

Report by the Expert Panel on Sustainable Finance

Building A Financial System that Supports a Sustainable Society

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TABLE OF CONTENTS

Introduction		1
Cł	napter1 Overview	3
1.	Underlying Principle	3
2.	Overarching Issues	4
	(1) Fiduciary Duty	4
	(2) Impact Investment and Measurement	5
	(3) Taxonomy for Sustainable Activities and Transition Finance	7
Cł	napter2 Enhance Corporate Disclosure	9
1.	Sustainability Disclosure	9
2.	Climate-related Disclosure	10
Cł	napter3 Demonstrate Capital Market Functions	12
1.	Institutional Investor	12
2.	Opportunities for Retail Investor	14
3.	ESG Rating and Data Providers	15
4.	ESG-related Bonds Platform	17
	(1) Create an environment where investors can obtain useful information	17
	(2) Securing credibility of ESG-related bonds	18
Cł	napter4 Financial Institutions' Support for Borrowers and Investees, and Risk Management	20
1.	Support for Borrowers and Investees	20
2.	Risk management	21
	(1) Climate-related Risk in Financial Institutions	21
	(2) Use of scenario analysis	23
Cc	onclusion	25

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Introduction

In recent years, private financial institutions and institutional investors have been taking the initiative in expanding sustainable finance¹ (finance for realizing a sustainable society), and in particular, the amount of ESG investments² and green bonds issued has been increasing. Furthermore, with the adoption of the Sustainable Development Goals (SDGs) and the Paris Agreement on climate change in 2015, the world has taken a major step toward building a sustainable society.

On the other hand, in order to promote the transition to a new industrial and social structure for the realization of a sustainable society, it is essential to further expand private sector financing. Therefore, there is a movement to further promote sustainable finance from a policy perspective, especially in major countries.

In addition, 2021 is expected to be a year of significant developments in the sustainability debate, particularly with regard to climate change, with the G7, G20, and COP26 (the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change) expected to make progress in international policy coordination and rule-making. The U.S. is also expected to make a clear shift in its policy toward climate change by formally returning to the Paris Agreement and hosting the Leaders Summit on Climate³.

In Japan, the government announced in October 2020 that it would aim to become carbon neutrality by 2050, and in April 2021, it announced that it would raise its greenhouse gas (GHG) reduction target for FY2030. The challenge for the entire government is to link this challenge to a "virtuous cycle between the economy and the environment".

As the world moves toward decarbonization, it is necessary for Japanese financial sector to seize this new growth area. It is also important for financial institutions and financial and capital markets to function properly so that the world's ESG investment funds, estimated at 3,000 trillion yen, can be attracted to Japan and domestic and international growth funds can be used to support the efforts of these companies.

From this perspective, the Financial Services Agency (FSA) established the "Expert Panel on Sustainable Finance" in December 2020, which held online eight meetings from January 2021 to discuss various measures to promote sustainable finance, while holding hearings with relevant parties. In discussing sustainability, the Panel focused on climate change as the most urgent and important issue for the time being, at the same time covering a wide range of environmental and social issues.

This report summarizes the results of the discussions at the Panel in the form of recommendations with the aim of promoting sustainable finance in financial administration in the future.

Chapter 1 summarizes the basic principles and cross-cutting issues related to sustainable finance, and Chapters 2 through 4 are organized on the basis of participants in financial and capital markets; namely corporations raising funds through equity or borrowing (Chapter 2), capital market participants particularly in direct finance (Chapter 3), and financial market participants mainly in indirect finance (Chapter 4).

Now that the world has taken a major step toward building a sustainable society, finance, as an important infrastructure that supports society, needs to be aligned with this movement. These changes in finance will involve not only economic actors such as corporations and financial institutions, but also individual consumers, and the accumulation of the actions of these actors will result in concrete changes. The Panel expects the report will server an opportunity to make further progress in Japanese sustainable finance, and a decarbonized and sustainable society should be realized soon.

^{1.} This was triggered especially by the formulation of the Equator Principle, a standard for environmental and social impact assessment when financing projects, in 2003, and the publication of the Principles for Responsible Investment (PRI) in 2006, which set out norms for ESG investment by institutional investors.

^{2.} Although there is no clear definition of ESG investment, a relevant statistic is the GSIA's definition of the amount of global sustainable investment outstanding in 2018, which is approximately 3,000 trillion yen (\$30,683 billion). The Global Sustainable Investment Alliance(2019) "2018 Global Sustainable Investment Review"

^{3.} The Presidential Decree on Climate Change released in May 2021 indicated a government-wide commitment to addressing climate-related financial risks.

Ch.1 Overview

1. Underlying Principle

Currently, the world faces environmental issues that can be regarded as a limitation of global environmental carrying capacity, such as the crisis of ecosystem and biodiversity, marine plastics, and climate change. At the same time, there is a wide variety of social issues such as expanding economic disparity and downfall of the middle class, poverty and famine, emergence of a new infectious disease, and business and human rights problems including forced labor and gender-based discrimination. In Japan, decreasing birthrate and aging population, and exhausted regional communities, etc. are also important issues.⁴ All of them are crises threatening the sustainability of society.

Among others, the realization of carbon neutrality by 2050 is one of the most important goals to be discussed immediately. Particularly, as the government expressed in April 2021 that it would raise the GHG emissions reduction target for FY2030, actions need to be taken more speedily. Concurrently, because such a move involves a major shift of industrial structure, the standpoint of ensuring a just transition⁵ in that process is also considered important.

Many of these crises for sustainability are closely related to economic activities. And the financial capital market is positioned at the basis of such economic activities and even influences the direction of economic activities. Therefore, it will be a key in achieving SDGs and building a sustainable society to promote sustainable finance including accelerating a shift from traditional mind-set and incorporating ESG (Environment, Social, and Governance) factors into investment/loan decisions in the financial and capital market. This is why sustainable finance is being promoted as a matter of public policy around the world. Especially because the realization of carbon neutrality requires a vast amount of funds, a role expected of the financial capital market is large.

In addition, the establishment of a sustainable society also brings benefits to the financial and capital market, and participants, whose existence are dependent on nothing but the society itself. In this regard, Investors holding shares of wide ranges of domestic companies (universal owners) and financial entities in a similar position are a good instance. Sustainable finance has the effect of retaining and strengthening the foundation that serves as the basis for economic activities as a whole, including improvement in environmental and social issues, by properly incorporating positive and negative externalities associated with individual economic activities into the financial capital market, and by conducting investment and lending, etc., that consider environmental and social issues. Eventually, this also brings benefits to individual economic activities. Therefore, to universal owners, etc., efforts for sustainable finance are expected to have an effect of leading to improvement in risk-return of entire investment/loan portfolio that they hold.

^{4.} Under the Expert Panel, the "Working Group on Social Bonds" is set up and has been moving ahead with examination for formulation of guidelines to which companies, etc. can refer in issuing social bonds.

^{5.} Considering a support framework is needed for industries with a large amount of GHG emissions and which face various issues in making a transition to sustainable economy, the European Commission has introduced the Just Transition Mechanism. Supports include re-training for workers and youth who are affected by the transition to prepare for the transition to a new job.

https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken-eu/just-transition-mechanism/just-transition-platform en>

Furthermore, incorporating ESG factors into investment/loan decision also leads to reduction in ESG-related risks and discovery of investment opportunities. In addition, promotion of sustainable finance by investors, financial institutions, etc., has an effect of encouraging actions for ESG factors in their borrowers and investees. If borrowers and investees' tolerance to ESG risks and the stability of projected profitability improves, investment/loan risks are expected to be mitigated. If new business opportunities incorporating ESG factors are discovered or created, and that improves projected profitability of borrowers and investees, a growth in investment/loan value can also be expected. In addition, companies need to change their mind-set that is not bound by management strategy based on previous business portfolio, and financial institutions are also expected to lead and guide such a transition of the real economy.

