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Financial Markets Department
Bank of Japan

Results of the Fifth Market Functioning Survey concerning Climate Change

Progress in the Improvement of Market Functioning and Challenges for the Future

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Introduction

- To accelerate efforts in tackling climate change, it is crucial for financial markets to play a greater role in terms of financial intermediation by incorporating climate-related risks and opportunities into the pricing of financial instruments, such as stocks and corporate bonds, and by providing a favorable environment for the issuance of climate change-related ESG bonds.
- Since 2022, the Bank of Japan has conducted the Market Functioning Survey concerning Climate Change, targeting a wide range of market participants including not only investors and financial institutions but also business corporates and others. The survey aims to continuously collect their views on the functioning of Japanese financial markets in relation to climate change and identify challenges for further improvement. This is the fifth round of the survey.
- As with the previous surveys, this fifth round set questions under three themes: "Pricing of Climate-Related Risks and Opportunities in Financial Instruments"; "Climate Change-Related ESG Bond Market"; and "Prospects and Challenges of the Climate Change-Related ESG Bond Market." In addition, in light of the mandatory application of the Sustainability Standards Board of Japan (SSBJ) Standards, new questions were added to understand market participants' preparation status and challenges regarding information disclosure.
- Moreover, as key developments since the previous survey, the report features boxes on "ESG Bond Market Trends," "Developments in Transition Finance," and "Mandatory Disclosure based on the SSBJ Standards." These boxes summarize recent trends, key points to watch and challenges, and market participants' views.
- The Bank hopes that this survey will provide a foundation for understanding the functioning of financial markets concerning climate change, thereby contributing to active discussions and deliberations among market participants and their proactive initiatives.

I. Survey Outline

I. Survey Outline

1. Background and survey items

- Under *The Bank of Japan's Strategy on Climate Change* (2021), the Bank has conducted the Market Functioning Survey concerning Climate Change since 2022,[1] targeting a wide range of market participants including not only investors and financial institutions but also business corporates and others. The survey aims to continuously collect their views on the functioning of Japanese financial markets in relation to climate change and identify challenges for further improvement.
- The fifth round of the survey was conducted from February through March 2026. While the survey focused on three main themes as in the previous surveys, new questions were added to understand preparation status and challenges regarding information disclosure in light of the mandatory application of the SSBJ Standards.

Developments to Date

July 2021	Release of *The Bank of Japan's Strategy on Climate Change* "examine the functioning of financial markets and infrastructure"
April 2022	The first market functioning survey (Publication: August, Meeting: October)
February 2023	The second market functioning survey (Publication: June, Meeting: August)
February 2024	The third market functioning survey (Publication: June, Meeting: September)
February 2025	The fourth market functioning survey (Publication: June, Meeting: September)
February 2026	**The fifth market functioning survey (Response period: from February 2 through March 13)**

Survey Items and Questions

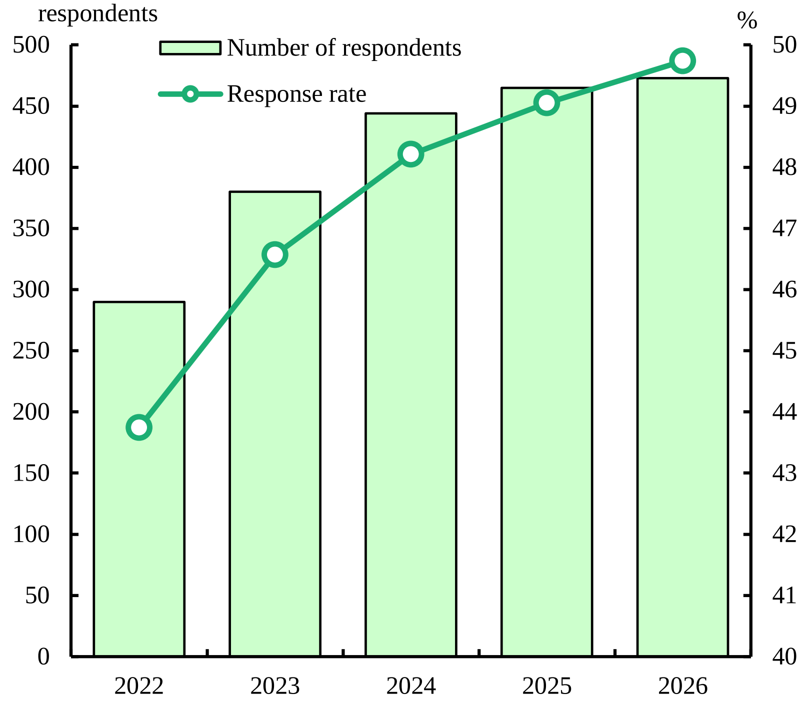
Pricing of Climate-Related Risks and Opportunities in Financial Instruments	● Reflection of climate-related risks and opportunities in stock prices/corporate bond prices in Japan ● Climate-related risks and/or opportunities that are not reflected in stock prices/corporate bond prices in Japan ● Challenges to further reflecting climate-related risks and opportunities in stock prices/corporate bond prices in Japan
Climate Change-Related ESG Bond Market	● Experience in issuing/investing in climate change-related ESG bonds before and within the past 12 months ● Reasons for issuing/investing in climate change-related ESG bonds and reasons for not doing so ● Supply-demand conditions and issuance conditions (yields, amounts, and maturities)
Prospects and Challenges of the Climate Change-Related ESG Bond Market	● Stance on climate finance toward fiscal 2030 ● Stance on transition finance and challenges for its promotion ● Efforts toward information disclosure (adding new questions regarding preparation status and challenges for the application of the SSBJ Standards) ● Assessment of progress in market initiatives, emerging trends, such as overseas developments and international perceptions of Japan's climate finance efforts, and new challenges

[1] "Market Functioning Survey concerning Climate Change" (https://www.boj.or.jp/en/paym/m-climate/index.htm)

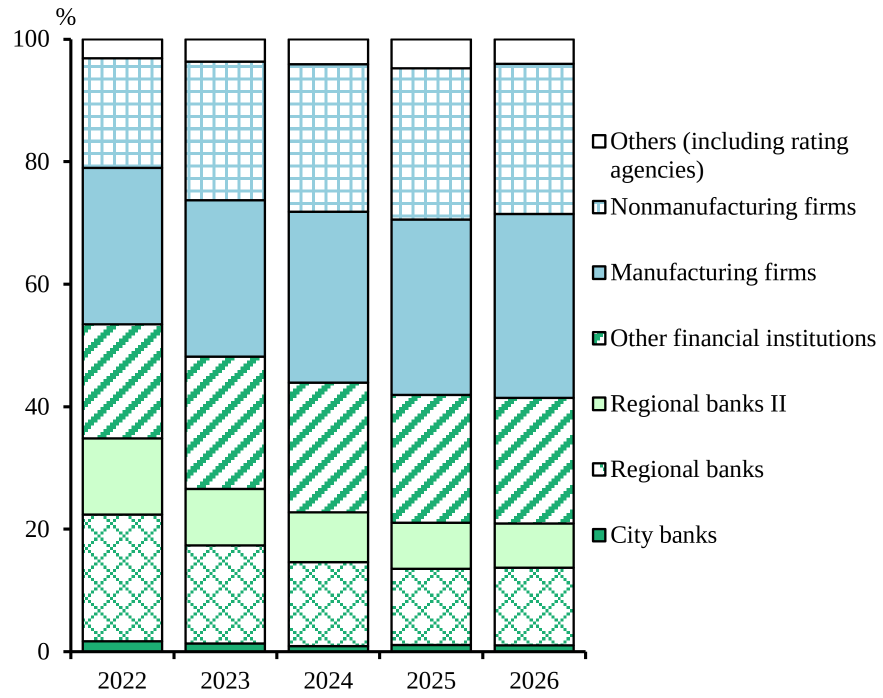
I. Survey Outline
2. Respondent details

- The questionnaire for this round was distributed to 951 entities, including financial institutions, business corporates, and rating agencies. Of those, 473 entities responded, resulting in a response rate of 50 percent (the right chart shows a breakdown of the responses by sector).
- In conducting the survey, in addition to the survey respondents, the Bank received cooperation from the Task Force on Climate-Related Financial Disclosures (TCFD) Consortium (Chair: Kunio ITO, Director of Hitotsubashi CFO Education and Research Center),[2] as well as other associations and organizations.

Number of Respondents and Response Rate



Overview of Respondents (Breakdown by Sector)



[2] The TCFD Consortium was reorganized into the GX Future Consortium on April 1, 2026.

II. Survey Results

A. Pricing of Climate-Related Risks and Opportunities in Financial Instruments

1. Pricing of climate-related risks and opportunities

- Regarding the pricing of climate-related risks and opportunities in financial instruments,[3] the reflection in the prices of stocks and corporate bonds declined slightly compared to the previous survey. Respondents assessed that these risks and opportunities were more incorporated in stock prices than in corporate bond prices.

  -- Some respondents noted that the incorporation of these risks and opportunities into prices was inadequate due to variation in the extent and quality of individual companies' climate-related disclosures.

- In both types of financial instruments, the factor most commonly cited by respondents as not being reflected was "physical risks," followed by "transition risks" and "climate-related opportunities."

  -- Some respondents mentioned that "physical risks" were difficult to estimate in terms of occurrence probability and impact as these risks often corresponded to tail risks, such as disasters.

Chart 1: Diffusion Index (DI) for Climate-Related Risks and Opportunities in Japan

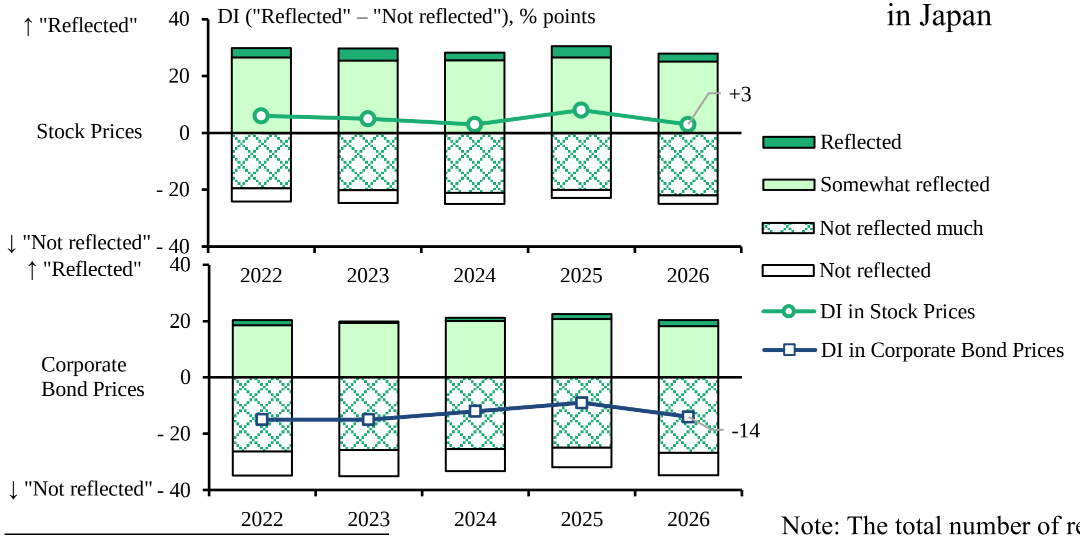
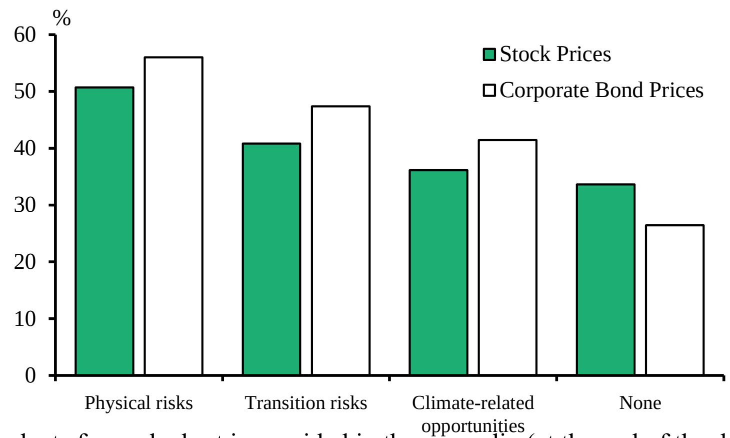


Chart 2: Climate-Related Risks and/or Opportunities That Are Not Reflected in Stock Prices/Corporate Bond Prices in Japan (Multiple answers were allowed)



Note: The total number of respondents for each chart is provided in the appendix (at the end of the document).

[3] "Climate-related risks (physical risks)" refers to risks that physical phenomena triggered by climate change, such as large-scale disasters or rising sea levels, will have an economic loss for issuers' businesses. "Climate-related risks (transition risks)" refers to the risks of an economic loss for issuers' businesses due to changes in policy, technology, or consumer preference as society transitions toward carbon neutrality. "Climate-related opportunities" refers to profit opportunities and growth opportunities brought about by efforts to respond to climate change issues.

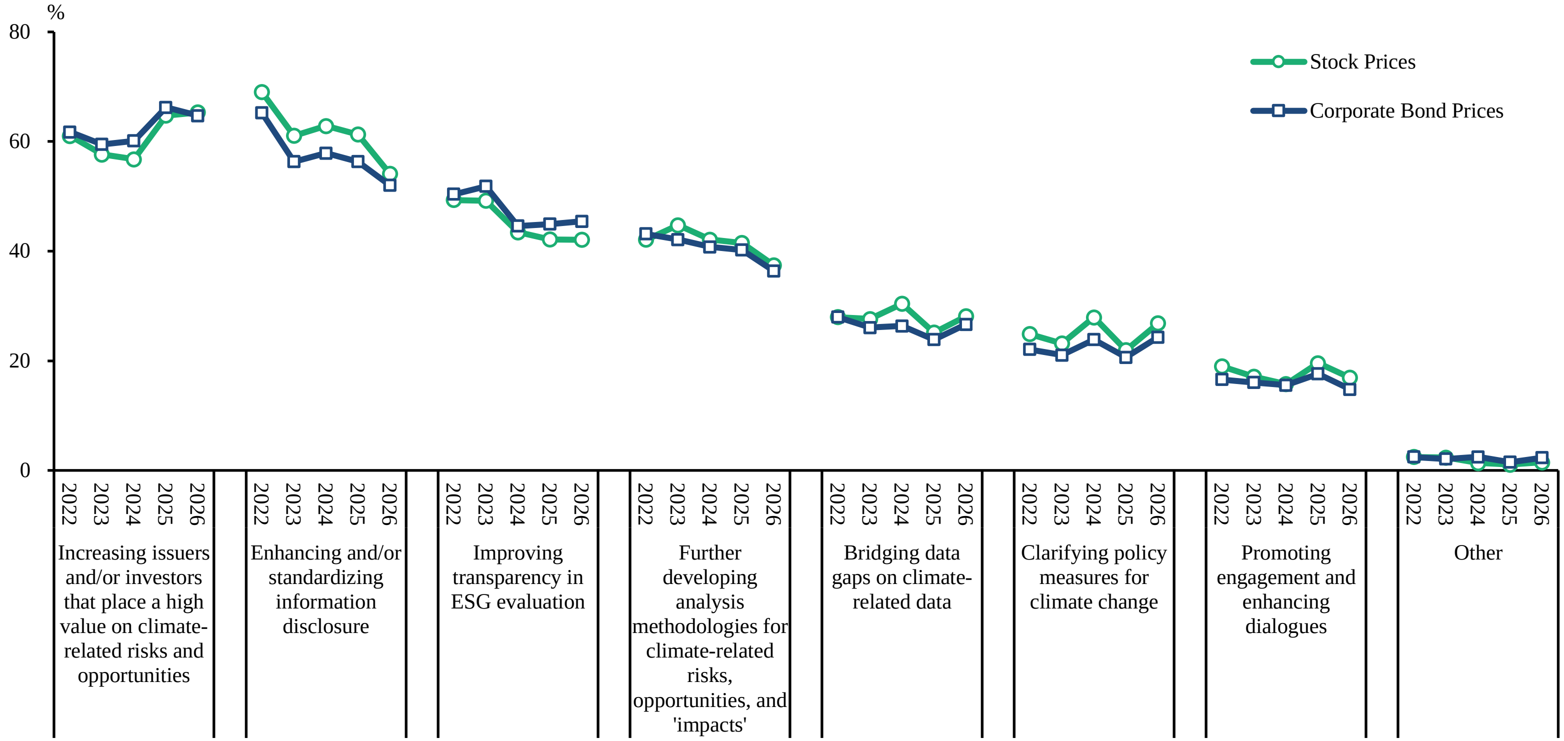
A. Pricing of Climate-Related Risks and Opportunities in Financial Instruments

2. Factors necessary to price in climate-related risks and opportunities

- Regarding the factors necessary to further reflect climate-related risks and opportunities in the pricing of financial instruments, the option selected most frequently for both stock prices and corporate bond prices was "increasing issuers and/or investors that place a high value on climate-related risks and opportunities." The share of respondents selecting this option has been increasing since the survey began. On the other hand, the proportions selecting "enhancing and/or standardizing information disclosure" and "further developing analysis methodologies for climate-related risks, climate-related opportunities, and 'impacts'" have been declining.

