# Debt Management  and the State of Public Debts 

## 2022

# Debt Management Report 

The Government Debt Management and the State of Public Debts

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Preface

## 1 About "Debt Management Report"

The objective of the "Debt Management Report," which has been published since 2004, is to provide readers across a wide spectrum spanning domestic and foreign markets, government affairs, and research, etc., with the opportunity of gaining a deeper understanding of Japan's debt management policy. This report, though focusing on Japanese Government Bond (JGB) management policy as debt management policy, covers issues involving public debts in general.

To begin with, Part I, headed "State of Debt Management Policies," discusses the recent trends in the JGB market, as well as various latest policies, specifically in relation to the JGB Issuance Plan for this fiscal year.
Part II, headed "Framework," concerns itself with the fundamental mechanism of public debts and debt management policy in general.
Lastly, Part III, the "Appendices," lists all materials that did not fit into the previous part; this section should be used with reference to Part II "Framework."

In this latest report as well, we provide a lot of cross-references including some that link Part II "Framework" with Part III "Appendices" so that readers will be able to quickly access the information that they want. Your comments are highly appreciated for further improvements of this report.

## 2 What is Debt Management Policy?

## (1) Overview

Under the FY2022 budget (April-March), the central government plans to issue JGBs worth 215.0 trillion yen, posting a decrease of 21.0 trillion yen from the initial level for FY2021. Construction Bonds and Special DeficitFinancing Bonds to provide General Account revenues decrease by 6.7 trillion yen from the initial level for the previous year to 36.9 trillion yen. On the other hand, JGBs outstanding at the end of FY2021 totaled as much as $1,096.0$ trillion yen.
The government raises funds with Financing Bills and Borrowings as well as JGBs. If including Financing Bills and Borrowings, outstanding government debts except government-guaranteed debt came to 1,241.3 trillion yen. Moreover, the government gives guarantees to Incorporated Administrative Agencies in order for them to carry out funding to implement public projects, and the government-guaranteed debt totals 32.0 trillion yen (The figures are at the end of FY2021).

The government's fundraising amount or flow has become enormous. Outstanding debts on stock basis have been increasing persistently. Government debt management affects not only the choice of financial assets of economic entities such as corporations and households, but also the flow of funds on a macro-scale, which eventually would influence interest rates. In turn, changes in market interest rates influence government funding activities and the activities of every economic entity.

Based on these points, the government, while trying to mitigate fiscal burden, implements JGB issuance, absorption, distribution and redemption measures to allow government debts (JGBs, Financing Bills, Borrowings, GovernmentGuaranteed Debt and Subsidy Bonds) to be smoothly accepted at each stage of the national economy. These measures represent "debt management policy." In Japan, based on the following basic goals for JGB Management Policy, the government carefully implements "communications with the market" through various meetings for the development and operation of the JGB Issuance Plan, tries to base JGB issuance fully on market needs and tackles the diversification of JGB holders:
(1) Ensuring the smooth and secure issuance of Japanese Government Bonds
(2) Minimizing medium- to long-term fundraising costs

Meanwhile, any excessive response to temporary or short-term changes in market demand could affect the market's transparency and predictability for market participants, leading to a rise in medium- to long-term fundraising costs. In Japan where massive government debt issuance is expected for the future, therefore, the government will try to issue JGBs more stably and transparently while identifying medium- to long-term demand trends.
The "Guidelines for Public Debt Management," published by the International Monetary Fund and the World Bank in 2001, describes sovereign debt management as "the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding" and the objective of sovereign debt management as "to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk."

## (2) Framework of "Government Funding Activities"

Government expenditures in a year should basically be covered by tax and other revenues in the year. To satisfy expenditure demand that cannot be covered by such revenues, however, the government issues JGBs or carries out Borrowings ( The government also issues Financing Bills to cover temporary cash shortages for daily cash management of the National Treasury. The following discusses the framework of these government fundraising activities.

Fig. 1 National Treasury Receipts and Payments


The central government budget consists of the General Account and 13 Special Accounts (as of April 1, 2022), and all receipts and payments in these accounts are managed through the Bank of Japan (BOJ). As follows, the government smoothly implements spending under the budget by using JGBs and Borrowings to satisfy expenditure demand that cannot be covered by tax and other revenues and by issuing Financing Bills to cover temporary cash shortages of the National Treasury.

## A. JGBs and Borrowings to meet annual government expenditure demand

The government issues JGBs or carries out Borrowings to satisfy expenditure demand that cannot be covered by tax and other revenues and books funds raised through JGBs and Borrowings as revenues. The government smoothly implements budget spending by raising funds in this way as necessary.

In addition to planning the government debt management policy, the Financial Bureau of the Ministry of Finance implements the policy through conducting JGB auctions, issuance and redemption, and auctions for Borrowings.

## B. Financing Bills to cover temporary cash shortage of the National Treasury

Government ministries, agencies or special accounts carry out a lot of fiscal activities every day. All the receipts and payments are made through the BOJ for their integrated handling

Unlike JGBs, Borrowings are a form of funding that does not involve the issuing of securities.
in the National Treasury. As explained in section A, the government raises funds with JGBs and Borrowings to meet expenditure demand that cannot be covered by tax and other revenues. However, the government sees temporary cash shortages and surpluses due to lags of day-to-day receipts and payments of National Treasury funds. The Financial Bureau of the Ministry of Finance makes adjustments through the issuance of Financing Bills in the case of shortage, and through the temporary use of the treasury surplus in the case of surplus ("Cash Management in the National Treasury") (

## (3) Debts with Public Characteristics

Besides government debts, there are several forms of public debts including local government bonds and debt of Incorporated Administrative Agencies, etc. Such public debt would affect government debt management through the market interest rate formation mechanism.

Fig. 2 Public Debts (Conceptional Diagram)


Note 1: The shaded area represents government debts.
Note 2: In addition to these debts, there are government bonds that are held by the Bank of J apan as a means of open market operations. Note 3: The Government-Guaranteed Bonds issued by the J apan Finance Organization for Municipalities, are issued only for refunding of Government-Guaranteed Bonds converted from the former J apan Finance Corporation for Municipal Enterprises.

Based on what was described above, the chart below provides an overview of the various elements of public debts and lists the relevant reference points in this report.

2- The term "revenue" shall refer to all the income in one fiscal year and the term "income" shall mean received funds that serve as the source of payment to meet the demands arising on the various levels of the State. Financing Bills, which are issued to manage the National Treasury, are not counted as revenue, since Financing Bills are redeemed with the revenue of the same fiscal year.

Fig. 3 Various Elements of Public Debts and Relevant Reference Points in This Report


## Box 1 JGB Yields

Japanese government bond is a bond the government issues by promising to pay a certain amount of money after a certain period of time. The MOF presets a coupon and maturity for a JGB issuance. While the JGB par value (an amount that a JGB holder will receive upon redemption) remains unchanged, a JGB price at which market participants buy fluctuates depending on the conditions, including supply and demand. For example, a JGB with a par value of 100 yen may be priced at 95 yen, below the par value, or at 105 yen, above the par value. JGB yield is an annual percentage rate of return on a JGB based on the purchase price.
In the case a market participant buys a JGB with the par value of 100 yen, for example, the investment return includes the following:
(1) An annual interest income (an income gain represented by a coupon), and
(2) A gap between the par value and the purchase price (capital gain or loss) that is annualized.

The JGB yield is represented by the following equation.

## Fig. B1-1 Calculating yield


(Before tax, simple interest, \%)

The annual interest income in (1) is fixed by the coupon determined upon issuance and will remain unchanged until redemption. However, the purchase price in (2) fluctuates depending on the purchase timing. Therefore, the JGB yield fluctuates. The right graph (Fig. B1-2) indicates the relationship between the JGB price and yield in the above equation for a 10 -Year JGB that has a $2 \%$ coupon and a per value of 100 yen. As the purchase price falls (from 100 yen to 95 yen), the yield rises (from $2.0 \%$ to $2.63 \%$ ). Conversely, as the price rises (from 95 yen to 100 yen), the yield declines (from $2.63 \%$ to $2.0 \%$ ).

The figure below (Fig. B1-3) shows a cash flow indicating fund receipts and

Fig.B1-2 Relationship between yield and price


Note: The figure is for illustrative purposes only. payments from purchasing to redemption for a 10 -Year JGB that has a $2 \%$ coupon and a per value of 100 yen. If an investor buys the $10-$ Year JGB at a price of 95 yen and holds it until its redemption, for example, the investor will get a total investment return of 25 yen including the interest income of 20 yen and the gap of 5 yen between the par value and the purchase price. The annual yield (simple interest) comes to approx. $2.63 \%$ with the interest income of 2 yen and the capital gain of 0.5 yen.

Fig. B1-3 Bond investment cash flow
(10-Year JGB priced at 95 yen that has a $2 \%$ coupon and a per value of 100 yen)


In recent years, JGB yields in the short- to medium-term zone have been negative. If an investor buys the 10 -Year JGB at a price of 125 yen and holds it until its redemption, for example, the combination of an interest income ( 20 yen) and the gap ( $\boldsymbol{\Delta} 25$ yen) between the par value and the purchase price will bring about a loss ( $\boldsymbol{\Delta} 5$ yen) (Fig. B1-4). On an annual basis, the combination of an annual interest income ( 2 yen) and the annual capital loss ( $\mathbf{\Delta} 2.5$ yen) brings a yield (simple interest) of approx. $\triangle 0.40 \%$.

Fig. B1-4 Bond investment cash flow
(10-Year JGB priced at 125 yen that has a $2 \%$ coupon and a per value of 100 yen)


If an investor buys a JGB with a negative yield and holds it until its redemption, a combination of the interest income and the redemption amount will slip below the purchase amount, bringing about a loss. If the investor can sell the JGB at a higher price than the purchase price before its redemption, however, the investor will eventually get a gain.

Besides the "simple interest" as described above, the yield may take the form of "compound interest" reflecting the reinvestment of the interest income.

## Box 2 Demand for JGBs with negative yields

In recent years, JGB yields in the short- to medium-term zone have been negative. If an investor buys a JGB with a negative yield and holds it until its redemption, the combination of the interest income and the redemption amount will slip below the purchase amount, bringing about a loss.
If an investor who bought a JGB with a negative yield sells the JGB at a higher price than the purchase price before its redemption, however, the investor may earn a gain eventually. If the price of the JGB rises due to monetary policy measures, the so-called flight to quality, etc., for instance, the investor may earn a gain by selling the JGB at a higher price than the purchase price.
Financial institutions, when borrowing funds from the Bank of Japan (BOJ) or conducting foreign exchange and derivatives transactions with each other, may use JGBs as collateral. For instance, the BOJ has adopted JGBs as eligible collateral for operations to supply yen or dollar funds. JGBs are purchased to be used as collateral for such BOJ's operations. Particularly since FY2020, the BOJ has introduced the "Special Funds-Supplying Operations to Facilitate Financing in Response to the Novel Coronavirus" to expand fund supply, that increased demand for JGBs as collateral.
In addition, investors with foreign currencies (mainly foreign investors) can earn gains by combining JGB purchases with currency basis swaps.
In a currency basis swap, principals in two different currencies are exchanged at a certain exchange rate for a certain period, during which floating interests for the currencies are exchanged. Fig. B2-1 below outlines a dollar-yen basis swap (dollaryen basis). In the figure, $\alpha$ is the so-called basis spread. The spread means a premium on a yen interest rate (annual rate) and fluctuates depending on supply and demand between the currencies. If demand is strong for raising yen even at the cost of an increase in yen interest payments, for instance, upward pressure is exerted on $\alpha$. If demand is strong for raising dollars even at the cost of a decline in yen interest receipts, downward pressure is exerted on $\alpha$. In a recent dollar-yen basis swap, a negative value for $\alpha$ has meant that a premium has been generated in raising dollar funds.

Fig. B2-1 Illustrated currency basis swap (dollar-yen basis) scheme
■Initial phase (investor-owned yen and dollar principals are exchanged)
Japanese investor (owning yen)
*Demand for raising dollars

U.S. investor (owning dollars)
*Demand for raising yen

| U.S. investor |
| :---: |

3 -month yen floating rate $+\alpha$
3-month dollar floating rate


Given that $\alpha$ for a 2-year transaction (a basis spread for a dollar-yen basis maturing in 2 years) stands at around minus $0.50 \%$ ( 50 basis points), for instance, the U.S. investor in Fig. B2-1, if using a 2-year dollar-yen basis, will receive a 3-month dollar floating rate every three months and pay a 3-month yen floating rate $+(\boldsymbol{\Delta} 50 \mathrm{bp})$ over 2 years. The U.S. investor's payment of interest equivalent to minus 50 bp means the receipt of interest equivalent to plus 50 bp . Given various interest rate levels, the receipt of interest equivalent to 50 bp allows the U.S. investor to earn a higher yield by swapping dollars for yen and investing in JGBs than by investing in U.S. Treasury securities.

Fig. B2-2 Comparison of a U.S. investor's swapping dollars for yen and investing in JGBs with investors investing in U.S. Treasury securities (using a 2-year dollar-yen basis) (Transaction in the term in Fig. B2-1)
(1) 2-year dollar-yen basis + JGB (2-year) purchase

(2) 2-year U.S. Treasury purchase

$\rightarrow$ The U.S. investor earns an annual yield of $\mathbf{0 . 5 0 \%}$.
$\rightarrow$ Comparison of (1) and (2) indicates a yield gap of $\mathbf{0 . 2 5 \%}$ ( $=0.75 \%-0.50 \%$ )

Fig. B2-2 compares U.S. investors swapping dollars for yen and investing in JGBs with investors investing in U.S. Treasury securities (Japanese and U.S. interest levels here are assumptions). If a U.S. investor swaps dollars for yen and invests in JGBs (combining a 2-year dollar-yen basis with the purchase of a 2-year JGB), the investor will receive an annual yield of $0.75 \%$ (the 3-month dollar floating rate $(0.20 \%)$ - (the 3-month yen floating rate $(\mathbf{\Delta} 0.10 \%)+\alpha(\mathbf{\Delta} 0.50 \%)$ ) the 2-year JGB ( $\mathbf{\Delta} 0.05 \%)$ ). If the investor invests in U.S. Treasury securities (purchase 2 -year Treasury securities), the investor will receive an annual yield of $0.50 \%$ on the 2 -year Treasury securities. By swapping dollars for yen and investing in JGBs, therefore, the U.S. investor will earn a yield that is $0.25 \%(=0.75 \%-0.50 \%)$ higher than the yield on investment in U.S. Treasuries.
(Note 1) Although the 3-month yen floating rate and the 3-month dollar floating rate in the descriptions above are assumed to remain unchanged, they actually change every three months.
(Note 2) Interest rate swap transactions for fixing the 3-month yen floating rate and the 3-month dollar floating rate are omitted to here to simplify the explanation.
(Note 3) As a floating rate indicator, the London interbank offered rate (LIBOR) had been used generally. As the yen LIBOR has ceased to be published, a successor indicator is now being considered mainly by central banks in relevant countries.

## I

## State of Debt Management Policies

This part provides the most recent updates on
Debt Management Policies.

## 1 Trends of JGB Market in FY2021

## (1) Review

The JGB market entered FY2021 as market fluctuations calmed down in the wake of the BOJ’s monetary policy review in March 2021. From April to July, the 10-Year JGB yield fell gradually, with volatility declining. In September, the 10-Year JGB yield rose slightly due to an increase in overseas long-term interest rates. As overseas interest rates accelerated their hikes in early 2022, JGB yields posted relatively larger increases. Although JGB yields fell temporarily in response to Russia's invasion into Ukraine, the 10-Year JGB yield rose close to the upper limit of the BOJ's target range, at $0.25 \%$, from February to March, prompting the central bank to implement the fixed-price, unlimited-amount purchase operation to suppress JGB yield hikes. With rising yields, the JGB market grew volatile. Volatility measures of the JGB market reached record high levels at the end of March.

Fig. 1-1 JGB Yield Trends by Maturity


Trading volume of coupon-bearing JGBs ( ${ }^{\text {(®) }}$ ) in FY2021 increased from 80.6 trillion yen per month in FY2020 to 88.7 trillion yen, topping 86.7 trillion yen in FY2019. Daytime and nighttime 10-Year JGB futures trading volume averaged 33,320 contracts per day, up from 29,090 contracts in FY2020 but down from 39,640 contracts in FY2019.

On the yen interest rate derivatives market, a transition from LIBOR-based transactions to overnight call rate-based transactions started in July 2021 before the London interbank offered rate ceased to be published at the end of 2021. Yen interest-rate swap transactions in JanuaryMarch 2022 after the transition increased from the transition period due to the abovementioned increase in interest rate volatility.

In March 2021, the BOJ reviewed its monetary policy and specified the target range for the 10Year JGB yield as between plus and minus $0.25 \%$. While reaffirming its policy of stabilizing the overall yield curve at low levels, the central bank indicated a view that interest rate fluctuations, if within a certain range, can work to the advantage of market functions without affecting the effects of monetary easing. As a result, the 10 -Year JGB yield on April 1 at the start of FY2021 came to $0.107 \%$.

Outright transactions in "Trading Volume of Over-theCounter Bonds" by the Japan Securities Dealers Association. Computed by subtracting half of bond dealers' trading volume from the total trading volume.

As U.S. long-term interest rates gradually trended down later, JGB yields declined slowly through early August. On August 4, the 10-Year JGB yield fell to $0 \%$. Volatility also declined from May to June. The implied volatility computed from 10-Year JGB futures options and swaptions sank to the lowest level since 2018.
U.S. and European inflation rates rose from spring 2021 and accelerated their hikes in summer. The Bank of England in September and the U.S. Federal Reserve Board in October indicated that they would begin to raise interest rates earlier than expected in the market to cope with the rising inflation rates. In response to the indication, European and U.S. long-term interest rates turned up. JGB yields followed suit. As interest rate hikes were expected increasingly in Europe and the U.S., short- and medium-term interest rates rose faster than long- and super long-term rates on yield curves. In contrast, Japan's consumer price index hikes posted no remarkable acceleration, leading the BOJ's monetary policy to be expected to remain unchanged. Long- and super long-term JGB yields rose faster than short- and medium-term JGB yields, prompting the yield curve to steepen. On October 25 , the 10 -Year JGB yield came to $0.101 \%$. As European and U.S. interest rates turned down later, JGB yields fell through December.

As European and U.S. long-term interest rates soared fast in early 2022, the rise in the 10-Year JGB yield accelerated. While long positions on 10-Year JGB futures were unwound in early January, yields rose sharply, mainly in the 7-Year zone linked to futures. As European and U.S. interest rate hikes were increasingly expected to accelerate in February, short- and medium-term JGB yields soared on the yield curve. Reflecting a market view that the BOJ could raise interest rates in response to foreign central banks' growing readiness to increase rates, the 5-Year JGB yield left the negative zone on February 4 for the first time since January 2016.

On February 10 when the 10 -Year JGB yield rose to $0.228 \%$, close to the upper limit of the BOJ's target range of $0.25 \%$, the central bank announced that it would conduct a unlimited- ammount of purchase operation of 10 -Year JGBs at the yield of $0.25 \%$ on the next business day. While the 10 -Year JGB yield ceased to rise in response to the announcement, other JGB yields continued to increase. On February 17, the 5-Year JGB yield increased to $0.055 \%$, the 20 -Year JGB yield to $0.739 \%$, and the 30 -Year JGB yield to $0.987 \%$.