As stated above, sustainable finance should be positioned as an infrastructure supporting sustainable economic and social system, that is, financial mechanism supporting the development of economy, industry, and society toward an ideal state through the reflection in decision-making and actions for realizing sustainable economic and social system. Since this is a continuous and long-term challenge of building sustainable economic and social system, in addition to subjective efforts by the private sector, encouragement by policy arrangements including the creation of an institutional framework should be necessary.

2. Overarching Issues

(1) Fiduciary Duty

Fiduciary duty is the responsibility and obligation to be fulfilled by a person who, or an organization which manages and invests others' funds for the benefit of beneficiaries. Among institutional investors such as asset managers and pension funds, previously there was an argument that taking into account ESG factors in investment decision might take into consideration factors other than beneficiaries' economic benefits and run counter to fiduciary duty.

In response, the 'Freshfields report'⁶ compiled by the United Nations Environment Programme Finance Initiative (UNEP FI)⁷ showed the view that "integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions" in 2005.

After the release of the said report, the PRI was established as an initiative in partnership with the UNEP FI and the UN Global Compact. The PRI asks investors to take into account ESG factors in the investment/loan decision-making process to the extent that does not run counter to their respective fiduciary duties. The number of signatories has exceeded 4,000 to date, and the PRI has played an important role in the spread of ESG investments.

In each country, discussions have also been made about how fiduciary duty should be considered in the context of ESG investments⁸. For example, in the Employment Retirement Income Security Act (ERISA) in the U.S., the interpretation was that if conditions such as risk

-return were equal to other investments, it was no problem to employ ESG investments. In the amendment of the rules in 2020, however, it has been stipulated that evaluation of plan investments must be made based solely on financial factors, and if non-financial factors are taken into account, the content of the factors has to be documented. There were numbers of concern that this amendment would become an obstacle to adoption of ESG investments. In March 2021, the Employee Benefits Security Administration of the Department of Labor announced that the said rules would not be enforced up to the release of additional guidance.

In the EU, on the other hand, the amendment of the Institutions for Occupational Retirement Provision Directive in 2016 allows consideration of the long-term impact of an investment decision taking into account ESG factors within the prudent person rule and, at the same time, requests disclosure of how ESG factors have been taken into account in the investment policy of a pension fund. In this way, the EU has taken a proactive stance to ESG investments. In 2019, the regulation on sustainability-related disclosures in the financial services sector (commonly called SFDR) was enacted, further clearing its stance by making disclosure of the policy of incorporating sustainability risk into investment decision-making compulsory, and by other means.

In Japan as well, the revision of the Stewardship Code in 2020 has clearly stated "consideration of sustainability (medium- to long-term sustainability including ESG factors) consistent with their investment management strategies" in "stewardship responsibilities" of institutional investors.

As described above, it is considered that the recognition that ESG investments do not run counter to fiduciary duty has gained support to a certain degree globally. While there could also be investment strategy other than ESG investments in fulfillment of fiduciary duty, it might be an overstatement to assert that not taking into account ESG factors runs counter to fiduciary duty. However, it is considered that taking into account ESG factors based on the meaning of sustainable finance described in "1. Underlying Principle" can be positioned as a desirable measure in fulfilling fiduciary duty, even in Japan.

(2) Impact Investment and Measurement

As stated in "1. Underlying Principle," sustainability finance is expected to contribute to benefits of the entire economic and social system, including improvement in environmental and social issues, by properly incorporating positive and negative externalities into the financial capital market, and by conducting investment and lending, etc., that consider environmental and social issues. Such environmental and social effects are called "impact" and being used as a measure of economic activities.

^{6.} UNEP FI (2005) "A legal framework for the integration of environmental, social and governance issues into institutional investment". This is a report UNEP FI prepared through commissioning to the U.K.-based Freshfields Bruckhaus Deringer, and nine countries including Japan, the U.S., the U.K., Germany, and France were researched.

^{7.} UNEP FI is a close partnership between UNEP (United Nations Environment Programme) and over 200 banks/insurance companies/securities companies, etc. It proposes environmentally conscious business models and provide opportunities to exchange information to signatories.

^{8.} Positioning of fiduciary duty varies depending on each country's legislative system. While fiduciary duty is defined as a legal duty by laws and regulations and case laws in common law countries (such as the U.K. and the U.S.), the concept equivalent to fiduciary duty is shown by legal duty of loyalty and good manager's duty of care or guidance that complements these duties, etc. in civil law countries.

^{9.} Some people also point out that not taking into account long-term investment value including ESG issues in investment decision runs counter to fiduciary duty. PRI, UN Global Compact, UNEP FI, & UNEP Inquiry (2015) "Fiduciary Duty in the 21st Century".

Currently, impact investment, intended to create impact in parallel with achievement of financial return, is drawing attention. Though the definition has not necessarily been established, the global market size (estimate) is \$715 billion (2020),¹⁰ rapidly expanding at the moment.

When discussions on impact investment are to proceed, consideration of the existence of several different views on whether financial return is prioritized over socially or environmentally beneficial impact, or vice versa, is required. That is, since investment contents and methods are diverse, such as there being cases of aiming for market-competitive financial return, or of allowing a financial return that is lower than that of the market, it is necessary to discuss after sorting investment cases by type. In this regard, given the above idea of fiduciary duty, entities under the discipline of fiduciary duty would be required to aim for market-competitive financial return even in impact investment, unless their beneficiary, for instance, prioritizes impact over financial return exist.

Some issues have been pointed out for impact investment. Firstly, the evaluation methods; consideration of setting goals, establishment of indicators to measure impact, collection of necessary data, data analysis, 11 etc. to establish evaluation steps and method are expected to be promoted further. 12 Secondly, the creation of a virtuous cycle between corporate disclosure and impact investment; unless investors come to value companies creating impact, no incentive will be generated on companies' side, and impact measurement and disclosure will not be promoted in companies. In addition, to investors, impact investment cannot be promoted actively unless corporate disclosure on impact is not advanced because impact evaluation involves additional costs. It is expected that both investors and companies will share the awareness that creating an impact leads to stable corporate profitability and improved corporate value, and that a virtuous circle of disclosures by company and impact investment by investors will be created.

In Japan's financial industry, moves to work on diffusion and practice of impact investment and impact finance in a broad sense have already been seen. For example, in "Declaration for Creating Positive Impact through Developed ESG Finance (October 8, 2020)" by the "ESG Finance High Level Panel" set up by the Ministry of the Environment, it has been declared that in order to create a positive impact on the environment and society through ESG finance, each financial entity works in collaboration with necessary stakeholders on diffusion and practice of impact finance.

^{10.} Global Impact Investment Network(2020) "2020 Annual Report Impact Investor Survey"

^{11.} In addition to this, the following points also need to be taken into consideration in healthy development of impact investment (Ministry of the Environment (July 2020) "Basic Concept of Impact Finance").

[•] Even if discovery of big positive impact is expected, material negative impact that could emerge incidentally is not necessarily offset, and at least the significant negative impact needs to be mitigated and managed appropriately.