  -- Some respondents noted that, while progress was being made in information disclosure, it was important to foster a shared understanding of how investors incorporate climate-related risks and opportunities into corporate value assessments.

Chart 3: Factors Necessary to Reflect Climate-Related Risks and Opportunities in Stock Prices/Corporate Bond Prices in Japan
(Up to three answers were allowed)



B. Climate Change-Related ESG Bond Market

1. Experience in issuing or investing in climate change-related ESG bonds

- The proportions of issuers who have issued and investors who have invested in climate change-related ESG bonds (hereinafter "the ESG bonds") in Japan within the past 12 months both remained nearly unchanged from the previous survey.[4,5]

Chart 4: Respondents That Have Issued the ESG Bonds

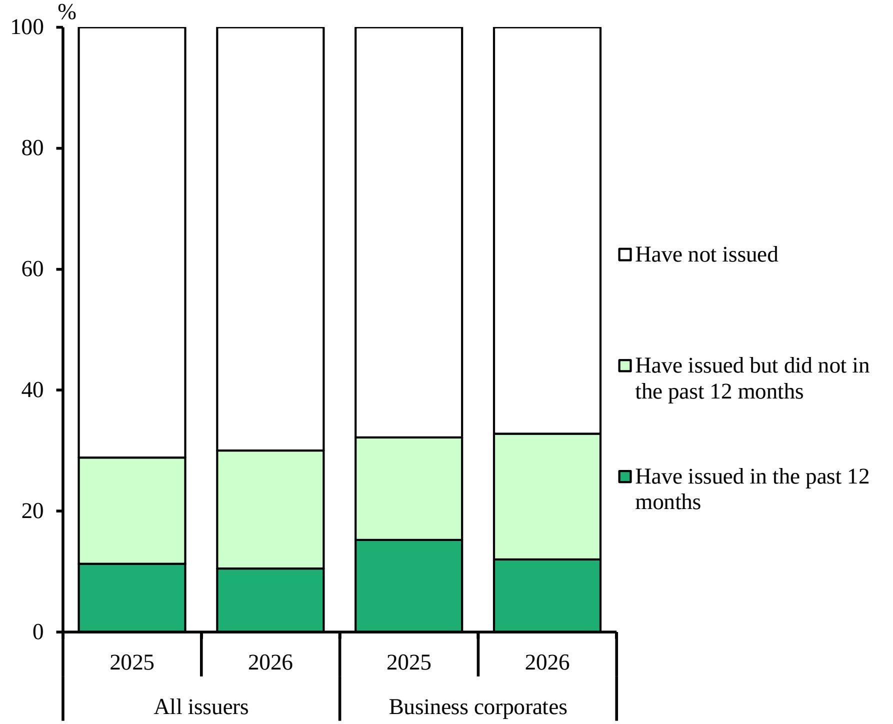
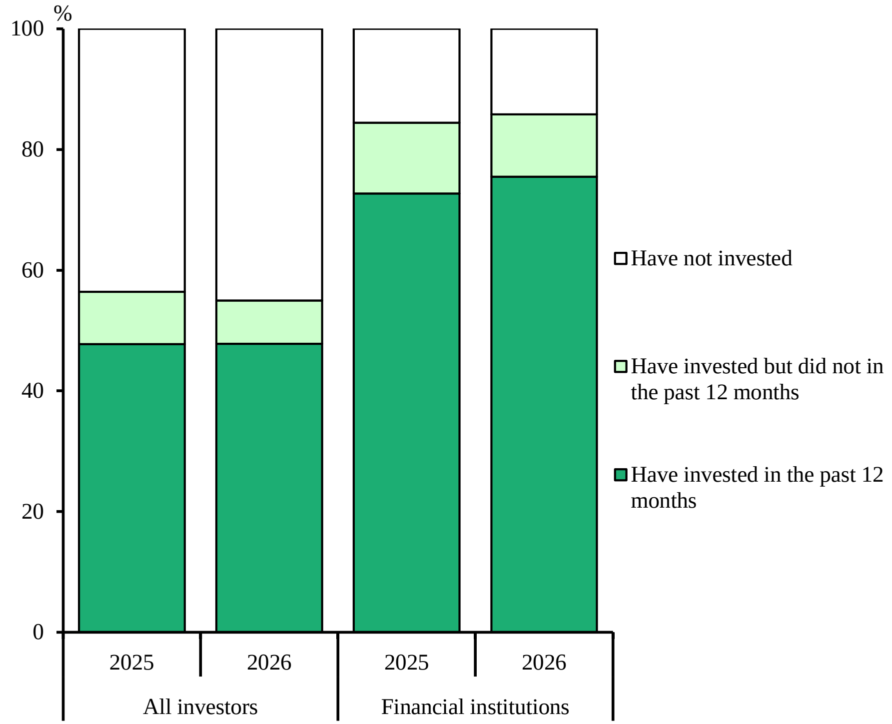


Chart 5: Respondents That Have Invested in the ESG Bonds



4 "Climate change-related ESG bonds" refers to corporate bonds with labels, such as green bonds, sustainability bonds with use of proceeds related to efforts on climate change, sustainability-linked bonds with performance targets related to efforts on climate change (SLBs), transition bonds, and transition-linked bonds (TLBs), that comply with corresponding international standards and/or guidelines set by the Japanese government.

5 Issuers/Investors who have issued/invested in the ESG bonds within the past 12 months include those who have done so for the first time within the past 12 months and those who have done so both before and within the past 12 months. In this survey, the term "issuers" refers specifically to business corporates and financial institutions that either reported having issued the ESG bonds or identified themselves as issuers but had not yet issued the ESG bonds. The term "investors" refers specifically to business corporates and financial institutions that either reported having invested in the ESG bonds or identified themselves as investors but had not yet invested in the ESG bonds.

B. Climate Change-Related ESG Bond Market

2. Purpose of issuing climate change-related ESG bonds

- As for the reasons for issuing the ESG bonds within the past 12 months, the proportion of respondents who selected "issuing the ESG bonds helps the entity gain new investors and/or diversify the entity's base of investors" increased compared to the previous survey, while the proportion of those citing reputation or strategic importance decreased.
- As for the reasons for not issuing the ESG bonds within the past 12 months, the proportions of respondents who selected "management and reporting is burdensome," "do not have enough expertise to issue the ESG bonds," and "demand from investors for the ESG bonds issued by the entity is limited" increased slightly compared to the previous survey.

  -- Some respondents noted that the issuance process involved additional burdens and was time-consuming, and that, without prior issuance experience, it was challenging to find incentives to acquire new practical knowledge. Respondents also pointed out that the necessity of labeling had diminished due to greater understanding of ESG and progress in ESG efforts, and that investor demand varied depending on the issuer's business scale and characteristics.

Chart 6: Reasons for Issuing the ESG Bonds in the Past 12 Months (Multiple answers were allowed)

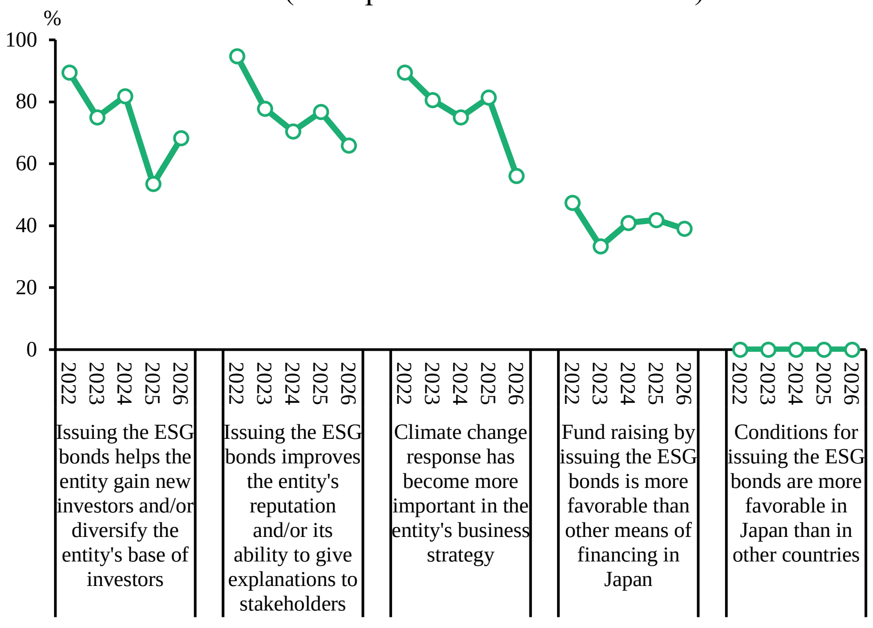
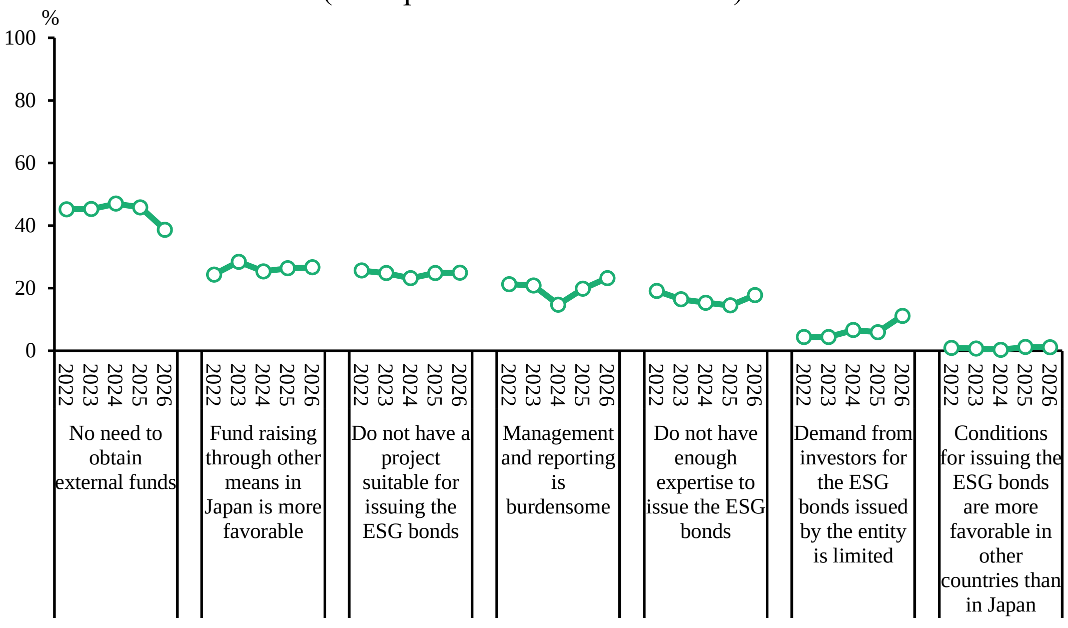


Chart 7: Reasons for Not Issuing the ESG Bonds in the Past 12 Months (Multiple answers were allowed)



B. Climate Change-Related ESG Bond Market

3. Purpose of investing in climate change-related ESG bonds

- The most commonly cited reason for investing in the ESG bonds within the past 12 months was "to make social and environmental contributions through the investment," followed by "to improve the return per risk of the entity's portfolio" and "to improve the entity's reputation and/or its ability to give explanations to stakeholders."
- The most commonly cited reason for not investing in the ESG bonds within the past 12 months was "do not believe the investment will lead to an improvement in the return per risk of the entity's portfolio," followed by "no need from asset owners and/or clients."

  -- Some respondents mentioned that, given the administrative burdens, such as post-investment monitoring, the returns did not seem to justify the associated efforts.

Chart 8: Reasons for Investing in the ESG Bonds in the Past 12 Months (Multiple answers were allowed)

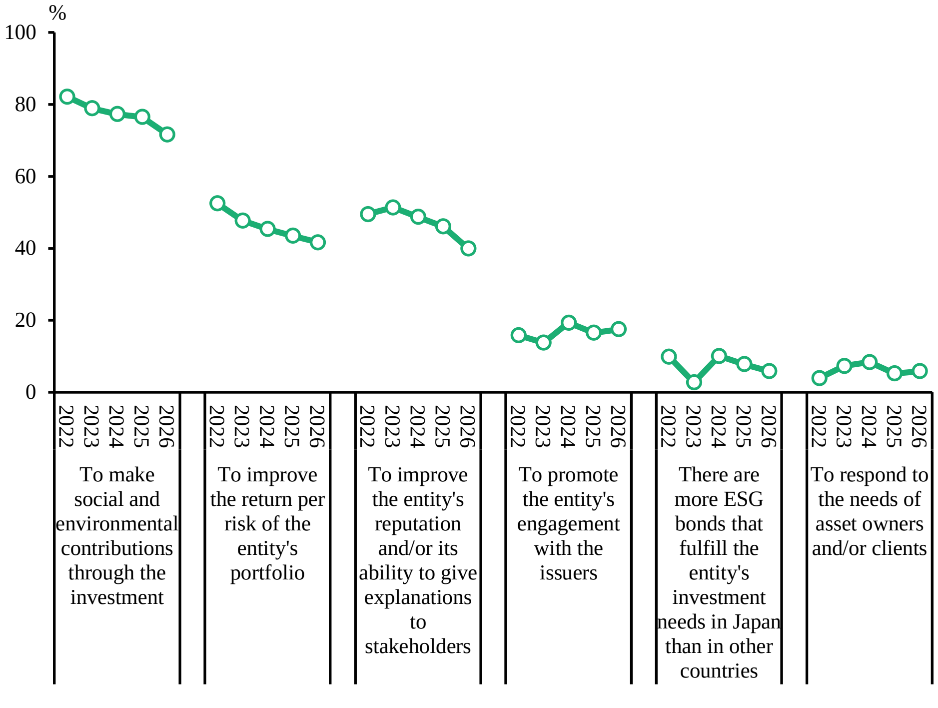
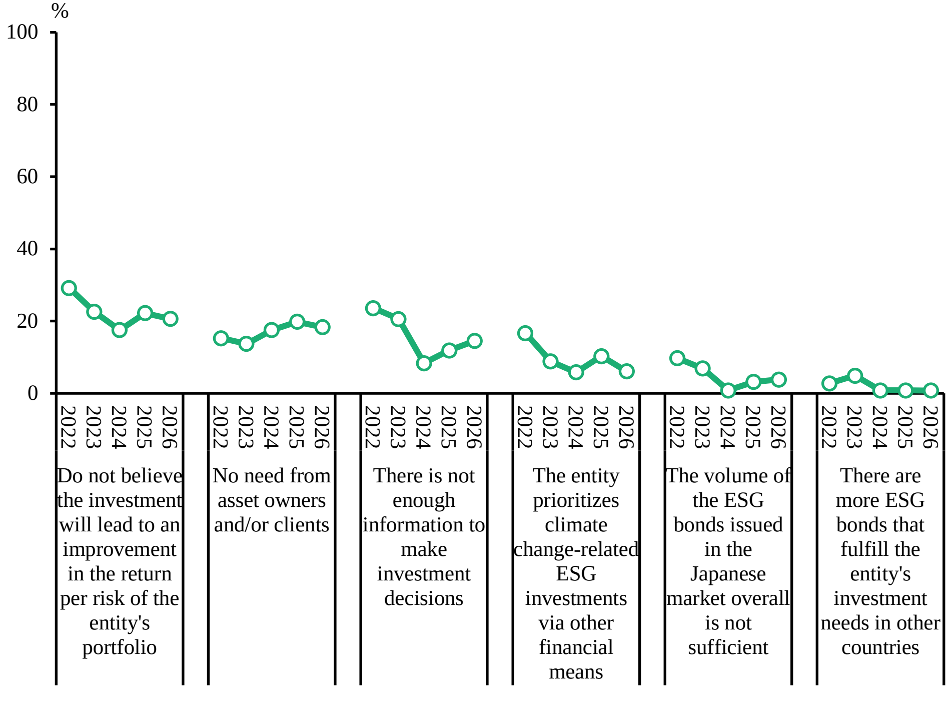


Chart 9: Reasons for Not Investing in the ESG Bonds in the Past 12 Months (Multiple answers were allowed)



B. Climate Change-Related ESG Bond Market

4. Supply and demand conditions of climate change-related ESG bonds

- Supply and demand conditions for the ESG bonds in Japan slightly shifted toward loose compared to the previous survey. Similarly, compared with non-ESG bonds in Japan, these conditions also slightly shifted toward loose; however, respondents maintained their view that these conditions were tighter than those for non-ESG bonds although the difference in conditions was slight.
  -- Some respondents noted that, as a certain number of investors preferred the ESG bonds, supply and demand conditions for green bonds and other ESG bonds that meet such investors' needs tended to be tighter than those for non-ESG bonds.