The 10-Year JGB yield peaked as other JGB yields rose to the highest levels in several years. From mid-February, concern about Russia's invasion of Ukraine grew gradually. After Russia launched the invasion on February 24, the world's long-term interest rates, including the 10 -Year JGB yield, generally declined amid wild fluctuations in response to flight-to-quality purchases of government bonds and a market view that central banks would delay interest rate hikes. As inflationary pressure increased further due to crude oil and other commodity price hikes on Russia's invasion of Ukraine, however, the U.S. Federal Reserve Board and the European Central Bank reaffirmed plans to put an end to monetary easing. From early March, foreign long-term interest rates accelerated their increases again, leading JGB

Fig. 1-2 10-Year Government Bond Yields (U.S., U.K., Germany, Japan)

yields to turn up again. As the 10 -Year JGB yield rose close to $0.25 \%$ again, the BOJ conducted a fixed-price purchase operation from March 28 through 31 to suppress JGB yield hikes. On March 29, the 10-Year JGB yield rose to $0.248 \%$, the 5 -Year JGB Yield to $0.056 \%$, the 20 -Year JGB yield to $0.816 \%$ and the 30 -Year JGB yield to $1.078 \%$. These JGB yield levels were the highest since 2015.
Due to central banks' decisions or expected plans to raise interest rates, as well as Russia's invasion into Ukraine, volatility increased remarkably on bond markets around the world from February. In Japan, implied volatility for super long-term swaptions reached the highest level since March 2020.

Fig. 1-3 Yield Curve Trends


## (2) Investor Trends

Firstly, FY2021 JGB investment trends by investor category indicated that foreign investors posted remarkably large net buying of medium to long-term JGBs maturing in 2, 5 and 10 years. In the April-August and November-December periods, when long-term interest rates were globally stable, foreign investors' monthly net buying of medium to longterm JGBs ranged from 1.7 trillion yen to 4.3 trillion yen. Although their net buying decreased in the SeptemberOctober and January-March periods, when interest rates rose globally, their net buying in the whole of FY2021 totaled as much as 17.9 trillion yen. An apparent factor behind foreign investors' massive net buying of medium to long-term JGBs may be that they were allowed to invest in JGBs at lower yields than Japanese investors as U.S. dollar payers were positioned to get premiums on cross-currency basis swap markets.
Among investors other than foreigners, city banks posted 5.8 trillion yen in their net buying of medium to long-term JGBs in FY2021, roughly the same ammount from the previous year. Pension funds substantially increased their net buying of such JGBs in FY2021, from 2.7 trillion yen in the previous year to 5.1 trillion yen.

Fig. 1-4 Net buying/selling of medium to long-term JGBs by investor category

(Note) Medium to long-term J GBs are 2-Year, 5-Year and 10-Year J GBs. Investors' direct purchase through auctions are excluded. Trust Bank's trading covers their proprietary trading as well as transactions on behalf of pension funds, etc.
(Source) J apan Securities Dealers Association

Secondly, life insurance companies and pension funds posted their large net buying of super long-term JGBs maturing in 20, 30 and 40 years. Life insurance companies reduced their net buying of super long-term JGBs between April and July year on year but remarkably expanded such net buying in the second half of FY2021 when JGB yields rose. Their net buying in the whole of FY2021 totaled as much as 7.3 trillion yen, though slightly less than 7.6 trillion yen in the previous year. A factor behind their proactive investment in super long-term JGBs may be that they are required to respond to new international capital adequacy regulations.

Pension funds' net buying of super long-term JGBs in FY2021 came to 5.3 trillion yen. Particularly between April and July, they posted as much as 3.2 trillion yen in such net buying. In the period, pension funds' net buying of medium to long-term JGBs reached 2.6 trillion yen.

Fig. 1-5 Net buying/selling of super long-term JGBs by investor category

(Note) Super long-term J GBs are 20-Year, $30-\mathrm{Year}$ and $40-\mathrm{Year} \mathrm{J} \mathrm{GBs}. \mathrm{Investors'} \mathrm{direct} \mathrm{purchase} \mathrm{through} \mathrm{auctions} \mathrm{are} \mathrm{excluded} .\mathrm{Trust} \mathrm{Bank's} \mathrm{trading}$ covers their proprietary trading as well as transactions on behalf of pension funds, etc.

Finally, in short-term JGB (T-Bills) trading, foreign investors remained the largest net buyer among investor categories as usual. A major reason for foreign investors' massive investment in short-term JGBs might have been that U.S. dollar payers were positioned to get premiums on cross-currency basis swap markets. Among investor categories other than foreigners, pension funds were a relatively large net buyer. City banks posted 15.2 trillion yen in their net buying of short-term JGBs in FY2021 after their massive net buying of 27 trillion yen in the previous year. This might have been because their demand for short-term JGBs as collateral for BOJ operations declined as their new use of BOJ operations decreased.

Fig. 1-6 Net buying/selling of short-term JGBs by investor category

(Note) Short term J GBs are T-Bills. Investors' direct purchase through auctions are excluded. Trust Bank's trading covers their proprietary trading as well as transactions on behalf of pension funds, etc.
(Source)J apan Securities Dealers Association

## 2 JGB Issuance Plan

Japan has the worst fiscal conditions among major developed countries, including outstanding general JGBs estimated at about 1,029.2 trillion yen for the end of FY2022 and outstanding long-term central and local government debts at 1,247 trillion yen. It is getting more important for the Japanese government to adequately implement JGB Management Policy to secure the market's stable absorption of JGBs.

## (1) JGB Issuance Plan for FY2021 (revised under a supplementary budget)

On November 26, 2021, the Japanese government revised JGB Issuance Plan for FY2021 in line with a Cabinet decision on the draft FY2021 supplementary budget.
The revised FY2021 JGB Issuance Plan reduced the total amount by 11.6 trillion yen from the initial level to 224.4 trillion yen by increasing the size of Newly Issued Bonds by 22.1 trillion yen under the supplementary budget while decreasing the size of FILP Bonds by 30 trillion yen through such measures as the utilization of Fiscal Loan Fund surplus.

Given that the initial FY2021 calendar-base JGB Market Issuance depended heavily on short-term JGBs (about 40\% of the total, at 83.2 trillion yen) and was structurally vulnerable to interest rate volatility, a calendar-base JGB Market Issuance decrease ( 9.2 trillion yen) was used to reduce short-term JGB issuance.

Fig. 1-7 JGB Issuance Plan for FY2021

| < Breakdown by Legal Grounds > |  | (Unit: billion yen) |  | < Breakdown by Financing Methods > |  | (Unit: billion yen) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Supplementary Budget |  |  |  | Supplementary Budget |  |
|  | (a) | (b) | (b) - (a) |  | (a) | (b) | (b) - (a) |
| Newly-issued Bonds | 43,597.0 | 65,655.0 | 22,058.0 | J GB Market Issuance (Calendar Base) | 221,400.0 | 212,200.0 | A 9,200.0 |
| Construction Bonds | 6,341.0 | 9,168.0 | 2,827.0 | Non-P rice Competitive Auction II, etc. | 8,230.0 | 7,031.9 | © 1,198.1 |
| Special DeficitFinancing Bonds | 37,256.0 | 56,487.0 | 19,231.0 | Adjustment |  |  |  |
| Reconstruction Bonds | 218.3 | 40.0 | -178.3 | years |  |  |  |
| FILP Bonds | 45,000.0 | 15,000.0 | - 30,000.0 | Subtotal Financed in the Market | 229,708.2 | 219,317.8 | A 10,390.4 |
| Refunding Bonds | 147,192.9 | 143,663.3 | A 3,529.6 | Sales for Households | 4,100.0 | 2,840.5 | A 1,259.5 |
| For matured | 2,871.0 | 2,737.5 |  | BOJ Rollover | 2,200.0 | 2,200.0 | - |
| Bo |  |  | - 133.5 | Total | 236,008.2 | 224,358.3 | (11,649.9 |
| Total | 236,008.2 | 224,358.3 | (11,649.9 |  |  |  |  |

[^0]Fig. 1-8 Market Issuance Plan by JGB Types for FY2021
(Unit: trillion yen)

|  | FY2021(Initial) |  |  |  | FY2021(Supplementary Budget) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (per time) |  |  | (total ; a ) | (per time) |  |  | (total ; b ) | (b)-(a) |
| 40-Year | 0.6 | $\times$ | 6 times | 3.6 | 0.6 | $\times$ | 6 times | 3.6 | - |
| 30-Year | 0.9 | $\times$ | 12 times | 10.8 | 0.9 | $\times$ | 12 times | 10.8 | - |
| 20-Year | 1.2 | $\times$ | 12 times | 14.4 | 1.2 | $\times$ | 12 times | 14.4 | - |
| 10-Year | 2.6 | $\times$ | 12 times | 31.2 | 2.6 | $\times$ | 12 times | 31.2 | - |
| 5-Year | 2.5 | $\times$ | 12 times | 30.0 | 2.5 | $\times$ | 12 times | 30.0 | - |
| 2-Year | 3.0 | $\times$ | 12 times | 36.0 | 3.0 | $\times$ | 12 times | 36.0 | - |
| TBs |  |  |  | 83.2 |  |  |  | 74.0 | - 9.2 |
| 10-Year InflationIndexed | 0.2 | $\times$ | 4 times | 0.8 | 0.2 | $\times$ | 4 times | 0.8 | - |
| Liquidity Enhancement Auction |  |  |  | 11.4 |  |  |  | 11.4 | - |
| Total |  |  | 221.4 |  |  |  | 212.2 |  | - 9.2 |

Planned TB issuance amounts by maturity

|  | FY2021 (Initial) |  | FY2021(Supplementary Budget) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (a) | (b) | (b)-(a) |  |  |
| TBs (1-Year) | $3.5 \times 12$ times | 42.0 | $3.5 \times 12$ times | 42.0 | - |
| TBs (6-Month) |  | 41.2 |  | 32.0 | $\mathbf{\Delta} 9.2$ |

[^1]
## (2) Announcement of JGB Issuance Plan for FY2022

On December 24, 2021, the Japanese government publicly announced the JGB Issuance Plan for FY2022 in line with a Cabinet decision on the draft FY2022 government budget.

When developing the JGB Issuance Plan for FY2022, where JGB issues including Refunding Bonds will total 215.0 trillion yen, the government held careful dialogues with market participants through the Meeting of JGB Market Special Participants and some other dialogue sessions and has formulated the JGB Market Issuance Plan by issue considering debt management challenges, investor needs and market trends.

## (3) Overview of Discussions at Various Meetings

The main opinions at the Meeting of JGB Market Special Participants (primary dealers) and the Meeting of JGB Investors in November 2021 were as follows:
 the amount of 40 -Year Bonds and adjusting the reduction amount with 10 -Year Bonds and other bonds with a shorter maturity in order to maintain the overall issuance size matches with the direction of fund management of life insurance companies. Since the duration of liabilities is long, we basically buy JGBs with maturities longer than 20 years including the matching of the period from the perspective of interest risk control.

- Regarding bonds with a remaining maturity of 10 years or shorter, since they are under the yield curve control, we consider that there is no problem even if their amount is increased to some extent.
- As we think that there is room for reduction in the amount of 2-Year Bonds, we believe that if the issuance size of currently issued 2-Year Bonds is reduced and the issuance size of Liquidity Enhancement Auctions is increased, the liquidity of the JGB market will be considerably improved.
- Although it is difficult for us to acquire mid-term or short-term bonds at negative interest rates to meet deposits, since a certain demand continues to exist for collateral needs, we want that their amount will be increased. However, we consider it inevitable to reduce the issuance size of short-term bonds when considering the need to lengthen the maturity of JGBs for continuing their stable issuance. We believe it sufficient that the reduction in the issuance size of short-term bonds is carried out gradually instead of reducing them all at once.
Based on discussions at these meetings, the government has developed the JGB Issuance Plan for FY2022.


## (4) JGB Issuance Plan for FY2022

## A. Breakdown by legal grounds

The JGB issuance in FY2022 declines by 21.0 trillion yen from the initial level for FY2021 to 215.0 trillion yen but is still extremely high.

A breakdown of the FY2022 JGB Issuance Plan shows that the amount of Construction Bonds and Special Deficit-Financing Bonds to provide revenues for the General Account Budget has been decreased by 6.7 trillion yen from the initial level for FY2021 to 36.9 trillion yen. Aiming at financing reconstruction projects for recovering from the Great East Japan Earthquake, Reconstruction Bonds are issued as bridging finance until Special Taxes for Reconstruction and other revenues are receivable to the government. In FY2022, the government is planning to issue Reconstruction Bonds worth 0.2 trillion yen, down 0.0 trillion yen from the initial level for the previous year. The FILP Bonds issuance is determined not only by the scale of new lending under the Fiscal Loan Program but also by the financial position of the overall Fiscal Loan Fund. The FY2022 FILP Bonds issuance is decreased by 20.0 trillion yen from the initial level for the previous year to 25.0 trillion yen. Refunding Bonds are issued to refund the General Bonds that were issued in the past and are due to their maturities, accounting for a majority of total annual JGB issuances. In FY2022, the Refunding Bonds issuance is planned to increase by 5.7 trillion yen from the initial level of the previous year to 152.9 trillion yen.

Fig. 1-9 JGB Issuance Plan for FY2022 (Breakdown by Legal Grounds)

| (Unit: billion yen) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | FY2021 (Supplementary Budget) | FY 2022 (Initial) |  |  |
|  | (a) | (b) | (c) | (c) - (a) | (c) - (b) |
| Newly-issued Bonds | 43,597.0 | 65,655.0 | 36,926.0 | - 6,671.0 | ( 28,729.0 |
| Construction Bonds | 6,341.0 | 9,168.0 | 6,251.0 | - 90.0 | - 2,917.0 |
| Special DeficitFinancing Bonds | 37,256.0 | 56,487.0 | 30,675.0 | -6,581.0 | ( 25,812.0 |
| Reconstruction Bonds | 218.3 | 40.0 | 171.6 | - 46.7 | 131.6 |
| FILP Bonds | 45,000.0 | 15,000.0 | 25,000.0 | - 20,000.0 | 10,000.0 |
| Refunding Bonds | 147,192.9 | 143,663.3 | 152,940.4 | 5,747.4 | 9,277.1 |
| For matured Reconstruction Bonds | 2,871.0 | 2,737.5 | 3,858.9 | 987.9 | 1,121.4 |
| Total | 236,008.2 | 224,358.3 | 215,038.0 | - 20,970.3 | - 9,320.3 |

Fig. 1-10 Historical Changes in JGB Issuance Plan


Fig. 1-11 Historical Changes in Outstanding Amount of JGB


## B. Breakdown by Financing Methods

The FY2022 JGB issuance of 215.0 trillion yen required for the budget as mentioned in the previous section is categorized by three financing methods: "JGB Market Issuance," "Sales for Households" and "BOJ Rollover."
Of the "JGB Market Issuance" accounting for most of the total JGB issuance, the calendarbase JGB Market Issuance (1) is set at 198.6 trillion yen, down 22.8 trillion yen from the initial level for FY2021.
The JGB issuance for Non-Price Competitive Auction II, etc., which has included the planned amount for Non-Price Competitive Auction II (2),(3) and the revenue from JGB issuance at prices above par value since the supplementary budget for FY2017, is put at 8.3 trillion yen for FY2022.

Sales for Households, which widely fluctuates depending on interest rate and other trends, is cut by 1.2 trillion yen from the initial level for the previous year to 2.9 trillion yen, with current sales conditions taken into account.
"BOJ Rollover" is put at 2.2 trillion yen, unchanged from the initial level for the previous year, based on the total JGB issuance and market conditions.

Ref: II Chapter 1 1(3)
"Methods of Issuance" (P42)
(1) The calendar-base JGB Market Issuance refers to the amount (par value) of JGBs planned to be regularly issued through scheduled auctions from April to next March.
(2) Non-Price Competitive Auction II (Ref: II Chapter 1 1 (3) "Methods of Issuance" (P41)).
(3) The issuance for NonPrice Competitive Auction II is put at $5.5 \%$ of the JGB Market Issuance for JGBs subject to the auction (40-Year, 30 -Year, 20 -Year, 10 -Year, 5 -Year and 2-Year Bonds).

Fig. 1-12 JGB Issuance Plan for FY2022 (Breakdown by Financing Methods)

| (Unit: billion yen) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | FY2021 (Supplementary | FY 2022 (Initial) |  |  |
|  | (a) | (b) | (c) | (c) $-(\mathrm{a}$ ) | (c) - (b) |
| J GB Market Issuance (Calendar Base) | 221,400.0 | 212,200.0 | 198,600.0 | - 22,800.0 | - 13,600.0 |
| Non-Price Competitive Auction II, etc. | 8,230.0 | 7,031.9 | 8,297.0 | 67.0 | 1,265.1 |
| Adjustment between fiscal years | 78.2 | 85.9 | 3,041.0 | 2,962.7 | 2,955.1 |
| Subtotal Financed in the Market | 229,708.2 | 219,317.8 | 209,938.0 | - 19,770.3 | - 9,379.8 |
| Sales for Households | 4,100.0 | 2,840.5 | 2,900.0 | (1,200.0 | 59.5 |
| BOJ Rollover | 2,200.0 | 2,200.0 | 2,200.0 | - | - |
| Total | 236,008.2 | 224,358.3 | 215,038.0 | ( 20,970.3 | - 9,320.3 |

[^2]
## I <br> State of Debt Management Policies

(5) JGB Issuance Plan Based on Market Trends and Demands

The maturity composition of the calendar-base JGB market issuance is determined with market demands and trends taken into account, covering maturities from the short-term to the super long-term, based on government debt management policy requirements.
The FY2022 JGB Issuance Plan cuts the short-term JGB issuance by 13.6 trillion yen from the level under the FY2021 supplemenary budget to 60.4 trillion yen as the amount is a factor behind an increase in the Refunding Bond issuance in FY2023. Based on market needs, the plan increases the amount of 40 -Year and 10 -Year Bonds and Liquidity Enhancement Auction while reducing the amount of 2-Year Bonds
As a result, the FY2022 calendar-base JGB market issuance is reduced by 13.6 trillion yen from the level under the FY2021 supplementary budget.

Consequently, the market issuance (flow basis) average maturity of JGBs for FY2022 is estimated at seven years and nine months.

The issuance for Liquidity Enhancement Auction, its allocation among each zone, and the issuance for Inflation-Indexed Bonds, etc. may be adjusted in a flexible manner in response to the market circumstances and demands of investors, which will be determined based on discussions with market participants.