[•] Confirm there has been additionality, meaning there has been an impact that would not have been provided without the case. For example, the provision of a service, etc. to a new market, and the improvement in service quality and quantity, etc. by new investment, even in the existing market.

^{12.} For example, the following initiatives have been presented as global efforts. There was an opinion that it is desirable to be proactively involved in such initiatives from the research stage.

⁻ Impact-Weighted Accounts Project (Harvard Business School) https://www.hbs.edu/impact-weighted-accounts/ Research on financial accounting taking into consideration companies' environmental and social influences is conducted.

[•] SDG Impact (United Nations Development Programme (UNDP)) https://sdgimpact.undp.org/ Efforts to formulate guidelines and global standards for investments and businesses that contribute to SDGs and certify cases that comply with these standards have been advanced.

Moreover, the "Impact Investing Roundtable" co-hosted by the FSA and the Japan National Advisory Board of the Global Steering Group for Impact Investment (GSG-NAB Japan) has been held continuously, and accumulation of insights and deeper discussions have been advanced. While further promoting these moves, it is desirable to further examine the above issues and implement diverse ideas through private—public partnership including the academic sector and NGOs in the future. In addition, it is preferable that individual entities also proactively participate and cooperate in global initiatives.

(3) Taxonomy for Sustainable Activities and Transition Finance

With respect to the promotion of sustainable finance, there have been moves toward formulation of standards to classify sustainable economic activities (taxonomy), mainly in the EU, etc. in recent years. Such taxonomy is to institutionalize clear standards for the concepts of "green" and "sustainable", whose definitions have been ambiguous. This aims to prevent the so-called greenwashing and SDGs washing, which pretend as if they are environmentally conscious despite no environmental improvement effect being generated, and to realize a fund flow that truly contributes to sustainability goals.

Such a taxonomy can be said to have potential as a policy tool to promote sustainable finance. However, some issues need to be solved to ensure the effectiveness. First, although the standards must be established based on appropriate scientific grounds, there is a challenge of how such scientific nature is guaranteed in various processes involved in the establishment of the standards. Moreover, while unification of such standards facilitates judgment on whether or not it is green, and has the effect of increasing its credibility, there is also a risk of higher costs associated with centralized setting of standards, or that each entity's judgment will be solidified in one direction if standards are not frequently reviewed. Costs and benefits must be judged appropriately, including consideration of whether there are alternative measures that have lower costs and flexibility, including use of market-based ESG rating. Furthermore, attention should also be paid to development stages, geographical conditions, energy situation, and other factors that vary among countries. While continuing to examine such issues, it is desirable for Japan to closely observe trends of the taxonomy in the EU, etc. and appropriately participate in international discussions in the International Platform on Sustainable Finance (IPSF) and others, taking into account effects on Japan.

In addition, it is necessary to give a boost to steady decarbonization in industries with a large amount of GHG emissions in the climate change field. As for all industries including those that are difficult to make a big jump to realization of the net-zero goal, it is important to encourage fund supply by appropriately assessing efforts for transition to finally achieve carbon neutrality.

^{13.} A specific theme in and after the summer of 2021 will be considered later, also taking into account this report, etc.

From such a perspective, the "Taskforce on Preparation of Environment for Transition Finance", co-hosted by the FSA, the Ministry of Economy, Trade and Industry, and the Ministry of Environment, was set up in January 2021. This taskforce formulated basic guidelines to clarify the concept of transition finance in the climate change field based on "Climate Transition Finance Handbook," international principles of the International Capital Market Association (hereinafter referred to as "ICMA") released in December 2020.

The said basic guidelines specify that transition finance not only focuses on individual projects requiring seeking financing but also comprehensively judges companies' "transition strategy" for decarbonization and their credibility and transparency of practicing the strategy. In addition, it is necessary to demonstrate that the transition strategy for decarbonization is based on scientific grounds. It is said that companies can also refer to the Paris Agreement's long-term goals and the industry roadmaps, as well as internationally recognized climate change scenarios¹⁴ and goal-setting techniques¹⁵, that which is consistent with the achievement of carbon neutrality by 2050, mainly in industries with a large amount of GHG emissions.

These industry roadmaps¹⁶ will be formulated later by the government. It is important to ensure credibility and transparency that also serves as a model internationally. Moreover, it is necessary for companies to advance information disclosure so that investors can appropriately recognize that economic activities of companies that seek financing are consistent with the route finally leading to carbon neutrality. Furthermore, for the disclosure, as stated below, it is important to comply with international disclosure frameworks such as Taskforce on Climate-related Financial Disclosures (hereinafter referred to as "TCFD") as well as clarify indicators and targets for the transition strategy and management of its progress. In addition, the transition strategy is expected to be reviewed constantly in accordance with the progress.

^{14.} Such as Sustainable Development Scenario (SDS) of the International Energy Agency (IEA).

^{15.} Such as Science Based Targets Initiative (SBTi).

^{16.} In the climate change field, these roadmaps are expected to have same effects as the taxonomy in directing fund flows to the transition to carbon neutrality.

Ch.2 Enhance Corporate Disclosure

In the global move to the common target of realizing sustainable economic and social system, recognition of issues in corporate management is changing. In the Global Risk Report¹⁷ released annually by the World Economic Forum, climate-related risks and social issues have ranked in both the highest likelihood risks and the highest impact risks of the next ten years. Furthermore, in order to maintain and improve medium- to long-term corporate value, it is essential to think of what kind of risks and opportunities these issues bring to companies' own business activities and draw up a strategy for how they respond to such risks and opportunities.

This requires the knowledge, attitude, and ability to perceive various changes in the external environment with an eye to the future, and to constantly verify the resilience of the company's strategy to such signs of change and update it as necessary. Specifically, an attitude of utilizing insight on the latest trend of environmental/social issues and working to proactively solve the issues, and abilities to conduct practical, real, and constructive dialogues that are open to the outside world are important.

Companies pursuing such constructive dialogues with investors and financial institutions would contribute to improvement in functions of the entire investment chain. In doing so, appropriate corporate disclosure of sustainability information will be a key. When financial institutions and investors incorporate ESG factors in investment decision, it is based on sufficient information disclosure.

1. Sustainability Disclosure

As for sustainability information disclosure, GRI,¹⁸ IIRC,¹⁹ SASB,²⁰ TCFD, and others have provided international standards and frameworks. The IFRS Foundation, the International Financial Reporting Standards (IFRS) setter, released recommendations in 2020 and is currently advancing its efforts to set up a new standards setter (International Sustainability Standards Board (ISSB) of the IFRS Foundation) to develop uniform reporting standards on sustainability for companies. As for its strategic direction, with a focus placed on information important for investors' judgment, the foundation has presented its intention to first concentrate on climate-related reporting based on existing frameworks and tasks such as TCFD's efforts described later.

Formulation of comparable and consistent sustainability reporting standards contributes to improvement in comparability of disclosed information, and thus efficient resource allocation in the capital market. In this context, while the EU tries to take a lead in institutionalization of sustainability disclosure,²¹ from the perspective of avoiding segmentation of standards among major countries, the mechanism to set international sustainability disclosure standards on which such countries can rely in common and the unification of standards based on that mechanism is of significant importance.

^{17.} World Economic Forum(2021) "The Global Risk Report 2021"

^{18.} Global Reporting Initiative, Netherlands-based international NGO

^{19.} International Integrated Reporting Council, U.K.-based international NGO

^{20.} U.S. Sustainability Accounting Standards Board

^{21.} In April 2021, the European Commission released Proposal for a Corporate Sustainability Reporting Directive (CSRD).

