## **CHAPTER V**

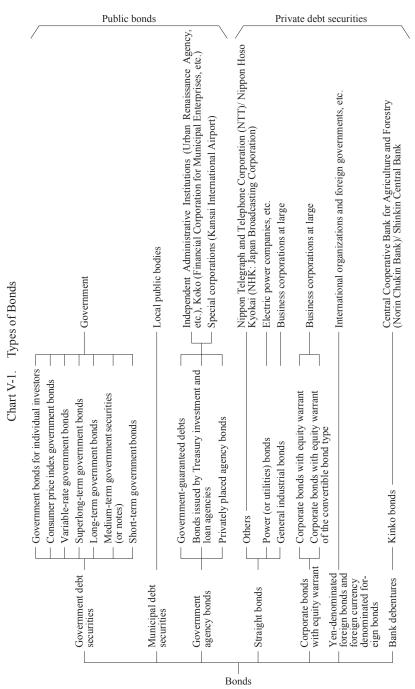
## New Issues of Bonds in the Primary Market

## 1. Types of Bonds

The term "bonds" generally refers to debt securities issued by governments and other public entities as well as by private companies. The issuance of bonds is a means of direct financing, through which the issuer raises funds, but, unlike equity financing, the issuer has an obligation to repay the principal at maturity. Bonds are classified by type of issuer into government debt securities, municipal debt securities, government agency bonds, bank debentures, corporate bonds (industrial bonds), and foreign bonds.

Government debt securities are those issued by the national government, and they are classified as short-term bills (maturing in one year or less), medium-term notes (maturing in two to five years), long-term bonds (maturing in ten years), or superlong-term bonds (maturing in ten years or more) to distinguish an issue's term to maturity. Issuance of 10-year government bonds for retail investors (variable rate) was introduced in fiscal 2002. In January 2003, issuance of bonds designated by the Finance Minister as STRIPS bonds, whereby the principal and interest portions can be traded separately as book-entry transfer JGBs, started. In addition, the government started issuing 10-year CPI (consumer price index)-linked bonds, 5-year bonds for retail investors, 40-year fixed-rate bonds, and 3-year bonds for retail investors in fiscal 2003, 2005, 2007, and 2010 respectively.

Municipal debt securities can be roughly divided by type of funds into "public sector funds" and "private sector funds." The former are raised through fiscal loan funds and Japan Finance Organization for Municipalities, while the latter are raised in the public market or underwritten by banks and other financial institutions. Among these funds, the funds raised in public markets are divided into nationally placed municipal bonds, jointly offered local government bonds, and municipal bonds targeting local residents (minilocal bonds). While the municipal bonds underwritten by banks and other financial institutions are called bank, etc. underwritten bonds, they come in two types, funds borrowed on deeds from banks and other financial institutions or debt securities issued in the market. Government agency bonds are



Note: Local government bonds represent debt issued under local government laws and fiscal policies. However, only those publicly placed or underwritten by banks or other financial institutions based on the issue of debt securities are included in public bonds.

debt securities issued by various government-affiliated entities, such as independent administrative agencies. Agency issues with a government guarantee are categorized as government-guaranteed bonds. On the other hand, non-guaranteed government agency bonds can be further divided into Fiscal Investment and Loan Program (FILP) agency bonds that are publicly placed bonds and privately placed bonds issued by certain special financial institutions. The three categories of debt securities mentioned above are sometimes collectively called "public bonds."

Bank debentures are debt securities issued by certain banking institutions under special laws. They are principally issued in the form and maturities of 5-year interest-bearing and 1-year discount debentures. As bank debentures and government agency bonds fall within the category of "debentures issued by a juridical person under a special Act" stipulated in Article 2, Paragraph 1, Item (iii) of the FIEA, they are sometimes called "special debts (*tokushusai*)." Corporate bonds are those issued by private-sector companies and are also known as industrial bonds. In addition to non-financial enterprises, banks and consumer finance companies may also issue corporate bonds. Foreign bonds are defined as debt securities issued in Japan by foreign governments and companies (non-residents). Those denominated in yen, in particular, are separately classified as yen-denominated foreign bonds.

## 2. Issuing Status of Bonds

The total amount of bond issuance has been declining since the peak in 2020 and was ¥238 trillion in fiscal 2022. If we look at the breakdown of issuance by type, total government bond issuance in fiscal 2022 was ¥213 trillion, accounting for about 89.5% of all public and corporate bonds. Although this was down from ¥221.4 trillion in fiscal 2020, issuance still remains high as a result of measures to alleviate soaring energy prices in response to the COV-ID-19 pandemic and Russia's invasion of Ukraine that began in February 2022. In particular, treasury bill issuance has tripled compared to where it was pre-COVID. JGB issuance in 2022 can be broken down into superlong-term government bonds (¥36.8 trillion), long-term government bonds (¥37.3 trillion), medium-term government bonds (¥69.2 trillion) and treasury bills (¥63.1 trillion). Following the GX Promotion Act of May 2023, new national bonds known as "Decarbonized Growth-oriented Economic Structure Transition Bonds (GX Economic Transition Bonds)" were released in fiscal 2023. See Section 9 for more details.

Municipal bonds have been on a downward trend since fiscal 2013 but turned up again from fiscal 2019 before peaking at ¥7.2 trillion in fiscal 2021. The issuance amount in fiscal 2022 was ¥5.5 trillion. This is basically

Table V-1. The Value of Bonds Issued

(¥1 billion)

