilities in ESG integration have secured us mandates with stringent ESG criteria. We have also applied climate-related tools such as carbon footprinting, shadow pricing and exposure to specific assets considered to be at higher risk of being stranded assets.

We use external ESG research reports to augment our research. Ratings can highlight companies deemed to be high-risk, which serves as a catalyst for more in-depth analysis and debate on such holdings within the team, as well as a broader audience through our ESG Global Steering Committee. But we do not believe an organisation's commitment to do the right thing can be so easily captured by a rating.

We generally do not apply blanket exclusions unless a client instructs us to, though we have managed a wide variety of such exclusions. We prefer active engagement and exercising voting rights as an effective ESG and stewardship tool for our investment process and clients, as well as broadly for economies and the environment. We believe that exclusion based on a formulaic filter to determine climate risks can often be myopically focused and inflexible, without capturing the future potential of a company's ability to transform to a low carbon economy.

We believe that thorough research, vigorous debate and direct engagement with companies to get a first-hand appreciation of the issues, are still the best ways to size up ESG and judge its impact on an investment outcome. We are cognisant that the complexities and uncertainties arising from climate-related impacts require that we keep abreast of information relating to the science, as well as regulatory and stakeholder responses.

We are actively exploring tools to monitor the resilience of our portfolios in different climate-related scenarios, including a 2°C or lower scenario. Some of the tools are promising in circumventing issues (such as selective coverage and poor quality of company disclosures) by procuring data from industry research.

Given the spectrum of companies we analyse across asset classes, geographies and teams, below are a few examples to illustrate how climate change may be factored in the investment process. Our ESG analysis can sometimes, but not always, lead to quantitative adjustments in valuation.

- North America: We evaluated a North American integrated energy company. Despite the fact that it was best-in-class in environmental management in the oil sands industry, the company discount rate was increased and long-term alpha score lowered, as its share price did not seem to reflect the expected regulatory burden.
- Australia: We explained our analysis of stranded assets in the electricity sector in Australia for listed players, including the impact on valuation in various scenarios differentiated by policy settings and advances in technology.¹

- China: Given that it is an environment highly driven by government initiatives, we closely monitor and analyse companies that are well-positioned to benefit from the policies over the medium to long term. Examples include the range of initiatives the Chinese government implemented in the transition of coal to gas to combat the problem of air quality, as well as transition to electric vehicles in its Made in China 2025 plans.
- Japan: In the case of a Japanese machine manufacturer that produces mining equipment as a minor segment of its business, we are closely monitoring the coal industry and stranded assets as a climate change related risk for the company. We also have regular engagement with the company's management, who are conscious of various risks including climate change and continuously making management decisions to improve returns. As such, we are comfortable that this company is managing its material climate change risk.

¹More information provided in our thought leadership article "ESG Insights: Assessing Stranded Assets in the Electricity Sector" (For sophisticated investors only).

2. Collaborate with the investment community

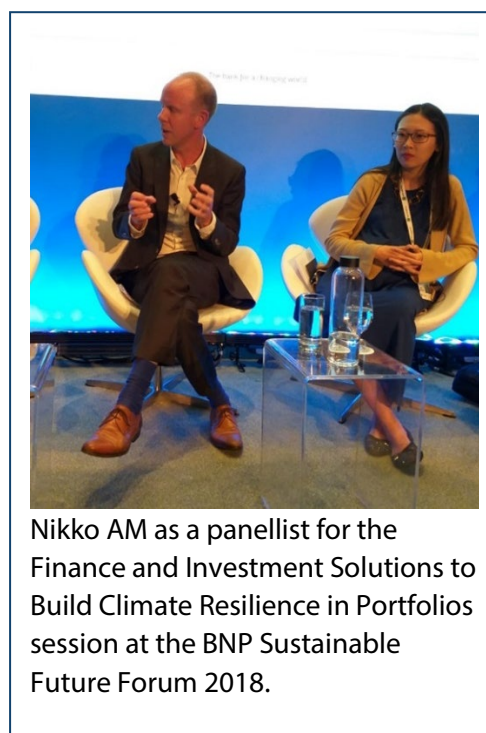
The magnitude of uncertainty and impact of climate change warrants collective action to develop solutions. It is also embedded in our Commitment to Responsible Investment to promote and implement best ESG practices through collaboration, for example, serving as the chairperson of the UN PRI Japan Network in 2012 and 2013.