In addition, the role of non-financial reporting that supplements financial reporting is increasing in making an investment decision. Information, etc. on the context to analyze the entire financial information, nature of corporate earnings and cash flows, and foundations that generate them are essential.

With regard to items to be reported in non-financial reporting, consultation paper of the IFRS Foundation shows an idea that disclosure of items having impact on a corporate's finance is required (single materiality), as well as another idea that disclosure of items related to the corporate's impact on environment and society is also required from the standpoint of materiality to not only investors but also a wider range of stakeholders such as civil groups and consumers (double materiality). Furthermore, the idea of dynamic materiality, in which matters of higher importance for society would likely be financially internalized and thus important in the long run, is also emerging.

In this situation, the IFRS Foundation has presented, as its strategic direction, its intention to focus on information important for investors' judgment that is an extension of the traditional mission of financial reporting. It is expected that significance of building the IFRS Foundation's sustainability reporting standards on the foundation of financial materiality that is common to financial reporting while keeping flexibility to correspond to each country's additional disclosure items is also of large importance. On the other hand, since foci of sustainability-related initiatives vary among countries and industries, it is also important to ensure flexibility through which such initiatives are appropriately presented and assessed, and can lead to further encouragement of initiatives. In light of such a perspective, Japan should proactively take part in the formulation of standards by the IFRS Foundation.

2. Climate-related Disclosure

Of issues over sustainability, climate change is particularly a pressing issue. For climate-related information, information disclosure based on TCFD's recommendations has been proceeding in Japan and overseas and become an internationally established framework for disclosure.

In TCFD's recommendations released in 2017, it is recommended to classify impacts of climate change on companies into two risks, transition risks and physical risks, and opportunities and then disclose them in accordance with four items, governance, strategy, risk management, metrics and targets, based on the impacts of climate change faced by the company.

In Japan, companies, financial institutions, etc. that support TCFD's recommendations, centered around the TCFD Consortium,²² have been promoting disclosure. As a result, approximately 400 companies, the largest number in the world, have already been working on TCFD disclosure.

^{22.} Established In 2019, as a place to discuss efforts to lead effective corporate disclosure and disclosed information to appropriate investment decisions of financial institutions, etc.

However, many companies still hesitate to do TCFD disclosure partly because long-term and uncertain impacts of climate change need to be taken into account, in companies' understanding impact on them and considering countermeasures.

There is currently a tendency to actively promote TCFD disclosure²³; for example, making TCFD's climate-related disclosure mandatory has been boosted with the U.K. at the head. In Japan, the Corporate Governance Code was revised in June 2021 through discussion at the "Council of Experts Concerning the Follow-up of Japan's Stewardship Code and Japan's Corporate Governance Code", stating that companies listed on the Prime Market of the Tokyo Stock Exchange "should enhance the quality and quantity of disclosure based on the TCFD recommendations, which are an internationally well-established disclosure framework, or an equivalent framework."²⁴

This is designed to enhance climate-related disclosure while ensuring companies' self-initiative and flexibility by clarifying the position of TCFD, etc. in the Corporate Governance Code, a framework for comply or explain. While such moves are considered to contribute to deepening constructive dialogues with investors, we should continue to encourage the enhancement of quality and quantity of corporate disclosure in light of this revision.

In addition, there is an opinion from investors that it is desirable to proceed with disclosure in statutory disclosure documents, which are the most reliable in the form of ensuring comparability.²⁵ From the companies' side, there is a view that although cases exist in which disclosures have been made proactively in statutory disclosure, a framework that encourages disclosures that are useful in decision-making and acceptable globally while maintaining self-initiative and flexibility in accordance with the situation of each company is preferable²⁶ in view of accuracy of information required for statutory disclosure and litigation risk, etc. It is important to continuously conduct studies for the enhancement of disclosure of information related to climate change while taking into account these opinions and paying close attention to international trends of the IFRS Foundation toward the COP26.

In doing so, it is appropriate to widely examine the way disclosure of corporate information should be,²⁷ including sustainability-related disclosure, to provide information necessary for investors' investment decision sufficiently and timely in a clearly understandable way and promote information disclosure contributing to constructive dialogues for further fulfilling functions of Japan's capital market.

^{23.} In the U.K., Her Majesty's Treasury released the roadmaps for the next five years to make disclosure in accordance with TCFD's recommendations mandatory in November 2020. The U.K. finance minister expressed the intention to aim to completely making it mandatory by 2025. In the EU, the proposed Corporate Sustainability Reporting Directive was released in April 2021, requiring all large companies, and small and medium-sized listed companies to make sustainability-disclosure including the content related to climate change. In the U.S., the Biden administration has committed itself to requiring listed companies to disclose climate-related risks and GHG emissions. The executive order signed in January 2021 also mentioned the intention to work on disclosure. Furthermore, in March 2021, the Securities and Exchange Commission (SEC) started to invite opinions to review the current rules for climate-related disclosure.

^{24.} Responses to principles of the revised Corporate Governance Code for the Prime Market will be applied from a report on corporate governance to be submitted promptly after the end of an ordinary general shareholders' meeting held in and after April 2022. The Prime Market will be applied from April 2022. Companies that have high market capitalization value and liquidity, and higher governance, and put constructive dialogues with investors at the center of improvement in corporate value, will be listed on the market.

^{25.} There was an opinion that from the position of investors, now that impacts of climate change on corporate value and investors' investment decision (including exercise of voting rights) was being clarified, it is expected to describe any impacts of climate change in securities reports, even if it was not based on TCFD's disclosure framework.

^{26.} TCFD Consortium (July 2020) "Toward More Decision-Useful TCFD Disclosure"

^{27.} Preparing the environment for disclosing GHG emissions or long-term reduction targets can be a useful index for investors, who make an investment decision, and it can also promote impact investing and lead to new evaluation of related businesses and technologies in the field of climate change simultaneously.

Ch. 3 Demonstrate Capital Market Functions

Sustainable finance has globally developed mainly in stock markets, driven by public pensions. In addition to increased ESG investments in equity investment, the issuance of ESG-related bonds, including green, social, and sustainability bonds, continues to rise. As the interest in climate change action surges, global green bond issuance has more than tripled in the last 4 years, from \$83.9 billion in 2016 to \$290.1 billion in 2020.²⁸ Although in recent times issuance in Japan has rapidly increased, it only amounted to approximately one trillion yen in 2020,²⁹ which remains at a relatively lower level than that of Western countries or China.

Attracting both domestic and international funds and realizing the Green International Finance Center where ESG-related bonds including green bonds are actively traded would contribute to the activation of loans and investment that would be utilized for decarbonizing Asia and the world, and ultimately constructing a sustainable society. In so doing, key market players, including institutional investors, financial institutions, such as securities companies and banks, exchanges, and ESG rating agencies, are expected to play their roles appropriately.³⁰ Accordingly, it is important to fulfill the market function of efficient fund allocation by ensuring high liquidity and providing a price-discovery function.

1. Institutional Investor

From the standpoint of realizing sustainable corporate management, the functions performed by institutional investors who provide the necessary funds in a mid-to-long-term perspective and monitor and discipline management is, by nature, of large importance. Already some Japanese institutional investors have collectively worked to prompt companies to disclose more of ESG or climate-related information.³¹

While some advanced companies have related sustainability issues with their own opportunities and risks, others have not fully incorporated. In order to realize a sustainable socio-economic system, expanding companies that respond to sustainability is a prerequisite. In this sense, institutional investors who provide funds to wide-ranging companies play an important role.