									(								
	1			Ofv	vhich,	Of v	vhich,		vhich,		vhich,		vhich,	Of w	vhich,		
	l		Government I					year		year		2-year		t-term		rnment	
	Total o	Total of bonds   Government   bonds				interest-bearing								bonds for			
			"			bonds		government bond		government		government		government		individual	
-	27 0	_	27 0	_	27 0	_	_		bond		bond		bonds		investors		
FY	No. of	Issue	No. of		No. of	Issue	No. of		No. of		No. of		No. of	Issue	No. of	Issue	
1000				Amount		Amount								Amount			
1998		142,467	64	95,843	3	2,398	8	16,259	0	0	18	6,555	24	39,518	0	0	
1999		141,307		99,807	5	2,897	10	16,920	2	1,639	18	14,487	36	48,799		0	
2000		148,356		105,392	10	5,894	9	18,019	9	11,755	17	20,015	24	42,841	0	0	
2001		181,531	68	144,493	11	7,392	8	20,600	7	20,425	12	19,663	24	39,596	0	0	
2002		181,109		147,298	15	10,589	10	21,800	7	22,979		20,731	24	43,595		384	
2003	. ,	196,008		157,797	17	12,986	11	23,000	10	23,189	12	22,185	24	47,998	4	2,967	
2004		223,796		185,101	18	16,753	10	23,000	9	25,007	12	21,742	24	47,195	4	6,821	
2005	24,485	221,001	84	180,692	20	19,579	9	23,100	10	25,718	12	22,338	24	41,907	5	7,271	
2006	19,433	204,033	79	170,432	17	19,331	8	23,959	9	26,038	12	22,789	22	36,799	8	7,138	
2007	12,926	173,003	63	136,504	13	17,343	5	23,533	7	25,773	12	22,041	14	22,796	8	4,662	
2008	2,140	156,867	68	123,867	12	16,787	9	24,354	11	25,039	12	23,126	14	21,000	8	2,293	
2009	1,507	188,807	63	156,023	11	23,141	7	28,880	7	29,621	12	29,397	18	32,899	8	1,360	
2010	1,601	192,981	67	160,411	12	25,926	7	30,856	7	30,288	12	33,001	12	29,999	17	1,028	
2011	1,500	196,954	72	167,283	12	26,136	8	31,360	8	31,036	12	34,514	12	29,999	20	2,426	
2012	1,436	204,091	73	174,957	12	28,068	7	31,872	6	32,421	12	34,008	12	29,999	24	1,875	
2013	1,458	210,040	72	180,171	10	29,349	5	33,727	8	35,216	12	36,176	12	29,999	24	3,349	
2014	1,397	204,622	82	176,065	9	31,776	5	33,607	6	35,158	12	33,177	12	26,700	36	2,633	
2015	1,280	199,414	78	173,670	9	34,787	4	35,519	4	32,128	12	30,766	12	25,800	36	2,137	
2016	1,377	197,142	78	168,001	9	33,040	4	35,172	4	30,878	12	29,654	12	25,000	36	4,556	
2017	1.409	183,344	78	155,903	9	33,172	4	33,029	4	29,336	12	28,360	12	23,800	36	3,449	
2018		177,678		148,696	7	31,686	3	33,275	3	26,115	12	27,109	12	21,600	36	4,693	
2019		174,024		142,985	9	30,956	4	30,195	4	25,343	12	25,775	12	21,600	36	5,248	
2020	1.525	253,115	90	221,416	9	34,701	4	35,347	4	30.003	12	34,442	24	80.899	36	3,029	
2021		244,462		215,409	9	37,638	4	36,369	4	31,307	12	37,227	22	66,899	36	2,973	
2022	1,307	237,980	86	213,029	9	36,779	4	37,320	6	32,773	12	36,491	18	63,100	36	3,418	

Source: Japan Securities Dealers Association.

	Municipal debt securities				Straight bonds		Asset backed corporate bonds		Corporate bonds with equity warrant of the convertible bond type		Bank debentures		Yen- denominated non-resident bonds			
FY	No. of issues	Issue Amount	No. of issues	Issue Amount	No. of issues	Issue Amount	No. of issues	Issue Amount	No. of issues	Issue Amount	No. of issues	Issue Amount	No. of issues	Issue Amount	No. of issues	Issue Amount
1998	69	1.754	35	2.610	0	0	635	10.453	59	378	15	214	712	24,474	76	393
1999	72	2.061	40	3.325	ő	0	437	7,788	126	441	23	434	688	23,304	68	1.037
2000	86	2,269	67	5,141	ı i	50	367	7,637	140	342	18	283	696	21,043	89	2,618
2001	90	2,225	55	4,315	24	731	333	8,172	127	394	17	283	755	16,867	41	1,308
2002	151	2,837	55	4,446	63	2,565	312	7,318	85	517	13	205	666	12,023	30	671
2003	226	4,621	95	6,898	86	2,663	353	6,993	82	200	9	77	667	9,271	39	943
2004	262	5,660	94	8,752	105	3,019	307	5,895	46	187	19	191	598	7,960	45	1,677
2005	312	6,189	94	7,002	115	4,722	335	6,904	28	354	13	113	563	8,756	47	1,592
2006	334	5,860	77	4,301	101	4,399	335	6,830	25	143	10	495	496	6,730	25	798
2007	365	5,721	79	4,298	125	4,941	425	9,401	5	153	3	30	407	6,505	78	2,647
2008	375	6,346	69	4,752	123	4,159	313	9,605	8	181	1	150	384	5,517	58	2,082
2009	418	7,361	78	4,667	164	4,735	388	10,300	2	100	3	249	347	4,180	40	1,192
2010	412	7,482	64	4,197	172	5,063	459	9,933	2	120	3	78	352	3,777	70	1,919
2011	394	6,663	61	3,331	212	5,735	394	8,277	5	200	2	33	284	3,438	76	1,994
2012	392	6,577	71	4,722	206	5,312	416	8,152	4	200	3	29	220	3,000	51	1,142
2013	421	7,069	69	5,060	212	4,678	462	8,142	1	50	10	77	121	2,618	90	2,174
2014	407	6,943	68	4,220	199	3,997	439	8,715	1	60	5	37	121	2,499	75	2,086
2015	406	6,772	68	3,146	212	4,489	348	6,941	1	50	4	166	91	2,365	72	1,816
2016	360	6,249	79	3,107	184	4,857	546	11,413	2	100	5	55	76	1,738	47	1,622
2017	362	6,101	82	3,956	210	4,814	560	10,063	2	100	1	10	76	1,330	38	1,067
2018	373	6,312	77	3,104	231	5,020	583	10,452	3	270	2	16	76	1,446	59	2,362
2019	371	6,450	49	1,803	209	4,810	704	15,759	0	0	12	9	40	1,116	40	1,092
2020	375	6,991	36	1,419	262	6,170	692	15,613	0	0	6	23	40	1,016	24	467
2021	373	7,240	30	1,129	192	4,030	646	14,860	0	0	4	13	40	989	34	792
2022	339	5,527	33	948	185	3,465	579	12,895	0	0	3	3	40	1,003	42	1,111

Note: From April 2019 onwards, the figures for general bonds other than JGBs are based on statistical data from the Japan Securities Depository Center (JASDEC).

Source: Japan Securities Dealers Association.

due to the deterioration in the fiscal position of local governments, resulting in the introduction of publicly offered municipal bonds targeting local residents in fiscal 2001 and publicly offered joint local government bonds in fiscal 2003.

Issuance of straight corporate bonds has also moved from a declining trend up until fiscal 2015 to an increasing trend at present, with both the number of corporate bond issues and the value of bonds issued remaining at high levels in recent years. Large-scale corporate bond issues continued from 2019 against the background of the decline in long-term interest rates. Bond issuance increased in response to further monetary easing due to the COVID-19 pandemic starting in April 2020, and has remained at a high level, with 579 issues and ¥12.9 trillion worth of bonds issued in FY2022.