Fig. 1-13 Market Issuance Plan by JGB Types for FY2022
(Unit: trillion yen)

|  | FY 2021 (Initial) |  | FY2021(Supplementary Budget) |  | FY 2022 (Initial) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (per time) | (total ; a ) | (per time) | (total ; b ) | (per time) | (total ; c ) | (c)-(a) | (c)-(b) |
| 40-Year | $0.6 \times 6$ times | 3.6 | $0.6 \times 6$ times | 3.6 | $0.7 \times 6$ times | 4.2 | 0.6 | 0.6 |
| 30-Year | $0.9 \times 12$ times | 10.8 | $0.9 \times 12$ times | 10.8 | $0.9 \times 12$ times | 10.8 | - | - |
| 20-Year | $1.2 \times 12$ times | 14.4 | $1.2 \times 12$ times | 14.4 | $1.2 \times 12$ times | 14.4 | - | - |
| 10-Year | $2.6 \times 12$ times | 31.2 | $2.6 \times 12$ times | 31.2 | $2.7 \times 12$ times | 32.4 | 1.2 | 1.2 |
| 5-Year | $2.5 \times 12$ times | 30.0 | $2.5 \times 12$ times | 30.0 | $2.5 \times 12$ times | 30.0 | - | - |
| 2-Year | $3.0 \times 12$ times | 36.0 | $3.0 \times 12$ times | 36.0 | $2.8 \times 12$ times | 33.6 | - 2.4 | - 2.4 |
| TBs |  | 83.2 |  | 74.0 |  | 60.4 | - 22.8 | - 13.6 |
| 10-Year InflationIndexed | $0.2 \times 4$ times | 0.8 | $0.2 \times 4$ times | 0.8 | $0.2 \times 4$ times | 0.8 | - | - |
| Liquidity Enhancement Auction |  | 11.4 |  | 11.4 |  | 12.0 | 0.6 | 0.6 |
| Total | 221.4 |  | 212.2 |  | 198.6 |  | - 22.8 | -13.6 |

(Note 1) In FY2022, 40-Year Bonds will be issued in May, J uly, September, November, J anuary and March.
(Note 2) Treasury Bills (TBs) are jointly issued with Financing Bills (FBs), under unified names of Treasury Discount Bills (T-Bills).
(Note 3) The 10-year inflation-indexed bond is planned to be issued in May, August, November and February. The issuance may be adjusted in a flexible manner in response to market circumstances and demands of investors, which will be determined based on discussions with market participants.
(Note 4) The issuance of liquidity enhancement auction and its allocation among each zone may be adjusted in a flexible manner in response to market circumstances and demands of investors, which will be determined based on discussions with market participants

Fig. 1-14 Planned TB issuance amounts by maturity
(Unit: trillion yen)

|  | FY 2021 (Initial) <br> (a) |  | FY2021 (Supplementary Budget) (b) |  | FY2022 (Initial) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (c) |  | (c)-(a) | (c)-(b) |
| TBs (1-Year) | $3.5 \times 12$ times | 42.0 |  |  | $3.5 \times 12$ times | 42.0 | $3.5 \times 12$ times | 42.0 | - | - |
| TBs (6-Month) |  | 41.2 |  | 32.0 |  | 18.4 | - 22.8 | -13.6 |

Fig. 1-15 Issuance Amounts by Zones for Liquidity Enhancement Auctions
(Unit: trillion yen)

|  | FY2021 (Initial) <br> (a) | FY2021 (Supplementary Budget) <br> (b) | FY 2022 (Initial) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (c) | (c)-(a) | (c)-(b) |
| 15.5-39 Year | 3.0 | 3.0 | 3.0 | - | - |
| 5-15.5 Year | 6.0 | 6.0 | 6.0 | - | - |
| 1-5 Year | 2.4 | 2.4 | 3.0 | 0.6 | 0.6 |
| Total | 11.4 | 11.4 | 12.0 | 0.6 | 0.6 |

Fig. 1-16 Historical Changes in JGB Market Issuance by JGB Types


Fig. 1-17 Average Maturity of JGBs


## I State of Debt Management Policies

## (6) Revision of JGB Issuance Plan for FY2022

In line with a Cabinet decision on a draft supplementary budget for FY2022 on May 17, 2022, the government revised the JGB Issuance Plan for FY2022.

An increase of $2,700.9$ billion yen in the JGB issuance under the FY2022 supplementary budget was covered by an adjustment between fiscal years (a decrease in the front-loading issuance of Refunding Bonds in FY2022 to raise financial resources for JGB redemption in FY2023), leaving the calendar-base market issuance unchanged from the initial plan.

Fig. 1-18 JGB Issuance Plan for FY2022 (supplementary budget)

|  | FY2022 (Initial) <br> (a) | FY 2022 (S upplementary Budget) |  |
| :---: | :---: | :---: | :---: |
|  |  | (b) | (b) - (a) |
| Newly-issued Bonds | 36,926.0 | 39,626.9 | 2,700.9 |
| Construction Bonds | 6,251.0 | 6,251.0 | - |
| Special Deficit-Financing Bonds | 30,675.0 | 33,375.9 | 2,700.9 |
| Reconstruction Bonds | 171.6 | 171.6 | - |
| FILP Bonds | 25,000.0 | 25,000.0 | - |
| Refunding Bonds | 152,940.4 | 152,940.4 | - |
| For matured Reconstruction Bonds | 3,858.9 | 3,858.9 | - |
| Total | 215,038.0 | 217,738.9 | 2,700.9 |

(Unit: billion yen)

|  | FY2022 (Initial) <br> (a) | FY 2022 (S upplementary Budget) |  |
| :---: | :---: | :---: | :---: |
|  |  | (b) | (c) $-(\mathrm{b})$ |
| J GB Market Issuance (Calendar Base) | 198,600.0 | 198,600.0 | - |
| Non-Price Competitive Auction II, etc. | 8,297.0 | 8,297.0 | - |
| Adjustment between fiscal years | 3,041.0 | 5,741.9 | 2,700.9 |
| Subtotal Financed in the Market | 209,938.0 | 212,638.9 | 2,700.9 |
| Sales for Households | 2,900.0 | 2,900.0 | - |
| BOJ Rollover | 2,200.0 | 2,200.0 | - |
| Total | 215,038.0 | 217,738.9 | 2,700.9 |

[^3]
## Box 3 Cost-at-Risk Analysis

## (1) Objective

Government debt management must deal with various future risks. It is important to properly assess and manage these risks in order to minimize the fundraising cost in the medium-to-long term.
In drafting the annual JGB issuance plan, the Ministry of Finance engages in a dialogue with market participants and additionally uses the results of the Cost-at-Risk ("CaR") analysis for quantitative examination purposes.
The JGB issuance plans should not be drafted only based on CaR analysis and other quantitative analyses. It is vital that the JGB issuance plan is formulated on the basis of comprehensive judgment covering investor demand based on dialogue with market participants, the need for maintaining and enhancing market liquidity, and other factors.

## (2) CaR Analysis

The CaR analysis simulates future chronological interest rate fluctuations with a probabilistic interest rate model and measures and assesses the distribution of future interest payments arising from JGB Issuance Plans and the outstanding amount of JGBs. The analysis estimates the average of interest payments (cost) in the next 10 years and the degree of their fluctuations (risk).

Fig. B3-1 Framework of CaR Analysis
Fig. B3-2 Distribution of Interest Payments (Conceptual Diagram)



## 3 Cost and Risk Trend

Fig. B3-3 is from a document the Ministry of Finance presented at the Meeting of JGB Market Special Participants on November 29, 2021.
Based on the maturity composition for the JGB Issuance Plan for FY2021 (initial) 2,000 patterns of the coupon-bearing JGB maturity composition have been randomly generated to analyze the cost-risk relationship. It indicates that both cost and risk decline for 20- and 2-Year JGB issues through a cut in their shares of the composition from the JGB Issuance Plan for FY2021 (initial) and for 10-Year issues through an increase in their share of the composition.

Fig. B3-3 Cost-at-Risk Analysis
(Document for the 96th Meeting of JGB Market Special Participants (November 29, 2021))


[^4]
# Box 4 Review of Advisory Council on Government Debt Management and Its Successor 

## (1) Review of Advisory Council on Government Debt Management

The Advisory Council on Government Debt Management was launched in November 2004 to receive opinions and advice from experts on public debt management from a medium- to long-term perspective. The council compiled "Current Situation and Future Challenges of Debt Management Policy —Discussion Paper-" (December 2009) and "Summary of Discussions" (June 2014), and has widely discussed specific issues, including diversification of JGB products and the JGB investor base, and the maintenance and improvement of JGB market liquidity.
At its last meeting in June 2021, the council pointed out that under the circumstances where stable issuance of JGBs were growing more severe, it would be important to discuss and consider a medium- to long-term Debt Management Policy from more multifaceted perspectives.

## (2) Launching of a Study Group on Government Debt Management

While JGB issuance has substantially increased in response to the COVID-19 pandemic, the Ministry has decided to launch a Study Group on Government Debt Management to receive opinions and advice from experts with a high degree of insight on public debt management, because the government needs to discuss technical aspects regarding elaboration of the public debt management system.
The members of the study group were basically selected among academic experts and market participants with a high degree of insight into a wide range of fields, including financial markets, considering diversity of members and based on merit.

<Members><br>KOEDA Junko SHINO Junnosuke TAKIZAWA Miho TOMURA Hajime UEYAMA Takahiro<br>Professor, Faculty of Political Science and Economics, Waseda University<br>Associate Professor, Faculty of International Research and Education, Waseda University Professor, Faculty of Economics, Gakushuin University<br>Professor, Faculty of Political Science and Economics, Waseda University<br>Executive Officer, Head of Fixed Income Group,<br>Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

## 3 Diversification of JGB Investor Base

At present, the outstanding amount of JGBs is enormous. Therefore, the promotion of JGB holdings by a wide range of investors has become important for stabilizing the market's absorption of JGBs and their holdings. Diverse investors' JGB holdings based on various investment needs are expected to stabilize the market by preventing transactions from going in a single direction even if market conditions change. Therefore, the MOF has made efforts to encourage JGB market participation and JGB holdings not only by domestic institutional investors, such as banks and life insurance companies, but also by foreign investors, and to promote JGB holdings by domestic retail investors.

Fig. 1-19 Breakdown by JGB and T-Bill Holders (December 2021, QE)


Fig. 1-20 Breakdown by JGB Holders (December 2021, QE)


Fig. 1-21 Breakdown by T-Bill Holders (December 2021, QE)

(Note 1) "T-Bill" is the sum of "Treasury Bills (TBs)" and "Financial Bills (FBs)" with a maturity of 1 year or less and TBs and FBs have been jointly issued since February 2009.
(Note 2) "J GBs" in the figures represent the outstanding balance of JGBs (including FILP bonds) excluding TBs maturing within one year or less.
(Note 3) "Banks, etc." includes "J apan Post Bank", "Securities investment trust" and "Securities Companies."
(Note 4) "Life and Non-life insurance" includes "J apan Post Insurance."

## (1) JGB Holdings by Retail Investors

To promote JGB sales to retail investors, the government introduced 10-Year Floating-Rate Bonds for Retail Investors in March 2003, 5-Year Fixed-Rate Bonds for Retail Investors in January 2006 and 3-Year Fixed-Rate Bonds for Retail Investors in July 2010, and launched the new Over-The-Counter (OTC) sales system in October 2007.
JGB sales to retail investors were sluggish due to the impacts of factors such as the COVID-19 infection in FY2021, totaling about 3 trillion yen.
Over the long term, households' share of JGB ownership has remained low. Given such trend, the government has developed advertisements to expand the scope of purchasers of JGBs for Retail Investors over the medium to long term. In FY2021, the government tried to increase the awareness of JGBs among young people and women (including those who have never purchased financial instruments). Specifically, JGB promotion characters Kokochan for JGBs for Retail Investors and Kokusai Sensei (JGB teacher) were used for banner, YouTube and other Internet ads, in-train video ads, digital signs at major railway stations and other outdoor transportation ads, magazine ads, newspaper ads, and posters and leaflets, as well as regional campaigns and seminars in Ishikawa, Shizuoka, Okinawa, and other prefectures. In FY2022, the government plans to promote ads to convey the characteristic attractiveness of JGBs for Retail Investors to people who have experienced and who have not experienced financial instrument purchases in an easy-to-understand manner, without narrowing down promotion targets by generation or gender.


Fig. 1-22 Household JGB Holdings Trend


Fig. 1-23 Issuance and Redemption of JGBs for Retail Investors


Fig. 1-24 Outstanding JGBs for Retail Investors


## (2) JGB Holdings by Foreign Investors

## A. Foreign Investors' Presence

The status of JGB holdings by foreign investors can be found in the "Flow-of-Funds Accounts" published by the BOJ on a quarterly basis (Fig. 1-25).
Foreign investors temporarily reduced JGB holdings as JGB volatility headed higher just after the BOJ's decision at its Monetary Policy Meeting in April 2013 to introduce the Quantitative and Qualitative Monetary Easing policy. Nevertheless, foreign investors' JGB holdings turned upward as JGB yields remained stable at low levels due to destabilization factors in emerging and other foreign countries.
As JGBs have looked attractive to foreign investors due to the low yen fundraising costs on the back of the tightening dollar supply-demand balance in recent years, their JGB holdings have followed an uptrend. Some foreign investors hold JGBs in favor of their stable yields. At the end of December 2021, foreign investors' share of outstanding JGBs totaled 174.6 trillion yen, or $14.3 \%$.
Foreign investors' JGB investment has featured a focus on short-term issues. At the end of December 2021, they held $7.9 \%$ of outstanding JGBs (excluding T-Bills) and $61.4 \%$ of T-Bills (Fig. 1-26). Foreign investors also feature their active trading on the secondary market. Their share of secondary market transactions at the end of December 2021 reached $39.3 \%$ for spot trading and $67.8 \%$ for futures trading (Fig. 1-27). Foreign investors’ presence on the secondary market is greater than indicated by their JGB holdings. We should keep an eye on the presence of foreign investors.

Fig. 1-25 JGB Holdings by Foreign Investors


Fig. 1-26 JGB Holdings by Foreign Investors (including T-Bills)


Fig. 1-27 JGB Holdings and Trading by Foreign Investors


## B. Breaking down Foreign Investors

There are various foreign investors, including "real money" institutional investors (such as central banks managing foreign exchange reserves, international financial institutions, pension funds, life insurance companies and asset management firms) and hedge funds.
Generally, it is said that "real money" institutional investors give greater priority to safety, liquidity and stable longterm holdings, while hedge funds mainly invest in relatively short-term period utilizing derivatives and so on. However, some "real money" institutional investors conduct relatively short-term investment, while some hedge funds implement relatively long-term investment. As shown above, there are a variety of investment styles. Recently, a wide range of foreign investors have intensified investment in short- to medium-term JGBs by taking advantage of basis swaps.
As for a region-by-region breakdown of foreign investors, the Ministry of Finance and the BOJ release a nationality-bynationality breakdown of foreign investors' Japanese bond holdings including JGBs in the balance of payments statistics (Regional Portfolio Investment and Financial Derivatives Position (Liabilities)). According to the balance of payments statistics, JGB and other Japanese bond holdings total (1) 113.3 trillion yen in Europe, (2) 42.9 trillion yen in North America, (3) 39.3 trillion yen in Asia, (4) 11.1 trillion yen in Central and South America, and (5) 3.4 trillion yen in the Middle East (Fig. 1-28). A country-by-country breakdown of Japanese bonds held overseas indicates that the five largest holders of these bonds are (1) the U.S. with 40.9 trillion yen, (2) Belgium with 35.3 trillion yen, (3) Luxembourg with 34.9 trillion yen, (4) China with 24.2 trillion yen, and (5) the U.K. with 14.0 trillion yen.

Fig. 1-28 Foreign Investors' Bond Holdings by Region (Custodian Base)


## C. Overseas Investor Relations (IR) Efforts

The Ministry of Finance has made efforts to enhance relations with foreign investors in JGBs.

## a. Introduction of Overseas IR Efforts

In 2005, the Ministry of Finance launched overseas IR efforts to diversify the JGB investor base, including foreign investors, for the purpose of stabilizing the JGB market and providing accurate information on a timely basis that meets investors' needs for the purpose of encouraging them to hold JGBs longer and more stably. Through overseas IR efforts, the MOF has accurately grasped foreign investors' trends and needs. The MOF has also given back the information to the government debt management policy.
The Ministry of Finance established the Office of Debt Management and JGB Investor Relations at the Debt Management Policy Division of the Financial Bureau in July 2014 to enhance information arrangements to implement more effective and efficient IR activities in cooperation with research and analysis divisions. In overseas IR activities, we provide various types of investors with information meeting their needs in a fine-tuned manner. For example, we frequently discuss practical topics, such as macroeconomic trends, various government policy measures, JGB issuance plans, and JGB market trends.

## b. Overseas IR Activity Methods

We have adopted overseas IR activity methods fulfilling investors' needs, based on trends of overseas investors and market environment changes as well as opinions at such forums as the Advisory Council on Government Debt Management ( ${ }^{(\$)}$ ). Initially, we mainly sponsored seminars to improve foreign investors' awareness of JGBs. In response to improvements in foreign investors' awareness of JGBs through seminars, we have enhanced not only seminars but also direct visits to investors in recent years. We believe that our visits to foreign investors for direct talks allow us to grasp and respond to their needs in a fine-tuned manner, to promote their understanding of JGBs and the Japanese economy and to build close relations with them. As face-to-face meetings were restricted due to the expansion of COVID-19 starting FY2020,

The council pointed out that it would be important to discuss and consider a me-dium- to long-term Debt Management Policy from more multifaceted perspectives. The MOF has decided to launch a Study Group on Government Debt Management (Ref: Box 4 "Review of Advisory Council on Government Debt Management and Its Successor" (P26)).
we have conducted online overseas IR activities without visiting foreign countries. Online meetings allow us to contact various overseas investors without distance constraints, but, at the same time, entail problems including limited opportunities to meet for some regions due to the time difference.

The MOF has taken advantage of accumulated experiences with these IR activities over more than 10 years to implement more effective and efficient IR activities. For example, we prepare presentation materials based on foreign investors' past questions and matters of interest and have meetings with the foreign investors. Then, we sort out and accumulate information regarding matters of interest to foreign investors and their investment trends. Thus, we try to build better relations with them based on the PDCA (plan-do-check-act) cycle.
Through these IR activities, we have received various questions and opinions from foreign investors. These opinions are reflected in our debt management and other policies and used effectively. We have also established a question-andanswer column in the "JGB Newsletter" (English version) in an effort to develop better communications with investors.

## c. Overseas IR Activities in FY2021

In FY2021, we conducted online overseas IR activities as in the previous year. Online meetings allowed us to interview a wide range of foreign investors not only in North America, Europe and Asia but also in Latin America and other regions where we have fewer opportunities for direct visits to local investors. In the year, we implemented a total of 50 online interviews with foreign investors (Fig. 1-29). Foreign investors indicated their interests in Japan’s government debt management policy, its target year for achieving a primary balance surplus and its economic trends, including prices.
In the future, we will further enhance our overseas IR activities while utilizing online meetings. We will also consider resuming direct visits to overseas investors while watching the COVID-19 situation.
Separately from overseas IR activities, we usually provide lectures in foreign countries. As most international conferences were canceled in FY2021, however, we failed to provide lectures overseas.
In Japan, we also proactively provide lectures at seminars where foreign investors are invited to attend and interview foreign investors visiting Japan. In FY2021, lectures for and interviews with foreign investors were mostly implemented on an online basis. However, some of them were done in the form of direct face-to-face meetings with sufficient measures taken to prevent COVID-19 infection.

Fig.1-29 Number of Foreign Investors Subjected to Overseas Interviews

|  | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Number of interviews | 98 | 131 | 139 | 60 | 52 | 50 |

Note 1: The figures are limited to meetings arranged by Office of Debt Management and JGB Investor Relations.
Note 2: The numbers from FY2020 and onward are of online interviews with overseas investors.