Chart 10: DI for Supply and Demand Conditions of the ESG Bonds in Japan

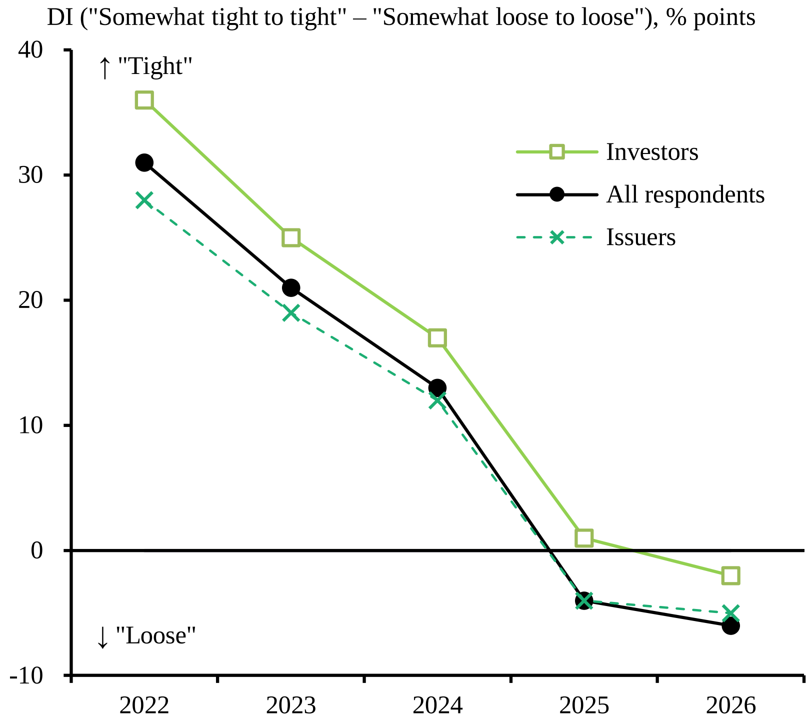
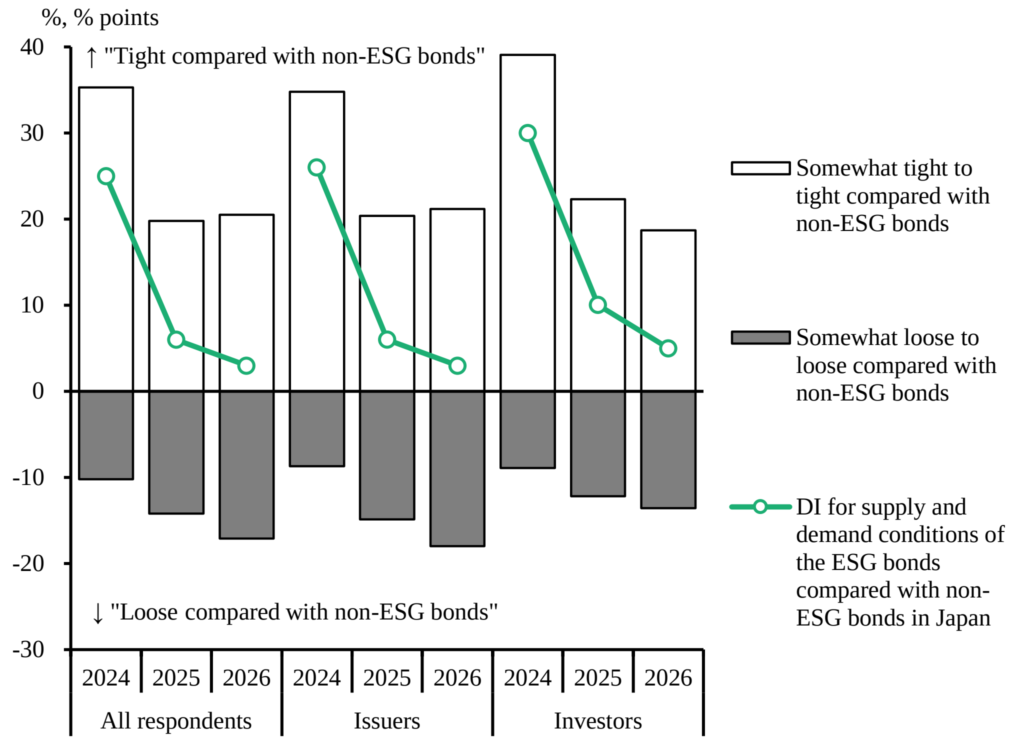


Chart 11: DI for Supply and Demand Conditions of the ESG Bonds Compared with Non-ESG Bonds in Japan

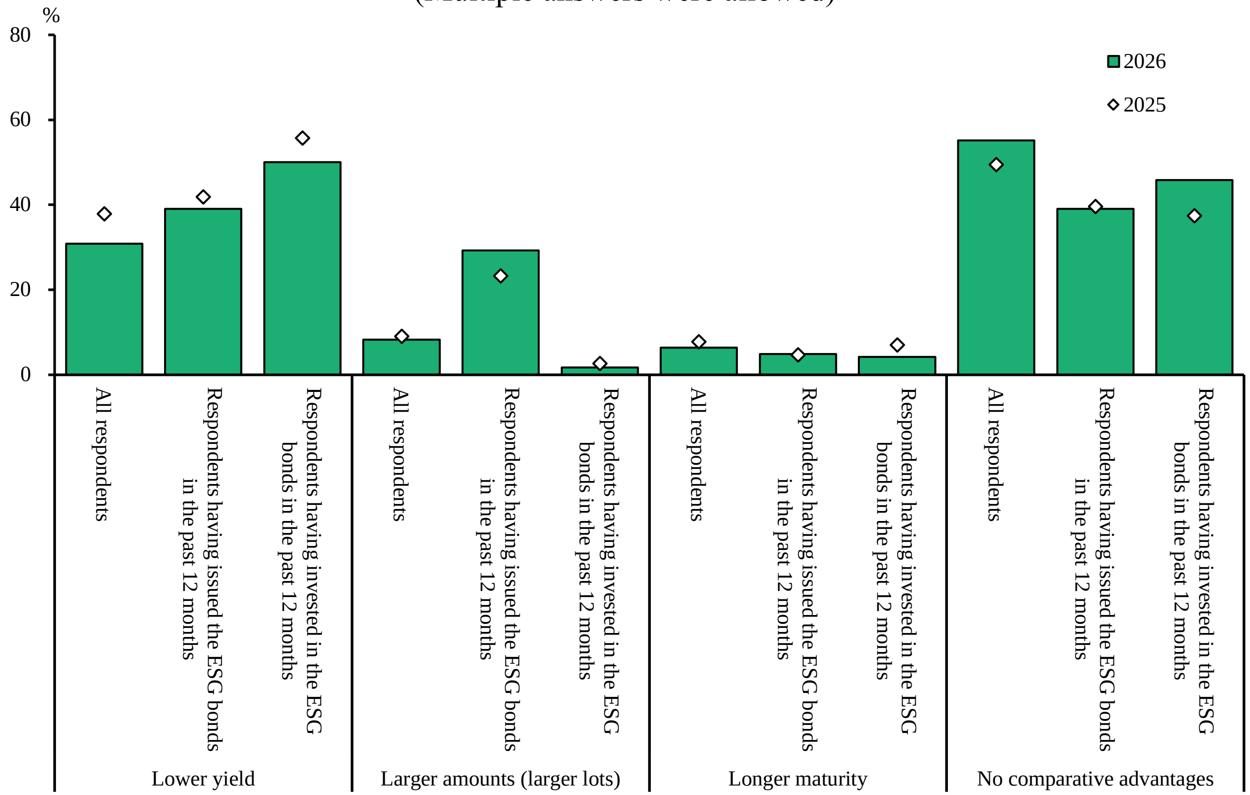


B. Climate Change-Related ESG Bond Market

5. Issuance conditions of climate change-related ESG bonds

- Regarding the differences in the issuance conditions of the ESG bonds compared with non-ESG bonds, there was a slight increase in the perception that the ESG bonds did not have an advantage in such conditions, along with a decrease in the proportion of respondents selecting "the ESG bonds are issued at lower yield," which is an indicator of greenium.
- However, as in the previous survey, nearly 60 percent of respondents who had issued the ESG bonds within the past 12 months continued to indicate that there were some advantages in issuance conditions. Among these respondents, the proportion citing larger issuance amounts (larger lots) as the reason slightly increased compared to the previous survey.

Chart 12: Perceptions of Issuance Conditions for the ESG Bonds Compared with Non-ESG Bonds
(Multiple answers were allowed)



Box 1: ESG Bond Market Trends

1. Trends in the Japanese ESG bond market (1): Outstanding amount

- In the Japanese corporate bond market, the outstanding amount of the ESG bonds continued to increase. The number of issuers also increased, albeit at a gradual pace.
- By bond type, use-of-proceeds ESG bonds (green bonds, sustainability bonds, and transition bonds) accounted for the majority of the total outstanding amount of the ESG bonds in Japan. In particular, transition bonds expanded to account for 10 percent.
- By industry, high-emitting sectors, the real estate and construction sectors (including investment corporations), and financial institutions (excluding investment corporations) continued to account for the majority of the market as in the previous survey, while the share of high-emitting sectors increased moderately.

Chart B1-1:
Outstanding Amount by Bond Type

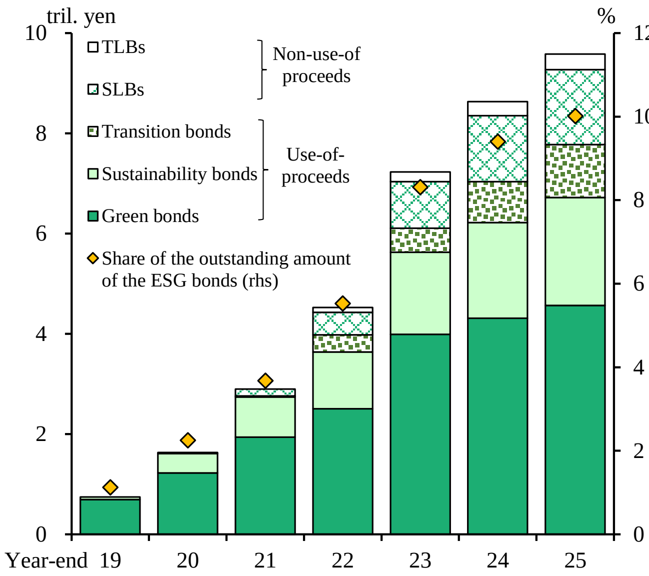


Chart B1-2:
Number of Issuers

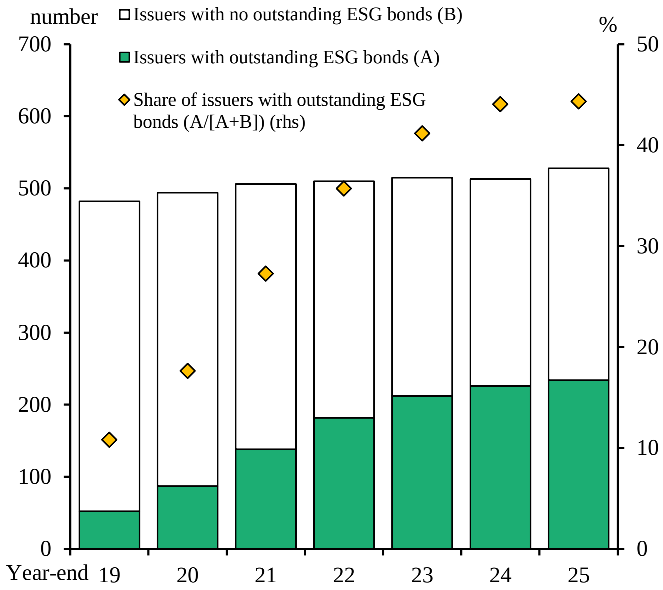
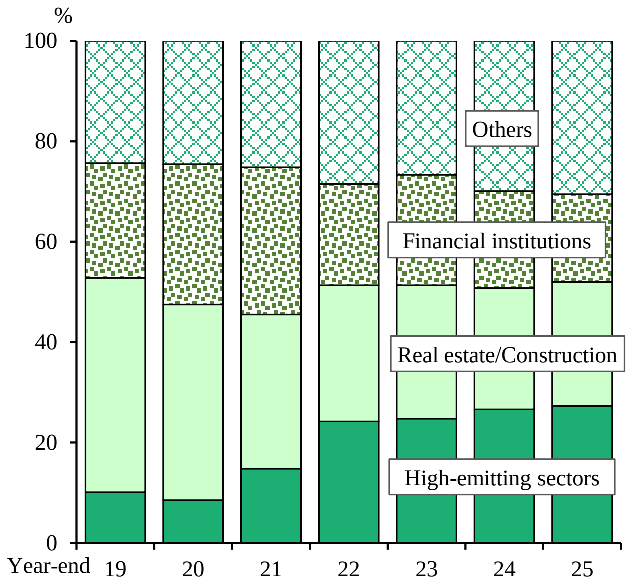


Chart B1-3:
Share of Outstanding Amount by Industry



Note: The data cover yen-denominated corporate bonds that were publicly offered in Japan (excluding perpetual subordinated bonds and those issued by special purpose companies). The ESG bonds include green bonds, sustainability bonds, SLBs, transition bonds, and TLBs. For the definition of high-emitting sectors, see footnote 7 in section C.
Source: JPX Market Innovation & Research; I-N Information Systems.

Box 1: ESG Bond Market Trends

1. Trends in the Japanese ESG bond market (2): New issuance amount

- Meanwhile, the new issuance amount of the ESG bonds in 2025 continued to decline, following the decrease in 2024, and their share in the total Japanese corporate bond issuance also declined moderately. Some respondents noted that this trend was attributable to the fact that, amid the waning impact of mainly large-scale projects, non-ESG bonds had been preferred for their greater issuance flexibility in light of market conditions, such as expectations of higher interest rates and increased volatility.
- By bond type, the issuance of non-use-of-proceeds ESG bonds (SLBs and TLBs) notably decreased. By industry, while issuance declined for most sectors (excluding real estate and construction), the share of high-emitting sectors remained more or less flat.

Chart B1-4:
New Issuance Amount by Project Size

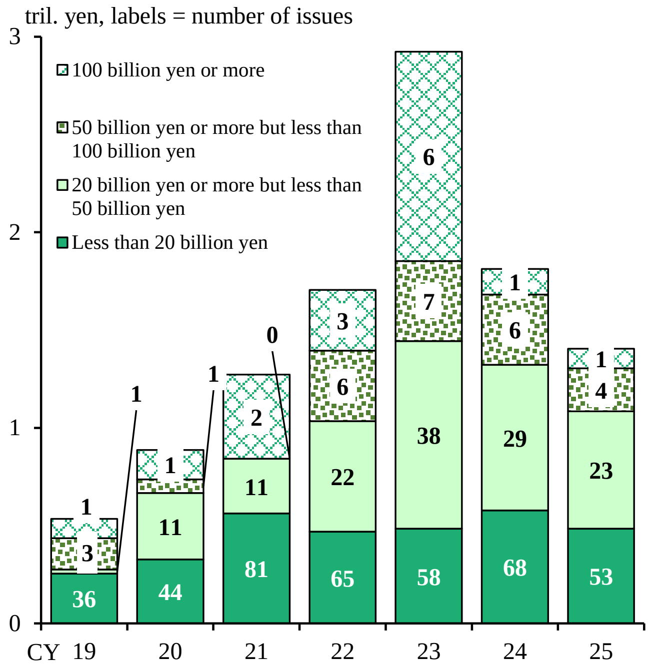


Chart B1-5:
New Issuance Amount by Bond Type

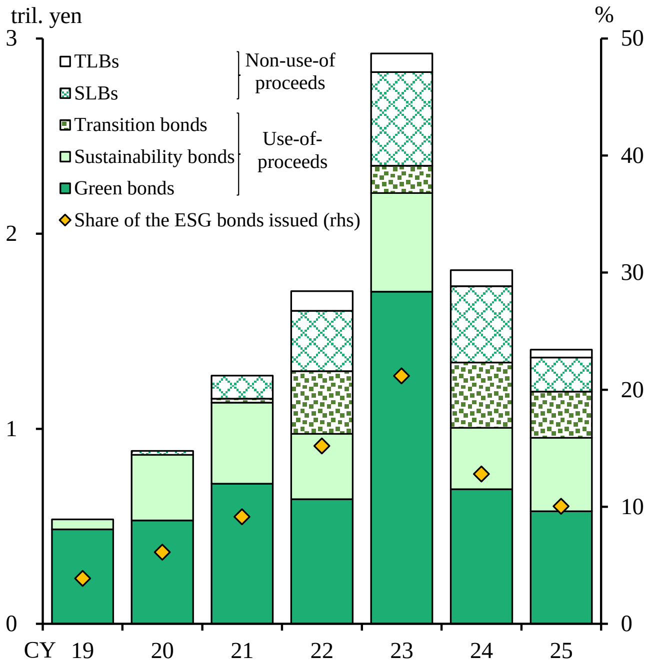
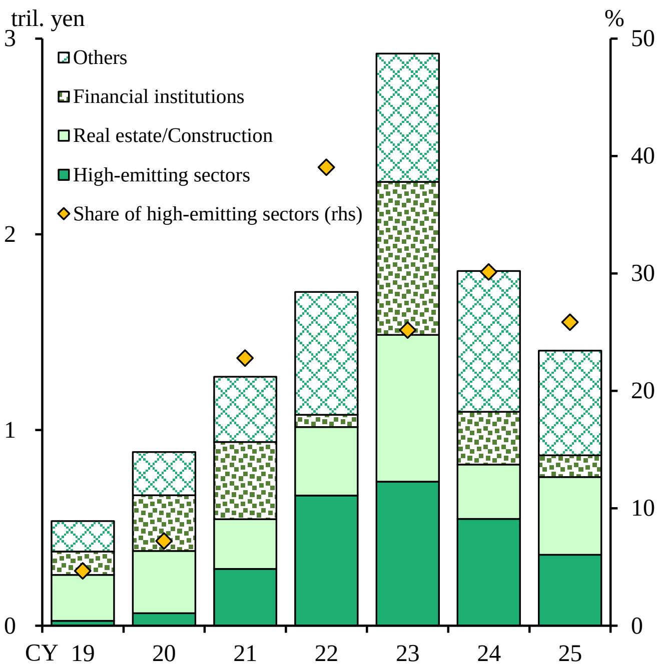