We serve as the Vice-Chair of the Asia Investor Group on Climate Change (AIGCC) Working Group. AIGCC is one of four regional climate change investor groups that form the Global Investor Coalition on Climate Change. The Group takes an investor approach, seeking always to address the implications of climate change from the perspective of responsible, long term, institutional investors. AIGCC represents the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy.

We are an investor signatory to the CDP (previously known as Carbon Disclosure Project), a non-profit that drives global disclosure of environmental data for companies, cities and states. We are also a signatory to the Climate Action 100+ and collaboratively engage companies to reduce emissions (see *Active Stewardship* for details).

We recognise the systematic risk that climate change presents, and that it requires coordinated policy action and clear signals for a smooth transition to a low carbon economy. We are a signatory to the 2018 Global investor Statement to Governments on Climate Change to achieve the Paris Agreement's goals, accelerate private sector investment into the low carbon transition, and commit to improve climate-related financial reporting.

We participate actively in forums and events, and publish thought leadership articles on our ESG microsite and engage a wide range of stakeholders including clients, members of the investment



Nikko AM as a panellist for the Finance and Investment Solutions to Build Climate Resilience in Portfolios session at the BNP Sustainable Future Forum 2018.

management industry, policy makers and civil society. In Australia, we are an active member of the Responsible Investment Association Australasia (RIAA), which promotes and educates asset owners and managers as well as investors on responsible, ethical and impactful investment across Australia and New Zealand. In Japan, we are currently a Steering Committee member of the Principles of Financial Actions towards a Sustainable Society (for the 21st Century). This initiative gathers a broad range of financial companies as signatories to discuss sustainability in the context of the finance industry. The Japanese Ministry of the Environment acts as the secretariat, and the workshops regularly feature frank discussions between representatives of government agencies, listed corporations' employees and financial professionals. Additionally, we participated in a study of Singaporean asset managers across six pillars on ESG integration, where the results were discussed at a roundtable hosted by the Monetary Authority of Singapore.

3. Active stewardship

Active dialogue with our investee companies, including on ESG and climate change where material, is a tool that spurs companies towards sustainable value creation. The exercise also deepens our understanding of the company, including on the quality of the management and its future direction, which we evaluate and adjust our investment holdings as appropriate.

We work with other investors through the Climate Action 100+, an initiative launched in December 2017 at the One Planet Summit. It calls on companies to improve governance and financial disclosures on climate change in line with TCFD, and curb emissions across the value chain.

In March 2017, in order to further enhance engagement with investee companies, we established the Active Ownership Group within the Japanese Equity Fund Management Department, and started engagement with companies in the passive investment strategy. By engaging with investee companies, we have a deeper insight into the business environment, risk and challenges the company faces, and we are able to promote medium and long-term corporate value improvement. As part of this engagement, climate risk and opportunity as well as the company's management systems and initiatives are also discussed in relevant situations.

As part of this engagement, climate risk and opportunity as well as the company's management systems and initiatives are also discussed in relevant situations.



We participate in the Climate Action 100+. Companies on the initiative's focus list are making progress, including a tripling in the support for TCFD recommendations (Source: Climate Action 100+).

Case study of bilateral engagement: In 2018, we engaged the Chairman and Chief Executive Officer of a big oil investee company we hold in a passive investment fund. We raised three points:

1. Setting a quantitative carbon emissions reduction target
2. Analysing the impact of climate change on the investee's full portfolio of reserves and resources through 2040 and beyond
3. Assuming alternate outlooks to the latest published outlook, for example, incorporating a scenario analysis of when resources may become non-economic

As part of our active stewardship, we have also developed detailed proxy voting policies and guidelines and exercise our voting rights accordingly. In addition, we also have supplemental policies that are tailored to each market. As appropriate, we are supported by external corporate governance and proxy voting advisers, who provide proxy voting analysis and recommendations. We note, ultimately the decision for how to exercise our voting rights are determined by Nikko AM.

