

OVERVIEW

This report compiled the recent trends and situation of sustainability markets, with emphasis on transition finance.

First part depicts the overall international sustainable finance market of 2022, and the trends of domestic transition finance market.

Later describes the trends seen throughout the project selected for FY2022 subsidy program by Ministry of Economic, Trade and Industry (METI).

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2022 Transition Finance **International Markets**

Sustainable Bonds Markets

vs 2021 Market Size

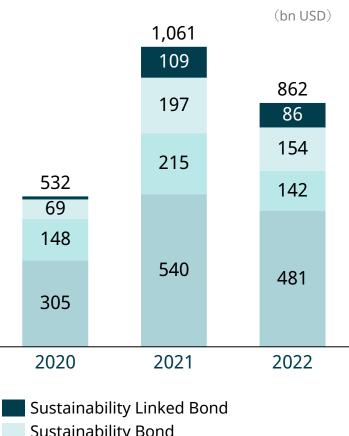
863 bn USD

-22%

2022 sustainable bond market marked 863 bn USD overall and saw a relatively modest growth compared to 2021. It was expected to exceed 1 trillion USD in 2022 succeeding the market growth since 2021, however, the growth was hindered by sudden inflation and increase in interests to deal with various socioeconomic events.

As for the individual labeled bonds, social bond and sustainability linked bond showed a different trend from that of last year. During 2021, social bond rapidly expanded its issuance amount supported by the high interest of investors to tackle Covid 19. Thus, its market size ended up relatively smaller.

Sustainability lined bonds were another labeled bonds that expanded its issuance amount in 2021 but decreased its presence in 2022. Sustainability lined bonds drove the market growth in 2021, but its 2022 issuance decreased by approximately 20% less. The last six month's issuance of 2022 recorded only half of 2021's last six month or 2022's first six month. In 2021 it gained popularity due to the usage flexibility of KPI linked structure. However, criticism towards SPTs setting methodology were observed and this can be deemed as a cause for the decrease.



- - Sustainability Bond
- Social Bond
- Green Bond

2022 Transition Finance Domestic Markets

Transition Bond 2022 Issuance

Approx. 420 bn yen

Transition Finance Cumulative issuance (2021.1 \sim 2023.3)

Approx. **1,000** bn yen

420 bn yen was raised through transition finance in 2022 with majority from energy companies including Power and gas.

Cumulative issuance of 2021 and 2022 amounted approximately 800 billion yen^{1.} Including issuance until 2023 March, the cumulative amount exceeds 1 trillion^{2.}

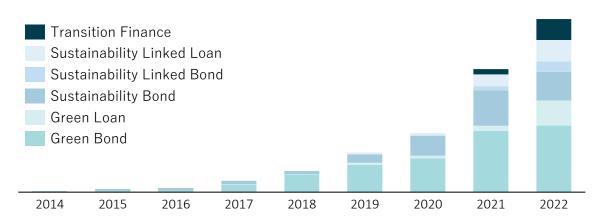
Transition finance has gained popularity in Japan with political incentives and encouragement including "Basic Guidelines on Climate Transition Finance". Transition bonds raised funds referencing sectoral technology roadmap published by governments. Various types of fundraising were observed in the domestic market, where fundraising was not limited to general corporate bonds but also use of proceeds bonds.

Majority of the last six month of FY2022 bond issuance recorded 1 to 1.5 times of market demand. Although the records was not outstanding, demand for transition finance remained high and harsh market environment for overall bonds are expected to be the reason.

Recently, the importance of the role of financial institutions in real economy transition to carbon neutrality are gaining increasing attention including GFANZ. Some domestic investors consider corporate efforts on transition as competitive advantage, not limited to having transition labeled instruments.

Life insurance company and major financial institutions have also announced investments and loans through transition. The interest to such investments are increasing for both institutional investors and regional investors, where over half of the investment on sales basis were by regional investors. This was partly encouraged with Bank of Japan including transition finance in its support program, funds-supplying operations to support financing for climate change responses.

Domestic Funds raised for Climate-related Investments (bn yen) 1,2



^{*1} Includes undisclosed amount raised through loans.

^{*2} Based on Ministry of Environment "Green Finance Portal", Ministry of Economy, Trade and Industry "Transition Finance" and other interviews

2022 Transition Finance FY2022 METI Subsidy Program

Since 2021 METI has intended on the transition finance market expansion through various policies and efforts.

Transition Finance Model Projects of FY2021 continues in FY2022 as subsidy program and various projects were open for application to encourage transition finance market.

However, FY2022 was characterized with harsh environment for bond market, affecting the number of applications to the subsidy program. Whilst FY2021 saw total of 12 cases, FY 2022 ended with 9 projects with majority being transition loan.

