Connecting Markets East & West

# Nomura

# TCFD Report 2023

## Financial disclosures based on TCFD recommendations

To fulfill our responsibilities as a corporate citizen, Nomura recognizes the importance of disclosing climate-related financial information. Nomura supports the Task Force on Climate-related Financial Disclosures (TCFD) and we are committed to consistent and effective disclosures aligned with the TCFD recommendations.

# Contents



*Fiscal year or "FY" in this document means a twelve-month period starting from Apr 1. e.g. the fiscal year 2022 or FY2022/23 represents a period starting from Apr 1, 2022 and ending on Mar 31, 2023.

# CEO Message

## Towards a Decarbonized Society

Nomura is committed to leveraging our diverse businesses to help create a sustainable society together with our clients.

**Kentaro Okuda** President and Group CEO

According to the World Meteorological Organization (WMO), weather disasters such as storms, floods and droughts have increased fivefold in the 50 years from 1970 and 2019. This frequent occurrence of disasters is believed to be due to global warming and rising greenhouse gases (GHG).

In addition to causing large scale natural disasters, global warming also impacts our daily lives. Some of the possible consequences include food shortages due to rising temperatures and drought, water shortage, a decline in fishery and agricultural production, ecosystem disruptions and an increase in infectious diseases.

In early June 2023, Japan experienced torrential rain triggered by a linear precipitation zone across the Kanto and Kansai regions, causing extensive damage across the country and disrupting public transportation. The severe natural disasters we experience throughout the year are a strong reminder that we must act to avert climate change.

Over the past few years, global discussions on sustainability have focused on achieving carbon neutrality and decarbonization to avert or mitigate climate change. The recent trend is towards lowering the GHG emissions of the entire supply chain and taking care of natural resources by integrating decarbonization, recovery of natural capital including biodiversity (nature positive) and the circular economy.

In September 2021, Nomura announced our commitment to align our commercial activities with the objectives of the Paris Agreement. We committed to three objectives: achieving net zero GHG emissions from our own operations by 2030; achieving net zero GHG emissions from our lending and investment portfolios by 2050; and aiming to deploy $125 billion in sustainable financing in the five years to March 2026.

An estimated $150 trillion of investment will be needed between 2023 and 2050 to achieve the Paris Agreement goal of 1.5°C. This amounts to an average of approximately $5 trillion in investment yearly, more than four times the total amount invested in 2022.

It will be difficult to achieve a carbon neutral society with current technology alone. It will require the development, implementation and proliferation of innovative technologies such as nuclear fusion.

There is also growing interest in climate tech among startups as well as more established companies. Nomura's mission is to support our clients by providing financing, M&As and other financial solutions. We believe this is our purpose as a financial institution to enrich society together with our clients.

Nomura's management vision is to achieve sustainable growth by helping resolve social issues. We believe the sustainable development of society as a whole will help enhance our corporate value. We will continue to serve our clients with pride and contribute to the sustainable growth of society.

# 1. Our Views on Sustainability

## 1.1. Nomura's Position on Sustainability

Our Mission is to enrich society through our expertise in capital markets. This reflects a set of values (Corporate Philosophy) that we hold dear and have inherited since our founding. Based on these values, we have placed sustainability at the centre of our management strategy. Sustainability in Nomura reflects two key dimensions: to support the sustainability efforts of our clients and various stakeholders, and to promote the sustainability efforts in our own operations such as reducing environmental impact and enhancing governance.

The Nomura Group Code of Conduct sets out guidelines to translate our corporate philosophy into actions and represents our commitment to our stakeholders to conduct our business activities in accordance with the Code. The Code states that we must always be aware of our responsibilities to society, including our responsibility to reduce our environmental impact and contribute to a sustainable society.

**Code of Conduct 18**

**Contribution to a Sustainable Society**
We respect cultures and customs of all countries and regions, and always act responsibly toward the environment and society. We continue to actively engage in a wide range of social contribution activities for a sustainable world.

## 1.2. Sustainability Statement

We established the Nomura Group Sustainability Statement outlining our approach to sustainability-related activities and our response to environmental and social risks.

As a more detail annex to this statement, we have established the Wholesale Division: ESG Sectoral Appetite Statement and the Investment Management Division: Policy regarding Sustainable Lending and Investing. The former sets forth the Wholesale Division's sector-specific approach and policy on ESG screening and due diligence, while the latter sets out Investment Management Division's policy for the approach that incorporates considerations of ESG factors into relevant investment processes when managing client assets. We review the statements and annex on regular basis.

## 1.3. Nomura's Position on Climate Change

Nomura recognizes that climate change is an important global issue and announced a target to align its commercial activities with the objectives agreed in the Paris Agreement, aiming to limit global temperature increases to well below 2°C, and striving for 1.5°C, above pre-industrial levels.

To support the transition towards a decarbonized economy, we also announced our target to achieve net zero greenhouse gas (GHG) emissions for our own operations by 2030, and to transition attributable GHG emissions from our lending and investment portfolios to align with pathways achieving net zero by 2050. Nomura is a member of the Net-Zero Banking Alliance (NZBA), convened by the United Nations Environment Program Finance Initiative (UNEP FI).

## 1.4. Environmental Policy

In 2009, we established our Environmental Statement, which outlines our basic approach to environmental issues, and our Environmental Policy, which summarizes the policies governing our environmental initiatives. We have spearheaded our efforts for the environment, including reducing the environmental impact of Nomura. In 2022, we combined the Environmental Statement with the Nomura Group Sustainability Statement and revised our Environmental Policy to reflect advances in our initiatives on the environment and changes in the social environment and other areas.

**<Environmental Policy>**

This policy provides specific action guidelines for "5. Climate change" and "6. Natural Capital" set forth in the Nomura Group Sustainability Statement, which outlines the direction of the Group's sustainability-related activities and our response to environmental and social risks.

Based on this environmental policy, we will actively address environmental issues while always being aware of our responsibility to protect the environment.

**1. Initiatives through Business Activities**

We will support our clients' sustainability efforts through the provision of products and services by each Nomura Group company. We will make this an opportunity for our own growth, giving due consideration to the impact of our products and services on the environment, and responding appropriately when there is a possibility of a negative impact on the environment. In addition, we will implement measures to enhance environmental risk management, including climate change.

- Climate change
  To support the transition to a decarbonized society, we will promote the following initiatives through the business activities of each group company and through the provision of products and services to our clients.
  - We support our clients' efforts to decarbonize by providing M&A advisory services and consulting services and supporting sustainable finance.
  - We recognize the potential for our products and services to impact climate change, and we will respond appropriately with due consideration to such impact.
  - We will strive to properly manage risks related to climate change.
- Natural capital
  We support businesses that conserve natural capital through the provision of products and services, and we take appropriate measures to ensure that the products and services provided by our group companies do not negatively impact biodiversity.

**2. Initiatives at the Company**

We will strive to reduce our own environmental impact, improve the environment and prevent pollution by setting appropriate targets for the following initiatives.

- Reducing environmental impact at our own offices
  We recognize the environmental impact of resource consumption and waste generation from our business activities, and we will strive to reduce waste, conserve energy and resources, decarbonize, and implement green procurement. We will strive to preserve the environment and continuously improve our environmental management system to manage these efforts.
- Improving the environment and preventing pollution
  We will strive to verify the effects of our products and operations on the environment on a continuous basis and work to improve the environment and prevent pollution.
- Fostering awareness within the company
  Through training and other means, we will communicate this policy to all employees and foster environmental awareness internally. To promote environmental initiatives, we will create a framework that makes it easy for officers and employees to participate in environmental conservation activities, both within and outside the business.