4. Report on our activities

This report serves as our inaugural TCFD report, covering January to December 2018, and will be updated annually. This transparency reflects our commitment to engage and develop our internal capacity, and promote greater collaboration within and beyond the investment community.

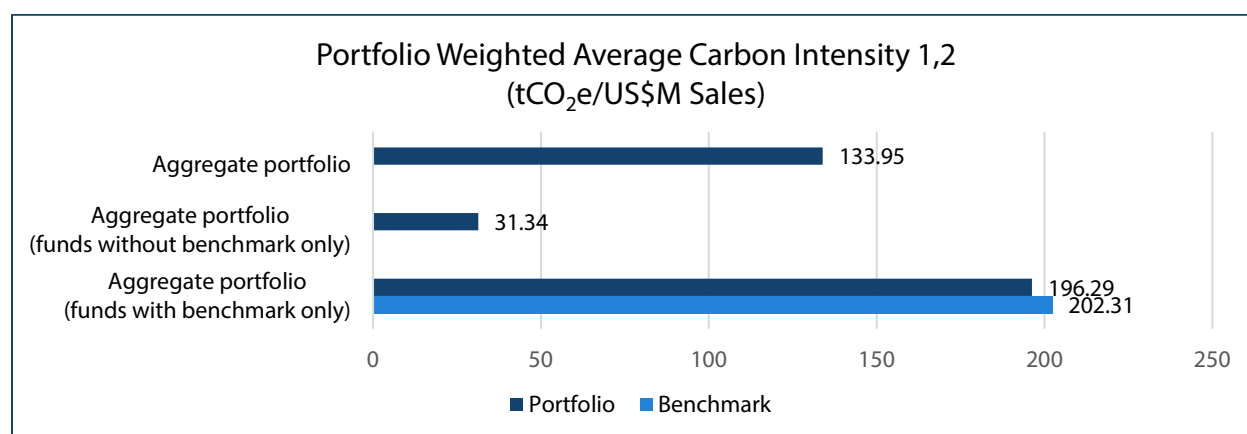
Metrics and Targets

TCFD has recommended the weighted average carbon intensity, while acknowledging the challenges and limitations of current carbon footprinting metrics.

Our experience is that carbon intensity figures do not add much value in considering climate change portfolio risk. The problem is exacerbated when considering the lack of comparability and reliability, based on the status of current greenhouse gas disclosure. For example, weighted average carbon intensity is based on Scope 1 (direct emissions from fossil fuel combustion) and Scope 2 (indirect emissions resulting from electricity usage) emissions. This excludes emissions arising from products that would fall under Scope 3 (all indirect emissions [not included in scope 2] that occur in the value chain of the reporting company, including both upstream and downstream emissions). This means an automobile company that switches from producing diesel-powered vehicles to electric vehicles would not be identified using this metric.

Our aggregate portfolio weighted average carbon intensity is 133.95 tCO₂e/US\$M sales, with coverage of 68% of assets under managements of our active equity strategies. Figures are generated from MSCI ESG Research, and may be derived from company disclosures or estimates.

The aforementioned aggregate portfolio includes both funds with benchmarks and funds without. If we compute an aggregate portfolio comprising only funds with benchmarks, the weighted average carbon intensity is 196.29 tCO₂e/US\$M sales, 3.0% lower than the aggregate benchmark. The equivalent for an aggregate portfolio for funds without benchmarks is 31.34 tCO₂e/US\$M sales.



1 Assets under management (AUM) of reported portfolios covers 68% of our core active strategies.

2 Figures are generated from MSCI ESG Research. Figures may be derived from company disclosures and/or estimates by MSCI ESG Research.