Therefore, it is important to for institutional investors to enhance their commitment to the active promotion of ESG investment and engagement, such as endorsing the Stewardship Code, signing the Principles for Responsible Investment (PRI), and disclosing information based on the Task Force on Climate-related Financial Disclosures' (TCFD's) recommendations.

^{28.} Climate Bond Initiative(2021) "Sustainable Debt Global State of the Market 2020"

^{29.} The Ministry of the Environment, the Green Finance Portal

^{30.} The Trust Companies Association of Japan held a Study Meeting on the Promotion of Corporate Approaches to ESG. The Japan Securities Dealers Association has established the Council for Promoting the SDGs in the Securities Industry to contribute to solving social issues through securities companies' intermediary functions in the market. The Council has recommended the unified designation of SDG bonds in its subcommittee on Ending Poverty/Starvation and Protecting the Global Environment and works together with the International Capital Market Association (ICMA).

^{31.} The Life Insurance Association of Japan, for example, has implemented the collective engagement that aims for more disclosure of ESG information. https://www.seiho.or.jp/info/news/2020/20201217.html

In order to have effective dialogue with companies, it is necessary for institutional investors to accumulate wide-ranging expertise in corporate ESG issues, and cultivate their skills to assess its impact on business feasibility.³² Institutional investors, therefore, are strongly encouraged to work to build organizational systems or develop human resources.³³ In so doing, it is also useful to actively participate in an international initiative composed of diverse organizations rather than relying on each company's approach. There are multiple international initiatives that support investors,³⁴ and notably, activities that support corporate decarbonization are getting more active. These diverse activities mutually work together, taking advantage of individual strengths to support investors' approaches in a multi-layered manner.

Such international initiatives have been established and managed by international agencies such as the PRI or the UNEP FI as well as NGOs and groups of investors. A group of Asian investors³⁵, who focus on climate change, takes action to deepen Asian institutional investors' understanding of both opportunities and risks involved in climate change and decarbonization and promote active investment activities.

There are advantages for institutional investors in joining such an international initiative or investor group, such as grasping issues and gaining expertise on quantitative data analyses.³⁶ In taking part in it, some voice concerns about the lack of sufficient budget or of expert human resources who have linguistic skills for international discussion or sufficient expertise on sustainable finance.

- 32. The CFA Society has listed the following three skills required for sustainability experts: technical skill to evaluate the impact of ESG on finance and legal or regulatory knowledge, soft skill to communicate with diverse stakeholders, and a T-shaped skill to use expertise in diverse context. It thus explains the need to acquire these skills by complementing one another as a team.
 - The CFA Society (2020) "Future of Sustainability Investment Management: From Ideas to Reality"
- 33. The Principles for Responsible Institutional Investors < Japan's Stewardship Code> (revised in March 2020).

 Guidance 7-1. To make dialogue with investee companies constructive and beneficial, and to contribute to the sustainable growth of the companies, institutional investors should develop skills and resources needed to appropriately engage with the companies and to make proper judgments in fulfilling their stewardship activities based on in-depth knowledge of the companies and their business environment and consideration of sustainability consistent with their investment management strategies. Institutional investors should have the necessary internal structure to have appropriate engagements and make proper judgments.
- 34. For example, the following international approaches are active:
 - The Net-Zero Asset Owner Alliance is an approach for asset owners who aim for the decarbonization of their portfolios. The institutions that sign up with this alliance are expected to create their targets and strategies, to actively encourage companies or industries, and to disclose information.
 - The Net Zero Asset Managers Initiative is an approach for investment managers who aim for the decarbonization of their portfolios. The institutions that sign up with this initiative are requested to set targets and actively be engaged.
 - The Net-Zero Banking Alliance is an approach for banks that aim to decarbonize their portfolios. The institutions that sign up with the alliance are requested to transition consistent with Carbon Neutrality by 2050, set targets for it, and disclose information annually.
 - The Partnership for Carbon Accounting Financials (PCAF) is an approach driven by investors who aim to develop a method for measuring GHG emissions from financial institutions. The PCAF creates global carbon accounting standards applicable to diverse asset classes.
 - The Climate Action100+ is an (collective engagement) approach by leading global investors who urge over 100 global companies that produce a large amount of GHG emissions to respond to climate change to achieve the Paris Agreement.
 - The International Corporate Governance Network (ICGN) is an approach driven by investors who aim to promote the highest corporate governance and the stewardship of investors to pursue the creation of long-term values and contribute to sustainable economy and social prosperity.
 - The Farm Animal Investment Risk and Return (FAIRR) is a network of investors established by the Jeremy Coller Foundation. It seeks to raise awareness of ESG-related risks and opportunities brought about by intensive animal production.
- 35. The Asian Investor Group on Climate Change (AIGCC) provides a platform where investors active in Asia can share best practices and work together in investing, credit analysis, risk management, engagement, and policy recommendations. It promotes regular exchange of information and actively works on skill enhancement, including online climate change learning programs.
- 36. In addition, joining such an international initiative or investor group will provide institutional investors opportunities to offer international opinions as Asian investors or investment managers, and enable them to join international discussions, including participating in formulating rules for methods that contribute to investment decisions. By joining international activities that conduct collective engagements, it will be possible for them to efficiently conduct engagement activities.

Proposals from investors should be appropriate to enhance mid- to long-term corporate values by urging corporate activities. It is important that domestic investors should actively join international initiatives to enhance their ability to collect information or skills. Active involvement with highly professional non-profit organizations is also a challenge for the future. It is advisable for both government and the private sector to consider a framework for supporting such involvement or participation.

2. Opportunities for Retail Investor

Cash and deposits account for approximately 50% of about 1,900 trillion-yen individual financial assets in Japan. It is important to increase investment opportunities for individual investors so they can make effective use of their individual financial assets to build them in a stable way. Cases in which individual investors can choose financial instruments by themselves are increasing, such as defined contribution plans, which are increasing year by year.

In such a situation, ESG- or SDGs-related active investment trusts have been set one after another as more and more people are interested in ESG and SDGs. From 2010 through 2017, the number of new ESG-related funds changed at the level of less than 10 per annum, but after that, it greatly increased, resulting in 33 in 2020. Some of the ESG-related investment trusts set in 2020 have net asset value of over 50 billion yen. Although their size is relatively small when compared with the overall market size of publicly offered investment trusts in Japan, their net asset values have grown considerably.

While ESG-related investment trusts are getting popular, how it is decided to include ESG and SDGs in their names depend on individual companies' discretion. Different asset managers or products use different criteria for selecting stocks for ESG-related funds. For example, while there are many cases of determining companies to target for investment through quantitative analyses, etc., after selection according to unique ESG rating criteria established for each asset manager or investment fund, there are some cases in which ESG is just positioned as one of the multiple rating criteria. Generally speaking, material for customers, including the prospectus, does not explain how to evaluate ESG approaches or how to calculate specific ESG scores.

It is, therefore, necessary to provide careful explanation, including selection criteria for investment securities, when establishing or distributing ESG-related investment trusts in terms of customer protection.³⁷ It is also necessary to continuously explain to customers the subsequent status of selected stocks by using as concreate metrics as possible. When investment trusts are particularly called ESG or SDGs,³⁸ fund managers should explain how the products satisfy characteristics of the designations with as concrete metrics as possible lest customers should misunderstand the meaning of their names.