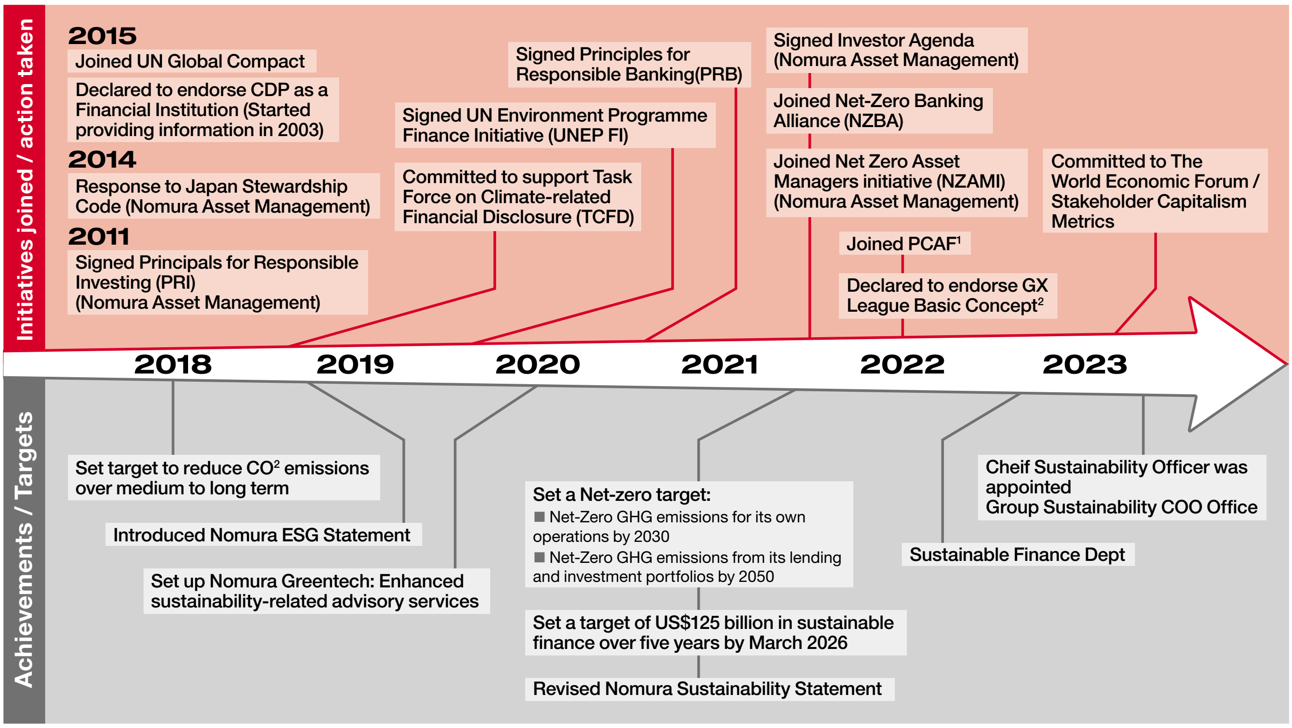
**3. Governance and Management Framework**

- This policy will be reviewed as necessary after approval by the Chief Sustainability Officer in light of changes to business activities and the business environment.
- Environmental initiatives are regularly discussed by the Sustainability Committee and reported to the Board of Directors as necessary.
- In addition to complying with environmental laws and regulations, we will proactively disclose information about our environmental initiatives as appropriate.

**4. Stakeholder Engagement**

- By disclosing our environmental policy to the public and communicating with a wide range of stakeholders outside the company, we will strive to enhance our efforts to address environmental issues, as well as to raise awareness and promote environmental conservation activities.
- In our environmental efforts, we support the various international agreements and initiatives listed in our Sustainability Statement and promote harmonized efforts.

## Reference: History of Nomura Group's Sustainability Promotion




*1 Partnership for Carbon Accounting Financials
*2 Ministry of Economy, Trade and Industry, "GX League Basic Concept" https://www.meti.go.jp/english/press/2022/0201_001.html

## Reference: Updates since 2022 TCFD Report

| Core Elements | Updates |
|---|---|
| **Governance** | ▪ Separation of the Sustainability Council, established and operated as a forum for discussion by executives from across departments and regions, into the Corporate Sustainability Forum and the Business Sustainability Forum, to afford opportunities for more substantive discussions. (April 2023)<br>▪ Chief Sustainability Officer was appointed. (April 2023) |
| **Strategy** | ▪ Establishment of Greentech Industrials Infrastructure (GII), a global team for strengthening and promoting global M&A advisory services in sustainability.(April 2022)<br>▪ Establishment of the Sustainable Finance Department in Japan to reinforce efforts on sustainability-related businesses and provide advice with higher added value. (October 2022)<br>▪ Establishment of the Group Sustainability COO office to promote business incubation, and enhance disclosure of sustainability initiatives as non-financial information. (April 2023) |
| **Risk Management** | Updated scenarios used in scenario analysis and launched operations(April 2023)<br>Developed a metric to monitor the percentage of counterparty exposures with counterparties aligned to Net Zero (April 2023) |
| **Metrics and Targets** | Establishment of metrics and monitoring progress. |

## Reference: Major Initiatives Nomura Group Participates

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

UN environment programme finance initiative Principles for Responsible Banking

Net-Zero Banking Alliance

PCAF Partnership for Carbon Accounting Financials

CDP DISCLOSURE INSIGHT ACTION

PFA21 Principles for Financial Action for the 21st Century

Keidanren Initiative for Biodiversity

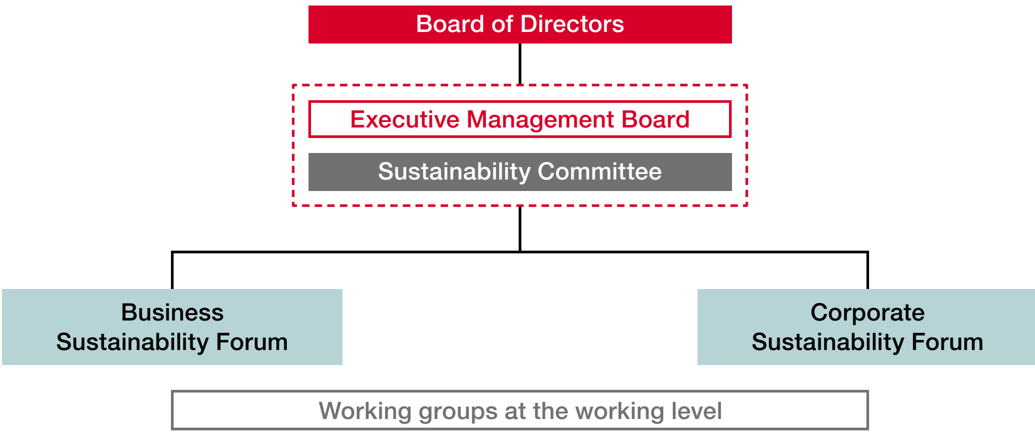
WE SUPPORT UN GLOBAL COMPACT

Nomura has been a signatory to the UN Global Compact since 2015, supporting its 10 principles in the areas of human rights, labor, the environment and anti-corruption.

# 2. Governance

Nomura is a Company with Three Board Committees under Japanese law. Nomura has Board of Directors, Nomination Committee, Audit Committee and Compensation Committee, and ensures a separation of management oversight and business execution to strengthen corporate governance. The oversight function and the executive side play respective roles in recognizing climate change risks and opportunities, promoting various measures, and managing risks.

**Governance Structure**




In the following sections, we explain how the Board of Directors, which provides oversight, and the Sustainability Committee, which is responsible for execution, are tackling climate change, and the role of the Chief Sustainability Officer.

## 2.1. Board of Directors

The Board of Directors offers advice on sustainability related reports prepared by executive officers, based on our basic sustainability policy which states: “Nomura will contribute to the creation of a truly enriched society through our business activities based on the principles embodied in the Nomura Group Corporate Philosophy, and actively pursue initiatives to resolve social issues and create a sustainable world.”

The Board of Directors deliberated on the following sustainability-related topics in the fiscal year 2022. Among these, the Board conducted three discussions on climate change-related issues, with a focus on setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio as a goal aligned with the NZBA framework.

Exchange of opinions regarding sustainability also occur at meetings of our outside directors, which are held periodically in order for outside directors to discuss our business and our corporate governance. Such exchange also occurs at our Internal Controls Committee, which consists of multiple directors and executive officers, and at our Audit Committee.

### Discussions at the Board of Directors Meeting.etc.

| Fiscal Year | Contents |
|---|---|
| **First half** | Climate change-related issues<br>▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio as a goal aligned with the NZBA framework<br>Sustainability<br>▪ Non-financial information disclosure including sustainability matter<br>▪ Nomura Sustainability Day 2022 |
| **Second half** | Climate change-related issues<br>▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio as a goal aligned with the NZBA framework<br>Sustainability<br>▪ Important Social Issues for the Nomura Group<br>▪ PRB Report[1] |

## 2.2. Sustainability Committee

### Sustainability Committee and Working Groups

Nomura has established the Sustainability Committee, chaired by the Group CEO, and comprising other executives designated by the Group CEO that includes the Executive Management Board members, to deliberate and make decisions on strategies to achieve sustainability objectives. The Chief Sustainability Officer leads discussions in the Sustainability Committee to consolidate the company's sustainability activity and accelerate the formulation and promotion of strategies.

### Discussions by the Sustainability Committee

In the fiscal year 2022 the Sustainability Committee held the following discussions on sustainability, including climate change.

| Meeting | Contents |
|---|---|
| **1st** | ▪ TCFD Report<br>▪ Materiality (Nomura Group Priority Initiatives) |
| **2nd** | ▪ Response to CDP |
| **3rd** | ▪ Results of social contribution activities for the fiscal year 2021 |
| **4th** | ▪ Revision of the Environmental Statement and the Environmental Policy |
| **5th** | ▪ Revision of the Nomura Group Sustainability Statement<br>▪ Formulation of Investment Management Division: Policy on the Approach to Sustainability in Investments and Lending |
| **6th** | ▪ Decision on interim targets for achieving net-zero GHG emissions from our lending and investment portfolio in alignment with the NZBA framework |
| **7th** | ▪ PRB Report |
| **8th** | ▪ Human Rights Policy |

1 Nomura became a signatory to the UN Environment Programme's PRB framework in May 2020, and published its second PRB Report in February 24,2023 https://www.nomuraholdings.com/investor/library/ar/prb/2022/pdf/all.pdf

In addition, the Sustainability Committee has established working groups, aligned to key topics, to delegate planning.