The total amount of bank debentures issued in fiscal 2022 (all interest bearing) stood at ¥1.0 trillion, continuing to decline from the ¥43 trillion recorded in fiscal 1995. Backdrop to the decline includes the virtual disappearance of the long-term credit banks that had acted as suppliers of long-term capital to industry, the discontinuation of bank debenture issues by Bank of Tokyo-Mitsubishi (now the Bank of Mitsubishi-Tokyo UFJ) in March 2002, followed by Mizuho Corporate Bank (excluding debentures for asset building purposes) in March 2007 and Aozora Bank in September 2011. Among government agency bonds, issuance of government-guaranteed bonds in fiscal 2022 was ¥0.9 trillion and issuance of FILP agency bonds was ¥3.5 trillion. Back in fiscal 2000, the Government Housing Loan Corporation issued its first ¥50 billion FILP agency bond, following the reform of the fiscal investment and loan program. Since then, FILP agency bond issuance has grown considerably. The amount of yen-denominated foreign bonds was ¥1.1 trillion yen in fiscal 2022.

## 3. Methods of Issuing Public Bonds

Government securities are issued in the public market or directly to individual investors or underwritten by the public sector. This section deals with the former two methods of issuance.

When issued in the market, JGBs are primarily sold through public auctions based on competitive bidding on price (or on yield), as the method of underwriting by syndicates was discontinued in fiscal 2006. In accordance with the terms of offering set forth by the Ministry of Finance, auction participants submit their bid prices and amounts, and they are then aggregated to determine the issue price and amount. Depending on the type of securities to be auctioned, the issue price is set either in a conventional auction, where bonds are issued to successful bidders at their respective bid prices, or in a

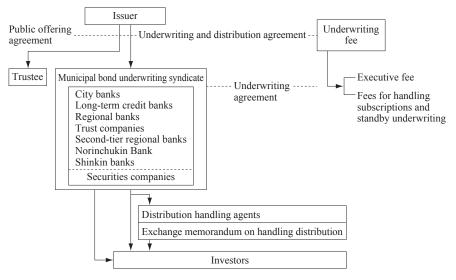
Table V-2.	Categories of Government Securities
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Maturity	Short-term gove	rnment bonds		Medium-term government   Long-term government   bonds			
	6-month	1-year		2-year, 5-year	10-year		
Type of issue	Discount government bonds			Interest-bearing governmen	t bonds		
Minimum denomi- nation	¥50,000			¥50,000			
Issuance method	Public auction B	OJ switch		Public auction OTC sales (based on subscriptions to	offering)		
Auction method	Price-competitiv	e bidding Conven	tional style	Price-competitive bidding (	Conventional style		
Noncompetitive Bidding, etc.	Non-price Comp	petitive Auctions I		Noncompetitive Bidding Non-price Competitive Auctions I Non-price Competitive Auctions II			
Transfer restriction	No			No			
Maturity	Superlong-term	government bonds	S	Inflation-indexed govern- Individual investor goment bonds			
	20-Year	30-Year	40-Year	10-year	3-year, 5-year fixed rate; 10-year floating rate		
Type of issue			Interest-bearin	ng government bonds			
Minimum denomi- nation	¥50,000			¥100,000 ¥10,000			
Issuance method	Public auction			Public auction	OTC sales (based on sub- scriptions to offering)		
Auction method	Price-competitiv Conventional sty		Yield-competi- tive bidding Dutch auction	Price-competitive bidding Dutch auction	_		
Noncompetitive Bidding, etc.		etitive Auctions I etitive Auctions II	Non-price Competitive Auctions II	- (Note 1)	_		
Transfer restriction	No			No Yes (Note 2)			

Notes: 1. There have been no additional issues of 15-year floating rate JGBs since they were first issued in May 2020.
 2. Government bonds for individuals, including trustees of trusts, are transferable only to individuals.
 Source: Based on the Ministry of Finance, Debt Management Report 2023, p. 35.

Dutch auction, where the issue price (yield) is set at the lowest price (highest yield) among accepted bids. Other than competitive bidding, two-, five-, and ten-year fixed rate JGBs are also offered through a noncompetitive bidding process that facilitates small- and medium-sized bidders and through Non-price Competitive Auctions I and II reserved for special participants (20 companies are designated since May 26, 2021). Private financial institutions handle subscriptions for individuals in offering JGBs for individuals and in offering two-, five-, and ten-year fixed rate JGBs under the new over-the-counter sales approach.

Chart V-2. Organization of Underwriting Publicly Offered Municipal Bonds at a Glance



Source: Japan Local Government Bond Association.

To issue municipal bonds, a local public body must prepare a budget plan that defines the use of proceeds from the proposed bond issue and obtains the approval of the local assembly. The actual issuance is also subject to consultation with the Minister of Internal Affairs and Communications (MIC) or the governor of the prefecture concerned (local bond consultation system). Even when the issuer is authorized to issue a municipal bond, the proceeds of such bonds can be used only for authorized projects - to finance a publicly run corporation, for equity contributions and loans, and to roll over maturing debts, etc. As of September, 2023, 41 prefectures and 20 cities ("designated cities") that have been designated by an ordinance of the Ministry of Internal Affairs and Communications have issued municipal bonds through public offerings. In most cases, the issuer negotiates the terms of issue with an underwriting syndicate that handles its public offering, under which the underwriting syndicate buys up whatever bonds remain unsold after the public offering. Municipal bonds publicly offered on the joint primary market (municipal bonds jointly issued by 36 local public bodies) in and after fiscal 2003 are also handled by underwriting syndicates, but the municipal bonds targeted at local residents introduced in March 2002 generally commission local financial institutions to handle the underwriting and subscription administration. In November 2023, the joint issuance of bonds to fund decarbonization

projects was also started.

The issuance of government-guaranteed bonds is planned as part of the Fiscal Investment and Loan Program, and annual ceilings on the issue amount must be approved by the Diet. They are issued by way of either an underwriting syndicate or issued by separate and individual bidding by competing underwriters. In the former method, the terms of issue are determined based on the results of recent JGB monthly competitive bidding. In the latter, the terms are bid for competitively along with the lead managing underwriter for the offering. FILP agency bonds are also issued as interest-bearing bonds, and in issuing them, the issuing agency usually selects a lead managing underwriter which, in turn, forms an underwriting syndicate.