In this way, the overseas IR activities play a role in directly providing investors with accurate information on Japanese government debt management and economic policies while responding to wide-ranging and deep needs for information not only on JGBs but also on the economy and fiscal situation.

## 4 Others

## (1) Debt Management Authorities' Business Operations

As COVID-19 has spread throughout the world since early 2020, Japan has plunged into a serious infection situation, forcing the government to issue state of emergency declarations.
As government bonds have been required to be securely and smoothly issued and redeemed even in such a situation, we have implemented such initiatives as the enhancement of backup arrangements to prevent national debt management from being affected.

## (Example initiatives implemented so far)

- Developing arrangements to distribute workplaces for officials in charge of auctions and other JGB issuance operations through telework and other measures to reduce their contacts.
- Developing backup arrangements including training of other officials to implement JGB auctions.
- Increasing officials in charge of auctions and other JGB issuance operations to further enhance business arrangements.


## (2) A partial modification to the Order Regarding Account Management Institutions

JGBs traded between financial institutions are paperless under the"Act on Book-Entry Transfer of Corporate Bonds and Shares". JGB transfers are done in the Book-Entry Transfer Account Register managed by the Book-Entry Transfer Institution (the BOJ). Foreign financial institutions that want to handle JGBs for investors can open an account by filing relevant applications with the Commissioner of the Financial Services Agency, the Minister of Justice, and the Minister of Finance (hereinafter referred to as"competent ministers") in line with the "Order Regarding Account Management Institutions" and being designated as Account Management Institutions. The same applies to notification of change of trade name, etc. and application for rescission of designation.
Previously, foreign financial institutions mailed in hard copies of application forms and attached documents, and if any such designated application form is not prepared in Japanese, a Japanese translation must be attached and mailed. However, On December 13, 2021, the following two revisions were made.

## A. Online applications for designation as a Foreign Account Management Institutions

Currently the Japanese government is engaging in efforts to make administrative procedures available online. Along with the government efforts, the partial modification to the Order Regarding Account Management Institutions allows the foreign financial institution to submit application forms online without mailing in hard copies of application forms.

Fig. 1-30 Illustrated Online applications for designation as a Foreign Account Management Institutions


## B. Omission of Japanese translations of English attached documents

The competent ministers were allowed to omit the requirement for Japanese translations of English documents attached to the applications as far as the English documents are easy to understand, with application details clarified.

## II

## Framework of Debt Management

This part explains the fundamental framework
of debt management.

## Chapter 1 Government Bonds (JGBs)

## 1 Primary Market for Government Bonds

JGBs for financing fiscal expenditure are issued in various types, depending on their applicable legal grounds and bond features. This section explains how JGBs are issued.

## (1) JGBs by Legal Grounds of Issuance

JGBs can be divided into two main categories: General Bonds, and Fiscal Investment and Loan Program Bonds (FILP Bonds). While the government mainly relies on tax revenue to redeem General Bonds, the redemption and the interest payments on FILP Bonds are covered by the collection of Fiscal Loan receivable. However, both General Bonds and FILP Bonds are jointly issued as JGBs with the same interest rate and maturity. They are the same financial instruments and are treated in the same manner on the market as well.

Fig. 2-1 JGBs by Legal Grounds of Issuance

| JGBs | General Bonds | Construction Bonds |
| :---: | :---: | :---: |
|  |  | Special Deficit-Financing Bonds |
|  |  | Reconstruction Bonds |
|  | Fiscal Investment and Loan Program Bonds (FILP Bonds) |  |

## A. General Bonds

General Bonds consist of Construction Bonds, Special Deficit-Financing Bonds, Reconstruction Bonds and Refunding Bonds. Construction Bonds and Special DeficitFinancing Bonds are issued under the General Account and the revenue from their issuance is reported as the government revenue of the General Account.
On the other hand, Reconstruction Bonds are issued under the Special Account for Reconstruction from the Great East Japan Earthquake and Refunding Bonds under the Special Account of Government Debt Consolidation Fund and the revenue from their issuance is reported as the government revenue of each Special Account.

## a. Construction Bonds

Article 4, paragraph (1) of the "Public Finance Act" prescribes that annual government expenditure has to be covered in principle by annual government revenue generated from other than government bonds or borrowings. But as an exception, a proviso of the Article allows the government to raise money through bond issuance or borrowings for the purpose of public works, capital subscription or lending. Bonds governed by this proviso of Article 4, paragraph (1) are called "Construction Bonds."
The Article prescribes that the government can issue Construction Bonds within the amount approved by the Diet, and the ceiling amount is provided under the general provisions of the General Account budget (

## b. Special Deficit-Financing Bonds

When estimating a shortage of government revenue despite the issuance of Construction Bonds, the government can issue government bonds based on a special act ( 1 ) to raise money for the purpose of other than public works and the like. These bonds are generally called "Special Deficit-Financing Bonds."
As is the case with Construction Bonds, the government can issue Special Deficit-Financing Bonds within the amount approved by the Diet and the ceiling amount is provided under the general provisions of the General Account budget (
Special Deficit-Financing Bond issuance must be made on exceptional cases. Therefore, the government has to minimize the issuance amount as much as possible within the amount approved by the Diet, while taking into account the state of tax and other revenues (3).

## c. Reconstruction Bonds

To recover from the Great East Japan Earthquake disasters, the government is supposed to issue Reconstruction Bonds from FY2011 to FY2025 in accordance with the "Act on Special Measures concerning the securing of financial resources to execute measures necessary for recovery from the Great East Japan Earthquake (Reconstruction Funding Act)." While necessary financial resources will be financed with revenues of Special Taxes for Reconstruction, the government will issue Reconstruction Bonds as bridging finance until these revenues are receivable to the government.
The government may issue these Reconstruction Bonds within the amount as approved by the Diet. The ceiling amount is provided under the general provisions of the Special Account budget from FY2012 onwards.

## d. Refunding Bonds

As for General Bonds, Refunding Bonds are issued in order to raise funds for refunding part of matured JGBs. Among General Bonds, as for Construction Bonds and Special Deficit-Financing Bonds, the issuance amount of Refunding Bonds is determined basically in accordance with the 60-year redemption rule. As for Reconstruction Bonds, Refunding Bonds are issued depending on the amount of the revenue from Special Taxes for Reconstruction and profit from sales of stocks in each year (
Refunding Bonds are the JGBs issued through the Special Account for the Government Debt Consolidation Fund (GDCF). Revenues from Refunding Bonds are directly posted to the fund.
In the issuance of Refunding Bonds, the government is not required to seek the Diet approval for the maximum issuance amount. This is because unlike in the case of bonds issued to secure new revenue resources, such as Construction Bonds and Special DeficitFinancing Bonds, issuing Refunding Bonds does not lead to an increase in the total amount of outstanding debt.

## (Reference) Front-loading issuance of Refunding Bonds

As massive bonds redemption at maturity is expected to continue, the government is allowed to front-load the issuance of Refunding Bonds in order to mitigate the impact of concentration of bonds redemption at maturity, to control substantial volatility of JGB market issuance in each fiscal year and to enable flexible issuance of them in response to
(1) The "Act on Special Provisions concerning Issuance of Public Bonds to Secure Financial Resources Required for Fiscal Management" allows Special DeficitFinancing Bonds to be issued for five years from FY2021 to FY2025.
(2) The government is also required to submit a redemption plan to the Diet for reference.
(a) (3) In this context, it is allowed to issue Special DeficitFinancing Bonds until the end of June in the next fiscal year (deferred issuance in the accounting adjustment term)
financial conditions and so on.
Front-loading issuance of Refunding Bonds can be made within the upper limit approved by the Diet in accordance with Article 47, Paragraph (1) of the "Act on Special Accounts." The limit is provided in the general provisions of the Special Account budget in each fiscal year. The gap between "the amount of the front-loading issuance of Refunding Bonds that had been scheduled in the previous fiscal year for this fiscal year" and "those that are scheduled front-loading in this fiscal year for the next fiscal year" can be used as part of this fiscal year's financial resources under the government debt management policy. This is called "adjustment between fiscal years () "in terms of issuance type in the JGB Issuance Plan.

The adjustment includes the difference in the amount of issuance in the accounting adjustment term between the current and the previous fiscal years besides that of front-loading-issuance of Refunding Bonds. In the accounting adjustment term, which means a period from April to June, some of Deficit-Financing or Reconstruction Bonds for the previous fiscal year can be issued.

## B. Fiscal Investment and Loan Program Bonds (FILP Bonds)

## Ref: "FILP Report"

Since the FY2001 reform of the FILP (Fiscal Investment and Loan Program) that abolished the requirement for all postal savings and pension fund reserves to be deposited at the Fiscal Loan Fund, the government has issued Fiscal Investment and Loan Program Bonds (so-called FILP Bonds) to raise financial resources as necessary for the Fiscal Loan Fund. FILP Bonds are issued integrally with General Bonds based on the credit of the government and treated as the same financial instrument as General Bonds. As is the case with other types of JGBs, FILP Bonds are issued up to the amount approved by the Diet. The FILP Bond issuance ceiling is provided under the general provisions of the Special Account Budget (Article 62, paragraph (2) of the "Act on Special Accounts") ( (1)). Revenues from the FILP Bonds issuance are allotted to the annual revenue for the Special Account for the Fiscal Investment and Loan Program (FILP Special Account).

However, the FILP Bonds are different from Construction Bonds and Special DeficitFinancing Bonds on one account. While future taxes will be used to redeem Construction Bonds and Special Deficit-Financing Bonds, the redemption on the FILP Bonds are covered by the collection of Fiscal Loan receivable. Therefore, when publishing outstanding debt, FILP Bonds are treated differently from General Bonds (a)).

Fig. 2-2 FILP Fund Flow Since FILP Reform (image)

(1) As with ConstructionBonds and Special DeficitFinancing Bonds, the government is required to submit a redemption plan to the Diet for a reference.
-(2)Also in the System of National Accounts (SNA), which is created by the United Na tions for each country to create economic statistics based on a common standard, FILP Bonds are not classified as debt of the general government.

## (2) Types of JGBs

Government bonds are the securities issued by the central government. The central government pays the bondholders interests on the securities on a semiannual basis except for short-term bonds, and redeems the principal amount at maturity (i.e., redemption). The JGBs planned to be issued in FY2022 can be classified into six categories: short-term (6-Month and 1-Year Bonds); medium-term (2-Year and 5-Year Bonds); long-term (10-Year Bonds); super long-term (20-Year, 30-Year and 40-Year Bonds); Inflation-Indexed Bonds (10-Year Bonds); and JGBs for Retail Investors (3-Year Fixed-Rate, 5-Year Fixed-Rate and 10-Year Floating-Rate Bonds). The short-term JGBs are all discount bonds, which are accompanied by no interest payment during their duration to maturity and redeemed at face value at maturity.
On the other hand, all medium-, long-, super long-term bonds and JGBs for Retail Investors (3Year Fixed-Rate, 5-Year Fixed-Rate) are the bonds with fixed-rate coupons. With fixed-rate coupon-bearing bonds, the interest calculated by the coupon rate (1) determined at the time of issuance (2) is paid on a semiannual basis until the security matures and the principal is redeemed at face value.
Inflation-Indexed Bonds (JGBi) are securities whose principal amounts are linked to the consumer price index (CPI) (3). Thus, although their coupon rates are fixed, the interest payment also fluctuates. The principal amount of JGBi will be guaranteed at maturity (deflation floor). In case where the indexation coefficient (4) falls below 1 at maturity, the principal amount for the JGBi will be redeemed at the face value.

JGBs for Retail Investors (10-Year Floating-Rate) and 15-Year Floating-Rate Bonds are JGBs with coupon rates that vary over time according to certain rules. New issuance has been put on hold for the 15-Year Floating-Rate Bonds, however.

Fig. 2-3 Types of JGBs

| Maturity | Short-term |  | Medium-term | Long-term |
| :---: | :---: | :---: | :---: | :---: |
|  | 6-Month | 1-Year | 2-Year, 5-Year | 10-Year |
| Type of issue | Discount bonds |  | Coupon-bearing bonds |  |
| Min. face value unit | 50,000 yen |  | 50,000 yen |  |
| Issuance method | Public offering BOJ Rollover |  | Public offeringOTC sales(making offerings and accepting subscriptions) |  |
| Auction method | Price-competitive auction/ Conventional-style auction |  | Price-competitive auction/ Conventional-style auction |  |
| Non-price Competitive Auction | Non-Price Competitive Auction I |  | Non-Competitive Auction Non-Price Competitive Auction I Non-Price Competitive Auction II |  |
| Transfer | Not restricted |  | Not restricted |  |
| Frequency of issue (FY2022) |  |  | Monthly each |  |


| Maturity | Super long-term |  |  | $\begin{gathered} \hline \text { Inflation-Indexed } \\ \text { Bonds } \end{gathered}$ | Floating-Rate Bonds | JGBs for Retail Investors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20-Year | 30-Year | 40-Year | 10-Year | 15-Year (Note 1) | 3-Year Fixed-Rate, 5-Year Fixed-Rate, 10-Year Floating-Rate |
| Type of issue | Coupon-bearing bonds |  |  |  |  |  |
| Min. face value unit | 50,000 yen |  |  | 100,000 yen |  | 10,000 yen |
| Issuance methoo | Public offering |  |  | Public offering | - | OTC sales (making offerings and accepting subscriptions |
| Auction method | Price-comp Conventiona | ve auction/ yle auction | Yield-compeditive auction/ Dutch-syle auction | Picc-compestive auction/ Dutch-syle accion | - | - |
| Non-price Competitive Auction | Non-Price Com Non-Price Com | itive Auction I tive Auction II | Non-Price Competitive Auction II | -(Note 2) | - | - |
| Transfer | Not restricted |  |  | Not restricted | Not restricted | Restricted (Note 3) |
| Frequency of issue (FY2022) | Mont | each | 6 times | 4 times | - | Monthly each |

(Note 1) Issuance of 15-Year Floating-Rate Bonds has been suspended since May 2008.
(Note 2) Non-Price Competitive Auction II of Inflation-Indexed Bonds has been suspended since May 2020.
(Note 3) JGBs for Retail Investors can be transferred only to retail investors (including certain trust custodians).
(1) The lower limit of the coupon rate was reduced from $0.1 \%$ to $0.005 \%$ for issues to be placed from FY2021.
(2) In the case where the period of time between an issue date and the first interest payment date falls short of six months, accrued interest is generated. The accrued interest is an amount representing interest for the period of time where a JGB purchaser does not hold a JGB (six months minus the period of time where the purchaser actually holds the JGB). It is paid by the JGB purchaser upon JGB issuance for adjustment.
(3) Japan's Inflation-Indexed Bonds are indexed to the consumer price index (excluding perishables).
(4) The indexation coefficient measures how much the CPI changed after an issue date.

## (Reference) Inflation-Indexed Bonds

The Inflation-Indexed Bonds (JGBi) are bonds whose principals (and relevant interests) fluctuate in line with the core consumer price index (Fig. 2-4). The government began to issue JGBi in March 2004 and suspended their issuance in October 2008 due to a sharp demand decline accompanying the global financial crisis and other changes. In October 2013, the government resumed JGBi issuance with the principal guarantee upon maturity (Fig. 2-5).
The development of JGBi market has remained a key to address market environment changes after overcoming deflation and to diversify JGB products.

Fig. 2-4 Conceptual scheme of Inflation-Indexed Bonds


Fig. 2-5 Deflation Floor (Conceptual Diagram)


[^5]
## (3) Methods of Issuance

Methods of issuing JGBs are basically divided into three: offerings to the market, sales to retail investors, and offerings to the public sector.

## A. Offering to the market

JGBs are principally issued in public offering on market-based issue terms.
a. Auction method
(1) Price/yield-competitive auction

Price/yield-competitive auction is a method in which each auction participant (1) submits a bidding price (or yield) and bidding amount in response to the issue terms (e.g., issuance amount, maturity, coupon rate (2))) presented by the MOF, and the issuance price and amount will then be determined based on the bids.
In this type of auction, the issuing authority starts selling first to the highest price bidder in descending order (or to the lowest yield bidder in ascending order) till the cumulative total reaches the planned issuance amount. In Japan, the auction method varies by type of security. One is the conventional (multiple price) method by which each winning bidder purchases the security at one's bidding price; and the other is the Dutch-style (single price/ yield) method by which all winning bidders pay the lowest accepted bid price regardless of their original bid prices (or yields) (3).

## (2) Non-competitive auction

Besides competitive auction, 2-Year, 5-Year and 10-Year Bonds are also issued through non-competitive auction. This approach is to take into account small and medium market participants who tend to submit a smaller bid than their larger counterparts. Biddings for non-competitive auction are offered at the same time as for the price-competitive auction, and the price offered equals to the weighted average accepted price of the price competitive auction. One can bid for either the price competitive auction or for the non-pricecompetitive auction.

The maximum issuance amount is $10 \%$ of the planned issuance amount. Each participant is permitted to bid up to 1 billion yen ( $)$.

## (3) Non-Price Competitive Auction I \& II

Non-Price Competitive Auction I is an auction in which biddings are offered at the same time as for the price-competitive auction. The maximum issuance amount is set at $20 \%$ of the total planned issuance amount and the price offered is equal to the weighted average accepted price of the price-competitive auction. Only the JGB Market Special Participants are eligible to bid in this auction. Each participant is allowed to bid up to the amount set based on the result of its successful bids during the preceding two quarters. 40-year or JGBi issues are not subject to Non-Price Competitive Auction I.

Non-Price Competitive Auction II is an auction carried out after the competitive auction is finished. The price offered is equal to the weighted average accepted price in the pricecompetitive auction or issuance price in Dutch-style competitive auction. Only the JGB
(1) No new 40-Year JGB coupon rate is given in advance as it is determined based on the result of first yield-competitive auction.
(2) Auction participants are designated according to Article 5, paragraph (2) of the Ordinance of the Ministry of Finance on Issuance, etc. of National Government Bonds. As of April 1, 2022, there were 228 auction participants.
(3) The price-competitive conventional auction is used for all JGB issues excluding the 40 -year issue subject to the yield-competitive Dutch auction and the Inflation-Indexed Bonds subject to the pricecompetitive Dutch auction.

The ceiling amount to bid is not applied to the Shinkin Central Bank, the Shinkumi Federation Bank, the Rokinren Bank and the Norinchukin Bank.

Market Special Participants are eligible to bid in this auction. Each participant is allowed to bid up to the amount set based on the result of its bids during the preceding two quarters ( ) Inflation-Indexed Bonds and short-term JGB issues are not subject to Non-Price Competitive Auction II.

## b. Reopening rule

In March 2001, the immediate reopening rule was introduced for the purpose of the enhancement of JGB liquidity, etc. The rule treats a new JGB issue as an addition to an outstanding issue immediately from the issuance day, in principle, if the principal and interest payment dates and the coupon rate for the new issue are the same as those for the outstanding issue. 5-Year Bonds issues are subject to the rule (
From the viewpoint of securing market supply of each issue, 10, 20, 30 and 40-year issues in FY2022 are subjected to the following rule, which is more advanced than the immediate reopening rule.