### ■ Sustainability Forums

In order to ensure opportunities for more flexible and substantive discussions on sustainability, the Sustainability Council, which was established and operated as a forum for discussion by executives from across departments and regions, was divided into the Sustainability Business Forum, which deals with topics more closely related to business activities, and the Sustainability Corporate Forum, which deals with information disclosure and policy formulation. Each forum will coordinate with the Sustainability Committee as appropriate to promote flexible approaches to sustainability.

### Discussions at the Sustainability Council

In the fiscal year 2022, the Sustainability Council held the following discussions on sustainability, including climate change.

| Meeting | Contents |
|---|---|
| 1st | ▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio in alignment with the NZBA framework<br>▪ TCFD Report<br>▪ Materiality (Nomura Group Priority Initiatives), and other topics |
| 2nd | ▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio aligned with the NZBA framework, and other topics |
| 3rd | ▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio aligned with the NZBA framework<br>▪ Discussion on Greenwashing, and other topics |
| 4th | ▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio aligned with the NZBA framework<br>▪ Nomura Sustainability Day, and other topics |
| 5th | ▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio aligned with the NZBA framework |
| 6th | ▪ Setting interim targets for achieving net-zero GHG emissions from our lending and investment portfolio aligned with the NZBA framework<br>▪ PRB Report, and other topics |

## 2.3. Chief Sustainability Officer

In April 2023, a Chief Sustainability Officer was appointed to further accelerate our sustainability initiatives. The Chief Sustainability Officer is responsible for implementing sustainability related strategies including gathering information on sustainability locally and globally, managing the progress of sustainability-related measures, and developing sustainability-related policies and frameworks. Specifically, the Chief Sustainability Officer leads discussions at the Sustainability Committee meetings and the Sustainability Forums and also acts as the flagship for promoting sustainability by communicating our initiatives to the public. In addition, the Group Sustainability COO office which was newly established to consolidate planning functions and human resources related to sustainability, has been promoting sustainability-related business incubation and enhancing the disclosure of sustainability initiatives as non-financial information under the leadership of the Chief Sustainability Officer in collaboration with global sustainability team across London and Powai.

# 3. Strategy

## 3.1. Recognition of Risks and Opportunities Associated with Climate Change

### 3.1.1. Recognition of the Risks Associated with Climate Change

Nomura identifies risks arising from changes in the environment due to climate change and recognizes the potential impact on our business. There are two types of risks associated with climate change: the risk of loss or damage due to extreme weather events such as large typhoons, droughts, and intense heat (**physical risk**), and the risks associated with decarbonization, such as the inability to respond to changes in government policies, and rapid technological innovation (**transition risk**). Nomura recognizes the following physical and transition risks associated with climate change.

■ **Risk that clients will not adequately respond to climate change, resulting in financial damage, decline in creditworthiness, and inability to fulfil their contractual obligations**

| Examples of Specific Risks | Physical Risk/ Transition risk | Term horizons[2] | Primary Risk Category |
|---|---|---|---|
| Risk that business will decline and Nomura will incur losses due to clients or counterparties suffering loss or damage arising from extreme weather events resulting in bankruptcy | Physical risk | Short, medium and long term | Credit risk |
| Risk of incurring losses due to fossil fuel facilities owned by clients or counterparties becoming stranded assets, resulting in a decline in performance and creditworthiness | Transition risk | Short, medium and long term | |

■ **Risk that climate change causes market fluctuations and losses are incurred due to fluctuations in the market price of Nomura's financial assets**

| Examples of Specific Risks | Physical Risk/ Transition risk | Term horizons | Primary Risk Category |
|---|---|---|---|
| Risk of incurring losses due to price fluctuations in Nomura's trading assets, positions, etc., as a result of policy changes or rapid technological innovations aimed at achieving a decarbonized society | Transition risk | Short, medium and long term | Market risk |
| Risk that large-scale climate-related impacts such as flooding and rising sea levels will cause real estate prices to fall and the collateral value of the lending business to be damaged | Physical risk | Short, medium and long term | |

■ **Risk of reputational damage if Nomura and counterparties fail to respond to climate change**

| Examples of Specific Risks | Physical Risk/ Transition risk | Term horizons | Primary Risk Category |
|---|---|---|---|
| Risk that participation in transactions with substantial GHG emissions worsens Nomura's reputation | Transition risk | Short term | Reputational risk |
| Risk of reputation deteriorating due to inadequate response to regulatory and policy changes | | Medium to long term | |
| The risk that our company's reputation could be worsened by misleading customers and investors with respect to alignment to climate change objectives. | | Short term | |

2 Short term: about three years; Medium term: about 4 to 10 years; Long term: over 10 years

■ **Risk of suffering financial losses or reputational damage due to inadequate or failed internal processes and employee response to climate change**

| Examples of Specific Risks | Physical Risk/ Transition risk | Term horizons | Primary Risk Category |
|---|---|---|---|
| Compliance and legal risks related to regulatory changes including new disclosure requirements and potential mis-selling of climate and ESG related products | Transition risk | Short term – Medium Term | Operational risk |
| Business resilience and third party risks arising from severe climate events impacting buildings, employee safety and availability of systems and critical third-parties | Physical risk | Short term – Medium Term | |

■ **Risk of inadequate strategies or failed execution of strategies as compared with competitors, and risk of gap between strategies and resources**

| Examples of Specific Risks | Physical Risk/ Transition risk | Term horizons | Primary Risk Category |
|---|---|---|---|
| Risk that changes in the regulatory and policy environment will reduce existing businesses, increase response costs, and increase capital burdens | Transition risk | Medium to long term | Strategic risk |
| Risks that existing products become obsolete due to changes in client needs in line with decarbonization and reduced profit opportunities due to decline in competitive advantage in development of new products | | | |

At Nomura, we conduct scenario analysis based on the scenarios published by the Network for Greening the Financial System (NGFS) and the Intergovernmental Panel on Climate Change (IPCC) in order to analyze the impact of climate change on the creditworthiness of counterparties. We also conducted an analysis to estimate the short term impact of climate change on our capital and risk assets for both market risk and credit risks, using the “Disorderly scenario” published by NGFS.

As a result of our analysis, the proportion of carbon-related assets in our company's portfolio was relatively low at 6.8% in March 2023 and we believe that the impact of climate change on our company's finances will be limited. (Details in section 4: Risk Management)

### 3.1.2. Strategies for Climate Change

Given the volatility of global energy resources, countries are currently changing their energy policies, such as by increasing the operation of coal-fired thermal power stations. Nevertheless, the sense of crisis over global warming is widely shared, and the world remains headed in the direction of carbon neutrality, which requires a shift in industrial structures as well as social and economic reform. The 2050 Carbon Neutrality Declaration announced by the Japanese government in October 2020 aims to achieve carbon neutrality and reduce GHG emissions to net zero by 2050.

Amid this dramatic change, as a financial services firm, we are committed to helping our clients decarbonize. Over the next 3 decades until 2050, investment in the order of a total of US$150 trillion (approximately 19,000 trillion yen) is said to be required for the transition to a decarbonized society[3]. We recognize that the role of finance in the supply and circulation of capital directed to these efforts will grow. In particular, we believe the growing demand for funds, M&A advisory services, consulting, new financial products and solutions, and ESG-related funds will present increased opportunities for business.

We recognize that inadequate planning or execution of strategy, and gaps between risk and strategy and resources could prevent the firm from being able to take advantage of business opportunities associated with climate change. We will seek to expand opportunities by appropriately understanding changes in the environment and regulatory trends, and by appropriately controlling strategic risks.

3 Source: “World Energy Transitions Outlook 2023” International Renewable Energy Agency

**Growth Opportunities Associated with the Transition to a Decarbonized Society**

| Business category | Strategy | Examples of Potential Growth Opportunities |
|---|---|---|
| **Finance** | Expansion of sustainable finance | ▪ Increasing underwriting opportunities in line with higher capital investment needs related to decarbonization (transition finance)<br>▪ Origination of green projects for renewable energy such as solar and wind power |
| **Consulting** | Provision of total solutions in the sustainability field | ▪ Increasing information-providing opportunities for formulation of decarbonization strategy and vision<br>▪ Increasing consulting opportunities for sustainability strategy and ESG management |
| **Advisory** | Provision of M&A advisory services in the sustainability field | ▪ Increasing M&A advisory opportunities by supporting clients' decarbonization through business portfolio reorganization |
| **Investment opportunities** | Expansion of ESG and SDGs investment opportunities | ▪ Developing ESG and SDG management products<br>▪ Index development<br>▪ Strengthening information provision to individual investorss |

## 3.2. Climate Change-related Strategies

### 3.2.1. Expansion of Sustainable Finance Initiatives

We offer sustainability finance, advisory, and consulting services and have set up dedicated teams within our Investment Banking business to originate a wide variety of sustainable financing projects in Japan and overseas. In October 2022, we established the Sustainable Finance Department to consolidate our internal functions related to sustainable finance, such as advising on non-financial disclosures, and have been providing value-added advice based on a high level of expertise.