### 4. Methods of Issuing Corporate Bonds

The issuance of straight bonds had in the past been subject to strict regulations, and the corporate bond trustee system was the core of those regulations. Against the backdrop of the main bank system in Japan at the time, the banks had an extremely strong influence on individual corporate straight bond issues under the corporate bond trustee system. Even in the overall corporate bond primary market, banks had a greater voice than securities companies. However, as the role played by the corporate bond trustee system declined in the 1980s, the Commercial Code was amended in 1993 to drastically change the system, and regulations on the issuance of corporate bonds have been substantially eased.

The issuing corporation appoints managing underwriters and other underwriters that together constitute an underwriting syndicate, a bond manager or a fiscal agent, and providers of other relevant services and obtains a preliminary credit rating. When preparations are completed, the underwriting syndicate, under the leadership of managing underwriter, conducts pre-marketing in order to build a book for the bonds. Along with this process, the issue terms of the bonds are finalized and the offering begins. The book-building method is one under which the lead managing underwriter asks syndicate member companies to survey investors' interest in the bonds and then decides on the issuing terms on the basis of the findings of that survey. Previously, many issuers employed "spread pricing", a method under which investors' appetite in an issue is measured in terms of a spread over the yield of a JGB or an interest rate swap with the same term, to determine the issuing rate. However, after the introduction of negative interest rate policy by the Bank of Japan in January 2016, so-called "absolute value pricing" has become more familiar, which provide absolute yield in projecting potential investor demand

Date of issue Issuer Issue Interest Term ESG bond Credit Rating amount rate category rating agency June 2022 ENEOS Holdings ¥85 billion 0.83% 10 years Transition AA - (JCR) **JCR** A + (R&I)July 2022 NEC ¥60 billion 0.46% 5 years Sustainability Link R&I A (R&I) October 2022 Mori Building ¥50 billion 1.36% 35 years Green A - (JCR)Sustainalytics October 2022 **KDDI** ¥50 billion 0.43% 5 years Sustainability AA - (R&I)R&I January 2023 ¥140 billion Nissan Motor 1.02% 3 years Sustainability A (R&I) Sustainalytics April 2023 SOMPO ¥70 billion 0.48% 5 years AA + (JCR)**JCR** Social Holdings April 2023 Sumitomo Realty & ¥40 billion 0.49% 5.3 years Green AA - (JCR)JCR, R&I AA - (R&I) Development May 2023 ¥100 billion | 0.81% AA (JCR) Mitsui Fudosan 10 years Green Sustainalytics AA - (R&I)May 2023 ¥50 billion 0.74% 10 years AAA (JCR) Tovota Motor Sustainability Moody's Corporation AAA (R&I) May 2023 Bond Information ¥60 billion 0.92% 10 years Transition A + (R&I)**JCR** Power AA (JCR)

Table V-3. Major examples of SDG bond (ESG bond) issuance

Source: ESG Bond Information Platform.

In terms of issuer ratings, the majority of issuers continue to issue bonds with high ratings; only a small proportion of bonds have low ratings, which is a characteristic of Japan. The reason can be attributed to the fact that major institutional investors limit their investment in corporate bonds to issues with ratings of A or higher. In the case of SDG bonds (ESG bonds), whose issuance is also on the increase in Japan (see Section 9), compliance with issuance guidelines and standards set by ICMA (International Capital Markets Association), the Financial Services Agency and the Ministry of the Environment, is required as well as a positive assessment by external organizations and a high credit rating.

In addition, although the Additional Tier 1 bonds (AT1 bonds) issued by Credit Suisse were wiped out in March 2023, Sumitomo Mitsui Financial Group, Mitsubishi UFJ and Mizuho Group have all issued AT1 bonds since then. In addition, the ¥120 billion bond-type class shares issued by SoftBank to individuals are legally classified as shares without voting rights or conversion rights to common stock, but their overall characteristics are similar to corporate bonds. These bond-type class shares were listed on the Tokyo Stock Exchange (TSE Prime Market) for the first time in Japan in November 2023.

Agreement commissioning the management company/ financial agent\*

Underwriting

Underwriter

Underwriting syndicate

Underwriting syndicate

Underwriting agreement

Underwriting agreement

Underwriting agreement

Underwriting agreement

Underwriting agreement

Underwriting syndicate

Underwriting syndicate

Underwriting agreement

Underwriting syndicate

Underwriting agreement

Chart V-3. Mechanism of Underwriting Corporate Bonds

*Note:* \*The issuer signs this agreement with a trustee company in the case of a mortgage bond. *Source:* Daiwa Securities Co., *Saiken no joshiki*.

## 5. Credit-Rating Agencies and Rating of Bonds

Credit rating is a classification of credit risk, indicated by a rating symbol based on measurement of the certainty of payment of the principal of, and interest on, a bond, and it is ordinarily given by an credit-rating agency specializing in rating credit. Originally, the system developed in the bond market of the United States and is believed to have taken root during the Depression of the 1930s. It was introduced to Japan in the 1980s, and today, obtaining a credit rating has become a general practice among issuers of corporate bonds.

In assigning a credit rating to a given bond issue, a credit-rating agency investigates and verifies to see if the issuer has any collateral to back up its obligation and if it has a special financial contract and, if it has preferential or subordinated creditors, analyzes its financial position and business; determines its capacity to pay the principal of, and interest on, the proposed bond; and assigns a symbol on the basis of the findings of such investigations. Normally, any debt security with an AAA rating indicates that its issuer has the highest credit standing and is virtually free from the uncertainties of paying the principal of and interest on the obligation. The creditworthiness of a bond declines as its rating goes down, in order, from AAA to AA, A, and BBB, and a bond with any of these four ratings is called an investment-grade bond. Bonds with a credit rating of BB, B, CCC, CC, or C are called "junk bonds." As these bonds carry high credit risk, their issuer offers a high yield to attract buyers. Thus, they are called "high-yield bonds," and their primary market

## Table V-4. Definitions of Credit-Rating Symbols

	Rating and Investment Information, Inc. (R&I)							
Credit Rating	Definition							
AAA	Highest creditworthiness supported by many excellent factors.							
AA	Very high creditworthiness supported by some excellent factors.							
A	High creditworthiness supported by a few excellent factors.							
BBB	Creditworthiness is sufficient, though some factors require attention in times of major environmental changes.							
BB	Creditworthiness is sufficient for the time being, though some factors require due attention in times of environmental changes.							
В	Creditworthiness is questionable and some factors require constant attention.							
CCC	Creditworthiness is highly questionable and a financial obligation of an issuer is likely to default.							
CC	All of the financial obligations of an issuer are likely to default.							
С	R&I believes that all of the financial obligations of an issuer are in default.							