Chart B1-6:
New Issuance Amount by Industry



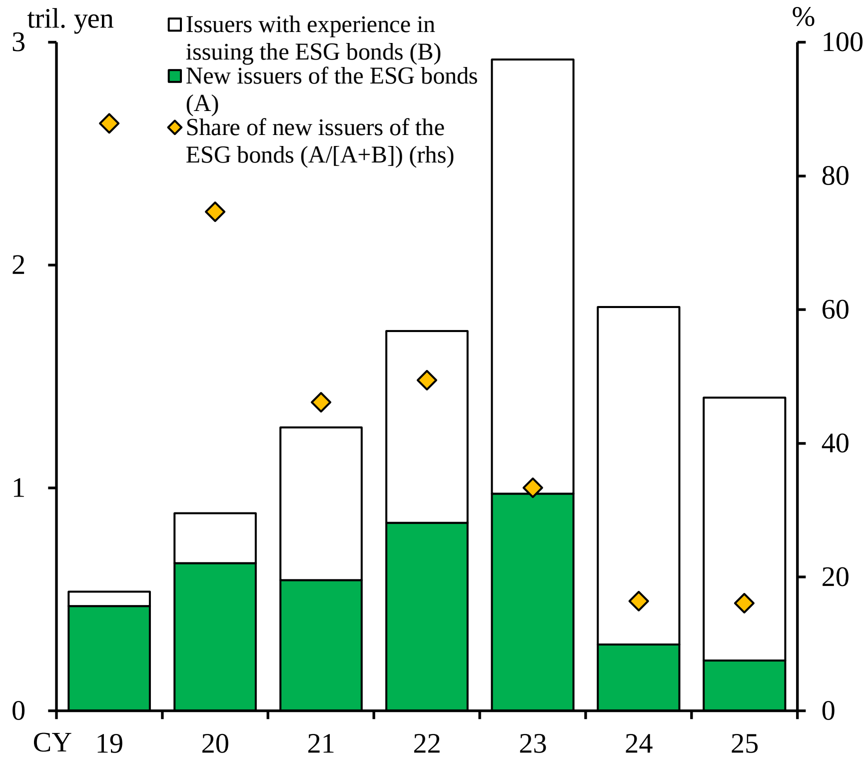
Note: Project size is classified based on the total amount of the ESG bonds issued in a single offering.
Source: JPX Market Innovation & Research; I-N Information Systems.

Box 1: ESG Bond Market Trends

1. Trends in the Japanese ESG bond market (3): Trends by issuer type and redemption outlook

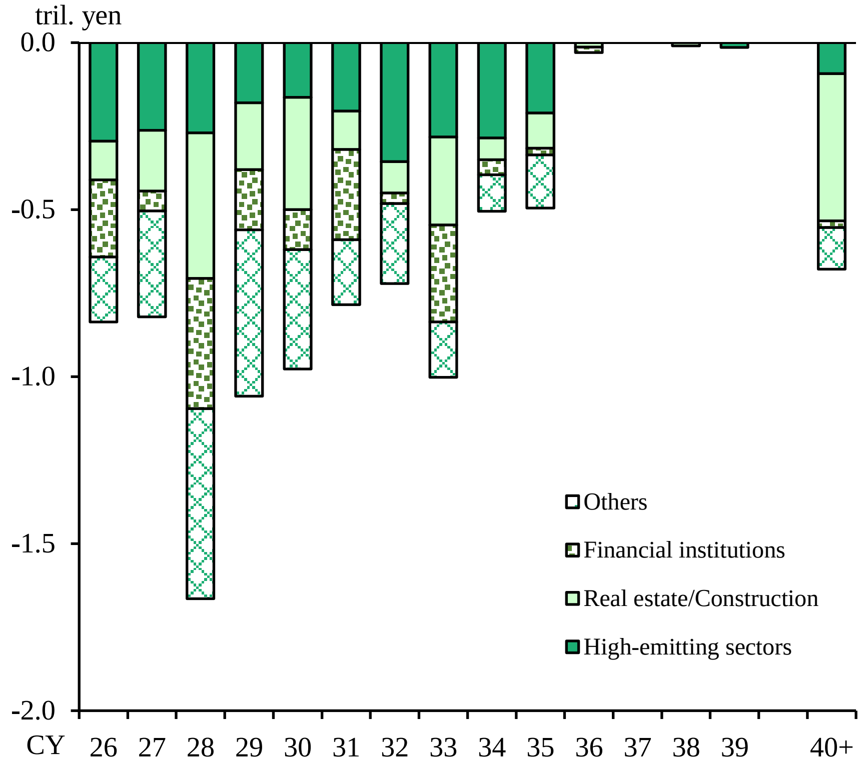
- Examining issuers of the ESG bonds by their issuance experience shows a declining trend in the share of issuance by first-time issuers (hereinafter "new issuers") in the total issuance volume. Expansion of the issuer base seems to have plateaued.
- A key point to watch for future market trends is the refinancing of the ESG bonds upon their redemption. As the ESG bonds issued during the market expansion phase are expected to mature over the next few years, a critical factor will be whether issuers refinance these maturing bonds by issuing new ESG bonds.

Chart B1-7: New Issuance Amount by New Issuers and Existing Issuers



Source: JPX Market Innovation & Research.

Chart B1-8: Redemption Outlook



Box 1: ESG Bond Market Trends

2. Market trends for the ESG bonds issued by local governments in Japan

- New issuance of the ESG bonds by business corporates seems to have plateaued. Meanwhile, the new issuance amount of the ESG bonds by local governments significantly increased, following the launch of Joint Local Government Green Bonds in 2023, and has continued to increase to date. Regarding the number of issuers, more than 80 percent of large local governments (prefectures and ordinance-designated cities) have issued the ESG bonds.
- Local governments, which are responsible for highly public projects, align closely with the principles of ESG. They allocate funds raised through the issuance of the ESG bonds to projects addressing climate change adaptation, as well as initiatives related to energy conservation and the sustainable management of natural resources and land use.

Chart B1-9: New Issuance Amount by Local Governments and Bond Type

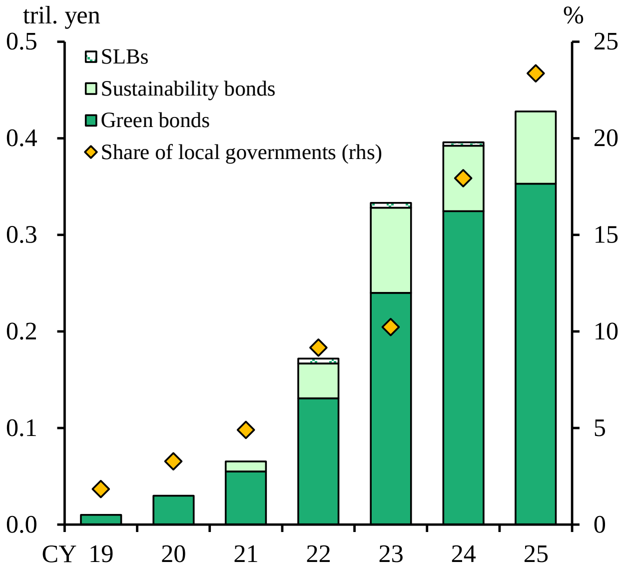


Chart B1-10: Number of Local Governments Issuing the ESG Bonds

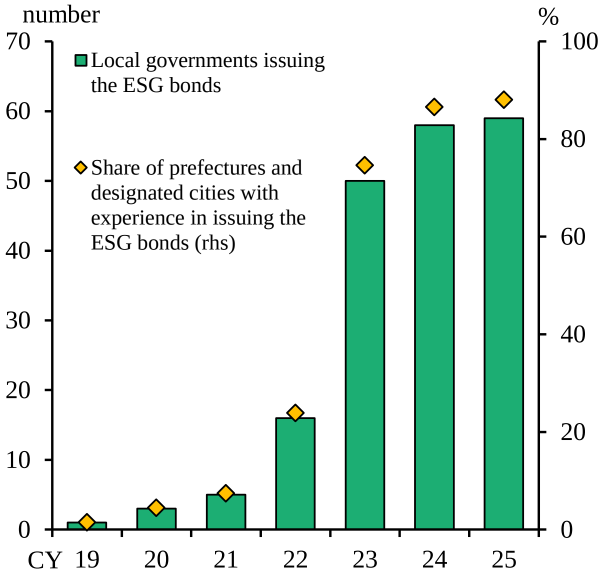


Chart B1-11: Major Projects

Adaptation to Climate Change ✓ Wind and flood disaster prevention ✓ Storm surge and high wave prevention ✓ Landslide disaster prevention
Energy Conservation ✓ Introduction of high energy-efficiency equipment in public facilities and other establishments
Sustainable Management of Natural Resources and Land Use ✓ Conservation and management of forest resources

Note: "Joint Local Government Green Bonds" refers to the ESG bonds issued by local governments, where multiple issuers pool their eligible projects and jointly issue bonds. "Share of local governments" in Chart B1-9 is calculated by dividing the amount of the ESG bonds issued by local governments by the total issuance amount of the ESG bonds. The number of issuers in Chart B1-10 represents the cumulative total of local governments with issuance experience.

Source: JPX Market Innovation & Research; Joint Local Government Green Bond.

Box 1: ESG Bond Market Trends

3. Trends in overseas ESG bond markets

- The global new issuance amount of the ESG bonds in 2025 decreased slightly compared to the previous year. Breaking down the figures, the issuance amount by U.S. companies continued to decline, while that by European companies remained at a certain level, albeit slightly lower than in earlier periods. Meanwhile, the issuance amount by companies in the Asia-Pacific region (excluding Central Asia and Japan) remained firm.
- By bond type, while the steady issuance of green bonds continued, the issuance amount of SLBs showed a downward trend.

Chart B1-12: New Issuance Amount by Region

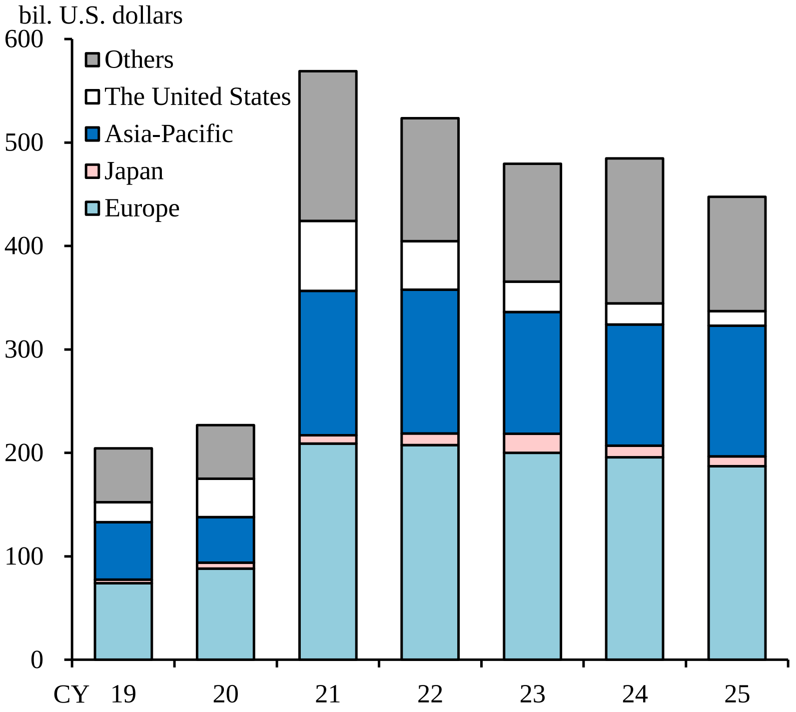
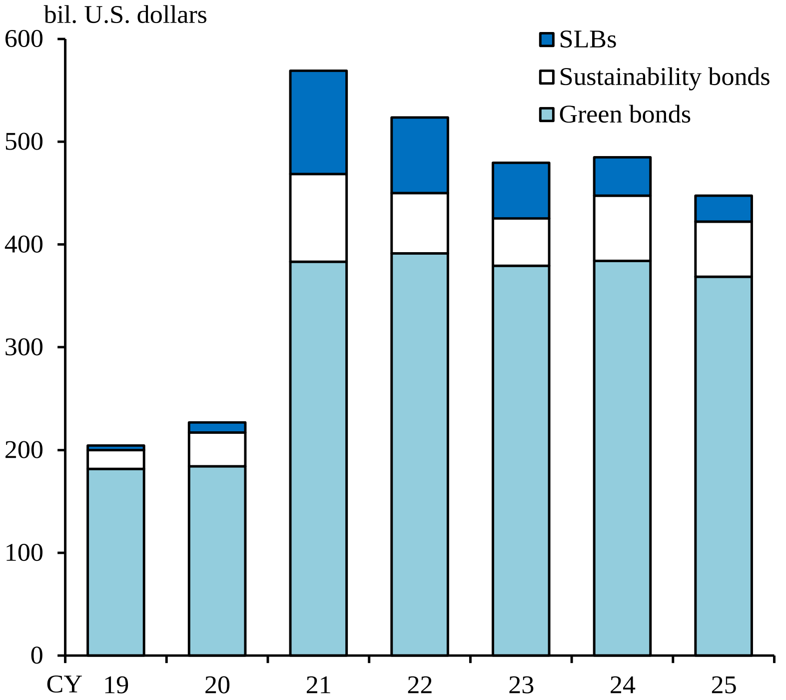


Chart B1-13: New Issuance Amount by Bond Type



Note: The United States covers the U.S. dollar-denominated publicly offered ESG bonds by U.S. companies. Europe covers the EUR-denominated publicly offered ESG bonds by European companies. The Asia-Pacific covers publicly offered ESG bonds by companies based in the Asia-Pacific region, excluding Central Asia and Japan. Japan covers the yen-denominated publicly offered ESG bonds by Japanese companies.

Source: LSEG.

C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

1. Prospects (1): Plans for climate finance toward fiscal 2030[6] (business corporates)

- Approximately half of business corporates, particularly those in high-emitting sectors,[7] expected a significant increase in funding needs for climate change-related responses, with around 40 percent also considering the use of the ESG bonds.
- Regarding the specific types of the ESG bonds being considered for fundraising, while the proportion of business corporates selecting "depending on the environment for issuances" increased, the proportion of those in high-emitting sectors selecting "transition bonds" increased slightly.