The 10-Year Bonds will be integrated into four issues (integrating April, May and June issues in 2022 into the April 2022 issue, July, August and September issues into the July 2022 issue, October, November and December issues into the October 2022 issue, and January, February and March issues in 2023 into the January 2023 issue) unless interest rates fluctuate wildly (the market yield on an auction day for a new issue deviates from the coupon on the previous issue with the same maturity date by more than 30 basis points). The reopening rule will also be used in principle to integrate 20-Year and 30-Year Bonds each into four issues. The 40-Year Bonds (May, July, September, November, January and March issues) will be integrated into one issue (May issue). In principle, JGBi issues (May, August, November and February issues) will be integrated into one issue (May issue).

## B. JGBs and sales system for Retail Investors

## a. JGBs for Retail Investors

In March 2003, issuance was started on 10-Year Floating-Rate Bonds for Retail Investors (1) ) in order to promote JGB holdings among individuals. Moreover, in order to respond to retail investors' various needs and to promote further sales, the government has been improving product features by introducing 5-Year Fixed-Rate and 3-Year Fixed-Rate Bonds.

Issuance of JGBs for Retail Investors rests on their handling and distribution by their handling institutions comprised of securities companies, banks, and other financial institutions as well as post offices (about 950 institutions). The handling institutions are commissioned by the government to accept purchase applications and to sell JGBs to retail investors. Handling institutions are paid a commission by the government corresponding to the handled issuance amounts. (2))

## b. New Over-The-Counter (OTC) sales system for selling marketable JGBs

In addition to JGBs for Retail Investors, in October 2007 a new OTC sales system for marketable JGBs was introduced in order to increase retail investors purchase opportunities with regard to JGBs (2-Year, 5 -Year, and 10-Year Bonds).
With regard to this new OTC sales system, it allows private financial institutions to

Each participant is allowed to bid up to $10 \%$ of one's total successful bids in the competitive auction and Non-Price Competitive Auction I.

As principal and interest payment dates for 2-Year Bonds differ from auction to auction, 2-Year Bonds are not effectively subjected to the reopening rule (Ref: III Chapter 1 (5) "Principal/ Coupon Payment Corresponding to Days of Issuance in FY2022" (P112)).
(1) JGBs for Retail Investors are designed not to lose principal. The minimum interest rate of $0.05 \%$ is set to prevent the rate from falling to zero or becoming negative.
(2) For JGBs for Retail Investors from the October 2020 issue (offered in September 2020), the government cuts the sales commission (to 0.08 yen per 100 yen nominal par for 3-Year FixedRate Bonds, to 0.11 yen for 5-Year Fixed-Rate Bonds and to 0.14 yen for 10 -Year Floating-Rate Bonds) and pays $0.02 \%$ of the balance of the participant account as an account management fee upon interest payments.
engage in subscription-based OTC sales of JGBs in a manner previously exclusive to post offices. This development allows retail investors to purchase JGBs via financial institutions with whom they are familiar, it also allows them to purchase JGBs in a manner that is essentially ongoing. Depending on market yield conditions, however, the acceptance of subscriptions may be suspended.

As with JGBs for Retail Investors, for the new OTC sales system, the government has commissioned financial institutions (about 630 institutions) to conduct subscriptions and sales of JGBs. Note that while these financial institutions are required to accept subscription and sell JGBs at prices defined by the MOF within a defined period, they are not required to purchase any unsold JGBs.

Fig. 2-6 Comparison of JGBs for Retail Investors and New Over-The-Counter (OTC) Sales System

|  | J G B s for R etail Investors |  |  | New OTC J GBs |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10-Year <br> Floating-R ate | 5-Year <br> Fixed-Rate | 3-Year <br> Fixed-Rate | 10-Year Marketable Fixed-Rate Bonds | 5-Year Marketable Fixed-Rate Bonds | 2-Year Marketable Fixed-Rate Bonds |
| Maturity | 10-year | 5-year | 3-year | 10-year | 5-year | 2-year |
| Frequency of issuance | Monthly (12 times a year) |  |  | Monthly (12 times a year) |  |  |
| Purchase units/purchase value limits | Minimum purchase of 10 thousand yen in 10 thousand yen units/No upper limit |  |  | Minimum purchase of 50 thousand yen in 50 thousand yen units/Maximum value of 300 million yen per individual application |  |  |
| Sales price | 100 yen per 100 yen of face value (the same in the redemption) |  |  | Determined by MOF for each issue(possible to sell at any time on the market. However, the price may change when the bonds are sold before maturity.) |  |  |
| Purchasers | Limited to retail investors |  |  | No restrictions (can also be purchased by corporate entities or condominium associations, etc.) |  |  |
| Interest rate | Floating-rate | Fixed-rate |  | Fixed-rate |  |  |
| Minimum interest rate | Present (0.05\%) |  |  | Absent |  |  |
| Redemption before maturity | Once one year has elapsed since issuance, redemption before maturity due to government buy-back shall be possible at any time(there is no principal loss risk). Deduct the two interest payments immediately preceding redemption (pretax) $\times 0.79685$. |  |  | Possible to sell at any time on the market (however, because the price at time of sale shall be the market price at that time, loss/profit shall occur on sale(there is a principal loss risk). Furthermore, there is no scheme for the government to buy-back these bonds before maturity.) |  |  |
| $\begin{array}{\|c\|} \hline \text { Introduction } \\ \text { (1st issuance) } \\ \hline \end{array}$ | March, 2003 | J anuary, 2006 | J uly, 2010 | October, 2007 |  |  |

Fig. 2-7 Major Improvements in Features of JGBs for Retail Investors

| Implementation timing | $\quad$ Improvements |
| :--- | :--- |
| March 2003 | 10-Year F loating-R ate Bonds launched |
| J anuary 2006 | 5-Year Fixed-Rate Bonds launched |
| October 2007 | New OTC sales system introduced |
| J uly 2010 | 3-Year Fixed-Rate Bonds launched |
| J uly 2011 | Interest rate-setting formula revised for 10-Year F loating-Rate Bonds (Standard <br> rate - 0.80\% $\rightarrow$ Standard rate x 0.66) |
| April 2012 | Period changed for a ban on pre-maturity redemption of 5-Year Fixed-Rate Bonds <br> (2 years $\rightarrow$ 1 year) |
| December 2013 | Monthly subscription and issuance launched for 10-Year Floating-R ate and 5-Year <br> Fixed-Rate Bonds |
| May 2016 | First interest payment adjustments revised |

## C. Offering to the public sector (Bank of Japan Rollover)

In the Bank of Japan rollover, the BOJ underwrites Refunding Bonds instead of asking the government to redeem part of JGBs that mature after being purchased by the central bank in the market.
While Article 5 of the "Public Finance Act" prohibits the BOJ from underwriting government bonds, the abovementioned BOJ rollover is an exception that is allowed up to an amount authorized by the Diet under a proviso to the Article. Every fiscal year, the MOF requests the BOJ rollover that the central bank accepts after confirming that the rollover will cause no problem with monetary policy.
An increase in the BOJ rollover can reduce the amount of JGBs issued through usual auctions in the market, allowing the MOF to level the effects of fluctuations in the annual JGB redemption amount and fiscal demand on fluctuations in the amount of JGB market issuance through usual auctions. Therefore, the MOF decides on the BOJ rollover request amount based on the annual JGB Issuance Plan, etc.

Fig. 2-8 JGB Issuance Amount by Methods of Issuance


## (4) JGB Market Special Participants Scheme

Amid expectations that JGB issuance in large volumes will continue, the "JGB Market Special Participants Scheme" was introduced in Japan in October 2004 to promote the market's stable absorption of JGBs and to maintain and enhance the liquidity of the JGB market.
This scheme is designed based on the so-called "Primary Dealer System" introduced in major European countries and the U.S. To achieve the abovementioned purpose of the scheme, the MOF grants special entitlements to certain auction participants who carry out responsibilities essential to debt management policies, such as active participation in JGB auctions.
The following is an outline of the scheme.

## A. Responsibilities of JGB Market Special Participants

- Bidding responsibility:

In every auction, the Special Participants shall bid for an adequate amount (at least the planned issuance amount multiplied by the rate of bidding responsibility( )) at reasonable prices.

- Purchasing responsibility:

The Special Participants shall purchase and underwrite at least a specified share of the planned total issue amount ( $0.5 \%$ for short-term zone; and $1 \%$ for other zones) in each of the super long-term, long-term, medium-term and short-term zones in auctions for the preceding two quarters.

- Responsibility in the secondary market:

The Special Participants shall provide sufficient liquidity to the JGB secondary market.

- Provision of Information:

The Special Participants shall provide information on JGB markets and related transactions to the MOF.

## B. Entitlements of JGB Market Special Participants

- Entitlement to participate in the Meeting of JGB Market Special Participants:

The Special Participants may participate in the Meeting of JGB Market Special Participants to exchange opinions with the MOF.

- Entitlement to participate in Non-Price Competitive Auctions I \& II:

The Special Participants may participate in Non-Price Competitive Auction I held concurrently with a normal competitive auction and in Non-Price Competitive Auction II held after a normal competitive auction. These auctions enable Special Participants to obtain JGBs at the weighted average accepted price in a competitive auction (or at the issuance price in a Dutch-style auction) up to the maximum amount preset for each Special Participant on the basis of the amount of past successful bids (Non-Price Competitive Auction I) and past bids as a whole (Non-Price Competitive Auction II).

- Entitlement to participate in Liquidity Enhancement Auctions:

The Special Participants may participate in Liquidity Enhancement Auctions that are designed to maintain and enhance the liquidity of the JGB market.

- Entitlement to participate in Auctions for Buy-backs:

The Special Participants may participate in Auctions for Buy-backs.

- Entitlement to apply for the separating and integrating STRIPS Bonds:

The Special Participants may apply for the separation and integration of STRIPS Bonds.

Rate of bidding responsibility is calculated by the formula shown below (any fraction less than one rounded up to the nearest whole number).

Rate of bidding responsibility (\%) $=100 / \mathrm{n}$
" $n$ " is the number of the Special Participants

## C. History of the Scheme

- October 2004: JGB Market Special Participants Scheme was introduced, including designation of Special Participants, holding the first round of Meeting of JGB Market Special Participants and launch of Non-Price Competitive Auction II.
- April 2005: Non-Price Competitive Auction I was launched.
- January 2006: Interest rate swap transactions started.
- March 2006: The government bond syndicate underwriting system was abolished.
- April 2006: Liquidity Enhancement Auction was launched.
- January 2009: The maximum bid for Non-Price Competitive Auction II was raised from " $10 \%$ of one's total successful bids" to " $15 \%$ " ).
- April 2015: The maximum amount of bidding by each auction participant was reduced from " $100 \%$ of the planned issuance amount" to " $50 \%$ of the amount" and the minimum bidding responsibility amount was raised from " $3 \%$ of the planned issuance amount" to " $4 \%$ of the amount."
- July 2017: The maximum issuance amount for Non-Price Competitive Auction I was raised from " $10 \%$ of the total planned issuance amount" to " $20 \%$ of the amount" and the minimum bidding responsibility amount from " $4 \%$ of the planned issuance amount" to " $5 \%$ of the amount."
- January 2020: The maximum bid for Non-Price Competitive Auction II was lowered from " $15 \%$ of one's total successful bids" to " $10 \%$ " (
- April 2020: Non-Price Competitive Auction II for the Inflation-Indexed Bonds was canceled.
- March 2022: The bidding responsibility amount was changed from "at least 5\% of the planned issuance amount" to "at least $100 / \mathrm{n} \%$ of the amount".

The maximum amount of bidding would not exceed the amount obtained by multiplying the planned issuance amount by the Reference Bidding Coefficient for each Special Participant (amount less than 100 million yen shall be discarded).

## (5) Government Bond Administration

## A. Items the Bank of Japan handles

The government does not directly undertake the government bond-related administrative tasks, such as issuance and redemption, but entrusts the BOJ with most of those tasks based on Article 1, paragraph (2) of the "Act on National Government Bonds." Those administrative tasks entrusted to the BOJ are as follows (

- Issuance: The BOJ accepts bids from bidders in auctions, notifies amounts of successful bids, collects payments, issues the securities, and receives and handles revenues.
- Redemption/interest payment: The BOJ pays a principal and interests on JGBs, and receives and handles funds to be used for redemption, and makes their disbursement.


## B. The Bank of Japan government bond network system

The BOJ operates the Bank of Japan Financial Network System (BOJ-NET) JGB Services ( (1)) to efficiently and safely implement JGB issuance, redemption and other administrative tasks as explained above and the settlement of JGB transactions with its customer financial institutions
Banks, securities companies, money market brokers, insurance companies, etc. participate in the BOJ-NET JGB Services that implement JGB issuance, redemption and other administrative tasks online.
Under the "Act on Book-Entry Transfer of Corporate Bonds and Shares," at present, JGBs traded between financial institutions are paperless. JGB transfers are done in the form of transfers on accounts managed by the transfer institution (the BOJ) (as).
The BOJ-NET JGB Services allow the following procedures to be completed online:

- Notification of offering (from the BOJ to auction participants)
- Bidding (from bidders to the BOJ)
- Counting the number of bidding and reporting to the MOF on total bidding
- Notification of accepted/allocated bids (from the BOJ to bidders)
- Issuance and payment (from the BOJ to purchasers / from purchasers to the BOJ)

The BOJ provides these government bond-related services through its head office and branches, and through agent financial institutions.
(1) The BOJ-NET includes the BOJ-NET current account system as a fund settlement system and the BOJ-NET JGB Services as a JGB settlement system.

## C. Auction Procedures for Public Offering Auction

Fig. 2-9 Auction Procedures for Public Offering Auction


[^6]
## D. Shortening of Settlement Cycles in Primary JGB Market

In a manner to meet the shortening of the settlement cycle to $\mathrm{T}+1$ for the secondary JGB Shortening of settiement market, Japan shortened the settlement cycle (between auction and issuance dates) from $\mathrm{T}+2$ to $\mathrm{T}+1$ in principle for auctions as from May 1, 2018.

At the same time, Japan shortened settlement cycles for coupon-bearing issues (5- to 30-year issues) coming in massive JGB redemption months (March, June, September and December) and a 2-year issue every month.

## (1) Coupon-bearing (5- to 30-year) JGB Issues in Massive Redemption Months

For coupon-bearing (5- to 30-year) JGB issues coming in massive JGB redemption months (March, June, September and December) for which issuance dates had been unified into the 20th day of each month (the next business day if the 20th day fell on a holiday) irrespective of auction dates, settlement cycles were shortened to $\mathrm{T}+1$, with their issuance set to come on the next business day of the auction, as from May 1, 2018.

## (2) Monthly 2-year JGB issue

For a 2-year JGB issue coming every month for which an issuance date had been set at the 15th day (the next business day if the 15th day fell on a holiday) of a month after an auction month irrespective of the auction date, the issuance date was set at the first day (the next business day if the first day falls on a holiday) of a month after an auction month as from May 1, 2018. Interest payment and redemption dates were also changed to the first day of each month.

## 2 Secondary Market for Government Bonds

Not only are government bonds a means for government financing, but they are also financial products traded on the ever-changing financial markets at the same time. For JGBs to be issued smoothly and fulfill their functions as indicators of bonds and interest rates, transparency and liquidity must be assured and secondary markets with reliable and efficient settlement must exist. This chapter outlines JGB market liquidity maintenance and enhancement initiatives, as well as how JGBs are traded on the market and how JGB transactions are settled.

## (1) JGB Market Liquidity Maintenance and Enhancement

If the JGB market is liquid enough to allow investors to freely trade in JGBs in line with their respective interest rate outlooks and investment strategies, it will contribute to holding down medium to long-term fundraising costs. Therefore, the JGB issuance authority pays attention to the JGB market liquidity.
While liquidity is defined variously, with no strict definition existing, high liquidity is generally explained as allowing market participants to promptly buy or sell as much as they want at prices close to market prices. In order to assess JGB market liquidity, we must combine various indicators to analyze the market from a multifaceted perspective, instead of depending on a limited range of specific indicators.
The secondary JGB market consists of JGB Market Special Participants and other brokers, and various investors. The maintenance and enhancement of JGB market liquidity depends basically on the market's autonomous functions backed by transactions between such market participants. However, the JGB issuance authority complements JGB market liquidity by adjusting issuance amounts, maturities, reopening and other matters.
Specifically, the government has taken the following measures to maintain and enhance JGB market liquidity:

- Conducting Liquidity Enhancement Auctions to add to past issues ( 1 )
- Reopening past issues (2) to expand the volume of each issue

The government has also held the Meeting of JGB Market Special Participants and the Meeting of JGB Investors (3) to identify market conditions through exchange of opinions with market participants.
(1) Ref: Chapter 1 3(2)
"Liquidity Enhancement Auctions" (P70).
(2) Ref: Chapter 1 1(3) Ab "Reopening rule" (P43). (3) Ref: Chapter 1 3(5) "Dialogue with Market Participants" (P74).

## (2) OTC Transactions and Transactions on the Stock Exchange

The secondary market can be divided into transactions that take place on the Stock Exchange and transactions that are made over-the-counter, for example, at securities companies (OTC transaction). OTC is a predominant transaction method for bonds because bonds have so many issues that their transactions and procedures on the Stock Exchange tend to be complicated and bond transactions are complex.
In the OTC market, in principle, a price is concluded through a negotiation between the parties concerned. However, in order to ensure fair and smooth OTC bond transactions, Selfregulatory Regulations by the Japan Securities Dealers Association require each securities company to maintain the fairness of the transaction by acting at a proper price according to a set of internal rules (

Currently, 2-Year, 5-Year, 10-Year, 20-Year, 30-Year and 40-Year JGBs are listed on the Stock Exchange in Tokyo and Nagoya, and their transaction volume is published.

Fig. 2-10 Case of the Tokyo Stock Exchange

| J GB Trading System |  |
| :---: | :---: |
| Trading Hours | 12:30 pm - 2:00 pm |
| Trading Unit | J PY 50,000 in par value |
| Tick Size | J PY 0.01 |
| Types of Orders | Limit orders only (Market orders are not available) |
| $\frac{1}{0}$ Daily Price Limit | J PY 1 |
| O Trading Method | Orders are accepted only via Target (electronic document submission system of TSE) |
| Trade Execution | Individual auctions for each issue |
| Types of Trading and Settlement Dates | Regular transactions ( $\mathrm{T}+1$ ) |
| Settlement | Settlement through BOJ -NET |

[^7]To improve the price discovery function of the OTC market, the Japan Securities Dealers Association publishes reference statistical prices [yields] for OTC bond transactions on every business day, based on the reports from its member securities companies and some other firms. As securities companies frequently trade with each other through brokers, such transaction price data are available from these brokers.

## (3) Improvements to the JGB Transaction Settlement System

As for the book-entry transfer system for JGB transactions on the secondary JGB market, the Bank of Japan is designated as the transfer institution under the "Act on Book-Entry Transfer of Corporate Bonds and Shares" and operates the system. The system uses book-entry transfer for JGB delivery accompanying JGB transactions between market participants. Practically, settlements are conducted through the BOJ-NET JGB Services in which many private financial institutions participate.

The MOF has developed the JGB transaction settlement system in cooperation with the BOJ and other stakeholders to improve the safety and efficiency of the JGB market. The following section reviews the deliberations concerning the JGB transaction settlement system to date.

## A. Improving and reconstructing BOJ-NET functions

In 1994, the BOJ-NET adopted Delivery-versus-Payment (DVP) settlement () , and in January 2001 changed from the Designated-time Net Settlement (DTNS) (a) to Real-Time Gross Settlement (RTGS) (3), to prevent the occurrence of any systemic risk event. The BOJ began to construct a new system (hereinafter referred to as the New BOJ-NET) in 2008 to further improve the safety and efficiency of the entire settlement system of Japan. The New BOJ-NET came into full operation in 2015. Its operation hours were extended until 21:00 in 2016.