^{37.} The FSA has established the Principles for Customer-Oriented Business Conduct to contribute to financial institutions' customer-first business practices. Principle 5 provides for the user-friendly provision of material information and Principle 6 describes how to provide services suitable for customers. Principle 5. Financial institutions should provide material information on selling or recommending financial instruments or services in a user-friendly manner, in addition to matters presented in Principle 4 above (clear fee structure) in light of information asymmetry with customers. Principle 6. Financial institutions should understand the customer's asset composition, investment experience, knowledge, objective, and needs to compose, sell, or recommend financial instruments or services suitable to them.

^{38.} In addition, names that imply a positive impact on environment or society, such as green, ecological, or sustainable are applicable.

Moreover, for products whose key feature is the creation of an environmental and social impact, they also need to explain the expected impact and its achievement status with as concrete metrics as possible, in addition to the above. When using the name of impact investing in particular, they must explain how they will realize the impact with as concrete metrics as possible.

The FSA should broadly examine and analyze ESG- or SDGs-related business practices in the asset management industry, including its concrete metrics, and conduct monitoring on asset managers.

Even in passive investment trusts, asset managers can promote their investees' sustainability approaches through their engagement. This suggests that asset managers should explain both financial instruments' features and their own ESG approaches more thoroughly so that an ideal environment is created for the customer to compare and consider products easily. In order to realize this, asset managers themselves should disclose their basic or engagement policies on sustainability investment, and also urge investees to disclose climate change-related information in line with international frameworks such as the TCFD.³⁹

Securities companies and banks that sell ESG-related products are expected to provide appropriate support for customers; they can, for example, work on the advance efforts to strengthen human resource education to develop advisors who can think from the customer's perspective, taking into full account the enduring effects of ESG products. The FSA as well as industry groups and companies are expected to deepen individuals' understanding of the significance of sustainable finance alongside each financial product's features in financial literacy education for individuals.

3. ESG Rating and Data Providers

As sustainable finance expands globally, the significance of ESG Rating and Data Providers, which study, analyze, collect, or provide corporate approaches to and issues of ESG factors, is increasing.⁴⁰

^{39.} Fuller corporate disclosure is expected in terms of quality and quantity to urge asset managers to disclose information.

^{40.} ESG rating began with reference information for some equity management. It is now widely applied to corporate bonds, government bonds, and real estate. Likewise, institutions that rate and provide data now range from genuine rating agencies and data vendors through index companies and credit rating agencies to trust rating agencies and proxy advisors. According to the Stewardship Code, "Service providers for institutional investors are particularly understood here to be proxy advisers and investment consultants for pensions, however, institutions, including institutional investors, which provide services at the request of institutional investors, etc. to contribute to the institutional investors' effective execution of stewardship activities, are also considered to be service providers for institutional investors." ESG Rating and Data Providers who meet these definitions can sign the Stewardship Code as service providers for institutional investors.

⁽Reference) The Principles for Responsible Institutional Investors < Japan's Stewardship Code > (revised in March 2020).

Principle 8. Service providers for institutional investors should endeavor to contribute to the enhancement of the functions of the entire investment chain by appropriately providing services for institutional investors to fulfill their stewardship responsibilities.

Such information is widely used, not just for investment/loan decisions, but may also be referenced when linking to corporate directors' remuneration, evaluating a whole investment trust, or in collective engagement through international initiatives that urge companies to decarbonize.⁴¹ As issuance of ESG-related bonds is rapidly expanding, more and more rating agencies or ESG rating agencies provide external evaluation. Asset managers that expand its in-house systems to analyze ESG information on their own may also reference external data.

As the importance of ESG rating and its data increases, target companies as well as investors/financial institutions that use the data point out some challenges that rating agencies and data vendors face. Firstly, there is a challenge of transparency and fairness of evaluation. As different ESG Rating and Data Providers use different criteria or methods for evaluation and data imputation,⁴² the user cannot understand why each evaluation result differs from one another unless their details or intended settings are disclosed. Some also indicate that information may not be correctly obtained if it is not disclosed in English.

Secondly, there is a challenge of governance and impartiality. When objective criteria for evaluation standards are not disclosed, there are cases of conflict of interests when, for example, a rating agency provides both external corporate or green bond evaluation and paid consulting services for the same company.

Thirdly, there is a challenge of the appointment of suitable human resources. Some point out that there is no objective guarantee of evaluation ability, right people for the right place, and governance structure.

Fourthly, there is a challenge of corporate workload. Companies are requested by rating agencies to check evaluation content, which constitutes challenges as huge paperwork from a corporate perspective.

The improved reliability of ESG Rating and Data Providers, who play an important role in the investment chain, is indispensable,⁴³ to seek to expand the sustainable finance market. There would be several improvement; such as that ESG Rating and Data Providers can disclose their rating criteria or methods, that they can build a mechanism in which those who organize a system expected by both ratings targets (companies) and users (institutional investors or financial institutions) would be appointed and promoted in ESG Rating and Data Providers.

The quality of ESG rating information, however, cannot be improved by ESG Rating and Data Providers alone. It is also important that Japanese companies disclose information in English or in user-friendly form so that they can be properly valued in international financial markets. Japanese companies also need to keep in mind changing evaluation methods or dialogue as the use of big data or AI is rapidly expanding in the process of evaluation or information-gathering.

ESG rating is still a developing field. The FSA is encouraged to promote discussion on an ideal code of conduct expected of ESG Rating and Data Providers that bridges companies and investors, considering both corporate and investors' opinions, to realize a sustainable socioeconomic system.

^{41.} Activities represented by Climate Action 100+ (n. 33).

^{42.} ESG rating requires the gathering of corporate ESG data. Many users, however, increasingly use ESG data vendors on the ground that sufficient data are not disclosed. This raises concerns about different methods used by different vendors to estimate deficient data or about differences between provided data and actual corporate measurements.

^{43.} In this respect, the European Securities and Markets Authority (ESMA) and some European countries have put forward the opinion that ESG rating agencies should be subjected to authorities' regulation and monitoring.

In discussing such matters, it is important that the Agency actively contributes to discussion on ESG rating agencies by the International Organization of Securities Commissions (IOSCO) and other organizations,⁴⁴ to anticipate domestic response in future.

4. ESG-related Bonds Platform

(1) Create an environment where investors can obtain useful information

Foreign stock exchanges work to enhance the transmission of information on ESG-related bonds, including green bonds, promote human resource development or improved skills, and provide ESG-related metrics to promote sustainable finance.

For example, the Luxembourg Stock Exchange established the Luxembourg Green Exchange (hereafter "LGX"), a platform dedicated to ESG-related bonds in 2016. Currently, its total issuance is \$500 billion and has 900 or more listed securities.⁴⁵ The LGX publishes guidelines with which ESG-related bonds should comply to be labeled as such, prepares and transmits details of procedures for external evaluation or disclosure related to issuance as well as information for issuers. It also provides a data hub that enables investors to collect/compare ESG-related information to support them.

The London Stock Exchange (hereafter "LSE") has established the Sustainable Bond Market (hereafter "SBM"), a platform dedicated to ESG-related bonds like the LGX. The SBM lists over 250 securities and has issued approximately 50 billion pounds. The SBM also provides detailed guidebooks on sustainable finance trends for both issuers and investors, seeking to promote both issuance and investment. Its affiliated company, FTSE Russell provides a number of unique ESG-related metrics and has recently bought a data vendor, including ESG (Refinitiv).⁴⁶

Similar approaches are seen at stock exchanges not only in Europe, but also in Asia. The Hong Kong Exchanges and Clearing has also established a platform dedicated to ESG-related bonds like the LGX or the SBM. It provides a variety of information for both issuers and investors, including webinar movies on various sustainable finance topics, case studies, and even research results on ESG investment performance.