The US Sustainability Accounting Standards Board (SASB) considered that climate risk to have material financial impacts in 72 of 79 industries but greenhouse gas emissions are a material disclosure for only 23 of the 79 industries.

We are actively exploring climate scenario analysis tools, particularly those supported and listed by PRI. The field is rapidly developing with tools addressing different climate risks such as transition and physical risk. We learned from leading scientists that while global trends of the impact of climate change are more clearly defined, there remains a high degree of uncertainty at a regional and company level where it can be most readily applied. We are committed to investigating these evolving tools to boost our capacity, as part of our fiduciary duty to achieve sustainable value for our clients.

Corporate Activities

Nikko AM believes we have the responsibility to act in an environmentally-conscious way in our operational activities. We first laid out our environmental policy in 2010, highlighting our commitment to proactively take environmental preservation issues into consideration in the course of business and office activities centring on our asset management businesses.

Environmental Performance

We have been assessing our CO2 emissions and energy usage at the Tokyo headquarters for several years. With the development of the Corporate Sustainability Department in September 2018, we have further enhanced our efforts to expand the assessment of CO2 emissions to include our overseas offices, which will achieve greater transparency globally and allow the Firm to establish concrete goals towards emissions reduction. With this assessment, we are investing in multiple projects that will offset emissions on a greater scale moving forward.

The Tokyo Office facilities also monitor and actively work to minimise energy consumption, through the promotion of natural and energy efficient lighting and solar power, while also recycling rainwater and kitchen wastewater.

Environmental performance of Nikko AM Tokyo Office

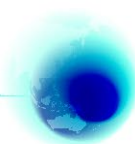
		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	% change from the previous FY
Power usage	Thousand kWh	1,025	1,026	1,071	1,029	1,057	1,092	3.3%
Total energy consumption	GJ	13,280	13,317	14,022	13,441	13,807	15,191	10.0%
Carbon dioxide emissions	tCO ₂	532	508	510	537	530	517	-2.5%
Copy paper purchase per capita	Sheet	628	627	672	614	548	496	-9.5%
Stationery green purchasing ratio	%	58.6	59.6	50.6	65.0	58.8	54.5	-7.3%

Environmental performance of Nikko AM Headquarter in Tokyo, Japan during the one year period (between April to March of the following year)

Carbon dioxide emissions: Specified according to Tokyo Metropolitan Environmental Protection Ordinance Calculation formula of greenhouse gas emissions (the emission factor is the same as FY2014)

Related activities

In addition, we conducted a group-wide employee survey to determine what Nikko AM should work on as a responsible company in 2019. We selected five Sustainable Development Goals (SDGs) as our focus, of which two are environment-related: #6 Water and Sanitation and #13 Climate Change. Specific initiatives are driven at a local level by each of the regional working groups responsible for environmental management.



Important Information

This document is prepared by Nikko Asset Management Co., Ltd. and/or its affiliates (**Nikko AM**) and is for distribution only under such circumstances as may be permitted by applicable laws. This document does not constitute investment advice or a personal recommendation and it does not consider in any way the suitability or appropriateness of the subject matter for the individual circumstances of any recipient.

This document is for information purposes only and is not intended to be an offer, or a solicitation of an offer, to buy or sell any investments or participate in any trading strategy. Moreover, the information in this material will not affect Nikko AM's investment strategy in any way. The information and opinions in this document have been derived from or reached from sources believed in good faith to be reliable but have not been independently verified. Nikko AM makes no guarantee, representation or warranty, express or implied, and accepts no responsibility or liability for the accuracy or completeness of this document. No reliance should be placed on any assumptions, forecasts, projections, estimates or prospects contained within this document. This document should not be regarded by recipients as a substitute for the exercise of their own judgment. Opinions stated in this document may change without notice.

Nikko AM accepts no liability whatsoever for any loss or damage of any kind arising out of the use of all or any part of this document, provided that nothing herein excludes or restricts any liability of Nikko AM under applicable regulatory rules or requirements.

All information contained in this document is solely for the attention and use of the intended recipients. Any use beyond that intended by Nikko AM is strictly prohibited.