To further strengthen and promote this initiative, in 2021 we set a target to deploy US$125 billion in sustainable financing over five years by March 2026. This target includes public and private equity, bonds, and mezzanine debt financing, as well as infrastructure project financing. In addition to working to achieve these targets, we are taking the following steps to further enhance our sustainable finance initiatives.

#### ■ Transition Finance

As part of sustainable finance, we are strengthening our efforts in transition finance to respond to expected growth in demand by clients seeking to procure funds for capital investment and R&D in a low-carbon society. In the fiscal year 2022, Nomura has supported structuring and distribution of Transition Bonds under the Japanese government (METI) frameworks, through our Debt Capital Markets business.

#### ■ Energy-related Infrastructure Finance

We established a dedicated energy-related Infrastructure Finance team in our New York operation in 2017. We have been strengthening our Infrastructure & Power Finance (IPF) business, one of our core businesses overseeing sustainable finance globally, establishing global responsibilities for this business in July 2022.

#### ■ Strengthening Global Cooperation

Under the leadership of our Head of Wholesale, employees in Global Markets and Investment Banking, which provide sustainable finance, play an important role in strengthening sustainable finance initiatives by collaborating globally to pursue business opportunities in the field of sustainable finance.

## ■ Proposals and Participation in the Rulemaking Process

Nomura participates in the Working Groups of the International Capital Markets Association (ICMA), including Climate Transition Finance Working Group, Social Bonds and Sustainability-Linked Bonds Working Groups. We are also selected to serve on the ICMA Advisory Council of the Green Bond Principles and Social Bond Principles in 2023. The Council assists the ICMA's Executive Committee, which sets rules such as the Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines, to develop a system that better reflects actual market conditions. Also, as a member of the Sustainable Bond Market Advisory Group of the London Stock Exchange, and groups related to sustainable finance organized by the government and associations such as the Japan Securities Dealers Association, we are actively involved in rulemaking in the area of sustainable finance, thereby contributing to revitalizing this area as a whole. As a member of the NZBA and the Partnership for Carbon Accounting Financials (PCAF), we are also working to achieve net-zero greenhouse gas emissions from our lending and investment portfolios. Moreover, as a leading company, Nomura spearheaded the Working Group on Disclosure and Evaluation of Climate-related Opportunities, established in September 2022, as an initiative of the GX* League, a private sector-led framework established under the leadership of Japan's Ministry of Economy, Trade and Industry. This Working Group aims to realize a decarbonized society by establishing a mechanism for appropriately evaluating companies' "climate-related opportunities" (initiatives that contribute to increasing corporate value by providing products and services to the market that lead to reduced emissions and other benefits).

*GX (Green Transformation) is Japan's initiative for balancing emissions reductions and higher industrial competitiveness by viewing the global trend to reduce GHG, a major cause of climate change, as an opportunity for economic growth.

**Reference: Major achievements in recent years**

Nomura supports the transition to a low-carbon society globally by providing financing solutions. In particular, given the growing importance of ESG investment, we are actively underwriting and distributing ESG bonds. In the fiscal year 2022, we lead managed 277 ESG bonds globally with Nomura's notional share of US $20.7 billion. In Japan, we ranked second largest in the industry in terms of underwriting value (Source: Prepared by Nomura, based on disclosure documents and various vendors including Capital EYE).

- In April 2022, the Council of Europe Development Bank (CEB) issued its first €1 billion socially inclusive bond to support Ukrainian refugees, for which Nomura served as co-lead manager. The money raised was used to provide emergency funds for the reception of Ukrainian refugees by member states, providing transport, shelter, food, medical care, and other services for refugees.
- In June 2022, Nomura acted as the lead manager and structuring agent for the first transition bond issuance by JFE Holdings, Inc. The bond was the first in the Japanese manufacturing industry to be selected as a model case for the fiscal 2021 Climate Transition Finance Model Project by the Ministry of Economy, Trade and Industry (METI). Due in part to METI's support, Japan leads the world in the field of transition bonds, both in terms of issuance amount and number of issuers. Also, Nomura was awarded Lead Manager of the Year for Transition Bonds at the Environmental Finance Bond Awards 2023 for having made the most significant contribution to global transition financing projects, which included assisting transition bond issuance by JFE Holdings.
- In July 2022, Nomura served as bookrunner and structuring agent for NTT Finance's first issuance of global dollar-denominated green bond totaling US$1.5 billion. NTT Finance issued its first yen-denominated green bond in June 2020 and its first euro-denominated green bond in December 2021, making it one of the largest green bond issuers.
- In October 2022, Shinhan Bank issued its first social Samurai bond, and Nomura was the lead manager. This is the first ESG Samurai bond issued by a South Korean company.
- In January 2023, we received the Sustainable Innovation Award at the 8th Sustainable Finance Awards, hosted by the Research Institute for Environmental Finance for developing the Green Digital Track Bond (security token bond). This was part of a green bond issuance project of the Japan Exchange Group, and the Green Digital Track Bond was highly regarded for making it possible to avoid greenwashing and visualizing the ESG impact by clarifying environmental data by sing blockchain and other digital technologies. The JPX Market Innovation & Research, Inc. and Nomura Securities jointly received the award for this project.
- IPF was involved in financing deals worth over US$4 billion between January 2022 and December 2022 being ranked #1 in Japan Renewables Project Finance according to Inframation*(*As of January 2023).
- IPF won the PFI "Americas Renewables Deal of the Year" for its role as a Coordinating Lead Arranger and Documentation agent on a ~$1B senior secured credit facility to support the construction of the Edwards & Sanborn 1B solar + storage project. The project consists of a 410 MWac solar PV and 1.7GWh battery energy storage system located in California. Terra-Gen, the Project sponsor is active in the U.S. renewables generation.

### 3.2.2. Providing Total Solutions in the Field of Sustainability

Leveraging the Group's comprehensive capabilities in providing a wide range of consulting and digital services as well as knowledge and know-how gained through its global network, the company offers a wide range of solutions, not only at the funding stage but also upstream, such as strategy formulation and business restructuring. We will strive to solve clients' sustainability issues by providing multi-layered solutions.

#### ■ Providing Research Service

The Nomura Research Center of Sustainability and the Equity Research Department ESG Team conduct research on sustainability within the Contents Company, which was established in July 2020. The Nomura Research Center of Sustainability conducts sustainability research from the perspective of financial and capital markets. For example, we analyze trends related to the transition to a decarbonized economy, including trends in global financial regulations and systems, financial instruments, financial markets, investors, and company information disclosure trends and provide the results of our analysis in papers and quarterly journals to clients. The ESG Team conducts research and analysis on international policy and regulatory trends as well as Japanese and other company response to enhancing engagement with institutional investors. For example, when we hold meetings with asset owners on decarbonization, we provide information on corporate responses based on macroeconomic policy trends and technical knowledge in a broad format that takes into account risks and business opportunities.

The Quantitative Research Center provides consulting services to corporate clients based on quantitative analysis, and it helps them resolve sustainability issues, develop strategies, and improve their ratings and ESG ratings. Furthermore, Nomura Fiduciary Research & Consulting provides asset management services for pension funds based on global ESG investment trends.

#### ■ Strengthening Cooperation within the Group towards providing solutions

Within Nomura Group, Nomura Institute of Estate Planning is a think tank specializing in business and asset succession, Nomura Healthcare specializes in consulting in the healthcare and nursing care fields, while Nomura Agri Planning & Advisory specializes in research and consulting in the food, agriculture, forestry, and fishery industries. Leveraging the information, talent, and networks of these organizations, we deliver a wide range of solutions for social issues, including climate change, and to promote the realization of a sustainable society.

**Reference: Research on Corporations and Financial Capital Markets in the Era of "New Capitalism"**

From September 2021 to March 2022, the Nomura Institute of Capital Markets Research held the Sustainable Finance 3.0 Study Group, consisting of academics and practitioners, and published the research results in the book Transformation of Corporations and Financial Capital Markets in the Era of New Capitalism—The Path to Sustainability and Impact, from the Kinzai Institute for Financial Affairs (December 2022). The study group covered a wide range of topics, including future sustainable finance issues and corporate valuation, visualization of non-financial information, dematerialization and decarbonization of capitalism, and economic growth. We gathered a variety of suggestions and views such as viewing decarbonization not only as an issue of reducing GHG emissions but constructing a new growth model for the Japanese economy through the shift to an intangible asset-oriented economy and change in industrial structure. The Nomura Institute of Capital Markets Research will continue to conduct advanced and innovative research and studies in collaboration with various stakeholders to resolve the growing sustainability issues and strive to create impact through its research activities.