^{44.} The FSA co-chairs the discussion with the ESMA.

^{45.} The LGX's website

^{46.} In November 2020, the Deutsche Boerse announced that it acquired a proxy advisor that also rolls out ESG business, Institutional Shareholder Services (ISS). It aims to become a leading ESG data provider in the world by acquiring ISS's expertise and data on ESG.

https://deutsche-boerse.com/dbg-en/media/press-releases/Deutsche-B-rse-acquires-leading-governance-ESG-data-and-analytics-provider-ISS-2343868>

In Japan, too, the Japan Exchange Group (hereafter "JPX") has established a platform for disclosing information on securities listed as green/social bonds on the TOKYO PRO-BOND Market, a bond market intended for professional investors. It has also established the JPX ESG Knowledge Hub, which mainly provides online seminars and a handbook (Practical Handbook for ESG Disclosure) to promote corporate ESG disclosure as well as presenting actual disclosure cases, overview of ESG disclosure frameworks, or of the ESG rating agencies. It further calculates and publishes its indices that focus on governance or environment.

It is important that Japanese exchanges that have contact with many companies prepare better environments to provide practically useful information for both companies and investors.⁴⁷ More specifically, the exchanges are expected to actively promote ESG-related data service roll-out, including the construction of a practically more useful platform, through which it would (1) expand or enrich provided information, including the one on each ESG-related bond and concrete issuance and investment cases, (2) offer better ESG-related training/educational programs to develop companies/investors or improve their skills, and (3) provide ESG indices through coopearation with international and domestic agencies.⁴⁸ As a means to improve convenience for information users such as investors and financial institutions, one can think of considering corporate sustainability disclosure tagged to XBRL in parallel.⁴⁹

(2) Securing credibility of ESG-related bonds

ESG-related bonds such as green bonds are different from general bonds in that they are issued with the limited use of proceeds. The principles or guidelines drawn up by the ICMA or the Ministry of the Environment therefore indicate the requirements (eligibility) to be satisfied when issued. When issuing ESG-related bonds, the issuers acquire from a Japanese rating agency, in practice, an opinion stating green-bond-consistency with international principles, or obtain certification from overseas agencies based on their strict criteria, or use other methods.

In light of criticism against greenwashing, in which the green label is used without environmental effects, the key to the active sustainable finance market is to improve the social reliability of traded ESG-related bonds. Some foreign exchanges make it compulsory to comply with specified guidelines, acquire external evaluation, and report regularly as listing requirements for ESG-related bonds. It is encouraged to develop a mechanism which provides objective certification of the eligibility of ESG-related bonds, also in Japan.⁵⁰

^{47.} The Ministry of the Environment has already built and runs the ESG Dialogue Platform for Parties including companies and investors and the Green Bond Issuance Promotion Platform.

^{48.} Securities companies that function as financial intermediary, including underwriting, are expected to play an appropriate role in interpreting guidelines for issuers or helping them to draw up a framework to support issuance of ESG-related bonds.

^{49.} XBRL (which is the abbreviation of eXtensible Business Reporting Language) is an internationally standardized linguistic specification that adds electronic tags to disclosed documents such as financial statements to enable efficient information acquisition.

^{50.} The International Organization for Standardization (ISO) is moving to create international standards (from ISO14030-1 to ISO14030-4) on issuance and lending procedures for green bonds/loans, including taxonomy.

Ch. 4 Financial Institutions' Support for Borrowers and Investees, and Risk Management

In Japan, where the ratio of indirect finance is high, banks and other financial institutions play a critical role in promoting sustainable finance. As mentioned in Chapter 1.1 Underlying Principle, it is, therefore, of significant importance that financial institutions incorporate opportunities and risk perspectives for sustainability into business strategies and risk management.

The climate-related risks, in particular, are currently the most important issues to be addressed at the moment.⁵¹ If the climate-related risks are not properly included in investment/loan decisions, significant market turmoil may occur in the event of social or policy changes arising from measures to counter global warming, and/or a change in disaster or climate pattern due to climate change⁵². With such recognition, discussion of specific climate-related risk management methods is underway internationally at the Network for Greening the Financial System (hereafter "NGFS")⁵³ and the Basel Committee on Banking Supervision, etc.

1. Support for Borrowers and Investees

As the transition to a decarbonized society is drawing attention, financial institutions are expected to play a role in urging borrowers and investees in the sectors with a large amount of GHG emissions to accelerate response to reduce GHG emissions through constructive dialogue to mitigate the transition risk, as well as to create new business opportunities to improve projected profitability. On the other hand, financial institutions invest in or finance the sectors with a large amount of GHG emissions, and expectations on such financial institutions are increasing. Some indicate that such a position of financial institutions raises the difficult two-front strategy in which they keep already existing loan assets to support conventional corporate activities while working on new finance for the transition to decarbonization. The financial institutions need to consider a smooth transition without any disruption to a decarbonized society, taking into these points.

Financial institutions may find it useful to present their visions of how they want to proactively get involved in the transition to decarbonization in important industrial sectors or geographical scopes as their own business infrastructures. Moreover, when financial institutions promote climate change measures to borrowers and investees along such visions, it is important to proactively accumulate know-how, improve skills, develop analytic tools so that they can identify corporate environmental issues and explore the values of technologies or services that contribute to their solution. It is advisable to take early action since this may be a material risk for borrowers and investees who are forced to convert industrial structure on account of decarbonization.

^{51.} Recently, we also need to keep in mind international approaches that seek to regard not only climate change but also biodiversity as a financial risk, including the Taskforce on Nature-related Financial Disclosure (TNFD) or the NGFS-INSPIRE Joint Study Group on Biodiversity and Financial Stability. Many parts of their approaches can be applied not only to biodiversity but also to other sustainability issues.

^{52.} Mark Carney. (September 2015) "Breaking the tragedy of the horizon: Climate change and financial stability"

^{53.} The NGFS was established as an international network of central banks and financial supervisory authorities to consider how to handle climate-related risk as financial supervisors in December 2017. Over 100 authorities and international institutions join the NGFS (as of March 2021). In June 2018, the FSA joined it, and in November 2019, the Bank of Japan became a member.

Considering that both large, and small and medium-sized companies are required to deal with climate change under the government's carbon neutral declaration, the FSA is expected to support financial institution's efforts to promote SDGs practices and sustainable growth of regional economy, while working together with the Ministry of the Environment in its approach to ESG regional financing. In so doing, it is appropriate that the Agency works on measures such as the inclusion of its supervisory expectation into the guidance, which will be shown below, on financial institutions' approaches to climate change, including dialogue with business customers.

As many companies uphold a goal of decarbonization, the need to trade reduced emissions may increase in order to achieve such a goal in future. In order to promote the development of new decarbonization technology at borrowers and investees, financial institutions can use new methods to evaluate business value by quantitatively measuring the market value of the reduced emissions realized by new technology.⁵⁴

In Europe, regulations are proposed that request banks, as part of information disclosure unique to financial institutions, to refer to taxonomy and to disclose metrics, such as the percentage of green assets in the portfolio. While various metrics are considered to indicate progress made in the climate change response of their entire portfolio, such metrics will also become a reference when Japanese financial institutions respond in line with the principles of transition finance mentioned above (Chapter 1, 2. (3)).⁵⁵

2. Risk management

(1) Climate-related Risk in Financial Institutions

Climate-related risks are generally and largely divided into transition risks and physical risks. More specifically, transition risks at financial institutions refer to those caused by transition to a decarbonized society (change in policy to mitigate climate change, technological innovations, changes in sentiments, demand, and expectations of both investors and consumers); physical risks are categorized into acute ones caused by increased cruelty and frequency of extreme climate phenomena as climate changes and chronic ones occasioned by a pattern of long-term climate change such as the sea level rise.