Chart 13: Expectation for Demand for Funds for Climate Change-Related Responses toward Fiscal 2030

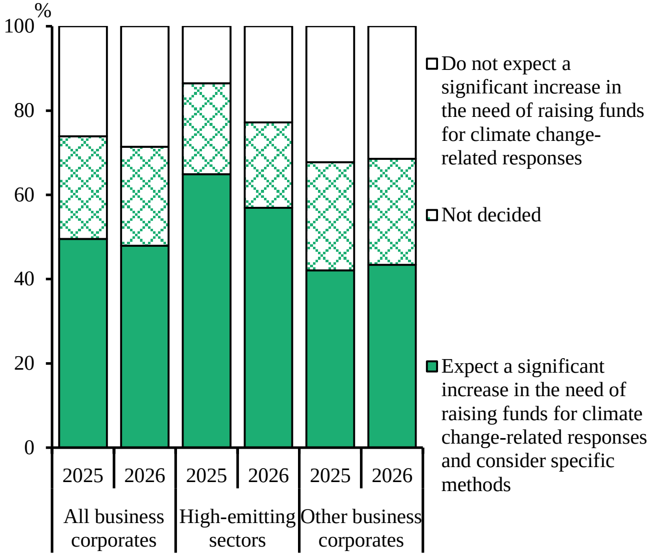


Chart 14: Main Fundraising Methods for Climate Change-Related Responses toward Fiscal 2030 (Multiple answers were allowed)

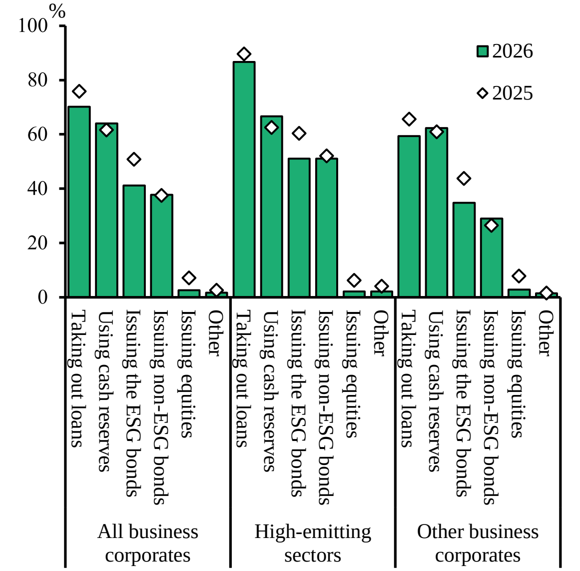
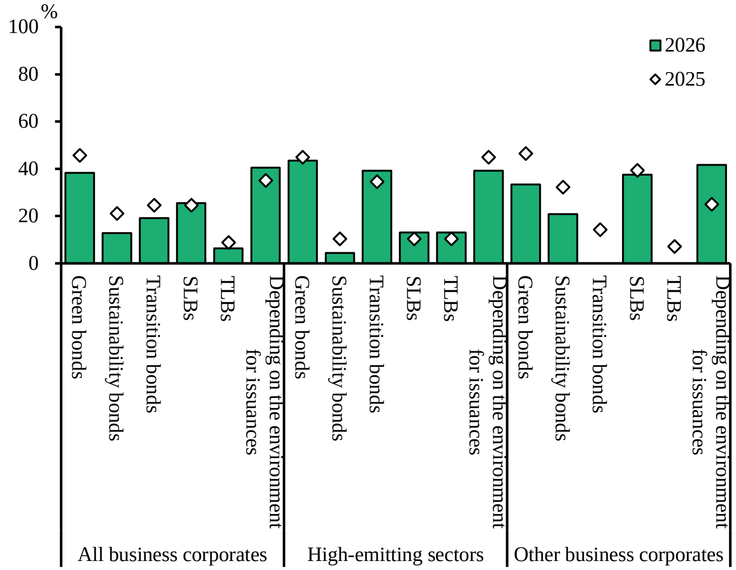


Chart 15: Specific Types of the ESG Bonds for Fundraising (Multiple answers were allowed)



[6] In line with its objective to achieve carbon neutrality by 2050, Japan has set ambitious goals as its Nationally Determined Contribution (NDC). Specifically, it aims to reduce greenhouse gas (GHG) emissions by 46 percent by fiscal year 2030 from its fiscal year 2013 levels and continue efforts to meet the challenging target of reducing the emissions by 50 percent. As funding needs are expected to increase with efforts to address climate change advancing toward fiscal year 2030, this survey asked about funding needs through that period. Additionally, in February 2025, Japan set its aim in its new NDC to reduce GHG emissions by 60 percent by fiscal year 2035 and by 73 percent by fiscal year 2040, respectively, from its fiscal year 2013 levels.

[7] In this survey, the term "high-emitting sectors" specifically refers to the following eight sectors for which "Roadmap for Promoting Transition Finance" has been developed by the Ministry of Economy, Trade and Industry or the Ministry of Land, Infrastructure, Transport and Tourism: pulp and paper; chemicals; oil and coal; glass and ceramics; iron and steel; automobiles; electric power and gas; marine and air transportation. Please note that companies are classified solely by sector, and not all companies within these sectors are high-emitting.

C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

1. Prospects (2): Plans for climate finance toward fiscal 2030 (financial institutions)

- The proportion of investors planning to invest in corporate bonds to address climate change increased slightly compared to the previous survey. Regarding investment policies, a relatively large number of respondents selected "will incorporate climate change-related factors as part of ESG investing" or "will invest in corporate bonds to achieve volume targets set for sustainable finance."

  -- Many respondents noted that they had established target amounts aimed toward fiscal 2030 and had set policies or goals that took into account climate change-related factors.

Chart 16: Plans for Investing in Corporate Bonds toward Fiscal 2030

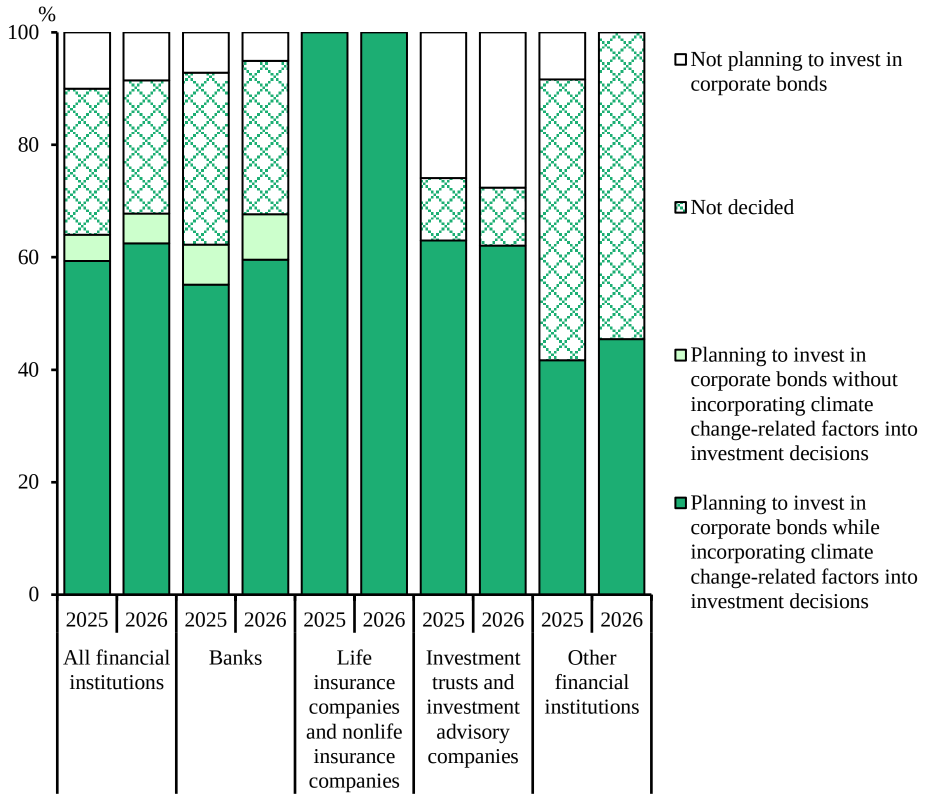
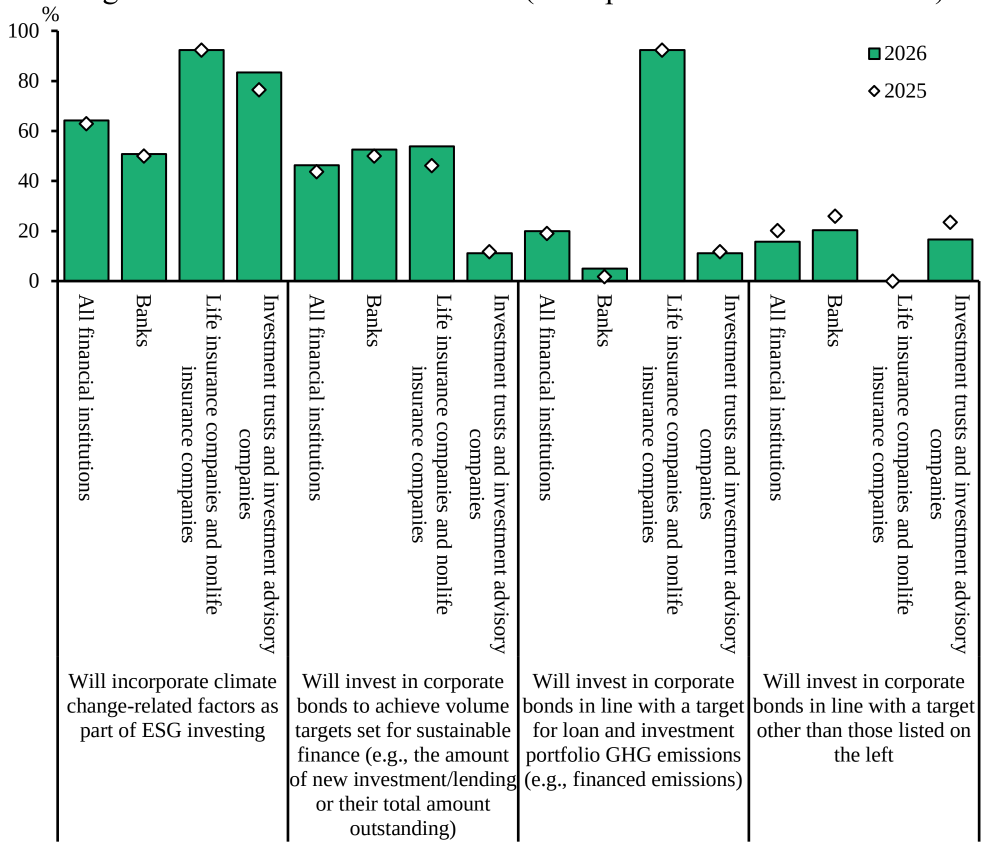


Chart 17: Plans for Investing in Corporate Bonds While Taking Climate Change-Related Factors into Account (Multiple answers were allowed)



C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

1. Prospects (3): Plans for climate finance toward fiscal 2030 (financial institutions)

- Regarding specific corporate bond investing methods that take into account climate change-related factors, a relatively large number of financial institutions selected "increasing investments in climate change-related ESG bonds." By industry, many life and nonlife insurance companies selected "making investment decisions from the perspective of controlling loan and investment portfolio GHG emissions," and many investment trusts and investment advisory companies selected "incorporating climate change-related factors into credit and spread assessment."
- As for the types of the ESG bonds being considered for investment, no significant changes were observed in the consistent preference for use-of-proceeds bonds, such as green bonds.

Chart 18: Methods for Investing in Corporate Bonds While Incorporating Climate Change-Related Factors into Investment Decisions (Up to three answers were allowed)

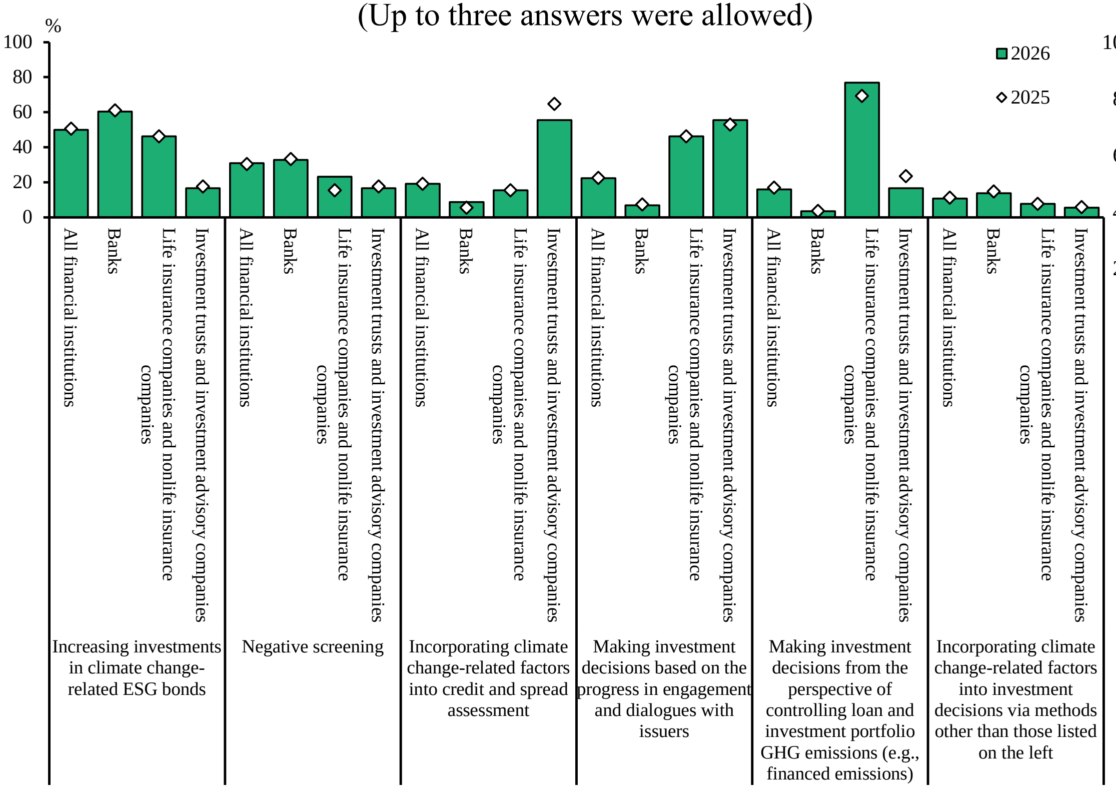
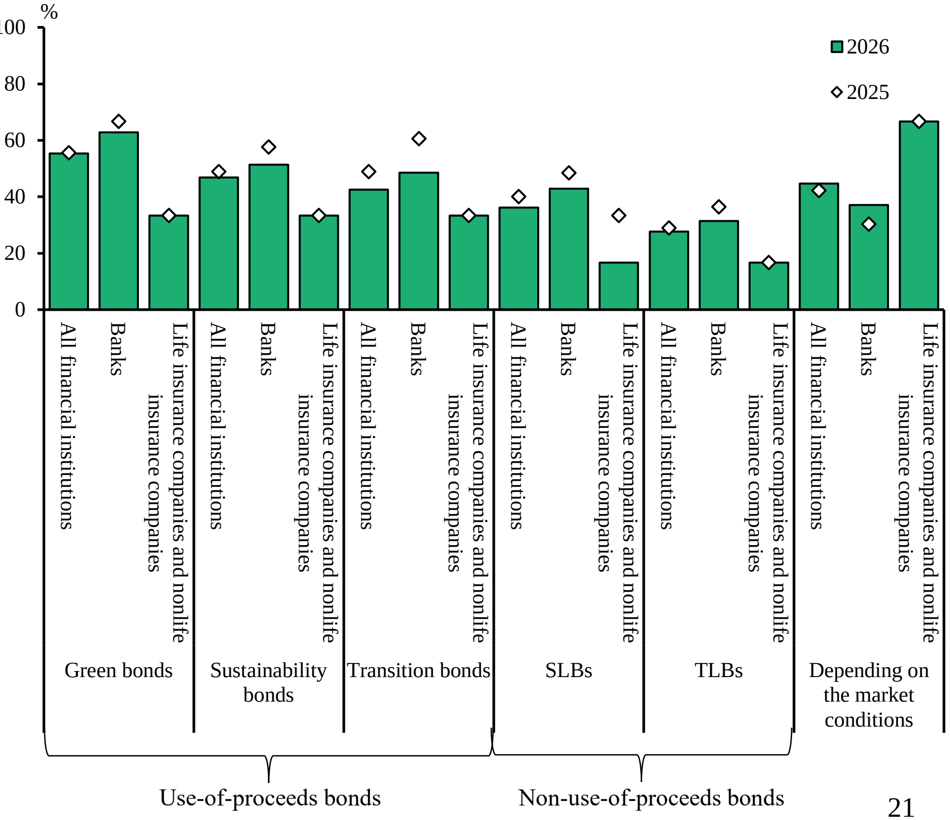


Chart 19: Specific Types of the ESG Bonds Considered for Increased Investment (Multiple answers were allowed)



C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

2. Transition finance (1): Stance of business corporates

- Reflecting the increase in the proportion of business corporates citing that the types of the ESG bonds for fundraising depend on the environment for issuances (Chart 15), the proportion planning to raise funds using transition finance decreased slightly, while the proportion selecting "not decided" increased slightly. Meanwhile, in high-emitting sectors, where the importance of engagement has been highlighted, the proportion planning to utilize transition finance was higher than in other industries and increased slightly from the previous survey.
- Regarding the reasons for planning to use transition finance, there was a decline in the proportion of business corporates citing fund-raising needs that cannot be fulfilled by green finance or the need to facilitate the understanding of the necessity of using a combination of available technologies to reduce emissions, while the proportion of those selecting "other" increased.

  -- Some respondents mentioned that they would like to utilize transition finance given the growing awareness of its importance in Japan and overseas and to demonstrate their commitment to addressing climate change through innovative technologies.