**Reference: Acquisition of Shares in Forest Asset Management Company New Forest**

In May 2022, Nomura announced its acquisition of shares in New Forest Pty Limited, one of the world's leading forest asset management businesses. The acquisition is part of Nomura's strategy to expand its client base and product offering through alliances and mergers and acquisitions. As well as contributing to the expansion of Nomura's real asset business in private areas, the acquisition will enable the firm to offer new asset classes of products to clients through its global platform, including Nomura Asset Management. Nomura will also acquire industry knowledge and expertise in the fields of forest resources and carbon credits, and will focus on creating related businesses globally to take advantage of growth opportunities.

**Reference: Nomura Sustainability Day**

In October 2022, Nomura Sustainability Day 2022 was held for the second consecutive year to introduce our sustainability initiatives to a wide range of stakeholders. In the first half of the event, we presented an overview of the sustainability initiatives of each Nomura Group company. In the second half, we invited outside experts to participate in six panel discussions under the theme, “Next Steps to Value Creation,” covering topics such as emissions trading, impact investing, and avoiding ESG-washing.

**Reference: Publication of a booklet summarizing our sustainability research**

In January 2023, 32 researchers involved in ESG and sustainability-related research within our Contents Company wrote and compiled a booklet entitled Sustainable Economy and the Challenge of Enhancing Corporate Value, which covers the issues, current status, and future prospects in their respective fields of responsibility. The booklet encompassed a wide range of topics under such headings as “The Shape of a Sustainable Society,” “Macroeconomics and ESG,” “The Environment Surrounding Corporate Management,” “Issues Towards GX,” and “Itemized Discussion on a Sustainable Society,” and it also included an abstract from Nomura Sustainability Day 2022. The booklet has been distributed to corporate clients, academics, and relevant government agencies and has been well received.

**Reference: NOMURA-BPI SDGs**

In April 2023, Nomura Fiduciary Research & Consulting Co., Ltd. (NFRC) revised the NOMURA-BPI SDGs classification and began publishing a sub-index named NOMURA-BPI SDGs Extended. In response to growing interest in SDG bonds, NOMURA-BPI SDGs was developed in 2019 for performance measurement and risk analysis of the Japanese domestic SDG bond market. The issuance of new types of bonds has recently increased amid a global trend towards decarbonization, and transition bond issuances are expected to grow to further support this transition. In light of these market changes, NFRC will add transition bonds to the three categories (green bonds, social bonds, and sustainability bonds) that currently make up NOMURA-BPI SDGs, for a total of four categories, and also publish the NOMURA-BPI SDGs Extended sub-index, which expands the scope of constituent bonds from the NOMURA-BPI SDGs index.

### 3.2.3. Providing M&A Advisory Services in the Field of Sustainability

We will help clients resolve sustainability issues by providing strategic advisory services, such as M&A advisory, in the sustainability field, and by leveraging the comprehensive capabilities, knowledge, and expertise gained through our global network.

#### ■ Providing M&A Advisory Services

In April 2020, Nomura acquired Greentech Capital Advisors, a U.S. M&A boutique with leadership strength in sustainable technology and infrastructure. The company was fully integrated into the Investment Banking team within the Wholesale Division. In April 2022, we established Greentech Industrials & Infrastructure (GII), a team of approximately 150 bankers and 11 subsectors, by realigning our existing teams and hiring in focus areas to bolster its organization. We are strengthening and promoting M&A advisory services in the sustainability field on a global basis, including support for decarbonization through the restructuring of our clients’ business portfolios.

**Reference: GII Activities**

GII supports clients in transforming their core infrastructure, from energy, transportation, food, and water to waste management systems. With unrivalled expertise in sustainable technology and infrastructure, GII advises established players as well as innovative companies on low carbon, digital, and efficiency initiatives.

**Major achievements in recent years**

- GII is ranked first in Eikon’s M&A advisory category for 2022 in the Japan-related sustainability sector.
- Acted as joint placement agent in raising $400 million through Series C financing for Group14, a global producer and supplier of advanced battery materials (announced in May 2022).
- Acted as sole financial advisor to a German-based photovoltaic operator Kronos Solar in its sale of a 70% stake to EDP Renewables (EDPR), a member of the EDP Group that specializes in the production of renewable energy(announced in July 2022).
- Acted as GII acted as financial advisor to Innovafeed, a leading French insect-derived protein venture, in its €250 million Series D financing (announced in September 2022).

- Acted as sole financial advisor to an Italy-based multinational power company Enel in its sale of a 50% stake of its subsidiary Gridspertise(announced in October 2022).
- Acted as sole financial advisor in raising for Sif Holding's financing, a Dutch offshore wind foundation equipment manufacturer(announced in February 2023)
- Acted as financial advisor to KKR, one of the world's leading investment companies, in its sale of a 50% stake of Spanish solar developer X-ELIO to Brookfield. (announced in March 2023)

### 3.2.4. Expansion of ESG/SDGs investment products

To help resolve ESG issues, we will promote a virtuous investment cycle by developing investment products that contribute to the resolution of ESG issues and promoting ESG- and SDG-related investment products to individual investors.

#### ■ Developing and Providing ESG/SDGs Investment Products

In July 2020, Nomura developed a series of funds focused on sustainable growth and medium- to long-term investment growth for our clients. The funds are part of our ESG lineup and are mainly marketed to individual investors. As of February 28, 2023, our ESG product lineup had a net asset balance of over ¥650 billion. We also offer ESG bonds for individual investors and investment trusts, and we are working to expand ESG investment opportunities in Japan.

#### ■ Strengthening information provision to Individual Investors

Nomura has the largest client base among Japanese securities companies. We hold ESG seminars for individual investors and share videos of ESG study sessions on our social media platforms. We introduce on the Nomura website investment trusts from our ESG product lineup which contribute to the SDGs under the categories of decarbonization, the environment, healthcare, water and SDGs. We also provide information to individual investors on how investing in these areas can help resolve social issues. By promoting ESG investment to individual investors, we aim to create a virtuous investment cycle.

**Reference: Capability building through Sustainability Training**

Nomura is working to raise awareness of sustainability among its executive officers and employees by providing learning opportunities through training, study sessions, and online programs to develop talent that meet the diverse needs of clients.

In Japan, sustainability training is held once a year for all executive officers and employees, and in the fiscal year 2022 it covered general issues, including diversity, equity, and inclusion.

In addition, executive officers and employees from many departments in Japan and overseas voluntarily participate in internal study sessions on sustainability. A total of three study sessions were held in the fiscal year 2022. We invited experts from both inside and outside the company to discuss a wide range of topics, including the latest trends in financial and economic education, human capital, and ESG investment, and approximately 480 people participated. We also provide opportunities to learn about sustainability during training for new employees and training by title, such as newly appointed managers and executive officers.

Since November 2020, the Nomura Research Center of Sustainability has held in-house workshops with specialists and academic experts. In the fiscal year 2022, seven meetings were held, with active discussions on more multifaceted and specialized sustainability-related topics.

The Wholesale Division provides training on sustainable finance for executive officers and employees on a global basis. Topics covered include Nomura's approach to sustainability and business initiatives to achieve the SDGs; sustainable financing trends; political, economic, and regulatory trends in sustainability; and climate change and ESG risks. More than 2,500 employees have participated in the training since December 2020..

## 3.3. Nomura's Net Zero Initiatives

We are pursuing initiatives in line with our target to achieve net-zero greenhouse gas (GHG) emissions for our own operations by 2030, and to transition attributable GHG emissions from our lending and investment portfolios to align with pathways achieving net zero by 2050.

### 3.3.1. Greenhouse gas (GHG) emissions from our own operations (Scope 1, 2[4])

In addition to maintaining our efforts to reduce emissions and promote energy conservation, we will gradually expand the use of renewable energy and replace electricity used in our operations with 100% renewable energy to achieve net zero by 2030.

In the fiscal year 2021, GHG emissions at our sites were 33,634 t-$CO_2$, a 19% reduction compared to the fiscal year 2020. The ratio of renewable energy introduced was 33.6% in the fiscal year 2021, and we are aiming for a ratio of at least 50% in the fiscal year 2023 and at least 70% in the fiscal year 2025, towards our goal of raising the ratio of renewable energy to 100% by the fiscal year 2030.

**Reference: Initiatives to reduce environmental impacts and achieve sustainable growth**

At Nomura, we have established an Environmental Management System to promote environmental impact reduction to environmental issues.

In Japan, we have established an environmental management system to promote environmental impact reduction by setting environmental targets and implementing a PDCA cycle. We review environmental targets at least once a year and conduct an environmental action check to assess the effort of each department. We promote green purchasing, which prioritizes the purchase of products with low environmental impact and paperless processes. Environmental initiatives and status of achievement of environmental targets are regularly reported to the Chief Sustainability Officer and are also disclosed on the company's website. In 2022, we revised our environmental manuals in line with the 2015 version of ISO 14001 to develop and implement a more appropriate environmental management system. Furthermore, Nomura London has maintained ISO 14001 certification since 2007 under the supervision of a local certification organization. In 2018, we received ISO 14001 certification, which had been revised in 2015. In 2015, we acquired ISO 50001 certification for our energy management system. Looking ahead, we will continue to pursue environmental initiatives, including reducing Nomura's environmental impact.