Risk categories at financial institutions include credit risk, market risk, liquidity risk, and operational risk. Climate-related risks are not those that are added to these conventional risk categories, but rather risk drivers that cause or amplify each risk.

^{54.} The related ministries and agencies discuss a mechanism of carbon pricing in Japan. Internationally, in September 2020, the former Governor of the Bank of England Mark Carney took the initiative in establishing the Taskforce on Scaling Voluntary Carbon Markets (TSVCM), seeking to expand carbon credit market in the private sector. As this shows, discussions on the private-sector-driven carbon credit market are making progress.

^{55.} From this summer, the Ministry of the Environment and the FSA are planning to study on and support portfolio carbon analysis, targeting financial institutions, in order to calculate GHG emissions of borrowers and investees (financed emissions) which will be important metrics for the support of borrowers and investees, and to support consideration of reduction measures.

They should, therefore, be integrated into the existing risk management framework in a consistent manner, as appropriate.

In so doing, it is necessary to consider the following two types of peculiarity of climate-related risks: the length of the risk period, and its uncertainty. Impacts of rising temperature or intensified disasters due to climate change will become manifest in the decades to come. Regarding climate change, the average temperature proportionately tends to rise as GHG emissions accumulate, as scientifically confirmed. However, as for the possibility of more radical progression of rising temperature as permafrost melts due to global warming, when and how that happens in concrete terms still remains scientifically uncertain.

It is important that financial institutions such as banks and insurers build management systems that consider such characteristics of climate-related risks according to each institution's size and features. In this regard, the NGFS and others have proposed the following key supervisory items.⁵⁶ Based on these, the FSA is expected to have continuous dialogue with financial institutions and create guidance regarding its -supervisory expectation to encourage financial institutions' concrete actions.

1 Business model & Strategy

Understand the impacts of risks and opportunities of climate change on in-house business model or strategy and create a business model/strategy that takes into account resilience against the climate change. Also select quantitative KPIs to monitor the performance of the developed strategy.

2 Governance

Build a governance system for climate-related risks, and explicitly present the roles and responsibilities of the Board of Directors, etc., based on consistency with the above-mentioned business model and strategies. Moreover, explicitly describe how the financial institutions as a whole manage climate-related risks, such as developing a basic policy for the said risks.

3 Risk Management

Construct the processes in which to recognize, evaluate, and manage relevant climate-related risks for each existing in-house risk category (credit/market/liquidity/operation, etc.) Build also the investment/loan and underwriting processes (credit evaluation or engagement) in line with climate change strategies.

4 Scenario Analysis

Start considering and conducting scenario analysis that uses multiple mid- to long-term scenarios for climate change. Reflect analytic results on the business model/strategy or risk management.

^{56.} The FSA is to make arrangements by mainly referring to the following.

[•] NGFS(2020) "Guide for Supervisors: integrating climate-related and environmental risks into prudential supervision"

[•] European Central Bank(2020) "Guide on climate-related and environmental risks"

[•] Bank of England(2019) "Enhancing banks' and insurers' approaches to managing the financial risks from climate change"

5 Disclosure

Disclose the results of 1 to 4 above regularly by using the framework for non-financial information disclosure such as the TCFD.

(2) Use of scenario analysis

Climate change brings about long-term, complicated, and potentially greatly influential risks with high uncertainty about future policy or socio-economic elements. The existing risk management method, which assumes that past trends or existing socio-economic structure does not change radically, cannot capture climate-related risks. Scenario analysis seems effective to respond to such a phenomenon.⁵⁷

For financial institutions, the use of scenario analysis is not just a means of capturing risks quantitatively, but it contributes to building a more resilient business model or creating a more robust strategy against climate-related risks in the mid- to long term through the evaluation of business models, business strategies, or the scope of financial impacts. If scenario analysis helps to analyze metrics on climate-related risks and opportunities, leading to early detection of change in situation, it will bring about opportunities to review business models or strategies.

Use of scenario analysis by financial institutions as a communication tool through disclosure is useful for investors, too, to understand how the financial institutions, in which they are to invest, consider future risks and opportunities.

In such a situation, Japanese financial institutions also begin to conduct scenario analysis by using scenarios assumed by each financial institution and disclose its results based on the recommendations by the TCFD. Each country's supervisory authority increasingly works together with the financial institutions that it supervises and uses common scenarios for scenario analysis in order to understand the impacts of climate-related risks on financial systems or grasp each financial institution's response to climate-related risks. The NGFS is also developing common scenarios for scenario analysis to implement consistent perspectives to supervisory authorities of each country and to reduce the supervised financial institutions' workload. However, as it stands now, specific methods for scenario analysis or data applied to analysis has not been fully developed. Both international and domestic cases that have already embarked on scenario analysis use different reference scenarios or different methods for estimating risks.

In light of such status quo, the FSA is expected to continuously discuss data limitations, collection methods, and adequacy of scenarios with financial institutions while keeping an eye on international trends of scenario analysis. It is also requested to ensure discussion on how to analyze or use common scenarios, seeking to use scenario analysis at financial institutions as strategic response to climate-related risks in the mid- to long term.

^{57.} Although some financial supervisory authorities conduct scenario analysis as stress tests, note that they do not conduct stress tests to examine financial institutions' capital adequacy as in ordinary stress tests.

As specific steps, it would be appropriate that the FSA would first try to work on scenario-based analysis using a common scenario, focusing on large-scale financial institutions. This will help to accumulate expertise on how to use analytic results, including dialogue between financial institutions and business customers. It would then gradually expand its application to other financial institutions according to their sizes and characteristics. In addition, Japan is expected to contribute to international activities such as the NGFS based on expertise and experience gained through such an approach. It is also important that the related ministries and agencies work together to actively provide information that contributes to analyses at financial institutions,⁵⁸ including expertise and information that are acquired at such international organizations.

^{58.} For example, one can think of scenario data that concern the impacts of physical risks in Japan.

Conclusion

If we seek the idea of realizing a sustainable society, finance, as one of its key subsystems supporting the society, should be equally consistent. Sustainable finance is not just a specific financial product, but it refers to the comprehensive picture comprised of the financial system or mechanism, code of conduct, and evaluation methods that supports a sustainable society. As a step toward sustainable finance has just been taken, there is no time for wait and see to achieve decarbonization targets of carbon neutrality by 2050 and of 46% reduction by 2030. Work on sustainable finance should be promoted with a crisis awareness regarding climate change.

Mobilizing large amount of money to realize a decarbonized/sustainable society is the financial capital market's mission, but there are several categories of risks that the private sector cannot take on its own. Therefore, it is important that both governmental and private financial institutions promote co-financing by using the Green Innovation Fund or the Green Investment Promotion Fund, and other public funds as catalyst to mobilize private funds.

As sustainable finance is still developing, we strongly encourage the FSA and other central governments, market players, financial institutions, industry, academia, and NGOs to work together to holistically and continuously discuss sustainable finance in light of the recommendations described in this report, and to lead to further implement and enhancement of practices.