	Japan Credit Rating Agency, Ltd. (JCR)							
Credit Rating	Definition							
AAA	The highest capacity of the obligor to honor its obligation to its financial commitment.							
AA	A very high capacity to honor its obligation to its financial commitment.							
A	A high capacity to honor its obligation to its financial commitment.							
BBB	An adequate capacity to honor its obligation to its financial commitment. However, this capacity is more likely to diminish in the future than in the cases of the higher rating categories.							
ВВ	Although the capacity to honor the financial commitment on the obligation is not considered problematic at present, this capacity may not persist in the future.							
В	A low capacity to honor its obligation to its financial commitment, giving cause for concern.							
CCC	There are factors of uncertainty that the obligation to financial commitment will be honored, and a possibility of default.							
CC	A high default risk.							
С	A very high default risk.							
D	In default.							

	Moody's Investor Service							
Credit Rating	Definition							
Aaa	Obligations rated "Aaa" are judged to be of the highest quality, subject to the lowest level of credit risk.							
Aa	Obligations rated "Aa" are judged to be of high quality and are subject to very low credit risk.							
A	Obligations rated "A" are considered upper-medium grade and are subject to low credit risk.							
Baa	Obligations rated "Baa" are subject to moderate credit risk. They are considered medium grade and as such may possess certain speculative characteristics.							
Ba	Obligations rated "Ba" are judged to be speculative elements and are subject to substantial credit risk.							
В	Obligations rated "B" are considered speculative and are subject to high credit risk.							
Caa	Obligations rated "Caa" are judged to be speculative of poor standing and are subject to very high credit risk.							
Ca	Obligations rated "Ca" are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.							
С	Obligations rated "C" are the lowest rated class and are typically in default, with little prospect for recovery of principal or interest.							

	Standard & Poor's
Credit Rating	Definition
AAA	An obligation rated "AAA" has the highest rating assigned by Standard & Poor's. The obligor's capacity to meet its obligation to its financial commitment is extremely strong.
AA	An obligation rated "AA" differs from the highest-rated obligations only to a small degree. The obligor's capacity to meet its obligation to its financial commitment is very strong.
A	An obligation rated "A" is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its obligation to its financial commitment is still strong.
BBB	An obligation rated "BBB" exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its obligation to its financial commitment.
ВВ	An obligation rated "BB" is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its obligation to its financial commitment.
В	An obligation rated "B" is more vulnerable to nonpayment than obligations rated "BB," but the obligor currently has the capacity to meet its obligation to its financial commitment. Adverse business, financial, or economic conditions will fikely impair the obligor's capacity or willingness to meet its obligation to its financial commitment.
CCC	An obligation rated "CCC" is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its obligation to its financial commitment. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its obligation to its financial commitment.
CC	An obligation rated "CC" is currently highly vulnerable to nonpayment. The "CC" rating is used when a default has not yet occurred, but Standard & Poor's expects default to be a virtual certainty, regardless of the anticipated time to default.
С	An obligation rated "C" is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared to obligations that are rated higher.
D	An obligation rated "D" is in default or in breach of an imputed promise. For non-hybrid capital instruments, the "D" rating category is used when payments on an obligation are not made on the date due, unless Standard & Poor's believes that such payments will be made within five business days in the absence of a stated grace period or within the ordine the state period or 30 calendar days. The "D" rating also will be used upon the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to "D" if it is subject to distressed exchange offer.
NR	This indicates that no rating has been requested, or that there is insufficient information on which to base a rating, or the Standard & Poor's does not rate a particular obligation as a matter or policy.

has developed on a relatively large scale in the United States and Europe. This type of junk bond primary market did not exist in Japan because of a policy that excluded bonds that did not meet the eligibility standards from the market. However, today no such regulations restrict the issuance of junk bonds because the eligibility standards were abolished in 1996. Nevertheless, very few BBB-rated bonds have been offered in the market despite being an investment-grade category; with the exception of a BB-rated issue (by AIFUL) in 2019.

Designated credit-rating agencies now include both domestic players, such as the Rating and Investment Information (R&I) and the Japan Credit Rating Agency (JCR), and global agencies, such as Standard & Poor's and Moody's and Fitch. In Japan, a new registration system of the credit-rating agencies replaced the conventional system based on the Act for Partial Amendment of the Financial Instruments and Exchange Act enforced in April 2010. Further, in recent years, municipal bonds and FILP agency bonds have also come to be rated.

The outbreak of the U.S. subprime loan problem raised strong doubts over the way ratings were given. To begin with, there were criticisms pointing out that credit-rating agencies tended to give generous ratings because their source of income was rating fees collected from issuers. Meanwhile, from a different perspective, ratings were acknowledged as nothing more than reference. Currently, however, ratings are used in various financial regulations and policies. Credit-rating agencies today operate under a registration system also on a global basis and are placed under administrative supervision.

## **6.** Corporate Bond Management

A drastic reform of the conventional corporate bond trustee system was carried out by an amendment of the Commercial Code in June 1993 to clarify the basic functions of the current corporate bond administrator system. Under this amendment, the conventional name "bond trustee company" was changed to "bond management company." In addition, (1) the establishment of a bond management company was made mandatory, in principle, and the eligibility for becoming one was restricted to banks, trust companies, and companies that have received a license under the Mortgage Bond Trust Law; (2) services to be provided by a bond management company were restricted to the management of outstanding bonds; and (3) the powers, duties, and liabilities of the bond management company were clarified. Put another way, the back-office services provided by the trust company at the time a bond is offered will not become the core services of the bond management company, and the services to be provided by the bond management company after a

Table V-5. Appointment, Power, and Liability of the Bond Manager under the Companies Act