## B. Establishment and propagation of the Fails Practice

"Fail" refers to a case of non-delivery of specific securities by the scheduled time due to reasons other than the creditworthiness of the relevant trade counterparty. "Fails Practice" refers to a market routine that prescribes general clerical procedures to be performed between the parties in a Fail instance and provides as a principle that a Fail event does not automatically imply default ( 1 ).
Fails Practice was introduced in January 2001, when the RTGS system for JGB settlement was adopted in Japan. Back then, a fair number of parties neither understood the need for Fails Practice nor had the clerical processing frameworks in place, preventing Fails Practice from becoming an established procedure. However, in connection with the collapse of the investment bank Lehman Brothers in September 2008, default contagion caused an unprecedented surge in Fail events. Subsequently, as a means for market participants to reduce Fail risk, avoiding new repurchase transactions altogether became increasingly widespread. Fails Practice was revised in November 2010 to introduce Fails Charge ( $\mathfrak{l}$ (2)) and accelerate Cut-Off Time (3).

Ref: Chapter $11(5) \mathrm{B}$ "The Bank of Japan government bond network system" (P48)
(1) DVP (Delivery-versus Payment) settlement of JGBs is a mechanism that prevents the occurrence of a situation in which "payment for securities is not received despite the delivery of the securities having been made" or where "securities are not delivered despite the payment of funds having been made," by making the delivery of securities and payment therefore conditional on each other.
(2) The DTNS (DesignatedTime Net Settlement) system is designed to hold and accumulate various orders received for book entry transfers (payment orders) until a certain time, and at that time, pay or receive only the difference between the total amount receivable and the total amount payable as of such time. Under this settlement method, one single payment default at the time of settlement will cause the settlement of any and all payment orders issued by all participating financial institutions to be suspended and reversed, and by extension, may cause a systemic risk.
(3) The RTGS (Real-Time Gross Settlement) system is a mechanism to transfer in real time the gross amount of each transfer order as received. By this method, settlement is effected for each transfer order. Any single payment default will only directly affect the counterparty if that order (which mitigates any systemic risk).
(1)Specifically, in case of a Fail event, neither will the right of contract cancellation be exercised nor will a penalty for late payment be imposed, in principle. If the Fail duration is prolonged, Buy-In provisions, etc., are stipulated as a method of resolution. "Buy-In" means the purchase of the deliverable securities or identical securities by the recipient to resolve a Fail status that has continued for a certain period. (2) "Fails Charge" means a payment imposed on the party that gives rise to a Fail event by failing to deliver. The Fails Charge was introduced for its conceivable power to reduce Fail frequency on the grounds of its compelling economic rationale, especially in a low-interest environment (For details refer to the relevant regulations including the "The Japanese Government Securities Guidelines for Real Time Gross Settlement").
(3) Cut-Off Time refers to a daily settlement closing time established among market participants that occurs before the end of JGB related operations on the BOJ-NET in order to identify "fail events," etc., ahead of the end of settlement for the day. Currently the Cut-Off Time is set at 14:00.

## C. Shortening of settlement periods

An increase in unsettled transactions through defaults and fails after the September 2008 global financial crisis prompted market participants to strongly perceive settlement risks, leading once again to the realization that shortening settlement periods would be indispensable for effectively reducing unsettled transactions. Based on this experience and deliberations at the Working Group on Shortening of JGB Settlement Cycle established as a subordinate organ of the Promotion Meeting for Reform of the Securities Clearing and Settlement (1)), the standard settlement period for JGB transactions was shortened to T+2 on April 23, 2012, and to $\mathrm{T}+1$ on May 1, 2018 (2) .

## D. Establishing a clearing institution and expanding its use

Together with the change in January 2001 to JGB settlement by RTGS, Bilateral Netting (1) was also introduced. Since in the JGB market outright transactions and repurchase transactions are being carried out constantly by multiple market participants, settling all transactions by individual counterparty would render clerical procedures complicated and highly inefficient, and also compel consideration of counterparty risk when making transactions. With regard to transactions contracted between market participants, this situation gave rise to the demand for an arrangement in which payments and JGBs deliveries of JGB transactions are netted under the guarantee of settlement implementations by a clearing institution taking the position between parties ( (2)).

In October 2003 the Japan Government Bond Clearing Corporation (JGBCC (Japan Securities Clearing Corporation or JSCC at present) (3)) was established as the Central Counterparty (CCP) for the JGB market. As a result, the relation of rights and obligations contracted between JGBCC participants was simplified to the effect that rights and obligations now exist between the JGBCC and each participant, with each party's counterparty risk now posed by the JGBCC instead of the transaction counterparty. Moreover, since participants and the JGBCC settle only the net balance of funds and identical JGB issues, the amounts of settlements, and funds and JGBs necessary for settlement, as well as their exposures during the day are significantly lower than before.
Later, clearing functions were improved through the enhancement of JGBCC governance and the participation in the JGBCC by trust banks that account for a large share of JGB transaction settlements.
(1) The "Promotion Meeting for Reform of the Securities Clearing and Settlement" is established under the "Committee for Reform of Securities Clearing and Settlement System" which is hosted by the Japan Securities Dealers Association. Its purpose is to engage, from an overarching, cross-sectional perspective, in the progress management of the securities settlement system reform and in the discussion of topics that cut across products and industries.
(2)As for the period between a JGB auction and issuance, T (auction date) +1 was also implemented for auctions from May 1, 2018, in principle (See Chapter 1 1(5)D "Shortening of Settlement Cycles in Primary JGB Market" (P50)).
(1) Bilateral netting is a method for the settlement of the difference between the various JGB delivery obligations and JGB payment obligations of two counterparties in situations where both types of obligation exist, as opposed to requiring each counterparty to meet each separate obligation as it falls due at the same time. All obligations are netted on each individual JGB and fund for settlement purposes. This netting process serves to reduce settlement volumes across the market as a whole.
(2) The clearing institution comes between buyers and sellers to clear credit and debt relations established between numerous parties for securities and other transactions by replacing those relations with those between the clearing institution and sellers and those between the institution and buyers.
(3) On October 1, 2013, the JSCC merged with the JGBCC and took over the JGBCC's clearing services for over-thecounter JGB trading.

## (4) WI Transaction

A WI (When-Issued) transaction is a transaction made during a period between an auction announcement (in principle, a week before an auction date) and the previous day of its issuance. Besides a WI transaction during a period between an auction and the day of its issuance, one has become available prior to an auction date since February 2004.
A price of WI transactions functions as a predicted value of a bid price to be accepted because it reflects trends in the demand for a new issue prior to its auction. For the issuer, active WI transactions are considered to contribute to the efficiency of fundraising activities since they strengthen the linkage between the primary and secondary markets and reduce the uncertainty inherent in the auction process.

Fig. 2-11 WI Transactions - Conceptual Diagram


## (5) Bond Gensaki and Bond-Lending Transactions

## A. Bond Gensaki Transactions

Bond Gensaki Transactions are bond sales transactions in which the traded bonds are traded back in the opposite direction on a date and at a price specified in an agreement concluded in advance between the parties to the transaction.
Bond Gensaki Transactions were a principal fundraising means for financial institutions holding securities soon after the end of World War II. While new short-term financial products such as certificates of deposit (CDs), commercial paper (CP), and large-lot time deposits were widely accepted by investors later, however, Bond Gensaki Transactions have been replaced by Bond-Lending Transactions and other means because Bond Gensaki Transactions are subject to the securities transaction tax because they are classified as trading. Bond Gensaki Transactions were thus limited to those trading mainly in Treasury Bills and Financing Bills (today's Treasury Discount Bills) free from the securities transaction tax.
Following a recommendation from the "Sub-Council on the Internationalization of the Yen" under the Committee on Foreign Exchange and Other Transactions that Japan’s repurchase market promote transaction formats consistent with global standards (1) and the abolition of the securities transaction tax in March 1999, a new Bond Gensaki Transaction format was introduced in April 2001 that incorporated risk management methods such as the use of a package settlement provision (2)), margin call feature (3), and substitution (4).
Based on discussions at the Working Group on Shortening of JGB Settlement Cycle established in September 2009 (5)), T+1 was implemented as the standard settlement cycle
(1) "The internationalization of the yen for the 21 st century-Japan's Response to Changes in Global Economic and Financial Environments," as replied to by the Council on Foreign Exchange and Other Transactions on April 20, 1999.
(2) A provision whereby if one of the two counterparties to the transaction defaults on payment, all the debts and credits under the basic agreement between them are replaced by one single monetary debt and credit (each of which is obtained by terminating all individual transactions and then offsetting the resulting loss or profit against the total collateral).
-(3) If, while transactions are being conducted, any difference arises as between the market value of the bond in a bondlending and the value of the collateral provided because of fluctuations in bond prices, this feature permits a counterparty to claim a collateral shortage at any time.
(4) A feature whereby, during the transaction period, another bond of equal or higher market value can be used to substitute for the bond being sold or purchased, subject to the agreement of both parties and following a notification given by one counterparty to the other of such an intention to substitute.
for JGB transactions on May 1, 2018. On this occasion, the settlement cycle for GC (General Collateral) repurchase transactions using unspecified bonds as collateral was shortened from T+1 to T+0, with new Gensaki transactions used for developing GC repos under the Subsequent Collateral Allocation Method, leading new Gensaki transactions to replace BondLending Transactions.

Since November 2002, the BOJ has introduced JGB Gensaki operations using new Gensaki transactions in place of operations using the traditional Bond-Lending Transactions.

## B. Bond-Lending Transaction

Bond-Lending Transactions are Loan Transaction that one party (a lender) lends bonds to a second party (a borrower), and after a specified period, the borrower returns bonds of the same kind and in the same amount to the lender, thereby settling the lending transaction.
Bond-Lending Transactions were introduced in 1989 concurrent with the deregulation of the short-selling of bonds to promote the development of the secondary bond market. BondLending Transactions were for the most part fully uncollateralized initially because regulations were imposed on interest on cash collateral to prevent competition with the Bond Gensaki Transactions and because collateralized Bond-Lending Transactions using non-cash collateral such as substitute securities were shunned by market participants due to complicated clerical work.

The collapse of the Barings Bank in February 1995 served as a fresh reminder of the risk associated with unsecured dealings. In order to mitigate credit risk, Bond-Lending Transactions underwent a review towards collateralization, modeled after the U.S. repurchase transactions. Risk management was reinforced by putting into place a package settlement provision and margin call features, and with the change to rolling settlement (1) of JGB transactions, the minimum limit for cash collateral was abolished along with the limit on interest. Beginning in April 1996, cash-secured Bond-Lending Transactions were initiated ( ${ }^{2}-$ ②) . Cash-secured Bond-Lending Transactions have actively been made for GC transactions and SC (Special Collateral) transactions to procure cash bonds required for unwinding short positions on bonds. In November 1997, they were included in the operations of the BOJ. Moreover, the JGBCC in May 2005 started settlement services including repo transaction settlements (such as obligation assumption and netting) and risk management, contributing to expanding repo transactions.

Fig. 2-12 Bond Gensaki and Bond-Lending Transactions (images)

(1) Rolling settlement is a method to settle transaction sequentially, when it passed by the scheduled days. Before the change, settlements were concentrated on a specific day every month.
(2) Cash-secured BondLending Transactions are called "Japanese Repurchase (Repo) Transactions." While global standard repo transactions are buying and selling transactions, Japan's repo transactions center on borrowing and lending transactions (particularly for cash-secured Bond-Lending Transactions) and are called Japanese Repo Transactions discriminated from global-standard repo transactions. They are also called "cash-secured repos" or "bond-lending repos."

## C. GC Repos under Subsequent Collateral Allocation Method

When the standard JGB settlement cycle was shortened to $\mathrm{T}+1$ on May 1, 2018, the settlement cycle for ordinary JGB transactions (hereinafter referred to as outright transactions) and SC repurchase transactions was shortened from $\mathrm{T}+2$ to $\mathrm{T}+1$. At the same time, JSCC introduced GC Repos under Subsequent Collateral Allocation Method (Subsequent Collateral Allocation Repos), making GC repo transactions available for the T+0 settlement cycle.

Fig. 2-13 Image of Shortening of JGB Settlement Cycle

(Source) Prepared by the MOF based on the "Grand Design for Shortening of JGB Settlement Cycle ( $\mathrm{T}+1$ )" published on November 26, 2014, by the Working Group on Shortening of J GB Settlement Cycle

GC repo transactions are frequently conducted by securities companies to raise funds to cover shortages after outright or SC repo transactions. GC repo transactions thus accompany outright or SC repo transactions. When the T+1 standard settlement cycle took effect for outright and SC repo transactions, therefore, how to accelerate post-trade procedures for GC repo transactions became a challenge. Then, the Subsequent Collateral Allocation Repos through new Gensaki transactions were introduced, based on precedent European and U.S. cases. Parties to a Subsequent Collateral Allocation Repo transaction designate the amount of funds to be delivered and a JGB basket (e.g., conditions for specifying the scope of JGBs for collateral allocation such as "Treasury Discount Bills" and "JGBs with maturity of less than 10 years or Treasury Discount Bills" ) before contracting, leaving JSCC to allocate the specific issue of JGBs for the transaction just before the settlement. In this way, market participants’ administrative costs including the selection of JGB issues have been reduced, allowing the time for post-trade procedures to be shortened.

Transition from lending (cash-collateral repo) transactions to the global standard of new Gensaki transactions (Gensaki repos including Subsequent Collateral Allocation Repos), as recommended upon the T+1 settlement cycle introduction, has made due progress. In the future, the globalization and vitalization of Japan's repo market, including the expansion of nonresidents' participation in the market, are expected to further improve the convenience of overall market participants.

Fig. 2-14 JSCC's Clearing Value (daily average)


[^8]
## (6) STRIPS

STRIPS (Separate Trading of Registered Interest and Principal of Securities) are a type of coupon-bearing government bonds of which coupons and principal can be separated and traded respectively. These separated coupons and principal can be reconstructed into a whole security.

While STRIPS have long been in place in the U.S. and some European countries, it was introduced into Japan in January 2003 to meet the needs of investors who want the separation of principal and interest components ( The new instrument is also expected to enhance arbitrage functions between discount bonds and coupon-bearing bonds, thus adding to the efficiency of the JGB market.
State of stripping of STRIPS is published at the MOF's web site on a regular basis.

All coupon-bearing bonds issued in January 2003 and thereafter except for 15 -Year Floating-Rate Bonds, JGBs for Retail Investors, and 10 -Year Inflation-Indexed Bonds are the "strippable book-entry securities. (Bonds issued as special bonds provided by the "Act on Book-Entry Transfer of Corporate Bonds and Shares" are excluded.)"
While no restrictions exist on holders of stripped book -entry securities, only the JGB Market Special Participants are allowed apply for the separation and reconstruction of STRIPS.

Fig. 2-15 STRIPS - Conceptual Diagram

2-year fixed-rate coupon-bearing J GB with 100 million yen of face value (nominal rate:2\%; maturity date: 1 March, 2024)

| (Principal)100 million yenPayment Date: 1 March 2024 |  |  |  |
| :---: | :---: | :---: | :---: |
| (coupon) <br> 1 million yen Payment date: 1 Sep. 2022 | (coupon) 1 million yen Payment Date: 1 Mar. 2023 | (coupon) 1 million yen Payment Date 1 Sep. 2023 | 1 million yen Payment Date: 1 Mar. 2024 |



Principal-only book-entry transfer J GB

| Discount Bond 100 million yen Maturity Date: 1 March 2024 |  |  |  | Each bond can be traded separately or re-integrated |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coupon-only book-entry transfer J GB |  |  |  |  |  |
| Discount Bond 1 million yen Maturity Date: 1 Sep. 2022 | Discount Bond 1 million yen Maturity Date: 1 Mar. 2023 | Discount Bond 1 million yen Maturity Date: 1 Sep. 2023 | Discount Bond 1 million yen Maturity Date: 1 Mar. 2024 |  |  |

## (7) JGB Futures Trading

Futures trading means trading in a commodity or a financial asset at a price set at present on a particular future date.
JGB futures are used for hedging risks associated with JGB trading (and serve as a bond market trend indicator, playing a key role in leading the primary and secondary JGB markets to work smoothly.

## A. Outline of JGB futures trading

JGB futures trading is outlined in three parts here. The first part outlines JGB futures. While there are four types of JGB futures - 5-year, 10-year, mini 20-year and mini 10-year(CashSettled) (Fig. 2-17) - listed on the Osaka Exchange, 10-year JGB futures account for most of JGB futures trading volume. The 10-year JGB futures are listed on the Singapore Exchange as well as the Osaka Exchange.
The second part outlines the JGB futures system. For JGB futures trading, trading instruments, contract size, the last trading day (1)), the delivery settlement date (2) and other trading terms and conditions are standardized on the premise that many unspecified market participants trade in JGB futures on securities exchanges. Particularly, trading instruments are not actually issued JGBs, but notional bonds called "standardized instruments" (3).
Any party can implement a massive futures transaction by paying margin money that is far less than the full transaction value. This is a feature of futures trading. Therefore, some investors proactively use JGB futures trading to leverage their investment positions.
The third part deals with how to settle JGB futures transactions. For settling a futures transaction, a party may at any time before the last trading day make an offsetting trade (long liquidation or short covering) for net settlement, or pay/receive the trading price and receive/ deliver actual JGBs on the delivery settlement date. Offsetting trades are used for most of futures trading.
For delivery settlement, actual JGBs designated as delivery-qualified issues (4) will be delivered in place of notional JGBs. As a standardized instrument and a delivery-qualified issue have different coupon rates and remaining maturities, a separately computed rate is used for adjusting a delivery price. This rate is called "conversion factor." Specifically, a delivery price is computed by multiplying a futures price and a conversion factor for a deliveryqualified issue together (5).
While there are multiple delivery-qualified issues, the delivering party (or the futures seller) has the right to select an issue for delivery. An issue costing the delivering party least is called the cheapest issue. As the delivering party can minimize losses or maximize profits by selecting the cheapest issue for delivery, the cheapest issue is usually selected for delivery. Therefore, futures prices tend to be closely linked to prices of the cheapest issues.
Under the current market environment where a coupon on actual JGBs is lower than a $6 \%$ coupon on 10-year JGB futures, the cheapest among delivery-qualified issues is, in most cases, the one which has the shortest remaining maturity, at 7 years.

## B. Investors in JGB futures

Various investors use JGB futures. For instance, primary dealers that play a central role in the primary and secondary JGB markets use futures to hedge interest rate risks for JGBs that they purchase in the markets. Given that futures trading is almost free from counterparty risks

For instance, a dealer who bought cash long-term JGBs and sold futures can offset losses or gains on those JGBs because futures prices correlate with cash JGB prices. Investors including banks use highly liquid futures to hedge interest rate risks linked to bond investment portfolios.
(1) The "last trading day" is set to come five trading days before the delivery settlement date (Fig. 2-17).
(2) The "delivery settlement date" is the 20th of March, June, September and December (Fig. 2-17).
(3) "Standardized instruments" mean notional JGBs for which the stock exchange standardizes interest rates, redemption dates, and some other factors. For 10-year JGB futures trading, the standardized instrument is a notional JGB issue that carries a coupon rate of $6 \%$ and is set to mature in 10 years.
(4) "Delivery-qualified issues" mean 10-Year Couponbearing JGBs with a remaining maturity of not less than 7 years but less than 11 years at the delivery settlement date in the case of 10 -year JGB futures trading.
$10-$ (5) If the futures price is 150 yen and the conversion factor for the delivery-qualified issue is 0.72 , the delivery price comes to 108 yen ( 150 yen x 0.72 ).
because trading counterparties are creditworthy exchanges and clearing institutions and that investment positions can be leveraged, JGB futures are a convenient tool for investors seeking to earn trading gains through short-term JGB buying and selling. In recent years, pension funds and other investors known for a long-term bond investment have proactively used JGB futures to leverage their investment positions.