Chart 20: Plans for Using Transition Finance

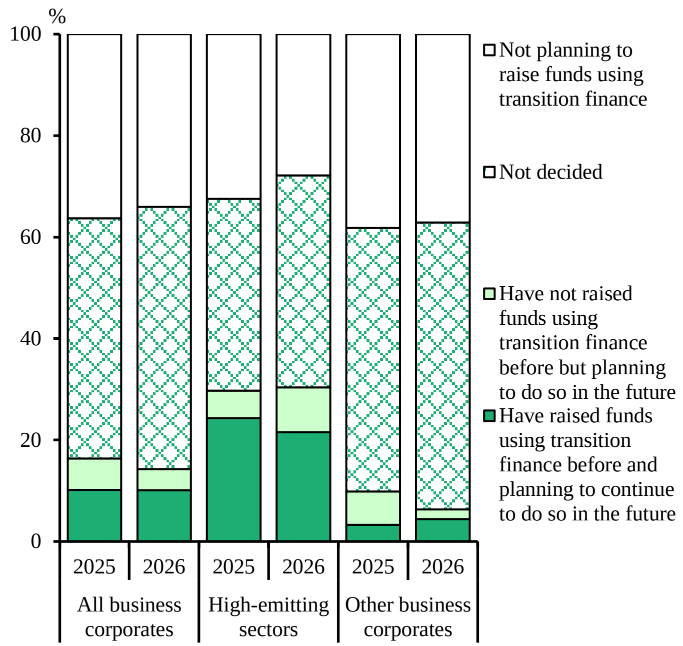


Chart 21: Reasons for Planning to Use Transition Finance (Multiple answers were allowed)

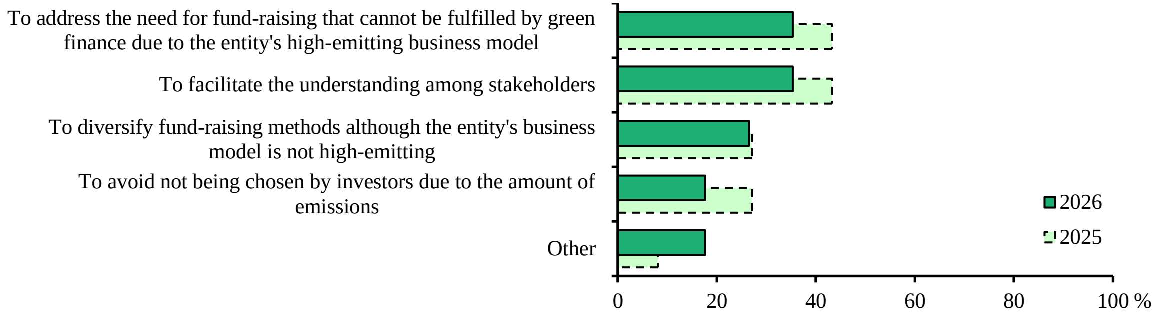
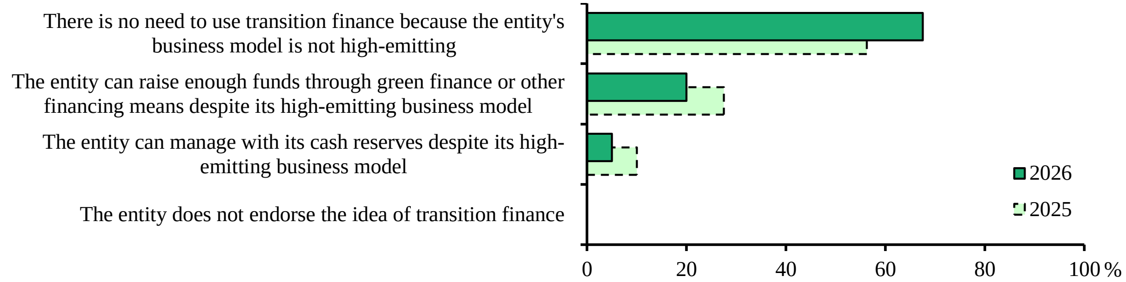


Chart 22: Reasons for Not Planning to Use Transition Finance (Multiple answers were allowed)



C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

2. Transition finance (2): Stance of financial institutions

- Regarding financial institutions' stance on transition finance, the proportion of respondents planning to actively engage in transition finance increased among investment trusts and investment advisory companies, as well as other financial institutions.
  -- Some investors whose asset management policies are determined by contracts with asset owners expressed their intention to continue advocating to asset owners for the significance and importance of ESG investments, including transition finance.
- As for the reasons for not actively planning to engage in transition finance, there were no significant changes from the previous survey. The largest proportion of financial institutions selected "assessing the balance between risk and return is difficult."

Chart 23: Plans for Engaging in Transition Finance

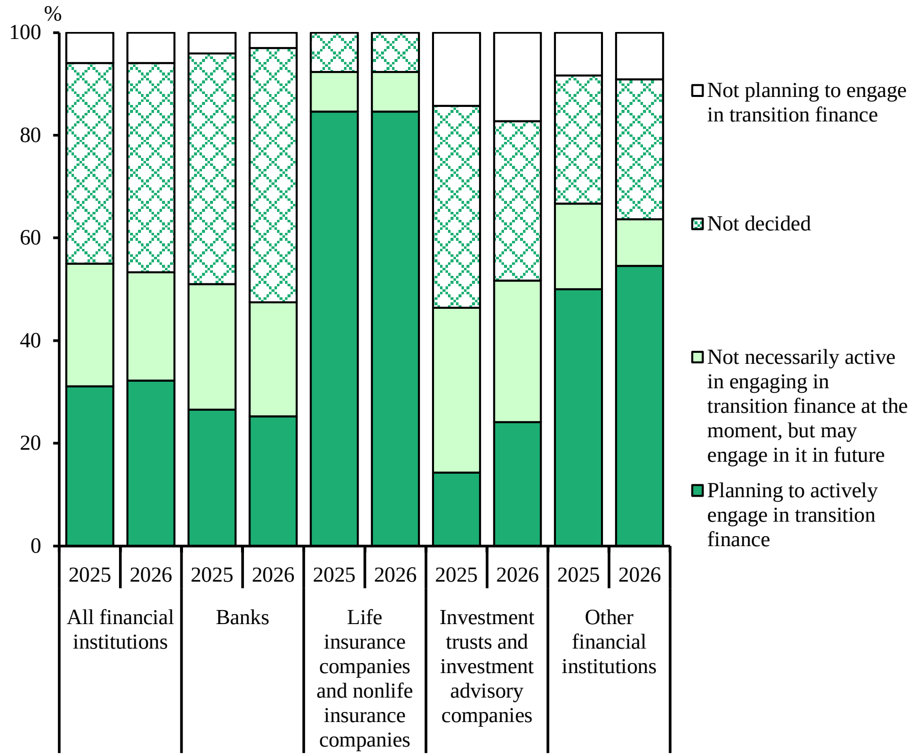
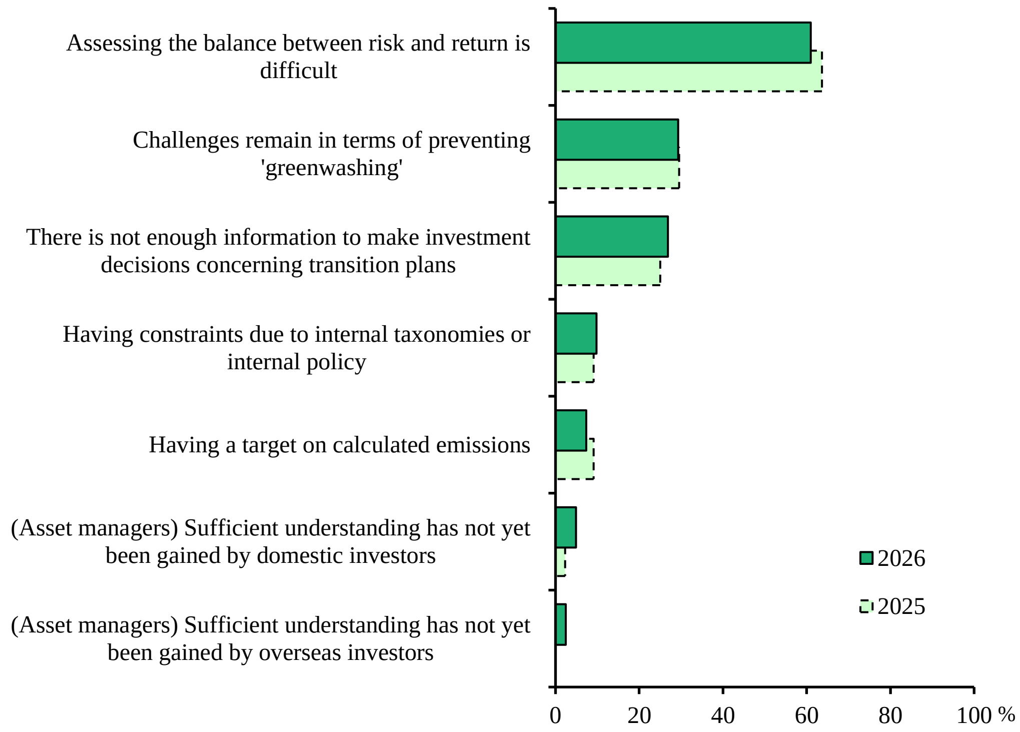


Chart 24: Reasons for Not Actively Planning to Engage in Transition Finance (Up to three answers were allowed)



C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

2. Transition finance (3): Challenges from the perspective of issuers

- Issuers and investors have somewhat different views on challenges for facilitating transition finance smoothly.
- Among issuers planning to use transition finance, "providing policy incentives for transition finance" was the most frequently selected option, with the proportion increasing from the previous survey. Some issuers expressed expectations for policy support, citing significant risks associated with investments, including uncertainty around future profitability, as well as the burdens of refining transition strategies and conducting follow-ups.
- On the other hand, there was a decline in the proportion of issuers selecting "facilitating international understanding of transition finance," which was the most commonly selected option in the previous survey. This shift likely reflects growing international efforts related to transition finance (see Box 2 for details).

Chart 25: Challenges for Facilitating Transition Finance Smoothly
(Issuers Planning to Use Transition Finance)
(Up to three answers were allowed)

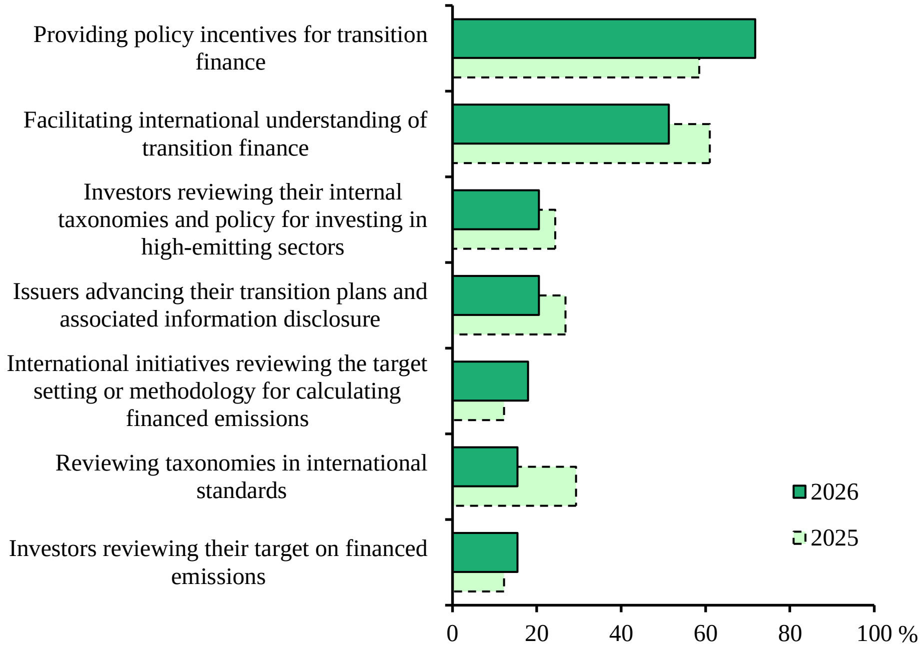


Chart 26: Challenges for Facilitating Transition Finance Smoothly
(Comments from Issuers)

- ✓ Issuers find it difficult to implement transition finance through their own efforts alone due to challenges, such as <u>difficulties in explaining transition plans and evaluating progress</u>. We expect government support, including preferential treatment and subsidies.
- ✓ <u>Economic rationality is crucial</u> for various types of fundraising, including transition finance; therefore, there may be a need for tax incentives and regulations that help enhance economic viability.
- ✓ In the global trend to redefine transition finance, the roadmap-based approach that Japan has pioneered is being referenced in practice, indicating that <u>Japan's philosophy on transition finance is gaining international recognition</u>.
- ✓ <u>The growing global understanding of transition finance</u> is considered a significant step forward for manufacturers.
- ✓ To realize transition finance, in addition to appropriate measures by issuers for transition strategies and financed emissions, it is important to <u>develop a global framework that enables investors to properly evaluate these efforts</u>.

C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

2. Transition finance (4): Challenges from the perspective of investors

- Among investors planning to actively engage in transition finance, "facilitating international understanding of transition finance" remained the most frequently selected challenge, with the proportion slightly increasing from the previous survey. While progress in international efforts has been positively recognized, there continue to be expectations for Japan to provide careful and thorough explanations of its initiatives and to promote a rule-based shared understanding, with the aim of facilitating actual project formation and attracting investment capital.
- Additionally, a significant proportion of investors chose "issuers advancing their transition plans and associated information disclosure," with the proportion increasing from the previous survey. This suggests that, along with further progress in fostering international understanding of transition finance, demand for information disclosure is growing due to the need to address concerns over greenwashing and assess cost-effective projects.

Chart 27: Challenges for Facilitating Transition Finance Smoothly
(Investors Planning to Actively Engage in Transition Finance)
(Up to three answers were allowed)

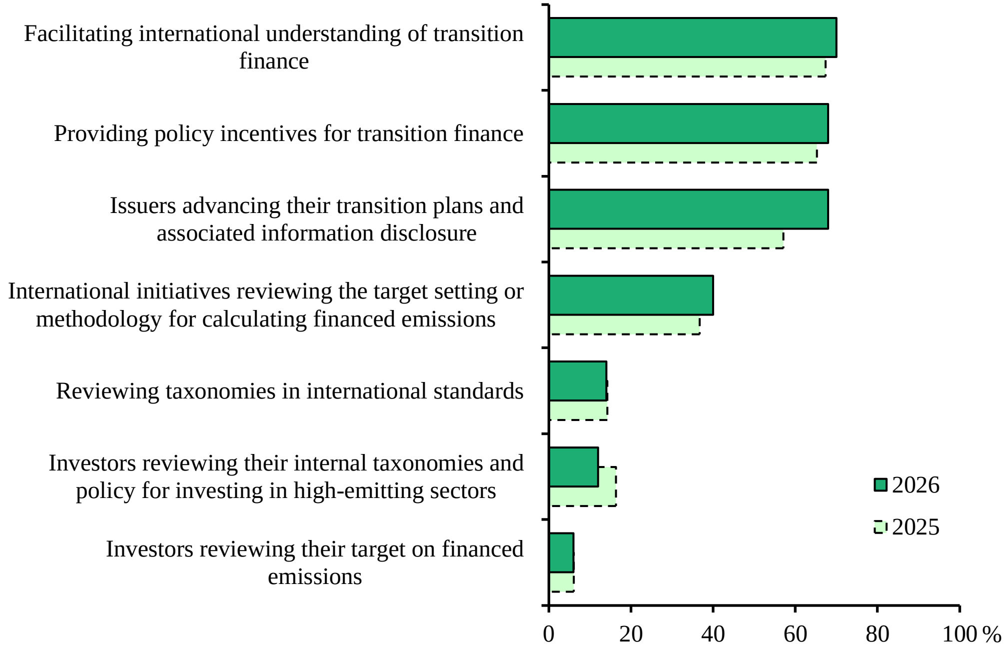


Chart 28: Challenges for Facilitating Transition Finance Smoothly
(Comments from Investors)

- ✓ While international frameworks for transition finance have been developing, some overseas investors <u>still do not fully understand Japan's approach to transition finance</u>; therefore, <u>Japan needs to provide careful and thorough explanations</u>.
- ✓ Although perspectives on transition finance vary by jurisdiction, there is growing global momentum toward fostering a rule-based understanding. <u>It is crucial to further deepen that understanding among both domestic and international market participants</u>.
- ✓ To facilitate investment without concerns over greenwashing, <u>it is vital for issuers to present clear transition strategies, utilizing government roadmaps</u>.
- ✓ We would like to actively invest in projects with greater decarbonization impacts; to this end, <u>we expect enhanced impact disclosure and more comprehensive disclosure content</u>.
- ✓ Since transition finance requires a long period before its effects are realized, <u>reducing uncertainty through government support may be an effective approach</u>.

Box 2: Developments in Transition Finance

1. Introduction

- To realize a decarbonized society, it is essential not only to support projects already at a decarbonized level (green), such as renewable energy, but also to facilitate a steady transition toward decarbonization and provide the necessary financing, particularly for high-emitting industries. Transition finance (hereinafter "TF") is a financing method designed to support companies trying to steadily reduce emissions based on their long-term transition strategies. The Japanese government has promoted the dissemination and credibility of TF through measures such as the formulation of basic guidelines and roadmaps. It is also currently advancing its efforts to support expanding TF in Asia, a key region for achieving global climate goals.
- In overseas markets, particularly in Europe, there was skepticism toward TF due to concerns over greenwashing and carbon lock-in; however, recent developments have shown a growing understanding of the importance of steady emission reductions in high-emitting sectors to achieve decarbonization goals. These developments include the formulation of TF-specific guidelines and a reassessment of the positioning of TF.
- This box summarizes these domestic and international initiatives to expand TF.