Item	Contents	Article
Appointment and Power		1
When a bond manager has to be appointed	A corporation issuing a corporate bond must appoint a bond manager. However, when the face value of a bond certificate is in excess of ¥100 million, and in such other cases as may be prescribed by an ordinance of the Ministry of Justice as one which poses no threat to the protection of bondholders, the issuer need not appoint a bond manager.	
Qualifications for becoming a bond manager	Banks, trust companies, and equivalent financial institutions	Article 703
Matters entrusted	The bond manager will be entrusted to receive payments, to preserve rights of claim, and to take other steps necessary for the management of bonds on behalf of bondholders.	Article 702 of the New Companies Act
Duty of the bond manager	The bond manager must perform the administration of bonds in a fair and sincere manner on behalf of the bondholders ("duty of fairness"). The bond manager must manage the bonds with due care of a prudent manager to the bondholders ("duty of due care of a prudent manager").	Article 704
Power of the bond manager	The bond manager has the authority do all judicial and non-judicial acts on behalf of bond-holders that are necessary to receive payments relating to the bonds or to preserve the realization of claims relating to the bonds. When the bond manager deems it necessary to take such steps, the bond manager may, with the permission of the court, investigate the status of the business and assets of the bond-issuing company.	Paragraphs 1 and 4 of Article 705
Special regulation on the power of the bond manager		Article 706
Power of the bond manager in taking steps for the pro- tection of creditors	When a bondholder wants to object to any action taken by the issuer, he/she must obtain a resolution of a bondholders' meeting, in principle, but the bond manager can express its objection on behalf of bondholders. This, however, shall not apply in cases where there is a provision to the contrary in the contract entrusting bond management.	
Liability		
Liability (damages)	When the bond manager takes an action in violation of the Companies Act or any resolu- tion of the bondholders' meeting, it is jointly and severally liable for damages incurred by bondholders.	Paragraph 1 of Article 710
Statutory special liability (damages)	(1) When the bond manager has received from the issuer of a bond collateral for the obligation represented by such a bond or when the issuer has taken an action extinguishing such obligation within three months prior to a default on the redemption of, or on the payment of interest on, the bond, or the suspension of payment by its issuer (2) When the bond manager has received from the issuer collateral for the obligation or repayment with respect to the credit of the bond manager (3) When the bond manager transfers its credit to a company controlling, or controlled by, such bond manager, or to another company that has a special relationship with the bond manager (4) When a bond manager who has a credit to the issuer of the bond concludes an agreement with the issuer authorizing it to dispose of the property of the issuer for the purpose of offsetting such credit, or when the bond manager concludes an agreement to take over any obligations of any company that owes a debt to the issuer.  (5) When a bond manager that owes a debt to the issuer offsets such debt by taking over a credit to the issuer.	
Exemption of debt	The bond manager is exempt from debt when it has not been derelict in its management of the bond, or when it is established that any loss caused to the bondholders is not blamable to an action taken by the bond manager.	
Resignation of the bond manager and its liability	<ol> <li>The bond manager may resign with the consent of the bond issuer and the bondholders' meeting. (However, the bond manager must appoint in advance a successor who will take over the administration of the bonds.)</li> <li>In case the bond manager has an unavoidable reason to resign, it may resign with permission of the competent court.</li> <li>The bond manager may resign based of the causes prescribed in the agreement entrusing the management of the bonds. (However, such agreement must have a provision designating a succeeding bond manager that will take over the job.)</li> <li>A bond manager that resigns after the issuer has defaulted on the redemption of the bond or on the payment of interest on such bond, or of that has resigned for reasons prescribed in the agreement commissioning the management of the bond within three months prior thereto, is not exempted from liability to pay damages under Paragraph 2 of Article 710.</li> </ol>	

Source: Compiled from the data drawn from Akihiro Sato, Shinkaishaho de kawatta kaisha no shikumi (The Changed Company System under the New Companies Act), Nihon Horei, 2005, pp. 179 and 181.

bond is issued are restricted to bond management.

As a result of the amendment, the possibility of a bond trustee company being involved in the issuance of corporate bonds of individual issuers has been legally removed, and the power of the conventional bond trustee system regulating individual issuers has thus come to an end. The amendment has resulted in the following changes: (1) The fee the trustee bank had been collecting was renamed "bond management fee," and it was lowered; (2) by instituting exceptional provisions with respect to the mandatory establishment of a bond management company (this applies when the face value of a bond certificate is in excess of ¥100 million), issuers can appoint a fiscal agent in lieu of a bond management company, and instances of making do with a fiscal agent have since increased.

Under the New Companies Act enforced in May 2006, a bond management company is now known as a "bond manager," and its liability and power have been expanded. More specifically, (1) under the former Commercial Code, the term "management of corporate bond" referred only to the exercise of power legally granted to the bond management company and did not include the exercise of power based on an agreement, etc., entrusting the management of bonds (contractual power); under the new Companies Act, however, the exercise of the contractual power is included in "the management of bonds" and the bond manager owes the duty of fairness and the duty of due care of a prudent manager; (2) when the agreement entrusting the management of bonds contains a provision to that effect, the bond manager may act in relation to filing a lawsuit and taking bankruptcy or rehabilitation proceedings for all of the bonds without obtaining a resolution of the bondholders' meeting; and (3) in taking steps to protect the creditors in the case of a capital reduction or a merger, the bond manager may, in principle, object to such capital reduction or merger without obtaining a resolution of the bondholders meeting.

The revised Companies Act, which came into effect in March 2021, has introduced an "assistant bond administrator" system, whereby assistant bond administrators are obliged to facilitate administrative procedures related to corporate bonds and help to protect claims. The system is applicable to bonds for which no bond administrator is established, and like the "bondholder supporting agent" system founded by the Japan Securities Dealers Association in 2016, it can be played by financial institutions as well as lawyers and legal firms familiar with bankruptcy affairs.

# 7. Corporate Bonds with Subscription Rights/Warrants and Structured Bonds

Subscription rights/warrants give their issuer an obligation to either issue new shares or transfer shares in its treasury at a predetermined price to the rights/warrants holder upon the exercise of their rights/warrants within a prescribed period.

Corporate bonds with subscription rights/warrants are divided into those that in effect correspond to convertible bonds and those with undetachable warrants. Corporate bonds with subscription rights/warrants correspond to the former and refer to bonds (1) from which the rights cannot be detached or separately transferred, (2) whose issue value is equal to the amount of money payable upon the exercise of the rights, and (3) for which the exercise of the subscription rights/warrants is always based on the contribution in kind of the corporate bonds (debt equity swap). Except in the case of a stock split, the conversion price is fixed at the time of its issue. In certain cases, however, the conversion price of rights may be revised downward when the price of its underlying stock falls. Among these cases, bond issued under the condition that the conversion price can be adjusted downward with a frequency of one or more times every six months are called "corporate bonds with subscription rights/warrants with adjustable conversion price (MSCBs: moving strike convertible bonds)." Because of market concerns about this type of "death spiral" financing, however, few of these types of bonds have been issued recently. On the other hand, as corporate bonds issued with detachable warrants are deemed a concurrent offering of corporate bonds and equity warrants, only those with undetachable warrants are included in the definition of "corporate bonds with subscription rights/warrants." In such case, the money to be paid upon the exercise of subscription rights/warrants should be paid additionally, and the bond remains outstanding.