### 3.3.2. GHG emissions from our lending and investment portfolios (Scope 3, Category 15[5])

In February 2023, we set and announced an interim target for reducing GHG emissions from our lending and investment portfolio in line with the NZBA framework to achieve net-zero emissions in 2050.

In line with an established timeline, signatories to the NZBA are required to set interim targets for 2030, towards reaching net zero, for the significant majority of the bank's Scope 3 emissions in the nine carbon-intensive sectors (agriculture; aluminum; cement; coal; commercial and residential real estate; iron and steel; oil and gas; power generation; and transport) within 36 months of signing. The first round of interim target setting is required within 18 months of signing.

Accordingly, in February 2023, we set and announced interim GHG emissions reduction targets for the power generation sector in our lending and investment portfolio for the year ending March 31, 2031, with the year ending March 31, 2021 as the base year. The power generation sector was chosen because it accounts for the largest share of our lending and investment portfolio GHG emissions by sector.

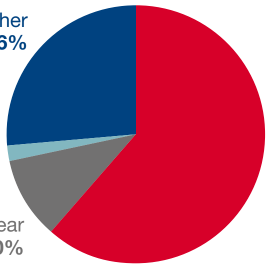
As demand for power is expected to continue to rise due to global population growth, GDP growth, and the promotion of electrification, in order to reduce GHG emissions in the power generation sector by 2030, it is essential to switch from fossil fuel-based electricity to renewable energy sources. This is reflected in the Net Zero Emission (NZE) scenario[6] of the International Energy Agency (IEA) which assumes an increase in power generation from renewable energy sources and a reduction in power generation from fossil fuels between 2020 and 2030. We use the NZE Scenario to set our interim target for power generation.

4 Classification based on The Greenhouse Gas Protocol
5 Classification based on The Greenhouse Gas Protocol
6 Net Zero Emissions by 2050 Scenario: A widely referenced scenario released by the IEA, where the global temperature rise is below 1.5°C above pre-industrial levels.

### Overview of interim targets based on the NZBA guidelines

| | |
|---|---|
| **Baseline measurement** | |
| GHG emissions in the power generation sector | 790 $ktCO_2e$ |
| Economic emission intensity in the power generation sector | 635 t-$CO_2e$/$m |
| Baseline measurement date | End of March 2021 |
| PCAF data quality score[7] | Scope1,2,3: 4.2 |
| Data source | Client disclosure, PCAF emission factor database, data vendor |
| **Interim target for the power generation sector** | |
| Target setting metric | Economic emission intensity[8] |
| Interim target for FY2030/31 | Our target is in line with the power generation mix that IEA NZE scenario assumes for 2030. Our emissions intensity in FY2030/31 shall be lower than that of this scenario[9]. |
| Referenced scenario | International Energy Agency Net Zero Emissions by 2050 Scenario (NZE Scenario) |
| **Target Scope** | |
| Sub-Industry | Power generation business |
| Emission scope counted | Scope 1, 2, 3 |
| Target assets | Investments and loans (excluding unused commitments) |

### Power generation fuel mix under NZE Scenario (2030)[10]




The chart on the left shows the power generation fuel mix assumed under the NZE Scenario in 2030[11]. Using the PCAF emissions intensities per fuel type, we calculate an implied economic emissions intensity for the NZE Scenario fuel mix proportions, and for the fuel mix of Nomura's investment and loans portfolio in order to compare our portfolio against the NZE Scenario. Nomura's interim target is to keep our emissions intensity lower than this calculated intensity for the NZE Scenario in FY2030/31.

In order to achieve the interim target, we seek to maintain and manage the ratio of renewable energy-related assets versus our total fuel mix in our lending and investment portfolio and to improve the emission efficiency of our investments and loans through engagement with our customers. At present, calculations are mainly based on estimated data based on the PCAF emission factor database, but we will continue our efforts to improve the PCAF score, including the collection of investment and loan portfolio information, in order to make more accurate measurements.

7 A Five-point scale scoring system of PCAF (Partnership for Carbon Accounting Financials), that indicates the quality of the disclosed data. Scores are determined according to the degree of use of estimation. Score 1 is the highest rank.
8 Economic emission intensity: absolute greenhouse gas emissions (t-$CO_2e$) divided by the loan and investment volume (US$ million)
9 IEA does not specify figures for economic emission intensity ($tCO_2e$/$m) within the NZE Scenario. We will calculate economic emission intensity under the NZE Scenario using the expected emissions under the scenario, and amount of Nomura's investment and loans at the time. Refer to sentences in "Power generation fuel mix under NZE Scenario (2030)" below this chart.
10 Source: "Net Zero by 2050 - A Roadmap for the Global Energy Sector" Table A.3
11 As of March 31, 2021, 80% of Nomura's lending and investment portfolio in the power generation sector was directed at renewable energy.

# 4. Risk Management

Nomura uses its “Top Risk” framework to monitor and manage risks that could have a material impact on the firm’s management strategy or finances. Climate risk is recognized as one of the “Top Risks”, which includes those risks that are understood to potentially impact the firm significantly if they materialize. Climate risk is not recognized as an independent risk, but is understood to be a risk factor affecting various risk areas. Nomura has built an integrated risk management framework that manages the risks caused by climate change by adding new responses to the ones into the existing risk management frameworks.

## 4.1. Risk Categories

Some of the key risks Nomura recognizes are outlined below.

### ■ Market Risk

Market risk is the risk of loss in values of financial assets and liabilities due to fluctuations in market risk factors. Risk limits are set on market risk metrics and closely monitored and controlled, reflecting the market environment and the degree of Nomura’s risk acceptance. Market risk management primarily covers positions held for short-term trading purposes, but in some instances it also covers less liquid, longer-term positions for trading and/or financing purpose.

Nomura regularly reviews its Market Risk Management framework to assess applicability of ESG and Climate Risk on tradeable positions by applying climate risk scenario assumptions. We conduct periodic reviews and stress analysis of targeted trading positions. Analysis to date has not identified any climate risk exposures of concern. We will continue to assess and develop the framework, while also monitoring industry best practices for the initiative.

### ■ Credit Risk

Credit risk is the risk of loss arising from an obligor’s default, insolvency or administrative proceedings which results in the obligor’s failure to meet its contractual obligations in accordance with the agreed terms.

We assess credit risk by assigning an internal credit rating to counterparties. We evaluate counterparties’ creditworthiness by conducting a thorough due diligence and analysis of the business environment in which they operate, their competitive position, management and financial strength, and flexibility. Following the credit analysis, the probability of default is estimated for a given counterparty or obligor through an alphanumeric rating scale. Credit risk appetite are set based on credit ratings to control credit risk.

As part of the credit risk management process, we have introduced a process to analyze physical and transition risks based on sector and country characteristics. Using heat maps (see section 4.2.1) we have introduced a process to identify obligors with high physical and transition risks, and a framework to assess the impact of a wider range of ESG factors, including physical and transition risks, on credit ratings, such as increased direct and indirect costs and the potential for additional investment burdens.

By using credit ratings to determine credit risk appetite and capital requirements for a counterparty, we ensure that climate and ESG related risks are also implicitly incorporated in these assessments.

## ■ Operational Risk

Operational risk is the risk of financial loss or non-financial impact such as breach of regulations or damage to Nomura Group's reputation, arising from inadequate or failed internal processes, people, systems or external events such as climate change related physical risks. Operational risks include compliance, legal, IT and cybersecurity, fraud, business resilience, third-party and other non-financial risks.

The firm has established an operational risk management framework that enables the identification, assessment, management, monitoring and reporting of operational risk. Nomura has reviewed its Operational Risk Management framework to assess the relevance and coverage of ESG and climate risk in terms of its risk taxonomy, scenario analysis and monitoring metrics. Through a top-down approach, Nomura has identified Legal, Compliance, Business Resilience and Third-Party Risks as the most relevant risk types. We will continue to monitor, assess and develop our risk management framework to incorporate ESG and climate risks.

**Business Resilience and Third-Party Risks**

Nomura Group has established a framework to manage business resilience and third-party risks to assess and minimize the impact of business or third-party outages. Nomura Group has also established a Group Crisis Management Committee to prepare for and respond to crisis events such as natural disasters, system failures, pandemics and information security incidents. Physical risk caused by climate change is one of the material crisis scenarios identified. We have built a global crisis response and business continuity framework for disasters, and are implementing various measures to prepare for a potential crisis, including raising awareness.

**Legal and Compliance Risks**

Nomura Group is exposed to legal and compliance risks arising from regulatory change, new disclosure requirements and potential mis-selling of ESG and climate related products. Nomura has established a governance structure to oversee and respond to regulatory change and disclosure requirements. Nomura has a control framework in place to ensure new and existing products and transactions are appropriately disclosed and meet the criteria for labelling as ESG products.