Chart B2-1: Recent Domestic and International Initiatives in Transition Finance

International Initiatives	International Capital Market Association (ICMA)	▪ Publication of *Climate Transition Bond Guidelines* (CTBC) (November 2025)
	Loan Market Association (LMA) etc.	▪ Release of a draft of *Guide to Transition Loans* (October 2025)
	International Energy Agency (IEA)	▪ Publication of *Scaling Up Transition Finance* (October 2025)
	European Commission (EC)	▪ Announcement of a proposal to amend the Sustainable Finance Disclosure Regulation (SFDR) (November 2025)
	Transition Finance Council (TFC)	▪ Launch consultation on *Transition Finance Guidelines* (August 2025)
	Financial Services Commission of the Republic of Korea (FSC)	▪ Publication of *Transition Finance Guidelines* (February 2026)
	Economic Research Institute for ASEAN and East Asia (ERIA), Asian Development Bank (ADB), Ministry of Economy, Trade and Industry	▪ Release of *Decarbonizing Southeast Asia's Hard-to-Abate and High-Emitting Sectors: Transition Finance, Technologies, and Policy Approaches* (October 2025)
Japan's Initiatives	Ministry of Economy, Trade and Industry (METI)	▪ Update to the Sectoral Technology Roadmaps (FY 2025) ▪ Publication of *Fundamental Review of Transition Finance* (July 2025)
	Financial Services Agency (FSA)	▪ Operation of Asia GX Consortium (from October 2024)

Box 2: Developments in Transition Finance

2. International initiatives

- In 2025, international market associations such as the ICMA and the LMA published guidelines in quick succession for transition bonds and transition loans. Given the importance of TF in decarbonizing high-emitting sectors, these guidelines clarify the definitions and components of transition instruments, including the introduction of a new Climate Transition Bond label, and outline key matters for ensuring credibility.
- The IEA published a report on TF in October 2025, analyzing that approximately 4 to 5 trillion U.S. dollars would be required for TF over the next decade to achieve global decarbonization. The report emphasizes the importance of ensuring the credibility of transition plans and inclusiveness among stakeholders to facilitate TF.
- Furthermore, in Europe, the proposal to amend the Sustainable Finance Disclosure Regulation was announced. To mitigate greenwashing risks, the proposal aims to classify "transition" as a distinct product category for transition-related financial instruments, whose positioning was previously ambiguous.

Chart B2-2: Overview of Major International Initiatives

Development of Guidelines	ICMA: *Climate Transition Bond Guidelines* (CTBG) (November 2025)
	▪ Describes the four core components of Climate Transition Bonds (use of proceeds, process for project evaluation and selection, management of proceeds, reporting) and key recommendations for enhancing transparency (the bond framework, external reviews).
	LMA etc.: *Guide to Transition Loans* (October 2025)
	▪ Released an exposure draft of the Transition Loan Principles, outlining the five core components of transition loans (transition strategy, use of proceeds, process for project evaluation and selection, management of proceeds, reporting). The draft also recommends external reviews to assess alignment with the principles.
Review of Positioning	IEA: *Scaling Up Transition Finance* (October 2025)
	▪ Analyzes that approximately 4 to 5 trillion U.S. dollars could be mobilized through TF over the next decade for emerging economies and high-emitting sectors for global decarbonization. ▪ Highlights the importance of credibility in transition plans and inclusiveness to broaden the base of participants, in order to address the issue of financial carbon leakage -- a situation where reductions in lending and investment to high-emitting sectors by highly regulated financial institutions are offset by the resultant increased investment from less-regulated regions, potentially hindering decarbonization efforts. Concludes that TF could ultimately develop into a "second pillar" alongside green finance.
	EC: Proposal to amend the Sustainable Finance Disclosure Regulation (SFDR) (November 2025)
	▪ The newly proposed "Transition" category in the amendment bill positions transition as an independent product category. The category is designed to channel investments toward initiatives that are not yet sustainable but align with a credible transition process, as well as investments that contribute to improvements in the ESG area.

Box 2: Developments in Transition Finance
3. Japan's initiatives

- In Japan, the credibility of corporate transition strategies is ensured by aligning them with the Sectoral Technology Roadmaps (hereinafter "RMs") developed by the METI to achieve carbon neutrality in each industry. In fiscal year 2025, the METI updated the RMs formulated between fiscal years 2021 and 2022, taking into account technological developments, corporate and policy trends, other technological advancements, and dialogues with investors.
- Meanwhile, the Japanese government has been promoting the expansion of TF in Asia, with a view to achieving global climate goals, enhancing energy security, strengthening industrial competitiveness, and creating investment opportunities. Specifically, the METI facilitated public-private discussions on promoting decarbonization in Asia and released a report summarizing the outcomes. The report highlights the importance of an "inclusive approach" to accelerate financing for high-emitting sectors for real-economy decarbonization. The approach broadens the scope of TF to include initiatives contributing to each country's NDC and long-term goals. Additionally, the Asia GX Consortium, with the FSA serving as its secretariat, is moving forward with efforts to develop specific TF methodologies and project formation through practical discussions on TF in the region.

Chart B2-3: Overview of Major Initiatives in Japan

Domestic Initiatives	METI: Sectoral Technology Roadmaps (updated in FY 2025) ▪ The METI updated through fiscal year 2025 the technology roadmaps for eight sectors (iron and steel, chemicals, power, gas, oil, pulp and paper, cement, and automobiles) formulated between fiscal years 2021 and 2022. The roadmaps outline specific pathways for high-emitting sectors to transition and can be referenced in TF assessments.
Expansion of TF in Asia	METI: *Fundamental Review of Transition Finance* (July 2025) ▪ Summarizes the public-private discussions conducted to promote TF within the Asian region while sharing Japan's approach to TF across Asia. ▪ Aims to promote realistic decarbonization in the real economy, by broadening the scope of TF beyond labeled TF to include initiatives that contribute to achieving NDCs and long-term goals and thereby channeling funds into high-emitting sectors and other industries in Asia. The importance of ensuring credibility through financial institutions' engagement is also highlighted.
	FSA: Second High-Level Meeting of Asia GX Consortium (October 2025) ▪ The FSA, ASEAN financial authorities, the ADB, the Glasgow Financial Alliance for Net Zero (GFANZ), and financial institutions operating in Asia participated in the meeting to discuss the development and application of practical approaches to TF in the region. ▪ The meeting identified bottlenecks to the expansion of TF, discussed initiatives to promote collaboration among financial institutions and strengthen engagement with industries, and explored mechanisms to track progress in TF and monitor capital flows.

Box 2: Developments in Transition Finance

4. Respondent perceptions and key points to watch going forward

- Many respondents positively evaluated the aforementioned initiatives, with a particular focus on international developments. Specifically, some noted that the formulation of guidelines and the reassessment of the positioning of TF overseas were signs of deepening international understanding. Others viewed such overseas developments as indicating that Japan's approach to TF, which it had been working on ahead of other countries, was gaining global recognition.
- However, some respondents pointed out that, although international understanding of TF was improving, differences in perspectives between Japan and other countries still remained. Others expressed cautious views about the future expansion of TF, noting that challenges persisted in linking these initiatives to actual financial activities. In this situation, respondents also highlighted the importance of continuing to share Japan's initiatives toward and approach to TF with the global community.
- As approaches to addressing climate change are becoming more pragmatic overseas, future developments in TF warrant closer attention. In this context, Japan is expected to lead international discussions on TF and decarbonization through public-private collaboration and by appropriately sharing its TF-related experience with Asia and the rest of the world.

Chart B2-4: Survey Responses regarding Transition Finance Initiatives

International Initiatives	✓ International understanding is certainly deepening, as evidenced by the ICMA's establishment of a distinct label for TF in the CTBG. ✓ We positively view the growing international recognition, as shown, for example, by the ICMA's formulation of the CTBG. However, the EU Taxonomy remains unchanged, highlighting the need to further promote the understanding that TF has a substantive effect on achieving decarbonization. ✓ Europe's TF perspective still differs somewhat from Japan's RM-based approach, requiring convergence in international discussions.
Japan's Initiatives	✓ We recognize that Japan's cost-effective transition strategy is supported by market participants. ✓ Japan is leading the way internationally in implementing TF, and further expansion of TF into other countries, particularly in Asia, is expected. The introduction in Asia will likely begin in the form of loans, making it essential to facilitate understanding among local financial institutions. ✓ The deeper international understanding of TF appears to partly reflect a positive recognition of Japan's active promotion and global leadership in this area. Specifically, Japan has promoted TF by formulating basic guidelines and RMs, generating capital flows through the issuance of Japan Climate Transition Bonds, and building an ecosystem through the GX Acceleration Agency's establishment. ✓ To achieve decarbonization while taking into account energy security and economic rationality, it is crucial to reduce costs through technological innovation driven by the widespread adoption of TF. Given the shifts in the international situation, now may be the best time for Japan to showcase to the world its decarbonization and low-carbon technologies, as well as its transition approaches.

C. Prospects and Challenges of the Climate Change-Related ESG Bond Market
3. Challenges to expanding the climate change-related ESG bond market

- Regarding challenges for increasing the size of the ESG bond market in Japan, as in the previous survey, the largest proportion of respondents pointed to "increasing issuers and/or investors that place a high value on climate-related risks and opportunities," and the proportion of those citing "clarifying policy measures for climate change" increased slightly. As expanding the issuer and investor base remains an ongoing challenge, many respondents highlighted other critical issues, such as the surge in raw material costs and labor shortages, the necessity of the economic rationality and flexible issuance of the ESG bonds, and the importance of ensuring business predictability through policy measures.
- On the other hand, the proportion of respondents highlighting "improving transparency in ESG evaluation" or "enhancing and/or standardizing information disclosure" declined slightly, which appears to reflect progress in efforts toward mandatory disclosure under the SSBJ Standards.

Chart 29: Challenges for Increasing the Size of the Climate Change-Related ESG Bond Market in Japan (All Respondents) (Up to three answers were allowed)

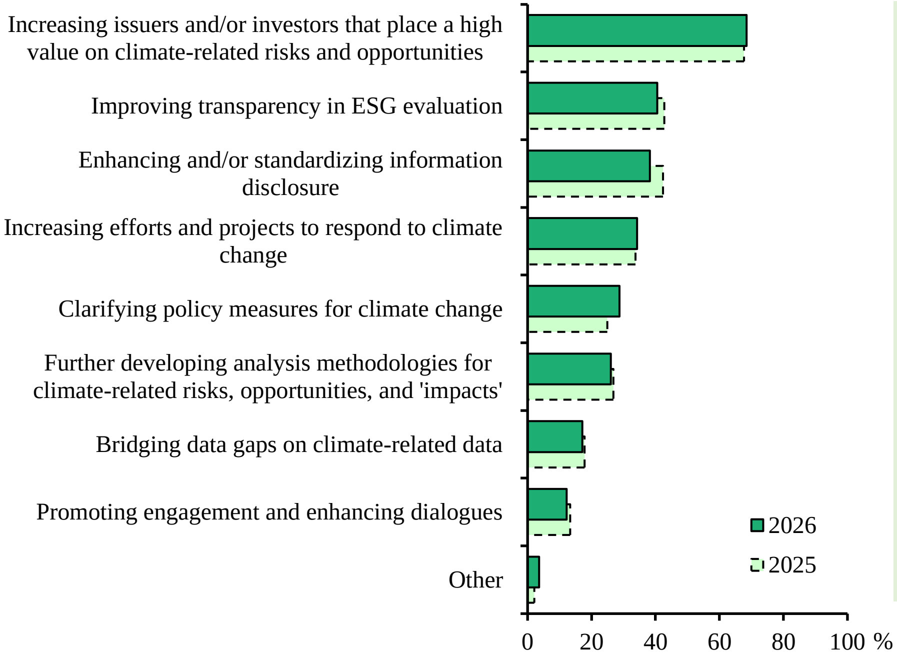


Chart 30: Comments on Challenges for Increasing the Size of the Climate Change-Related ESG Bond Market in Japan

- ✓ Most new issuances are currently by repeat issuers; thus, encouraging new entrants and the return of former issuers remains a challenge. There are many other issues to address, such as the surge in raw material costs and labor shortages, and many small and medium-sized enterprises in particular lack the capacity to undertake ESG initiatives.
- ✓ While awareness is being fostered by, for example, improving the disclosure environment, the reflection of such efforts in the prices of stocks and corporate bonds remains limited. It is crucial to develop a market environment where differences in the quality of corporate initiatives are appropriately evaluated.
- ✓ Developing schemes that reduce the administrative burden would lower the barrier to issuance.
- ✓ The recent environment of high interest rate volatility requires flexible funding, leading to an increase in companies that avoid issuing the ESG bonds, which tend to be time-consuming.
- ✓ While there is a need to increase the number of decarbonization projects underlying the issuance of the ESG bonds, such projects tend to be high-risk and low-return. Therefore, government support is needed to enhance business predictability.
- ✓ It is essential for the government to engage market participants through initiatives such as technology development grants. We positively evaluate the launch of GX-ETS as having improved policy predictability.
- ✓ Enhancing comparability through data standardization would help broaden the investor base.

C. Prospects and Challenges of the Climate Change-Related ESG Bond Market

4. Views on the further development and challenges of Japanese financial markets in contributing to climate change response

- Regarding the international situation, some respondents pointed to changing trends, particularly in the United States and Europe. Meanwhile, others noted a shift in climate-related efforts toward sustainable approaches that also maintain competitiveness, and that decarbonization efforts were irreversible and would accelerate over the long term.
- Under these circumstances, many respondents emphasized that the Japanese government's continued commitment to consistent policy implementation since the previous survey, such as the promotion of transition finance and the mandatory application of the SSBJ Standards (see Boxes 2 and 3 for details), provided significant reassurance to market participants. Many entities are maintaining their initiatives, and some highlighted a further deepening of efforts by issuers and investors.

Chart 31: Comments on the Further Development and Challenges of Japanese Financial Markets

Overseas Developments	✓ The growing uncertainty over climate change caused by shifts in global trends and geopolitical risks could lead to a fragmentation of international rules and policy changes. It is crucial for companies to examine multiple scenarios and strengthen their management foundations to balance climate change responses with profitability. ✓ We recognize that the signs of a backlash in the United States and Europe represent a shift from idealistic to pragmatic approaches, and that the fundamental direction of climate policy therefore remains unchanged. ✓ As climate change responses are irreversible and will likely accelerate long-term, staying the course and steadily advancing such efforts is essential. ✓ The recent backlash in the United States and Europe is seen as a move to re-examine the core question of how sustainability links to corporate value and competitiveness. We understand this is a phase where greater emphasis is being placed on demonstrating and explaining how sustainability contributes to financial performance, capital efficiency, and the quality of decision-making.
Continuation and Deepening of Japan's and Companies' Efforts	✓ Japan's consistent commitment to implementing policies serves as a significant source of reassurance for market participants. For instance, it mandated the application of the SSBJ Standards and introduced GX-ETS. ✓ In the domestic ESG bond market, despite initial concerns over the impact of changes in global trends, issuance has continued and market participants' interest remains generally high. ✓ In Japan, a growing number of investors are scrutinizing the feasibility of corporate transition plans and their financial implications, rather than relying solely on environmental labels, indicating a deepening of the market's analytical capabilities. We understand that the market is in the process of maturing, transitioning toward a fundamental evaluation of alignment with business strategies. ✓ Issuers' mid- to long-term decarbonization efforts have been steadily advancing. The ESG bonds with proceeds earmarked for climate change adaptation projects as well as disaster prevention and mitigation are attracting attention domestically and internationally as pioneering initiatives. ✓ Non-ESG bonds will also likely be evaluated from an ESG perspective, with issuer commitment to ESG becoming a baseline requirement for investors. Therefore, it is essential not only to issue the ESG bonds but also to appropriately integrate ESG initiatives into mid- to long-term corporate strategies.

Box 3: Mandatory Disclosure based on the SSBJ Standards

1. Disclosure contents and schedule

- Appropriate information disclosure is essential to enhancing market transparency, ensuring smooth market functioning, and achieving efficient resource allocation. Regarding climate change-related disclosure in Japan, institutional arrangements have been developed in light of the establishment of international disclosure standards, such as the TCFD Recommendations (2017) and the International Sustainability Standards Board (ISSB) Standards (2023). For example, a new section for sustainability reporting was established in annual securities reports in January 2023 through amendments to the Cabinet Office Ordinance and other related regulations. However, disclosed information still varies in content, volume, and depth.
- Against this backdrop, sustainability information disclosure in Japan is reaching an institutional turning point, as shown by developments such as the formulation in March 2025 of domestic standards aligned with the ISSB Standards (the SSBJ Standards) and their mandatory phased application to Tokyo Stock Exchange Prime Market-listed companies above a certain size in February 2026, following amendments to the Cabinet Office Ordinance and other related regulations. This box introduces market participants' comments gathered through the survey regarding their preparedness and challenges for mandatory disclosure, as well as the utilization of disclosed information in investment decisions.