Among investors conducting short-term buying and selling, commodity trading advisors (CTAs) feature an especially great presence in the futures market. The CTA had originally meant a registered qualification required to provide advice about futures trading to clients in the United States. At present, however, the CTA refers to hedge funds investing mainly in futures or investment strategy of these funds. According to the Japan Exchange Group, foreign investors account for more than $60 \%$ of the JGB futures trading volume. The data do not provide a breakdown of foreign investors, but CTAs are believed to have accounted for a large part of them.
It is known that CTAs adopt an investment approach called "trend following". The approach represents an investment strategy that follows an uptrend or downtrend of asset prices. If CTAs identify an uptrend in Japan's bond market based on their standards or algorithms, for instance, they may buy long-term JGB futures. They may continue buying as far as the uptrend is sustained. When the uptrend is identified as ending, they may sell their holdings to lock in profits.
In this way, CTAs base their investment not on absolute yield levels but on a bond price fluctuation trend. Even under the BOJ's Quantitative and Qualitative Monetary Easing with Yield Curve Control, they may conduct active trading without considering yield levels once a trend is identified.
When CTAs and other investors intensify trading in JGB futures irrespective of absolute yield levels, JGBs maturing in seven years that are subject to arbitrage adjustment with futures may be undervalued or overvalued against other JGBs. The butterfly spread ( 1 ), which indicates whether a yield on an issue with a certain maturity is relatively higher or lower on the yield curve, shows that JGBs maturing in seven years became undervalued (with the yield rising) between autumn 2016 and early 2017 and overvalued (with the yield falling) in late 2018. In these periods, CTAs and other investors might have activated their investment (2)).
(1) The $5-, 7$ - and 10 -year butterfly spread is generally expressed as 7 -year rate $\times 2$ ( 5 -year rate +10 -year rate).
(2) The great volatility seen in March 2020 might have been attributable to a market liquidity decline accompanying the spread of COVID-19.

Fig. 2-16 5-7-10-Year Butterfly Spread and Long-term JGB Futures


[^9](Source) Bloomberg

Fig. 2-17 Overview of JGB Futures Trading

(Note 1) On April 4, 2022, the trading unit was cut from 100 million yen to 10 million yen in nominal par value, with the Immediately Executable Price Range changed (unified into 0.90 yen for the whole day), for the purpose of increasing convenience for investors through the improvement of market liquidity.
(Note 2) From the viewpoint of preventing sudden price fluctuations, such as caused by erroneous orders, a rule is established to temporarily halt trading, when an order placed will trade beyond a set price range from the immediate reference price. This is called the Immediately Executable Price Range Rule.
(Note 3) Exceptional cases

1. In the case where the above criteria is met within 20 minutes before the end of the regular session of the day (afternoon) or night session.
2. In the case where the circuit breaker criteria is triggered again after the price limit of a bid or offer has been expanded to the maximum range.
3. In cases where the Osaka Exchange deems that a trading suspension would not be appropriate in consideration of the trading conditions, etc.
(Note 4) Calendar spread trading means a form of trading conducted by placing bids/offers based on the price difference (spread) between two different contract months (specifically, a nearer contract month and a farther contract month; for example, March and June) to establish opposite positions by making one sale and one purchase at the same time for the two contract months.
(Note 5) J-NET trading means the trading of futures and options without sessions at the J-NET Market that is independent from competitive trading markets.
(Note 6) The SPAN ${ }^{\circledR}$ (Standard Portfolio Analysis of Risk) system is a methodology that calculates the margin developed by the Chicago Mercantile Exchange (CME).
(Note 7) A give-up system enables a customer to entrust order-execution to a transaction participant and to entrust its settlement-related operations (payment/receipt of the difference at the time of settlement for futures trading, payment/receipt of options premium and margins, etc.) to other transaction participants.
(Note 8) A position transfer system allows a transferring clearing participant (a transaction clearing participant who transfers unsettled positions) to transfer futures/options unsettled positions to a transferee clearing participant (a transaction clearing participant who takes over unsettled positions from the transferring clearing participant), with prior J SCC approval.
(Sources) Japan Exchange Group, JSCC

## 3 <br> Debt Management Systems

## (1) Redemption System

All the JGBs issued to fund a shortfall in General Account and Special Accounts of the national budget are redeemed through the Government Debt Consolidation Fund (GDCF).

To ensure stable redemption, redemption funds are transferred from each Account to the GDCF based on certain rules. In addition, revenues from Refunding Bonds, issued through the GDCF Special Account, are posted to the GDCF. Moreover, the proceeds from the sales of government-owned shares that belong to the GDCF Special Account are also transferred into the GDCF.

Simply put, fiscal resources for government bond redemption are all funneled through the GDCF - from reception and accumulation to disbursements.

This section explains applicable redemption methods and redemption resources for each JGB category with different legal grounds. Then, it also describes the GDCF Special Account.

Fig. 2-18 Mechanism of Redemption


Note 1: Redemption System of J GBs belonging to the General Account.
Note 2: Proceeds from sales of government-owned shares of Tokyo Metro Co., LTD, and J apan Post
Holdings Co., Ltd, etc. are appropriated for the redemption resources of Reconstruction Bonds.

## A. Redemption Methods

When redeeming JGBs, redemption rules will be applicable as set forth in related legislations.

## a. 60-Year Redemption Rule (Construction Bonds and Special Deficit-Financing Bonds)

The 60-year redemption rule is applicable to redeeming Construction Bonds and Special Deficit-Financing Bonds so that these JGBs, including Refunding Bonds, will be entirely redeemed in a 60-year period ( 1 ). Redemption of JGBs is financed with two revenuesources: cash from such sources as a fixed-rate transfer from the General Account and revenues from issuing Refunding Bonds in accordance with applicable rules. The 60-year redemption rule is maintained in this way. When redeeming Special Deficit-Financing Bonds, the government will "strive to redeem these bonds as soon as possible" as set forth in its governing law.
Fig. 2-19 will give you an idea about how the 60-year redemption rule works.
Suppose you issue 600 billion yen of debt in fixed-rate coupon-bearing 10-year bonds, at maturity (i.e., 10 years from now) you will redeem 100 billion yen of them in cash (2) -equivalent to $1 / 6$ of 600 billion yen- while issuing Refunding Bonds to cover the remaining 500 billion yen. Assuming that these Refunding Bonds will also be issued in fixed-rate coupon-bearing 10-year bonds, then you will redeem 100 billion yen in cash $-1 / 6$ of the initial issue amount of 600 billion yen- in another 10 years. While issuing Refunding Bonds to cover the remaining 400 billion yen. Repeat this for four more times, then, you'll be able to complete the cash redemption in 60 years from the first issuance.
As shown in the figure below, because annual fixed-rate transfer is calculated based on the JGB outstanding amount at the beginning of the previous fiscal year, it decreases along with the decrease in the JGB outstanding amount. Therefore, fixed-rate transfer will be insufficient to finance bond redemption in cash. For this reason, bond redemption will also be complemented with a surplus fund, budget fund, and proceeds from sales of government owned shares.
(1) The rule stands on the fact that the average economic depreciation period of the assets purchased by the construction bonds is about 60 years. Deriving from this rule is the $1.6 \%$ ratio for fixed-rate transfer for each fiscal year, which is about equivalent to onesixtieth.
(2)The term "cash" redemption in this context means that bond redemption is not financed with issuing Refunding Bonds. From the viewpoint of individual bond holders, their JGBs will always be redeemed with cash at maturity.

Fig. 2-19 Redemption via Refunding Bonds - "60-Year Redemption Rule"


## b. Redemption Methods for Reconstruction Bonds

Reconstruction Bonds, including their Refunding Bonds, will be entirely redeemed in FY2037 at the latest. The 60-year redemption rule will not be applicable to the redemption of Reconstruction Bonds. This is because "Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake" states that the financial resources for recovery and reconstruction shall "basically be borne by the entire current generation, collectively sharing the financial burden by solidarity and not be left as cost of future generations" and redemption of these bonds will surely be financed with certain revenue resources. Specifically, a portion of Reconstruction Bonds (including Refunding Bonds for Reconstruction Bonds) redeemable each year will be redeemed with cash to the extent of revenues from Special Taxes for Reconstruction and profit on sales of government-owned equities that are transferred to the GDCF Special Account as redemption resources, while the remaining portion will be entirely covered with Refunding Bonds. The government is planning to finish the redemption of Reconstruction Bonds by repeating cash-based redemption and Refunding Bond-based redemption every fiscal year by FY2037 at the latest.

## c. Other Redemption Methods for JGBs

General Bonds subject to redemption methods other than those above include Special Deficit-Financing Bonds issued by FY1984, Gulf Special Deficit-Financing Bonds issued in FY1990, Tax Cut Special Deficit-Financing Bonds issued between FY1994 and FY1996 and Special Bonds for Covering Public Pension Funding issued in FY2012 and FY2013. As Special Deficit-Financing Bonds were prohibited from being redeemed with refinancing in the past, the 60-year redemption rule was not applicable to Special Deficit-
financing Bonds issued up until FY1984. For this reason, the 60-year redemption rule did not apply to JGBs redeemable by FY1984 (1)), but the rule becomes applicable to JGBs redeemable from FY1985 onward. In addition, Gulf Special Deficit-Financing Bonds got redeemed in 4 years ending in FY1994 as initially scheduled. Of Tax Cut Special Deficit-Financing Bonds, those set to be redeemed in 20 years (2) were all redeemed by FY2017. Special Bonds for Covering Public Pension Funding and relevant Refunding Bonds will be redeemed by FY2033.
Unlike ordinary JGBs that are redeemed with tax and other revenues, FILP Bonds are redeemed with such revenues as loan repayments to the Fiscal Loan Fund. In this case, the government transfers necessary redemption funds from the "Fiscal Loan Fund Special Account" to the GDCF Special Account every fiscal year to redeem FILP Bonds.

## B. Redemption Resources

Redemption resources for JGBs are set forth in applicable laws. This section explains financial resources used for cash-based redemption.

## a. Redemption Resources for Construction Bonds and Special Deficit-Financing

 Bonds
## (1) Transfer from the General Account

For government bond redemption, there are three ways to transfer fiscal resources from the General Account to the GDCF Special Account.
i. Fixed-rate transfer ( $\mathbf{1 . 6 \%}$ of total government bond outstanding as of the beginning of the previous fiscal year)
The fixed-rate transfer is based on Article 42, paragraph (1) of the "Act on Special Accounts." Specifically, the amount equal to $1.6 \%$ of total government bonds (outstanding in face value) at the beginning of the previous fiscal year is transferred from the General Account to the GDCF Special Account on the basis of the 60-year redemption rule. Those subject to the fixed-rate transfer are limited to Public Bonds covered in the General Account (Construction Bonds, Special Deficit-Financing Bonds (excluding Special Bonds for covering Public Pension Funding)), and Borrowings (excluding Temporary Borrowings) and their Refunding Bonds (
ii. Transfer of a budgetary surplus (A minimum of half of the surplus in the General Account as a result of the settlement of the fiscal year)
Pursuant to Article 6, paragraph (1) of the "Public Finance Act," when surplus is generated in the General Account as a result of the settlement, at least half the surplus must be transferred to the GDCF Special Account within two years from the said fiscal year in which the surplus was generated ( )

[^10](1) All JGBs redeemable in FY1984 were redeemed by cash and the 60 -year redemption rule was not applied even though they could be redeemed with refunding based on the rule.
(2) Tax Cut Special DeficitFinancing Bonds were issued in line with special income tax reduction and other measures (excluding the abolition of special corporation and automobile consumption taxes) implemented between FY1994 and FY1996 and redeemed in 20 years from FY1998 and FY2017.

When calculating the outstanding amount of discount bonds, their issuance price is regarded as the face value ( Ar ticle 42, paragraph (3) of the "Act on Special Accounts"). As to the difference between the issuance price and the face value (i.e., (the sum) equivalent to redemption profit), the difference divided by the number of years to maturity is additionally transferred to the GDCF Special Account every fiscal year (Article 42, paragraph (4) of the "Act on Special Accounts")

18 An appendix to the "Reconstruction Funding Act" calls for using such surplus primarily for redeeming Reconstruction Bonds from FY2011 to FY2015.

## (2) Others

i. Proceeds from government-owned shares belonging to the GDCF Special Account Proceeds from sales and dividends of government-owned shares that belong to the GDCF Special Account shall be set aside as a resource for redemption of JGBs. A part of Nippon Telegraph and Telephone Corporation (NTT) shares, a part of shares of Japan Tobacco Inc. (JT), an equity stake in Teito Rapid Transit Authority ( ) and a part of the shares of Japan Post Holdings Co., Ltd. were transferred to the GDCF Special Account as the JGB redemption resources in FY1985, FY1985, FY1998 and FY2007, respectively. The MOF finished selling out NTT shares and JT shares (a portion held initially) in the GDCF Special Account in September 2005 and June 2004, respectively. Proceeds from the sale of shares currently belonging to the GDCF Special Account (including JT shares newly allocated to the GDCF Special Account in accordance with the "Reconstruction Funding Act") will be spent for redeeming Reconstruction Bonds.

## ii. Proceeds from allocation

The surplus of the GDCF can be invested into JGBs or deposited to the Fiscal Loan Fund. The MOF pursue efficient allocation of these government bonds, while taking into account the need to secure adequate levels of liquidity in order to ensure smooth implementation of large-scale redemption and refunding. Proceeds from the allocation are credited to the GDCF Special Account to be included in its revenues.

## b. Redemption Resources for Reconstruction Bonds

## (1) Revenues from Special Taxes for Reconstruction

As tax measures to finance restoration and reconstruction from the Great East Japan Earthquake, the government created Special Taxes for Reconstruction that are additional income and corporation taxes for limited durations (Special Income Tax for Reconstruction and Special Corporation Tax for Reconstruction).

Specifically, the Special Income Tax for Reconstruction is a limited-duration measure from January 2013 to December 2037 to impose an additional $2.1 \%$ income tax. The Special Corporation Tax for Reconstruction is a limited-duration measure from FY2012 to FY2014 to impose an additional $10 \%$ corporation tax. However, the special corporation tax was terminated one year ahead of schedule under the FY2014 tax reform to encourage corporations to use earnings for raising wages.
(1) As Teito Rapid Transit Authority was privatized and renamed Tokyo Metro Co., Ltd. in April 2004, Tokyo Metro shares were distributed to the government free of charge in proportion to the government's equity stake in Teito Rapid Transit Authority. Therefore, the equity stake has been replaced with shares.

## (2) Non-tax Revenues

## i. Utilizing Reserves in the Special Account for the FILP

From reserves in the Fiscal Loan Fund Account of the FILP Special Account, an amount designated in the annual budget could be used for redeeming Reconstruction Bonds from FY2012 to FY2015. From revenues from assets in the Investment Account of the FILP Special Account, an amount designated in the annual budget can be used for the same purpose from FY2016 to FY2022.

## ii. Proceeds from government-owned shares

Regarding JT shares (excluding the government's mandatory shareholding (1)), shares of Tokyo Metro Co., Ltd. (2) and shares of Japan Post Holdings Co., Ltd. (excluding the government's mandatory shareholding (3)) belonging to the GDCF Special Account, proceeds generated from the sale of those shares no later than FY2027 will be spent for redeeming Reconstruction Bonds.

## (3) Utilizing Settlement Surplus

The supplementary provisions of the "Reconstruction Funding Act" stipulate that, if settlement surplus in the General Account revenues and expenditures from FY2011 to FY2015 is utilized to finance redemption of Public Bonds or repayment of borrowings, the government is supposed to put a higher priority on redemption of Reconstruction Bonds.

## c. Redemption Resources for Other JGBs

## (1) Special Tobacco Tax Revenues

The government has created the Special Tobacco Tax in accordance with the "Act on Special Measures for Securing Necessary Financial Resources Incidental to Transfer of Debt to General Account" in order to cover a cost increase for the General Account to take over the Japanese National Railway (JNR) Settlement Corporation's long-term debt and the National Forest Service's accumulated debt. Special Tobacco Tax revenues are directly transferred to the GDCF Special Account to repay principals and interests of the JNR Settlement Corporation's long-term debt and the National Forest Service’s accumulated debt.

## (2) Others

Among General Bonds, Special Bonds for Covering Public Pension Funding are set to be redeemed with a tax revenue increase through the implementation of the revised Consumption Tax Act from FY2014.
Among the other bonds, FILP Bonds are redeemed with the collection of Fiscal Loan receivable.

## C. GDCF Special Account

The GDCF Special Account is an independent account created for the purpose of clarifying the status of the country's total debt management, centered on the government debt issued under the General Account. It is a special account for the payment of the principals and interests of JGBs, funded through fiscal transfers from the General Account and other special accounts. A portion of funds transferred to the GDCF Special Account from other accounts at a fixed
(1) According to the "Reconstruction Funding Act," the mandatory government's shareholding in JT has been reduced from " $1 / 2$ or more" of the total shares outstanding to "more than $1 / 3^{\prime \prime}$. As a result, during the period from February to March 2013, the government sold a portion that could be sold ( $1 / 6$ of the shares outstanding). (The amount of net proceeds from the sale is approximately 973.4 billion yen.)
(2) The government holds $53.4 \%$ of the total outstanding shares (as of the end of March 2022).
(3) The government sold out JP shares available for sale by selling a total of about 880 million shares (net proceeds at about 1,411 billion yen) in November and December 2015, a total of 1,060 million shares (net proceeds at about 1,398.5 billion yen) in September 2017 and a total of 1,300 million shares (net proceeds at about $1,086.7$ billion yen) in June and October 2021. The government holds $33.3 \%$ of the total outstanding shares (as of the end of March 2022). The government is required to hold more than one-third of the total outstanding shares.
rate is accumulated as the GDCF, which serves as a sinking fund to finance the redemption of JGBs.

## a. Basic roles

To redeem Construction and Special Deficit-Financing JGBs, which account for most of JGBs, and their Refunding Bonds in accordance with the 60-year redemption rule, the GDCF temporarily accumulates resources for secure redemption. In addition, by making sure steady redemption, the fund also plays a role in maintaining market confidence in JGBs.

## b. Secondary roles

The GDCF plays the secondary roles as follows.

## (1) Contributing to financing the National Treasury

The GDCF serves for smoothly financing the National Treasury by underwriting Financing Bills.

## (2) Compensating for deficit in the General Account

The GDCF will compensate for deficits in the General Account by transferring some funds to the Account Settlement Adjustment Fund. If the GDCF transfers some funds to the Account Settlement Adjustment Fund, the funds will be transferred back to the GDCF from the General Account by the first fiscal year after the fiscal year including the day for the transfer, avoiding any JGB redemption resource shortage.