Continuing the trends of last year, continual popularity were observed among energy companies, but also from diverse sectors, such as shipping, foods and beverages, finance and cement.

FY2022 List of Cases¹

	FUNDRAISER	INSTRUMENT	AMOUNT	DURATION	SECTOR
2022. 11	Hokuriku Electric Power Company	Bond	44.4 bn yen	5,10,20 yr.	Power
	TOHO GAS Co,. Ltd.	Bond	10 bn yen	10 yr.	Gas
2022. 12	Tokyo Gas Co., Ltd.	Bond	19.8 bn yen	60 yr.	Gas
2023. 01	Kirin Holdings Company, Ltd.	Linked loan	50 bn yen	10 yr.	Food & Beverages
2023. 03	Japan Airlines Co., Ltd.	Linked loan	Approx. 26.5 bm yen	10 yr.	Aviation
	Mitsubishi HC Capital Inc.	Loan	_	5 yr.	Finance
	Hokkaido Electric Power Co., Inc.	Linked loan	Total 34 bn yen	_	Power
	TAIHEIYO CEMENT CORPORATION	Linked loan	_	_	Cement
	Kawasaki Kisen Kaisha Ltd.	' Linked loan	Approx. 165 bn yen	_	Shipping

^{* 1} Issued amount and duration for some loans are undisclosed

FY2021 List of Cases¹

Total Number of Projects

12

Total Amount Raised

Approx.

290 bn yen

2024	FUNDRAISER	INSTRUMENT	AMOUNT	DURATION	SECTOR
2021. 07	Nippon Yusen Kabushiki Kaisha	Bond	20 bn yen	5,7 yr.	Shipping
2021.	Mitsui O.S.K. Lines, Ltd	l. Loan	_		Shipping
09	Kawasaki Kisen Kaisha Ltd.	' Loan	Approx. 110 bn yen	5 yr.	Shipping
2022.	Tokyo Gas Co., Ltd.	Bond	20 bn yen	7,10 yr.	Gas
03	Japan Airlines Co., Ltd.	Bond	10 bn yen	5 yr.	Aviation
	Sumitomo Chemical Company, Limited	Loan	18 bn yen	9,10 yr.	Chemicals
2022. 05	JERA Co., Inc.	Bond	20 bn yen	5,10 yr.	Power
2022.	JFE Holdings, Inc.	Bond	30 bn yen	5,10 yr.	Iron & Steel
06	IHI Corporation	Bond	20 bn yen	5,10 yr.	Heavy ind.
	Osaka Gas Co., Ltd.	Bond	10 bn yen	10 yr.	Gas
²⁰²² .	Idemitsu Kosan Co., Ltd	Bond	20 bn yen	5,10 yr.	Oil
2022. 09	Mitsubishi Heavy Industries, Ltd.	Bond	10 bn yen	5 yr.	Heavy ind.

^{* 1} Issued amount and duration for some loans are undisclosed

2022 Transition Finance Overview of Trends of FY2022 METI Subsidy Program



SECTORAL DIVERSITY

First procurement was seen from cement sector and foods & beverages, resulting to an expansion from the current procurement by transportation, iron & steel, chemicals, heavy industries and energy sectors.

Cases

- TAIHEIYO CEMENT CORPORATION
- Kirin Holdings Company, Ltd.



NEW PROCUREMENT METHODS

Various types of procurement through transition finance were observed in the market, starting with use of proceeds specified linked loans to procurement by financial institutions as an enabler.

Cases

- Mitsubishi HC Capital Inc.
- Japan Airlines Co., Ltd.

2022 Transition Finance Sectoral Diversity

One o the trends of FY2022 subsidy program is the diversity of fundraisers' sector.

Whilst FY201 Model Project saw majority of procurement by energy sectors with shipping, iron & steel, chemicals, aviation and heavy industries, FY 2022 added the first procurement by cement sector, a high emitting industry. Additionally, Kirin Holdings, although being non-high emitting industries, raised funds through transition finance to encourage gradual decarbonization of its diverse suppliers.

Cement Sector -TAIHEIYO CEMENT CORPORATION-

Procurement by TAIHEIYO CEMENT became the very first cases to reference "Technology Roadmap for 'Transition Finance' in Cement Sector" by METI. Cement sectors are one of the hard-to-abate sectors as they emit inevitable CO2 through decarboxylation reaction of limestones and require high temperature for heating. Hence decarbonizing this sector requires innovative technologies.