Chart B3-1: Disclosure Contents of the SSBJ Standards ("Core Content" [Partial Excerpt])

	Governance	Strategy	Risk Management	Metrics and Targets
General Disclosures	・Governance bodies or individuals responsible for sustainability (climate)-related risks and opportunities. ・Governance process and management's role.	・Impacts of sustainability-related risks and opportunities on the business model, value chain, finances, strategy, and decision-making.	・Process to identify, assess, prioritize, and monitor sustainability-related risks and opportunities.	・Metrics required under the SSBJ Standards and those used by the company to monitor sustainability-related risks and opportunities.
Climate-Related Disclosures		・Climate-related impacts mentioned above (including transition plans). ・Scenario analysis		・Cross-industry metrics (including Scope 1-3 GHG emissions) ・GHG emissions targets
[Reference] TCFD Recommendations	The organization's governance around climate-related risks and opportunities.	The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	How the company identifies, assesses, and manages climate-related risks.	The metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Chart B3-2: Application Schedule (Example)

	Average Market Capitalization	FYE March 2027	FYE March 2028	FYE March 2029	FYE March 2030
Established	3 tril. yen or more	Mandatory Application of the SSBJ Standards Two-Step Disclosure Option	Mandatory Third-Party Assurance		
Established	1 tril. yen to less than 3 tril. yen		Mandatory Application of the SSBJ Standards Two-Step Disclosure Option	Mandatory Third-Party Assurance	
Scheduled	500 bil. yen to less than 1 tril. yen			Mandatory Application of the SSBJ Standards Two-Step Disclosure Option	Mandatory Third-Party Assurance

Note: 1. Regarding the initiation of mandatory third-party assurance (shown in the right chart), institutional arrangements are expected to proceed in alignment with the timing for mandating the application of the SSBJ Standards to issuers with an average market capitalization of less than 1 trillion yen.
2. Average market capitalization is calculated as the average of the past five fiscal years up to the preceding fiscal year.

Source: SSBJ; FSA; METI.

Box 3: Mandatory Disclosure based on the SSBJ Standards

2. Preparation status and expectations for disclosed information

- Regarding preparation status under the SSBJ Standards, issuers already set to be subject to mandatory disclosure are making progress in their preparations, such as framework establishment, data collection including system updates, and materiality identification. Information gathering is underway among issuers expecting the start of mandatory application from the fiscal year ending March 2029 onward and those whose mandatory application is yet to be determined. Several respondents also commented that they had actively begun formulating roadmaps and collecting data toward voluntary disclosure.
- Investors expressed expectations for expanded disclosures and enhanced data comparability, in response to mandatory disclosure. Some noted that, when making investment decisions, they placed importance on data such as GHG emissions and the feasibility of transition plans (including alternative scenarios).

Issuers (Subject to Mandatory Disclosure Starting from FY Ending March 2027/2028)	
Establishing Frameworks	✓ Led by the Sustainability Promotion Department, we have established a cross-functional internal collaboration system, involving relevant departments such as the Accounting and Risk Management Departments.
Data Collection Measures	✓ To ensure accurate, comprehensive, and timely data collection on a consolidated basis including overseas sites, we are introducing a new system and considering the utilization of forecast data and forward-looking estimates. ✓ To refine Scope 1-3 GHG emissions data, we are obtaining limited third-party assurance to improve data reliability and enhance measurement systems.
Identifying Disclosure Contents	✓ We have performed a gap analysis of current disclosures and our initiatives against the SSBJ Standards' requirements to identify materiality and refine our KPIs.

Issuers (Expected Mandatory Application Starting from FY Ending March 2029 / Not Yet Determined)	
Information Gathering	✓ We are still in the information-gathering phase and are closely monitoring advanced practices among industry peers. ✓ We are holding internal workshops based on explanatory materials for the SSBJ Standards.
Preparations for Voluntary Disclosure	✓ We have formulated a roadmap for expanding data collection to overseas sites and obtaining third-party assurance in phases, and have begun allocating investment funds. ✓ We have begun establishing internal frameworks and disclosing certain data in preparation for voluntary disclosure.

Expectations by Investors
✓ We utilize non-financial information to assign our own proprietary ESG scores. Through the mandatory application of the SSBJ Standards, we expect enhanced disclosure of information and improved data comparability.
✓ When making investment decisions, we place particular importance on factors, including the disclosure of Scope 1-3 GHG emissions, emissions reduction plans, third-party assurance, and ESG metrics integration into executive remuneration.
✓ To assess the feasibility of transition plans and the recoverability of funds, we focus on the allocation of decarbonization capital within capital investment plans, technological innovation status, and the transparency of the use of proceeds. Given the inherent uncertainty of transition plans, we highly evaluate their effectiveness when alternative scenarios are also presented.
✓ In ESG bond investments, it is crucial to monitor the actual allocation of funds and the resulting outcomes. We expect appropriate post-issuance reporting.

Note: Approximately 30 percent of issuer respondents will be subject to mandatory application, starting from the fiscal year ending March 2027 or March 2028 (386 total respondents, excluding those who did not provide answers). Entities for which mandatory application is yet to be determined include those already set to be subject to the mandate (with an average market capitalization of 1 trillion yen or more) and those exempt but disclosing voluntarily. The timing of mandatory application is based on individual responses.

Box 3: Mandatory Disclosure based on the SSBJ Standards

3. Future challenges

- Regarding the challenges of mandatory application, many issuers highlighted the difficulty and burden of collecting data, including Scope 3 GHG emissions, from numerous locations such as overseas sites, as well as the need to establish market-wide mechanisms to ensure the availability of such data. Some investors commented on the need to enhance their own analytical capabilities to leverage disclosed information in investment decisions, while others noted that it would be desirable to clarify key areas of focus within disclosures and how to utilize them in decision-making. As best practices are accumulated and shared and the comparability of disclosures improves, it is expected that disclosed information will be more appropriately reflected in corporate valuations, thereby allowing market functions to operate even more effectively.

Issuers' Comments

Establishing Frameworks	✓ While a group-wide consolidated response is required, the current sustainability management division faces significant staffing constraints. Strengthening our organizational structure, including rebuilding internal controls, remains a challenge.
Data Collection Measures	✓ Particularly for Scope 3 GHG emissions, it is necessary to collect data from locations (including overseas sites) that have not previously calculated emissions, which poses a significant practical burden. ✓ Establishing a mechanism to ensure the accuracy of data provided by affiliates remains an issue. ✓ The proliferation of calculation and disclosure methodologies, such as those under the Act on Promotion of Global Warming Countermeasures and GX-ETS, creates an administrative burden.
Scheduling	✓ Due to earlier submission deadlines for annual securities reports, disclosing third-party assured data requires shifting the entire work process forward by several months, creating operational strain.
Third-Party Assurance	✓ As climate-related disclosures rely largely on estimates based on various assumptions, it is difficult to meet the same level of rigor and accuracy as financial information. We are concerned that third-party assurance requirements being close to the level of financial audits could hinder proactive disclosure.
Others	✓ While issuers' operational burdens are increasing, establishing a market-wide common understanding of the evaluation and utilization of climate-related data is crucial to ensure its effective use in investment decisions and dialogues. ✓ To ensure comparability, it is necessary to develop cross-industry metrics and guidelines that facilitate a common interpretation. Furthermore, we expect the provision of case studies featuring the initiatives of leading companies to raise awareness that applying the SSBJ Standards goes beyond mere regulatory compliance and leads to enhanced corporate value.

Investors' Comments

- ✓ Although the SSBJ Standards have been established, assumptions underlying analyses, KPIs, and the granularity of information still vary, posing challenges for both peer and historical comparisons.
- ✓ There is a shortage of expertise in incorporating climate-related disclosures into investment decisions. Enhancing analytical capabilities is necessary.
- ✓ Disclosing how investors incorporate non-financial information into their investment decisions and clarifying their information needs may facilitate smoother engagement with issuers and further foster market-wide momentum toward the effective utilization of climate-related information.
- ✓ We expect the government to provide thorough explanations and conduct outreach to overseas market participants so that disclosures based on the SSBJ Standards are recognized and valued internationally.

III. Conclusion: Key Findings

III. Conclusion: Key Findings

- In this survey, respondents viewed that the pricing of climate-related risks and opportunities in financial instruments had declined slightly from the previous survey in both stock and corporate bond markets in Japan. To promote further integration of these risks and opportunities into market pricing, respondents most frequently emphasized the importance of expanding the issuer and investor base, as in the previous survey. Meanwhile, the number of respondents citing enhancing and/or standardizing information disclosure declined, reflecting progress toward mandatory disclosure requirements.
- Regarding the current status of the ESG bond market, the new issuance amount of the ESG bonds declined. This was attributable to the plateauing number of projects, as well as issuers' preference for non-ESG bonds given their greater issuance flexibility and the operational burden of issuing the ESG bonds. Views and impressions on supply and demand conditions for the ESG bonds shifted slightly toward loose compared to the previous survey.
- Regarding the prospects for the ESG bond market, approximately half of business corporates indicated that they expected a significant increase in funding needs, with around 40 percent considering the use of the ESG bonds. Another key focal point will be a refinancing upon maturity of the ESG bonds issued during the market expansion phase. In addition, the number of investors planning to invest in corporate bonds for climate change responses increased slightly, suggesting a sustained active stance toward such responses.
- Transition finance is expected to be utilized primarily by high-emitting sectors. While issuers hope for policy incentives to offset unprofitability and risks, investors expect further international understanding and enhanced disclosures to address greenwashing and to assess cost-effectiveness. Regarding climate-related disclosures, it was confirmed that issuers already set to be subject to mandatory disclosure based on the SSBJ Standards are moving forward with measures such as framework establishment, data collection, and materiality identification, while some respondents pointed to challenges such as mitigating operational burdens and improving comparability among issuers through standardized disclosures.
- As for climate change responses, while some respondents highlighted changing trends, particularly in the United States and Europe, others noted a shift toward sustainable approaches that also maintain competitiveness. Meanwhile, many respondents emphasized that the Japanese government's continued commitment to consistent policy implementation since the previous survey, such as the promotion of transition finance and the mandatory application of the SSBJ Standards, provides significant reassurance to market participants. Many entities are maintaining their initiatives, and some highlighted a further deepening of efforts by issuers and investors.
- Climate change responses require continuous and steady initiatives from a mid- to long-term perspective. Bearing this in mind, the Bank will continue to monitor the changing environment surrounding climate change, as well as the engagement stances of issuers and investors, thereby appropriately assessing the functioning of financial markets concerning climate change.

Appendix: Total Number of Respondents for Each Chart

Chart 1	The total number of respondents for stock prices was 284 in 2022, 375 in 2023, 437 in 2024, 459 in 2025, and 462 in 2026; that for corporate bond prices was 281 in 2022, 367 in 2023, 429 in 2024, 452 in 2025, and 455 in 2026. These figures exclude those who did not provide answers. The DI is calculated as the proportion of respondents who selected "reflected" or "somewhat reflected" minus the proportion of those who selected "not reflected" or "not reflected much." Responses of "somewhat reflected" and "not reflected much" are assigned a weight of 0.5.
Chart 2	The total number of respondents was 473. Multiple answers were allowed.
Chart 3	The total number of respondents for both stock and corporate bond prices was 290 in 2022, 380 in 2023, 444 in 2024, 465 in 2025, and 473 in 2026. Up to three answers were allowed.
Chart 4	The total number of respondents was 381 in 2025 and 390 in 2026, excluding those who selected "not applicable (not an issuer)."
Chart 5	The total number of respondents was 241 in 2025 and 251 in 2026, excluding those who selected "not applicable (not an investor)."
Chart 6	The total number of respondents was 19 in 2022, 36 in 2023, 44 in 2024, 43 in 2025, and 41 in 2026. These figures represent issuers who indicated that they had issued the ESG bonds within the past 12 months. Multiple answers were allowed.
Chart 7	The total number of respondents was 230 in 2022, 274 in 2023, 319 in 2024, 338 in 2025, and 349 in 2026. These figures represent issuers who indicated that they had not issued the ESG bonds within the past 12 months. Multiple answers were allowed.
Chart 8	The total number of respondents was 101 in 2022, 109 in 2023, 119 in 2024, 115 in 2025, and 120 in 2026. These figures represent investors who indicated that they had invested in the ESG bonds within the past 12 months. Multiple answers were allowed.
Chart 9	The total number of respondents was 72 in 2022, 102 in 2023, 120 in 2024, 126 in 2025, and 131 in 2026. These figures represent investors who indicated that they had not invested in the ESG bonds within the past 12 months. Multiple answers were allowed.
Chart 10	The total number of respondents was 282 in 2022, 363 in 2023, 423 in 2024, 446 in 2025, and 450 in 2026, excluding those who did not provide answers. The DI is calculated as the proportion of respondents who selected "somewhat tight to tight" minus the proportion of those who selected "somewhat loose to loose."
Chart 11	The total number of respondents was 422 in 2024, 444 in 2025, and 449 in 2026, excluding those who did not provide answers. The DI is calculated as the proportion of respondents who selected "somewhat tight to tight compared with non-ESG bonds" minus the proportion of those who selected "somewhat loose to loose compared with non-ESG bonds."
Chart 12	The total number of respondents was 465 in 2025 and 473 in 2026. The number of respondents who had issued in the past 12 months was 43 in 2025 and 41 in 2026. The number of respondents who had invested in the past 12 months was 115 in 2025 and 120 in 2026. Multiple answers were allowed.
Chart 13	The total number of respondents was 226 in 2025 and 238 in 2026. These figures represent business corporates (both manufacturing and non-manufacturing) among issuers, excluding those who did not provide answers.
Chart 14	The total number of respondents was 112 in 2025 and 114 in 2026. These figures represent business corporates (both manufacturing and non-manufacturing) that identified themselves as issuers, excluding those who selected "the entity does not expect a significant increase in the demand for funds for climate change-related responses" or "not decided" and those who did not provide answers. Multiple answers were allowed.

Chart 15	The total number of respondents was 57 in 2025 and 47 in 2026. These figures represent business corporates (both manufacturing and non-manufacturing) that identified themselves as issuers and selected "issuing climate change-related ESG bonds," excluding those who did not provide answers. Multiple answers were allowed.
Chart 16	The total number of respondents was 150 in 2025 and 152 in 2026. These figures represent financial institutions among investors, excluding those who did not provide answers.
Chart 17	The total number of respondents was 89 in 2025 and 95 in 2026. These figures represent financial institutions that identified themselves as investors, excluding those who selected "planning to invest in corporate bonds without incorporating climate change-related factors into investment decisions," "not planning to invest in corporate bonds," or "not decided" and those who did not provide answers. Responses from other financial institution categories are not shown separately in the chart due to small sample sizes, but they are included in the total for "all financial institutions." Multiple answers were allowed.
Chart 18	The total number of respondents was 89 in 2025 and 94 in 2026. These figures represent financial institutions that identified themselves as investors, excluding those who selected "planning to invest in corporate bonds without incorporating climate change-related factors into investment decisions," "not planning to invest in corporate bonds," or "not decided" and those who did not provide answers. Responses from other financial institution categories are not shown separately in the chart due to small sample sizes, but they are included in the total for "all financial institutions." Up to three answers were allowed.
Chart 19	The total number of respondents was 45 in 2025 and 47 in 2026. These figures represent financial institutions that identified themselves as investors and selected "planning to increase investments in the ESG bonds." Responses from investment trusts and investment advisory companies as well as other financial institution categories are not shown separately in the chart due to small sample sizes, but they are included in the total for "all financial institutions." Multiple answers were allowed.
Chart 20	The total number of respondents was 226 in 2025 and 238 in 2026. These figures represent business corporates (both manufacturing and non-manufacturing) among issuers, excluding those who did not provide answers.
Chart 21	The total number of respondents was 37 in 2025 and 34 in 2026. These figures represent business corporates (both manufacturing and non-manufacturing) that identified themselves as issuers and answered that they were "planning to raise funds using transition finance," excluding those who did not provide answers. Multiple answers were allowed.
Chart 22	The total number of respondents was 80 in 2025 and 80 in 2026. These figures represent business corporates (both manufacturing and non-manufacturing) that identified themselves as issuers and answered that they were "not planning to use transition finance," excluding those who did not provide answers. Multiple answers were allowed.
Chart 23	The total number of respondents was 151 in 2025 and 152 in 2026. These figures represent financial institutions among investors, excluding those who did not provide answers.
Chart 24	The total number of respondents was 44 in 2025 and 41 in 2026. These figures represent financial institutions that identified themselves as investors and selected "not necessarily active in engaging in transition finance at the moment, but may engage in it in the future" or "not planning to engage in transition finance," excluding those who did not provide answers. Up to three answers were allowed.
Chart 25	The total number of respondents was 41 in 2025 and 39 in 2026. These figures represent issuers who selected "have raised funds using transition finance before and planning to continue to do so in the future" or "have not raised funds using transition finance before but planning

	to do so in the future." Up to three answers were allowed.
Chart 27	The total number of respondents was 49 in 2025 and 50 in 2026. These figures represent investors who selected "planning to actively engage in transition finance." Up to three answers were allowed.
Chart 29	The total number of respondents was 465 in 2025 and 473 in 2026. Up to three answers were allowed.