## ■ Reputational Risk

Reputational risk is the risk of damage to the reputation of Nomura Group as a result of actions that, in the eyes of Nomura stakeholders, are deemed inappropriate, unethical, or inconsistent with Nomura's values and corporate philosophy, and the associated impact on the company's profits, capital, and liquidity. A key sustainability related reputational risk is "Greenwashing". This is the risk of misleading stakeholders due to differences between (1) environmental labels and the actual products, or (2) the company's Sustainability claims and its business operations.

Nomura requires all executives and employees to recognize how their actions or inactions can damage the reputation of the Group and to conduct themselves in accordance with the high standards set forth in the Nomura Group Code of Conduct. In addition, Nomura requires all executives and employees to report to the management of their respective divisions or appropriate committees, such as the Executive Management Board, any issues that may lead to significant reputational risk. Nomura strives to minimize reputational risk by establishing a strong and appropriate internal control framework. Controls are being enhanced to identify and manage potential Greenwashing risks.

# 4.2. Risk Management Approach

Nomura continuously enhances the risk management framework to identify, assess and manage risks arising from climate change. Below are our key approaches to addressing risks holistically which could impact our portfolio and business activities.

### 4.2.1. Assessment of Climate Risk

A set of sectoral and country heat maps have been developed as tools for the initial stage of risk identification for ESG risks (including physical and transition climate risks). These risk identification tools are used within risk management processes as a top down approach to identify the vulnerabilities to ESG factors at country and sector levels, as described in a number of processes below. They can be used for identifying ESG risks for on-balance sheet and off-balance sheet exposures, credit and market, and for scenario analysis.

Sector heat maps have been developed using data primarily sourced from the United Nations Environment Programme - Finance Initiative (UNEP-FI) heat maps for climate risks, and from other heat maps sourced from external providers. These external data are aligned to Nomura's internal sector classification, and evaluated.

Country heat maps have been developed for each of the ESG drivers, including physical & transition climate risks, using country level indicators for each ESG driver. The indicator is used to rank the country, and the relative ranking of the country is used to determine the country's risk rating.

### 4.2.2. Portfolio-Wide Approach: Credit Exposure Analysis

Nomura has developed metrics to provide transparency on credit exposures for the most sensitive parts of the firm's portfolio to climate risks, based on the counterparty loan equivalent (LEQ). This includes both on-balance sheet and off-balance sheet credit exposures. These metrics are regularly monitored and reported.

#### ■ Carbon Related Assets (CRA)

In line with the revised TCFD definition, our carbon-related assets are now defined as those assets tied to the following four non-financial groups: "Energy", "Transportation", "Materials and Buildings" and "Agriculture, Food and Forest Product". Water and renewable electricity production industries are excluded. In-scope exposures are identified using our industry level sectors, which align most closely to the GICS sectors in scope of each measure. Each of the four non-financial groups identified above will have their own metric value, in addition to the umbrella CRA.

We monitor and disclose this TCFD aligned measure for the purpose of transparency and peer group comparison. The added exposures in this measure have been closely reviewed through a transactional due diligence process to ensure the transaction is in line with our appetite. Our approach to managing these exposures to ensure alignment to the firm's Net Zero strategy is currently under development.

#### ■ High Transition Risk (HTR)

To estimate the risk we would be exposed to through the decarbonization of global economies, we have established a concentration measure for total credit exposure to "High Transition Risk" sectors. The scope includes all counterparties in industry sectors that are assessed as having the highest risk in the sector heat map for Transition Risk.

#### ■ High Physical Risk (HPR)

Nomura is introducing this new metric to capture exposures to physical risk impacts, acute and chronic, that result from climate change. The scope of this metric is defined using Nomura's country heat map and sector heat map. Counterparties in countries and sectors (defined by the industry level classification) labelled as "High Physical Risk" are included in scope of the metrics.

#### ■ Counterparty Net Zero Alignment Metric

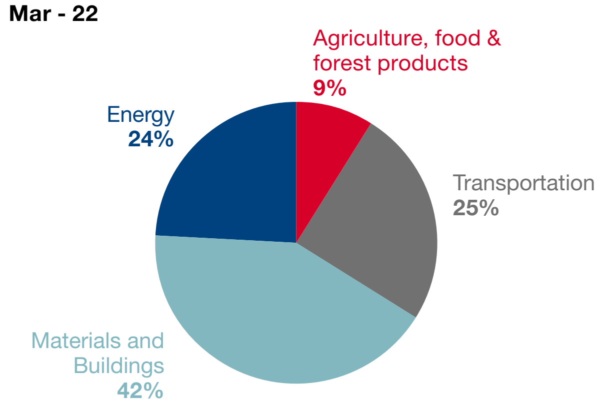
Nomura has developed a metric to monitor the proportion of NHI credit exposures with counterparties who have made credible net zero targets (either by joining credible alliances or through country level commitments). The metric includes counterparties with net zero commitments by or before 2050. Metrics are monitored for the full portfolio (including sovereigns, financial institutions etc.) and Corporate counterparties only.

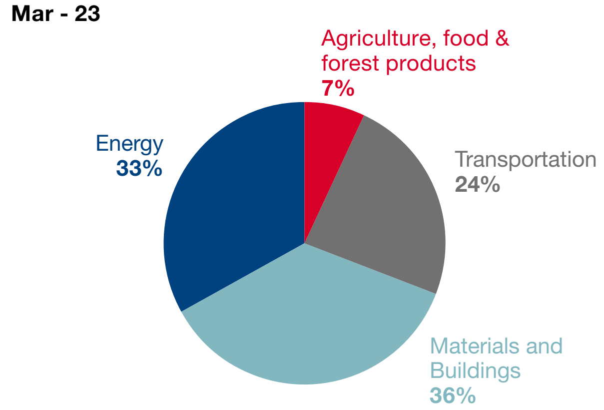
The counterparty data come from external databases maintained by UNEP FI, the Science Based Targets initiative (SBTi), and Net Zero Tracker. Counterparties without any targets either have not announced any commitments or are not captured by any of the datasets. This is used for internal monitoring only.

## Our Exposures

| Metrics | Mar-22 | Mar-23 | Change |
|---|---|---|---|
| | % of total Counterparty LEQ (Of which loans) | | |
| **Carbon Related Assets (CRA)** | 8.1% | 6.8% | -1.3% |
| | (5.5%) | (4.8%) | -0.6% |
| **High Transition Risk (HTR)** | 2.3% | 2.6% | 0.3% |
| | (1.8%) | (2.1%) | 0.3% |
| **High Physical Risk (HPR)** | 2.0% | 3.0% | 1.0% |
| | (1.8%) | (2.8%) | 1.0% |

### Breakdown of the Carbon Related Asset




There is currently no credit exposure to counterparties in the industry sector Coal, as of March 31, 2023.

To measure the credit exposure we use the "Counterparty LEQ" metric based on our internal methodology and for Nomura's banking book we use Notional values, Nomura's baking book reflects 9% of total credit exposure. Counterparty LEQ is the total amount of Loan and Loan Equivalent Exposure ("LEQ") of the counterparty credit exposures. The value of the measure equates to the sum of Counterparty LEQ (or Notional) for each Counterparty that meets the sector (and country for HPR) criteria for the measure. Energy sector excludes Renewables and also counterparties with less Fossil Fuel aligned operations than the power generation fuel mix assumed under the NZE Scenario in 2030. Metrics as of March 31, 2022 are being restated to reflect inclusion of banking book exposures and exclusion of counterparties with less Fossil Fuel aligned operations. As these metrics are sector-based they may include investments which are beneficial from the climate change perspective, and / or exposures to counterparties with low carbon footprint. For example, a reduction of GHG emissions, from project finance for carbon capture and storage for a power plant would be included.

## 4.2.3. Portfolio-Wide Approach: Scenario Analysis

### ■ Overview of scenario analysis

Stress testing is typically performed to capture risks that are not easily identified by other risk management methods. In response to the risks of climate change, Nomura began developing stress scenarios for climate change in the fiscal year 2020 and assessing the impact on our company's portfolio.

In developing stress scenarios related to climate change, we use transition scenarios from the Network for Greening the Financial System (NGFS) and RCP scenarios from the Intergovernmental Panel on Climate Change (IPCC). Nomura views climate change risk as a long-term risk and has conducted analyses focusing on the impact of climate change on the credit-worthiness of Nomura's counterparties.

In the fiscal year 2023, we have refreshed our scenarios pursuant to the NGFS Phase 3 Update, which incorporates the latest economic and climate data and policy commitments. We conducted an analysis of climate change impact on Nomura's risk-weighted assets and capital. We have also expanded our analysis to Market Risk, including the development of a climate "wrong way risk" measure.