This case is a transition linked loan with KPI being CO2 intensity in 2030 in line with 2050 net zero target. Since it was raised through linked loan, use of proceeds are not specified. However, the company announces energy conservation in the near-term to reduce part of the energy derived emissions which account for 40% of their emissions. From 2030 onwards, R&D for innovative technologies are expected to reduce he process derived emissions. These corporate efforts clearly laid out in their transition strategy and are in line with the sectoral technology roadmap.

Non-high emitting sectors –Kirin Holdings Company, Ltd.-

Kirin Holdings targets 2050 net zero for their entire value chain and sets out course of actions in their transition strategy for each of Scope 1+2 and Scope3. Kirin Holdings have been the first in food & beverages sector to be certified for SBTi Net Zero certificate, including Scope 3.

Value chain decarbonization requires emission reduction for various categories of Scope 3 as well as consideration of different business activities from beverages to medicals and regional characteristics of business locations. With their entire value chain decarbonization as a long-term goal, this case focuses on Scope1+2 for near-term steady emission reduction.



CEMENT

energy conservation for near term decarbonization

FOODS dual decarbonization of VC

gradual decarbonization of VC diverse emission source, region & operator



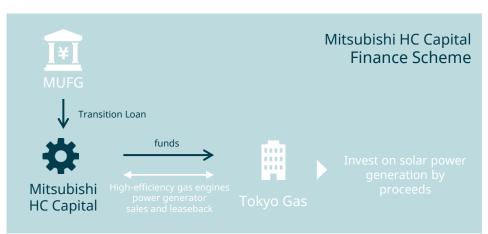
2022 Transition Finance New Procurement Methods

Ways of transition finance have diversified in FY2022 with new procurement methods; use of proceeds specified lined loan and procurement by Enabler¹.

Enabler - Mitsubishi HC Capital Inc.-

Mitsubishi HC Capital raised funds as an enabler through transition finance to support other entity's transition utilizing a leaseback scheme. Mitsubishi HC Capital will appropriate the funds raised by transition loan to acquire Tokyo Gas's highefficiency gas engines power generator. Tokyo Gas will then appropriate the proceeds to the investment for solar power generation.

High-efficiency gas engines power generator and solar power generation is verified to be aligned to transition strategy of Tokyo Gas. It is also confirmed that these efforts contribute to decarbonization rather than being a reallocation of emission sources from one another.



Roles of Enabler in transition is stated in Climate Transition Finance Handbook by ICMA as well as Basic Guidelines on Climate Transition Finance by METI.



An entity that seeks transition finance is (those formulates strategies and plans to meet the targets set for achieving decarbonization) and an entity that procures funds for activities (including investments and loans) that enable transition toward decarbonization by another party.

~METI Basic Guidelines

Enablers such as this cases are expected to contribute to the expansion of transition finance to regional entities or SMEs.

Whilst Basic Guidelines and Handbook does not necessary require to construct transition strategy for enablers' transition finance, however, METI expects enablers to set their own transition pans and provide additional values in transition. The underlying concepts and criteria for subsidy program for enablers are addressed by METI².

Although Mitsubishi HC Capital does not currently have transition strategy, they are planning to set another and is to report on their progress.

^{*1} Financial institutions (banks, insurer, corporate banking (investment funds), leasing firms) funding other entities' transition.

^{*2} Transition Finance for Enablers https://www.meti.go.jp/policy/energy_environment/global_warming/transition/enabler.pdf

2022 Transition Finance New Procurement Methods

Use of proceeds specified linked loan -Japan Airlines Co., Ltd.-

Japan Airlines continued their journey with transition finance and applied for METI's program for two consecutive years. In FY2022 Subsidy Program, they have modified their finance scheme and procured through newly use of proceeds specified linked loan.

Japan Airlines sets out 3 actions in their transition strategy to reduce majority of the emission, Scope 1. 3 actions include, upgrading to fuel-efficient aircrafts, optimizing operations and use of SAF. The use of proceeds for this case is upgrading to fuel-efficient aircrafts and expects 15~20% of reduction compared to the conventional ones.

KPI is also set as GHG emissions and SPTs are aligned with emission reduction targets.

Corporate emission reduction targets/SPTs are ambitious and aligned with International Civil Aviation Organization (ICAO) and other scenarios including Transition Pathway Initiative's (TPI) 1.5 degrees scenario.

This case is credible and transparent in that they specified use of proceeds and sets ambitious SPTs. Alignment to Basic Guidelines, Green Loan Principles, Sustainability Linked Loan Principles are verified.

Some companies also begun utilizing both use of proceeds and general corporate instruments. Implementing various types of transition finance to facilitate transition strategy is considered to be an effective method to improve credibility and transparency.