"Structured bond" is the name popularly given to a bond structured with derivatives. In recent years, various types of structured bonds have been issued. The underlying assets for derivatives embedded in structured bonds include equities, interest rates, foreign exchanges and credit risks. Nikkei 225 Index-linked Bond is a form of structured bonds, which incorporates Nikkei 225 options trading, a form of derivative component exposed to equities-related risks. In general, when the Nikkei 225 index rises, the deal generates a higher return; but when it falls, the options is exercised, causing a loss, and the bond price falls below its par value. A corporate bond with a clause to convert it into shares of another company ("exchangeable bond" or EB) is a bond that incorporates a stock option of the target company. In general, when the stock price of such corporation rises, the deal generates a higher return

#### Table V-6 Kinds of Structured Bonds

#### [Variable Cash Flow Bonds]

Step-up Bond: A bond issued initially with a coupon rate that is lower than the going rate then prevailing and that rises after the lapse of a certain period. By its very nature, the issuer often issues such a bond with a call option.

Step-down Bond: A bond issued initially with a coupon rate that is higher than the going rate then prevailing and that declines after the lapse of a certain period.

Deep-Discount Bond: This bond carries an interest rate lower than the going rate throughout its life, but it is issued at an under-par price to help its holders make up for the lower coupon by a redemption gain.

Reverse Floater Bond: The coupon rate of this bond falls when the interest rate rises, and the coupon rate rises when the interest rate declines. This is a kind of derivative bond using interest rate swap.

#### [Index Bonds]

Stock, interest rate, or bond-index-linked bond: These are bonds whose redemption principal is linked to the Nikkei average, whose coupon rate is linked to the Nikkei average, whose coupon rate is linked to the interest swap rate, or whose redemption principal is linked to the Japanese government bond futures price.

Exchange Rate Index Bond: Most of these dual-currency bonds are divided into those with a principal and coupon in yen that are redeemable in a foreign currency and into reverse dual-currency bonds with a principal and coupon redeemable in yen that carry a coupon in a foreign currency. As the amount of principal is normally larger than the coupon, dual-currency bonds carry a larger risk of exchange rate fluctuation.

#### [Bonds with Options]

Exchangeable Bonds (EB): Issuers of this bond may at their discretion pay redemptions with a prefixed number of shares of another company. For the purchaser, this means the sale of a put option, and under this arrangement, the coupon increases by as much as the option premium.

Other Bonds with Options: Included in this kind are callable bonds (the issuer can call the bond in advance of its maturity at the discretion of the issuer); puttable bonds (its holder can demand redemption in advance of its maturity); and knock-in, dual-currency bonds (a dual-currency bond with an exchange-rate option).

Source: Compiled on the basis of the data drawn from the website of Hephaistos Investment Research (http://hephaistos.fc2web.com/bond\_guide/shikumi\_sai.html) (Japanese) and the website of The Central Council for Financial Services Information.

because the holder can acquire the option fee, but when the price of its stock falls, the option is exercised, and the holder has to accept the share at a lower price and suffers a loss. As described in Section 8, inappropriate sales of structured bonds by some financial institutions have become a social problem, and the Japan Securities Dealers Association has implemented new self-regulation on investment solicitation and customer management from July 2023.

#### 8. Problems with Sales of Structured Bonds

As mentioned in the previous section, structured bonds contain derivatives, so the inherent risks are complex and difficult to understand. Therefore, sellers of structured bonds are required to comply with the principle of suitability and must be fully accountable to their customers. However, the number of dispute settlement cases (excluding structured investment trusts) related to structured bonds handled by the Financial Instruments Mediation Assistance Center (FINMAC) has shown a marked increase from 10 in fiscal 2015 to 33 in 2019, 69 in 2020, 25 in 2021, and 41 in 2022. In December 2021, the Financial Services Agency (FSA), in its Market System Working Group, acknowledged the increase in complaints about the sale of structured bonds as a problem, along with lack of visibility on costs and the lack of critical information sheets to provide information on the product. The analysis of the May 2022 Progress Report on the Upgrading of the Asset Management Industry pointed out the inadequacy of information for customers at the time of sale based on the nature of EBs. Furthermore, based on the Results of Monitoring Customer-Oriented Business Conduct of Investment Trust Distributors in June 2022, the FSA, in its 2022 Financial Administrative Policy released in August, urged the management teams of financial institutions dealing in structured bonds to examine whether their sales are based on the true needs of customers. In response to the FSA's stance, many financial institutions voluntarily restricted the sale of publicly placed structured bonds, with the exception of privately placed bonds for certain institutional investors.

The Japan Securities Dealers Association, a self-regulatory organization, has established various guidelines related to structured bonds. In February 2023, the JSDA announced proposed revisions to its "Regulations Concerning Solicitation for Investments and Management of Customers, etc. by Association Members" including revisions to the (1) guidelines for solicitation commencement standards (2) guidelines for ensuring suitability of investors on a rational basis (3) advertising guidelines (4) investment solicitation regulations (5) guidelines for explanation of important matters and (6) framework of sales solicitation, which apply before, during and after solicitation and sales to customers. The most noteworthy aspect of this revision of the selfregulatory rules is potentially the requirement for top management to be directly involved in the sales process of complex and high-risk products such as structured bonds. The new scope of involvement includes verification of the rationale of selling these products, better understanding of transactions and complaints, and verification and review of the sales solicitation framework. As core issues, the JSDA also reviewed topics such as the need to identify suitable customers on a rational basis and methods of highlighting the

(Bonds) 250 Average 3.2% 200 Standard deviation 15.1% Distribution 150 Maximum 32.3% Minimum -84.2%100 50 There is a wide range of loss rates 0 30 150 Return

Chart V-4. Distribution of EB return results

Note: Of the total 856 exchangeable bonds in the sample sold to individuals in April 2019, only fixed-rate bonds (364 bonds) for which the coupon return could be calculated are selected for calculation. For bonds that were unredeemed as of the end of December 2021, the calculation is based on the market value at that time. Returns are annualized.

Source: "Progress Report on the Upgrading of the Asset Management Industry 2022" Financial Services Agency.

Table V-7. Structured bond sales

(Unit: 10 billion ven)

		`	,
	Securities companies	Major banks, etc.	Regional banks
FY2017	343	152	50
FY2018	214	91	34
FY2019	197	106	49
FY2020	261	114	72
FY2021	244	107	64

Source: "Results of Monitoring Customer-Oriented Business Conduct of Investment Trust Distributors" FSA June 2022.

complexity and risks of products in explanatory materials, as well as the details of the written confirmation of the customer's understanding. These new revisions have been in effect since July 2023.

# 9. Issuance of Decarbonized Growth-oriented Economic Structure Transition Bonds (GX Economic Transition Bonds)

In Japan, there has been a noticeable step-up in the issuance of SDG bonds (ESG bonds), mainly green bonds and social bonds, since around 2020 (see

Table V-8. Japan Securities Dealers Association guidelines related to structured bonds

#### Guidelines on relationships

Guidelines for solicitation commencement standards (Article 5-2 of the Regulations Concerning Solicitation for Investments and Management of Customers, etc. by Association Members)

Guidelines on Article 5-2 of the Investment Solicitation Regulations setting out the criteria for commencing solicitation and prohibits solicitation by anyone who does not meet the required criteria when soliciting sales of structured bonds, etc.