Although the results of this analysis show that the impact of climate change on Nomura's finances is expected to be insubstantial, we are making continual efforts to enhance the scenario analysis approaches.

| | Physical Risk | Transition Risk | |
|---|---|---|---|
| **Calculation Period** | **Long Term** | **Medium and Long Term** | **Short Term** |
| **Analytic Method** | Estimate the incremental expected loss* due to potential downgrade under the high physical risk scenario based on country and sector heat map | Estimate the incremental expected loss* due to potential downgrade under the high transition risk scenario based on due diligence of counterparty utilizing disclosures and ESG related data etc. | Estimate the impact on capital and RWA utilizing macro-economic variables of NGFS under the high transition risk scenario. |
| **Reference** | IPCC<br>▪ RCP8.5 | NGFS Phase 3<br>▪ Orderly Scenario: Below 2°C<br>▪ Disorderly Scenario: Delayed transition | NGFS Phase 3<br>▪ Disorderly Scenario: Divergent Net Zero |
| **Narrative** | Currently implemented policies are preserved. Nationally Determined Contributions (NDCs) are not met. Emissions grow leading to 3°C+ of warming and severe physical risks. | Orderly Scenario: climate policies are introduced early and become gradually more stringent limiting global warming to below 2°C.<br>Disorderly Scenario: assumes annual emissions do not decrease until 2030. Strong policies are needed to limit warming to below 2°C. Negative emissions are limited. Reduction is much more rapid leading to higher transition risks. | NGFS Phase 3<br>Disorderly Scenario: Divergent Net Zero<br>Reaches net zero around 2050 but with higher costs due to divergent policies introduced in the early years across sectors leading to a quicker phase out of oil use. Policy uncertainty leads to a higher investment premium for two years, with the premium gradually returning to baseline thereafter. |
| **Risk Category** | Credit Risk, Market Risk | | Credit Risk, Market Risk |

*Counterparty exposures are not stressed and held constant over the life of long term scenarios.
**Short term: about three years; Medium term: about 10 years; Long term: about 30 years (2050)

## ■ Physical Risk

In the scenario analysis of physical risks, we estimate the credit ratings and credit costs of each counterparty, focusing on 2050 in IPCC RCP 8.5. Specifically, we define and estimate country scores from the distribution of the expected growth rate of per capita income in each country under this scenario, as well as define and estimate sectoral scores using a heat map that shows the impact of physical risks on each sector, and then estimate the credit ratings and credit costs of each counterparty based on the score distribution of the country and sector combination to which the counterparty belongs.

## ■ Transition Risk

In the transition risk scenario analysis, the "Current policies" in the NGFS is regarded as the baseline that the current policy is maintained, and we estimate the incremental expected losses due to the deterioration in the creditworthiness of counterparties in medium and long term, assuming that the

“Orderly scenario – Below 2°C” or “Disorderly Scenario – Delayed Transition” occurs.

In estimating creditworthiness, we refer to transition heat maps and assessment models from a pilot project for climate-related financial disclosure banks led by the United Nations Environment Programme Finance Initiative (UNEP FI), NGFS scenario variables (e.g. carbon pricing), corporate disclosures, and ESG data from external data providers. We then conduct deep dive assessments on the impact of the climate change scenarios on the credit ratings of several counterparties, and use this to determine the impact on a group of counterparties with similar climate risk vulnerabilities.

We have analyzed the short-term impact of climate risks on our company's financial position, using the macro-economic variables provided by NGFS Phase 3. Under the assumption that the transition to Net Zero by 2050 would be disorderly, we used the first 3 years of the NGFS Divergent Net Zero scenario to estimate expected impact to capital and RWA due to changes in counterparty creditworthiness and market fluctuations resulting from a rapid transition.

### 4.2.4. New Product and Transactional Assessment

When Nomura contemplates a new product, or enters into a new transaction, inherent risks are closely examined to ensure the proposal would be within Nomura’s Group Risk Appetite. We have established robust processes to identify inherent risks, as well as to assess risk mitigation from various perspectives to determine whether to proceed with new opportunities.

#### ■ New Product Approval Process

The process to evaluate and approve new products that Nomura intends to offer. The risks and the associated management processes are examined cross-functionally, and identified risks must be well mitigated for the requested products to be approved.

#### ■ Transaction Committee Process

There are various risks inherent in transactions depending upon the market, transaction type, counterparty, and asset class. To assess the key risks and mitigations related to proposed transactions, Nomura has established a committee process in which the risk threshold linked to each committee and the escalation process have been defined.

In September 2020, the Wholesale Division set out the Wholesale Division: ESG Sectoral Appetite Statement which has evolved over time and was revised in January 2022. The appetite forms the basis for the transaction screening process, which is live across the regions to ensure the firm operates in a consistent manner to address ESG risks. Where material ESG risks are identified in new transactional and product opportunities, they are escalated to the firm’s senior management committee for the top of the house decision making.

# 5. Metrics and Targets

As described in “3.Strategy” and “4.Risk Management”, Nomura Group will use metrics related to greenhouse gas emissions to measure and manage the risks and opportunities associated with climate change, with the approval of the Sustainability Committee, ,as well as to steadily implement initiatives to align with the Paris Agreement and achieve net zero.

### Major Climate Change-Related Metrics and Targets

| Metrics | Results(FY2020/21) | Results(FY2021/22) | Target |
|---|---|---|---|
| Greenhouse gas (GHG) emissions from its own operations<br>(Scopes 1 and 2[12]) | Scope 1: 2,152t-$CO_2$<br>Scope 2: 39,324 t-$CO_2$ | Scope 1: 1,924 t-$CO_2$ (down 11% YOY)<br>Scope 2: 31,710 t-$CO_2$ (down 19% YOY) | Net Zero by 2030 |
| Greenhouse gas emissions from its lending and investment portfolios (Scope 3, Category 15) (based on the NZBA framework) | Power generation sector<br>GHG emissions: 790 kt-$CO_2$e<br>Economic emission intensity: 635 t-$CO_2$e/$m | – | Net Zero by 2050 (see 3.3.2 GHG emissions from our lending and investment portfolios for interim target for 2030) |
| Sustainable financing | US$23.4bn | US$21.4bn | US$125bn in sustainable financing over five years by March 2026 |

*We plan to disclose Nomura’s own GHG emissions and Sustainable financing for the fiscal year 2022 on this website around August 2023.

### (Factors considered in each goal setting)

1: Targets are set based on comprehensive consideration of the results of energy conservation efforts, the spread of renewable energy, and the ratio of installed renewable energy.

2: Based on the NZBA framework, targets are set by referring to the International Energy Agency's NZE scenarios and the emission factor database provided by PCAF.

3: Target is set by referring to the assumed market size of sustainable finance provided by external vendors.

12 Scope 2 emissions calculated with the market-based method based on the GHG Protocol.
Market-based method is a method of calculating Scope 2 emissions reflecting companies' electricity contract. As the emission factor is based on the contractual terms, if a company purchases low-carbon electricity, such as from renewable energy sources, the effect can be reflected.

# 6. Activities as an Asset Manager

Nomura Holdings intends to achieve net-zero GHG emissions from its lending and investment portfolio by 2050 in line with the NZBA framework, while Nomura Asset Management (NAM) the core company within the Investment Management Division is a member of the Net Zero Asset Managers initiative (NZAM), a global initiative of asset management companies, which also aims to achieve net-zero GHG emissions from its investment portfolio by 2050. Therefore, Nomura Group as a whole is committed to achieving net zero in its lending and investment portfolio by 2050.

As a responsible institutional investor, NAM aims to realize a decarbonized society by enhancing management of climate risks and opportunities through engagement with portfolio companies and promoting climate change measures in their management strategies. NAM conducts analyses and assessment of advanced climate risks and opportunities based on its own ESG scores and works to enhance portfolio companies' enterprise value, and the performance of the funds it manages, through engagement, voting, and other approaches to investee companies. The company also promotes partnerships with stakeholders on climate change-related initiatives. In March 2019, NAM announced its support for the TCFD, and the company discloses information based on the TCFD recommendations.

In December 2022, NAM established the Net Zero Strategy Department to develop a highly effective plan of action for achieving NAM's 2050 net zero goal and 2030 interim target by strategically deploying internal and external management resources in gathering key information and consolidating expertise on the topic of net zero.

For more information on Nomura Group's activities as an asset manager, including metrics and targets, see NAM's Responsible Investment Report.

# 7. Postscript

Nomura views sustainability initiatives, including climate change, as an important management issue. We promote sustainability initiatives and risk management through discussions at the management level. We formulate and implement sustainability strategies based on our management vision of achieving sustainable growth by helping resolve social issues. We also pursue our efforts from the two perspectives of supporting the sustainability efforts of our clients and various stakeholders through our business and reducing the environmental impact of our operations as a member of society.

We will continue to enhance information disclosure to our clients and other stakeholders in line with the TCFD recommendations.

**Basic Information of the TCFD Report 2023**

| | |
|---|---|
| Period covered | April 1,2022 to March 31,2023 (Some content may be outside this timeline) |
| Reporting cycle | Once a year |
| Previous issue date | June 30,2022 |
| Current issue date | June 30,2023 |
| Entities covered | Nomura Holdings, Inc. and its major subsidiaries and affiliates<br>https://www.nomuraholdings.com/company/group/index.html |
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