Guidelines for ensuring suitability ensuring on a rational basis (Article 3, paragraph 3 of the Regulations Concerning Solicitation for Investments and Management of Customers, etc. by Association Members).

Guidelines on Article 3, paragraph 3 of the Investment Solicitation Regulations stating that when selling new securities, the characteristics and risks of these investments must be properly understood, and that securities that cannot be deemed suitable for customers must not be sold.

Guidelines for investment warnings (Article 6-2 of the Regulations Concerning Solicitation for Investments and Management of Customers, etc. by Association Members)

Guidelines on Article 6-2 of the Investment Solicitation Regulations stating that customers should be given advance warning in writing concerning the risks of their investment when signing agreements on the sale of structured bonds, etc.

#### Guidelines regarding advertising, etc.

These guidelines states legal issues and points to note regarding advertising by association members. In addition to matters to be highlighted or noted concerning advertising material for bonds in general, the guidelines also cover matters concerning advertising for individual issues, such as structured bonds.

Guidelines for explanation of important matters (Article 3, paragraph 4 of the Regulations Concerning Solicitation for Investments and Management of Customers, etc. by Association Members)

Guidelines on Article 3, paragraph 4 of the Investment Solicitation Regulations stating that customers must be given a proper explanation of key matters concerning the buying and selling of securities and that proper efforts should be made to ensure that they understand this.

Source: "Points for revision of guidelines regarding concerning solicitation of structured bonds" Japan Securities Dealers Association (February 2023).

chart). Against the backdrop of increased international efforts as typified by the Paris Climate Accords in 2016 the issuance of SDG bonds has been driven by initiatives such as the Green Bond Principles and Social Bond Principles set forth by ICMA (International Capital Markets Association), guidelines and standards such as the FSA's Social Bond Guidelines and the Ministry of the Environment's Green Bond Guidelines, as well the development of standards on disclosure such as the SASB standards and the GRI standards.

The Kishida administration, which took office in October 2021, has identified investment in green transformation (GX) as a priority investment area for its "new capitalism" program. With the Basic Policy on Economic and Fiscal Management and Reform, setting out a realization of the "Growth-

Table V-9. Value and number of issues of publicly offered SDG bonds (ESG bonds) in Japan

(¥100 million)

		2016	2017	2018	2019	2020	2021	2022	2023 End of June
Green	Issue value (Number of issues)	100 (1)	660 (6)	2,363 (26)	5,650 (47)	7,754 (74)	10,958 (84)	10,856 (93)	7,107 (42)
Social	Issue value (Number of issues)	350 (2)	1,231 (9)	2,521 (10)	5,119 (22)	9,150 (47)	11,642 (53)	19,608 (97)	12,847 (50)
Sustainability	Issue value (Number of issues)	_ _	_ _	_ _	1,370 (14)	4,435 (25)	5,210 (42)	7,010 (50)	4,760 (20)
Sustainability Link	Issue value (Number of issues)	- -	- -	- -	- -	200 (2)	1,100 (7)	2,940 (16)	1,730 (9)
Transition	Issue value (Number of issues)	_ _	_ _	_ _	_ _	_ _	200 (2)	4,212 (27)	1,500 (8)
Green & Sustainability Link	Issue value (Number of issues)	_ _ _	_ _	_ _	_ _	_ _	160 (2)	0	0

Source: "SDG bond issuance" Japan Securities Dealers Association.

Oriented Carbon Pricing Concept" for achieving carbon neutrality in 50 years, the main issue for consideration is raising sufficient government funds to drive over \(\frac{\text{4150}}{150}\) trillion of public and private sector investment over the next 10 years through the issuance of "Decarbonized Growth-oriented Economic Structure Transition Bonds (GX Economic Transition Bonds (GX Economic Transition Bonds)". Following discussions and deliberations at the GX Executive Committee, established in July 2022 and chaired by Prime Minister Kishida, the Cabinet approved the "Basic Policy for the realization of GX: Roadmap for the Next 10 Years" in February 2023. At the same time, the Act on Promotion of a Smooth Transition to a Decarbonized Growth-Oriented Economic Structure (GX Promotion Act) was passed and enacted on May 12th.

Based on the GX Promotion Act, government spending of approximately \(\frac{2}{2}\)0 trillion over 10 years starting in FY2023 has been approved for the realization of GX. New GX Economic Transition Bonds will be issued to finance this, backed by future financial resources from the introduction of carbon

Table V-10. Basic policy for Realization of GX

#### 1. GX initiatives based on ensuring stable energy supply

- Thorough implementation of energy conservation
- 2 Making renewable energy a major power source
  - Social implementation of next-generation solar cells (perovskite) and floating offshore wind power
- 3 Utilization of nuclear power
- 4 Other important matters
  - Provide support to leverage the cost differential between hydrogen/ ammonia and existing fuels
  - Promote research and development, capital investment, creation of demand for GX in various fields such as carbon recycling fuels (synthetic methane, SAF, synthetic fuel) and storage batteries

#### 2. Realization and implementation of "Growth-Oriented carbon pricing concept" etc.

① Support for upfront investment of 20 trillion yen over the next 10 years using GX Economic Transition Bonds

Target investment in areas that contribute to industrial competitiveness, economic growth, and emission reductions.

- 2 Incentives for GX investment through growthoriented carbon pricing
  - i. Full-scale operation of emissions trading system [From FY2026]
  - ii. Launch of paid auction for power generation companies [From FY2033]
  - Introduction of carbon levy system [From FY2028]
  - \*Establishment of the GX Promotion Organization for implementation on a centralized basis.
- 3 Utilization of new financial methods
- ④ International strategy, just transition, GX for SMEs

Source: Materials from the 1st meeting of Government-Related Ministries and Agencies Liaison Conference on GX Economy Transition Bond Issuance (June 2023).

pricing, in order to fund investment in areas that contribute to industrial competitiveness, economic growth, and emission reductions. The bonds are within the Diet's approval parameters, with the issuance limit set out in the general provisions of the special account budget. Up to ¥1.6 trillion of bonds are scheduled to be issued in fiscal 2023. GX Economic Transition Bonds are a type of government bond, but the proceeds are separately accounted for in the Special Account for Energy Measures. Following issuance, a framework specifying the use of funds from the bonds is established and third-party certification is obtained.