## D. Recent Measures for GDCF Special Account

Recent measures for the GDCF Special Account are explained below:

## a. Reducing GDCF Balance

The GDCF is annually accumulated in the GDCF Special Account under a certain framework to respond to lags of redemption and transfer such as fixed-rate transfer from the General Account (1.6\% of the total JGB outstanding at the beginning of the previous fiscal year).
The GDCF balance had been maintained at approximately 10 trillion yen using issuance amount of approximately one week ( ) as a guide in order to prepare for operational risks and other emergencies (possibilities that Refunding Bonds cannot be issued due to reasons such as largescale disasters or system failure) until FY2012.
When formulating the FY2013 JGB Issuance Plan, the government was allowed to use temporary borrowings from the BOJ for covering operational risks and reduced the GDCF balance to 3 trillion yen, equivalent to the level required to prepare for accidental underbidding in JGB auctions, which cannot be covered by such borrowings. The equivalent to the reduction was used for redeeming JGBs to hold down Refunding Bond issuance.

Maximum issuance amount of JGBs: 9.6 trillion yen per day, 9.9 trillion yen per week (both figures current as of September 2011).

Fig. 2-20 Changes in Outstanding Amount of GDCF

| FY2019 (Actual) | FY2020 (Actual) | FY2021 (Estimate) |
| :---: | :---: | :---: |
| $3,020.0$ billion yen | $3,005.0$ billion yen | $3,002.1$ billion yen |

## b. Revised Act on Special Accounts

Based on a report on special account reform (as compiled by the Administrative Reform Promotion Council on June 5, 2013), the government submitted to the Diet a bill to revise part of the "Act on Special Accounts" on October 25, 2013, and won its passage through the legislature on November 15, 2013. The revision allows the government:
(1) To book revenues from the front-loading issuance of Refunding Bonds for the next fiscal year rather than for the issuance year instead of booking such revenues for the issuance year and carrying over them as a surplus to the next fiscal year, and
(2) To transfer relevant administrative costs to the General Account from FY2014 budget.

Fig. 2-21 Changes in the GDCF Special Account through the revision of the Act on Special Account

## 1. Making incomes from front-loading issuance of Refunding Bonds become revenues in the next fiscal year


<After revision>

2. Transferring administrative expenses to the General Account

## (2) Liquidity Enhancement Auctions

Liquidity Enhancement Auctions reopen existing JGB issues, which have structural liquidity shortages or temporary liquidity shortages due to expanding demand, in order to facilitate JGB trading and correct JGB market distortions to maintain and improve JGB market liquidity and stabilize the JGB market for holding down the fundraising costs.

The yield-spread-competitive auction under the conventional method for JGB Market Special Participants alone is used for Liquidity Enhancement Auctions. In the auction, a bidder submits a bidding yield’s spread with a standard yield (1) (a bidding yield-spread (a) ) and a bidding amount for each issue subjected to reopening. In principle, regardless of issues, the bidding amounts are allocated with priority placed on smaller bidding yield-spreads ( (3)). Bids whose bidding amounts are allocated before the planned issuance amount is reached are successful (Fig. 2-22).

Fig. 2-22 Image of Liquidity Enhancement Auctions


Liquidity Enhancement Auctions were launched in April 2006 to issue 100 billion yen worth of bonds a month for small 20-Year Bond issues with 11-16 years remaining to maturity that structurally lacked liquidity. Later, the range of JGB issues, issuance amounts and frequency for Liquidity Enhancement Auctions have been gradually expanded to counter a remarkable decline in the JGB market's liquidity following the global financial crisis (Fig. 2-23). Subject to Liquidity Enhancement Auctions at present are all 2- to 40-Year JGB off-the-run issues ( (4) ), which are divided into three zones by remaining maturity range - 1-5 years, 5-15.5 years, and 15.5-39 years.
The FY2022 JGB Issuance Plan sets the amount for Liquidity Enhancement Auctions at 12.0 trillion yen, increased by 0.6 trillion yen from the previous year. Specifically, the plan sets the issuance amount through Liquidity Enhancement Auctions at 3.0 trillion yen for $2-, 5-, 10$ - and 20 -Year Bonds maturing in 1-5 years, at 6.0 trillion yen for 10-, 20- and 30 -Year Bonds maturing in 5-15.5 years and at 3.0 trillion yen for $20-$, 30 - and 40 -Year Bonds maturing in 15.5-39 years, publishing planned zone-by-zone issuance amounts to improve the transparency of the auctions. Actual zone-by-zone issuance amounts will be adjusted flexibly in response to the market environment and investment needs, based on discussions with market participants.
(1) Standard yield means the average simple yield cited in the Reference Statistical Prices [Yields] for OTC Bond Transactions published by the Japan Securities Dealers Association on the auction day.
(2) A bidding yield-spread may be positive or negative. If a bidding yield is $1.030 \%$ against a standard yield of $1.000 \%$, the bidding yieldspread is plus $0.030 \%$. If a bidding yield is $0.970 \%$ against a standard yield of $1.000 \%$, however, the bidding yieldspread is minus $0.030 \%$.
(3) If bidding yield-spreads are positive, priority is placed on smaller absolute values. If bidding yield-spreads are negative, however, priority is placed on larger absolute values.
(4) However, Liquidity Enhancement Auctions cover on-the-run issues for which other additional issuances (including reopening issuances but excluding new over-the-counter sales) have been finished as of the first day of each Liquidity Enhancement Auction month.

For Liquidity Enhancement Auctions in the April-June 2022 quarter, the government decided to issue 500 billion yen in each month for 10-, 20- and 30 -Year Bonds with 5-15.5 years remaining to maturity, 500 billion yen each in April and June for 20-, 30- and 40-Year Bonds with 15.5-39 years remaining to maturity, and 500 billion yen in May for 2-, 5-, 10- and 20-Year Bonds with 1-5 years remaining to maturity, based on discussions at the Meeting of JGB Market Special Participants and the Meeting of JGB Investors.

Fig. 2-23 Transition of Liquidity Enhancement Auctions


[^11] and investor demands, based on discussion with market participants.

## (3) Buy-back Program

Buy-back is defined as a scheme for the government as the issuer of JGBs to retire debt by purchasing existing bonds at a price agreed upon with the respective holders willing to take

For the Buy-back Program, the price-spread-competitive auction under the conventional method for JGB Market Special Participants is used with the government clarifying a planned Buy-back amount in advance. In the auction, a bidder submits a bidding price's spread with a standard price (2) ) (a bidding price-spread(3)) and a bidding amount for the name and code of each target JGB issue. In principle, the bidding amounts are allocated with priority placed on a smaller bidding price-spread (
In the past, the Buy-back program used to be implemented on very limited occasions: when JGBs were paid in kind to the government in accordance with the "Inheritance Tax Act" and when JGBs deposited with the government by an election candidate pursuant to the "Public Office Election Act" were confiscated due to the candidate's election loss. In recent years, however, the Buy-back program has been flexibly implemented to meet the MOF's specific purposes including leveling the concentration of JGB maturities and reducing the outstanding debt through transfers from the FILP Special Account.

Currently, the Buy-back program is used for Inflation-Indexed Bonds to improve the supplydemand balance and liquidity as market participants pointed out that a persistent supplydemand imbalance was seen and that liquidity premiums were expanding.

Since February 2020, Inflation-Indexed Bond supply and demand have remained unstable as JGB market liquidity has declined due to the global expansion of the COVID-19 outbreak. In response, an additional buy-back worth 300 billion yen was implemented in March 2020. From April 2020, a monthly Buy-back worth 50 billion yen was conducted. Inflation-Indexed Bond supply and demand remained unstable in early FY2021. As the improvement of the supply-demand relationship and a rise in the Break-Even-Inflation Rate through the Buy-backs and global price hikes were seen later, however, the monthly Buy-back was cut to 20 billion yen from January 2022.

While the government plans to implement JGB Buy-backs in FY2022 as necessary based on market conditions and discussions with market participants, many market participants continue to voice hopes to have Buy-backs continued for Inflation-Indexed Bonds. Considering that the development of the Inflation-Indexed Bond market is a key challenge for future JGB Management Policy, the government has set the planned Buy-back amount at 60 billion yen for the April-June quarter of 2022, based on market conditions.
(1) Pre-maturity redemption, same as a scheme to retire debt, differs from Buy-back in that the government reserves an option to redeem existing bonds at the face value. The Ministry of Finance has stated on its website its vow not to implement the pre-maturity redemption of JGBs
(2) Standard price means the average price cited in the Reference Statistical Prices [Yields] for OTC Bond Transactions published by the Japan Securities Dealers Association on the auction day.
(3) A bidding price-spread may be positive or negative. If a bidding price is 101.30 yen against a standard price of 101.00 yen, the bidding pricespread is plus 0.30 yen. If a bidding price is 100.70 yen against a standard price of 101.00 yen, however, the bidding price-spread is minus 0.30 yen.
(4) If bidding price-spreads are positive, priority is placed on smaller absolute values. If bidding price-spreads are negative, however, priority is placed on larger absolute values.

Fig. 2-24 Mechanisms for Liquidity Enhancement Auctions and Buy-backs


Fig. 2-25 Transition of the Buy-back Program


## (4) Interest Rate Swap Transaction

An interest rate swap transaction is a transaction in which different types of interest payments (e.g., floating-rate and fixed-rate) are exchanged for a specific period of time.
Interest rate swap transaction in connection with JGBs became possible under the "Act for the Special Account for the GDCF," as amended in June 2002. In the "New Promotion of JGB Management Policy" (published in December 2003), it was stated that the government would utilize swap transactions (starting in FY2005) in order to control the duration of the outstanding JGBs, thereby managing interest rate risk.

In consideration of the above, the MOF has worked to upgrade the relevant systems, and entered into a master agreement with counterparties, most of which are JGB Market Special Participants, pursuant to the guidelines issued by ISDA (the International Swaps and Derivatives Association, Inc.). Since February 2006, swap transactions have been started. Transaction results are published on a semi-annual basis on the MOF website (in April and October).

No new transactions have been implemented since the second half of FY2009

## (5) Dialogue with Market Participants

In order to secure stable financing and to implement appropriate policies to enhance market liquidity of JGBs, the MOF Financial Bureau aims to promote the dialogue with market and boost confidence in Debt Management Policy through various forums including the following:

## A. Study Group on Government Debt Management

The Ministry has hosted a Study Group on Government Debt Management to receive opinions and advice from experts with a high degree of insight on public debt management from the medium to long-term perspective.

## B. The Meeting of JGB Market Special Participants

Since the introduction of the JGB Market Special Participants scheme in October 2004, the MOF also has hosted the Meeting of JGB Market Special Participants to exchange opinions between members and the MOF concerning important topics relating to the bond market.

The MOF hosts the meeting every quarter to deal mainly with methods for implementing Liquidity Enhancement Auctions and Buy-backs, and JGB market trends. In addition, the MOF calls the meeting to receive opinions from market participants for formulating and revising an annual JGB Issuance Plan.

## C. The Meeting of JGB Investors

The MOF has hosted the Meeting of JGB Investors since April 2002, to directly and continually share ideas with JGB investors. This meeting consists of major institutional investors such as banks and life insurance companies.

Usually, the MOF convenes the meeting to receive opinions from investors for formulating and revising the annual JGB Issuance Plan.

## D. The Meeting of JGB Top Retailers

From the perspective of promoting bond ownership by retail investors, in June 2007 the MOF began to hold meetings with top JGB retail brokers to express their appreciation of the performance achieved and efforts made by financial institutions that aggressively make offerings to and solicit subscriptions from retail investors. The meetings also allow for a mutual exchange of views and opinions between JGB selling agencies and the MOF on the further promotion of JGB sales to retail investors.

Since the first meeting in June 2007, the MOF has convened the meeting once or twice a year. It also publishes top sellers of JGBs for retail investors and the new OTC sales system by business category every six months.

Fig. 2-26 Dialogue with the Markets


## 4 Taxation of Government Bonds

Taxation of JGBs varies depending on the bondholder-e.g. resident individual, domestic corporation, domestic financial institution, nonresident individual, foreign corporation-and on the type of bonds. The following (1), (2) and (3) are taxation systems by bond holder category. A tax exemption scheme for interest, etc., is offered not only to domestic financial institutions and certain corporations, but also to nonresident individuals and foreign corporations ( ) as explained in (4).

## (1) Individuals (Residents)

## A. Coupon-bearing bonds

Interest, capital gains and profits from redemption on coupon-bearing bonds are subject to separate self-assessment taxation at a rate of $20 \%$ ( $15 \%$ income tax $+5 \%$ local tax) ( and profit/loss offset among them and listed stocks, etc. is allowed.
With regards to interest, taxes are withheld when a coupon is paid.
Other tax breaks, known as "Maruyu" and "Tokubetsu-Maruyu" tax-free saving schemes which provide tax exemption on interest income from JGBs, are offered to individuals with disabilities and certain other types of individuals.

## B. T-Bills and STRIPS

Capital gains and profits from redemption on T-Bills (Treasury Discount Bills) and STRIPS (principal-only book-entry transfer JGBs and coupon-only book-entry transfer JGBs) are subject to separate self-assessment taxation at a rate of $20 \%$ ( $15 \%$ income tax $+5 \%$ local tax) ( ) and profit/loss offset among them and listed stocks, etc. is allowed.
At the time of redemption, tax on net profits on redemption is withheld.

The MOF does not accept tax consultation requests, which should be referred to a tax office close to you. Remember that the MOF cannot transfer any call to any tax office or telephone consultation center.

In addition to the income tax, a special income tax for reconstruction ( $2.1 \%$ of income tax in principle) is imposed from 2013 to 2037.

In addition to the income tax, a special income tax for reconstruction ( $2.1 \%$ of income tax in principle) is imposed from 2013 to 2037.

Fig. 2-27 JGB Interest Taxation System (for individuals)

| Category | Type of income | Taxation |
| :---: | :---: | :---: |
| Coupon-bearing bonds |  | Separate self-assessment taxation <br> Withholding at source upon interest payment (it has two options as below) <br> - Not to file final tax return (tax payment is completed only by withholding.) <br> - To file final tax return as income gain, etc. on listed stocks, etc. |
|  | Interest <br> (interest income) | Tax exemption (only for the disabled, etc.) Maruyu (Non-taxable interest income from small-sum deposits of the disabled, etc.) Maximum face value: $¥ 3.5$ million <br> - Tokubetsu-Maruyu (Non-taxable interest income from small-sum public bonds held by the disabled, etc.) <br> Maximum face value: $¥ 3.5$ million |
|  | Profits from redemption (capital gain) | Separate self-assessment taxation |
|  | Profits from sale (capital gain) | Paid by declaration as taxation on capital gains, etc. on listed stocks, etc. |
| $\begin{aligned} & \text { Discount Bonds } \\ & \text { (T-Bills and STRIPS) } \end{aligned}$ | Profits from redemption (capital gain) | Separate self-assessment taxation Withholding at source upon redemption |
|  | Profits from sale (capital gain) | Separate self-assessment taxation <br> Paid by declaration as taxation on capital gains, etc. on listed stocks, etc. |

[^12]
## (2) Domestic Corporations

## A. Coupon-bearing bonds

Interest, capital gains and profits from redemption on coupon-bearing bonds are counted as profits, and are subject to corporate tax and the houjinzei-wari local tax (municipal tax multiplied by a certain rate) (Public Interest Incorporated Associations or Public Interest Incorporated Foundations may be exempt from tax).

With regards to interest, taxes are withheld when the interest is paid. Financial institutions such as banks, and financial instruments firms and domestic corporations capitalized at 100 million yen or more may be exempt from withholding tax imposed on the interest income.

## B. T-Bills and STRIPS

Capital gains and profits from redemption on T-Bills and STRIPS (principal-only book-entry transfer JGBs and coupononly book-entry transfer JGBs) are counted as profits, and are subject to corporate tax and the houjinzei-wari local tax (municipal tax multiplied by a certain rate) (Public Interest Incorporated Associations or Public Interest Incorporated Foundations may be exempt from tax).
With regards to profits from redemption received by General Incorporated Associations or General Incorporated Foundations (excluding Public Interest Incorporated Associations or Public Interest Incorporated Foundations), etc., taxes are withheld at the time of redemption.

## (3) Nonresident Individuals and Foreign Corporations Coupon-bearing bonds, T-Bills and STRIPS

Interest, etc. on book-entry transfer JGBs (interest on book-entry transfer JGBs or profits from redemption of T-Bills and STRIPS) held by nonresident individuals or foreign corporations without a permanent establishment in Japan are exempt from tax under certain conditions under the tax exemption scheme as described in (4) below. Aside from such tax exemption scheme, if there is a tax treaty in effect between Japan and the country of residence of the nonresident individuals or the country where the foreign corporation is located, and the tax rate on interest stipulated under the treaty is set lower than $15 \%$, the withholding tax rate on the interest, etc. from book-entry transfer JGBs will be lowered to match the rate stipulated under the treaty, provided that the relevant procedures have been completed.

In addition, for coupon-bearing bonds held by foreign corporations with a permanent establishment in Japan, the income tax is withheld, but the income tax withheld will be deducted from their corporation tax.

## (4) Tax Exemption Scheme for Nonresident Individuals and

## Foreign Corporations

In order to secure smooth and stable financing at a time when large-scale JGB issuance is expected to continue, it is essential to have a deep, diverse investor base. Toward this goal, since September 1999, various tax schemes, including a tax exemption scheme for interest on book-entry transfer JGBs, have been introduced to enable nonresident individuals and foreign corporations to invest more easily in JGBs. Such schemes have been established with consideration given to fair and equitable taxation and are offered to nonresident individuals and foreign corporations under certain conditions.

## A. Income Tax

Interest, etc. on JGBs (interest on JGBs or profits from redemption on T-Bills or STRIPS) held by nonresident individuals or foreign corporations (including trustees for Qualified Foreign Securities Investment Trusts and Foreign

Pension Trusts) without a permanent establishment in Japan in transfer accounts at a JGB Book-Entry System Participant in Japan (JBESP( )) or a Qualified Foreign Intermediary (QFI) are exempt from income tax, provided that certain requirements have been met.

Fig. 2-28 Overview of Tax Exemption Scheme for Nonresident Individuals and Foreign Corporations


## B. Corporation Tax

The corporation tax does not apply to interest, etc. on JGBs held by foreign corporations without a permanent establishment in Japan in transfer accounts at a QFI, etc.

## C. Bond Gensaki Transactions and Securities Lending Transactions

Interest, etc. that foreign financial institutions, etc. (1) receive from specified financial institutions, etc. (2) ) in Japan on their Bond Gensaki Transactions or Securities Lending Transactions and that those specified foreign corporations (3) receive from specified financial institutions in Japan on their Bond Gensaki Transactions are exempt from tax, provided that certain requirements are met.

Fig. 2-29 Overview of Tax Exemption Scheme for Nonresident Individuals and Foreign Corporations (Bond Gensaki Transactions)


Financial institutions or financial instruments firms in Japan acting as account management institutions for JGBs.
(1) Foreign financial institutions, etc. are foreign corporations that operate banking business, financial instruments business or insurance business, foreign clearing institutions, foreign central banks and international organizations.
(2) Specified financial institutions, etc. are financial institutions and financial instruments firms, etc. that are subject to the "Act on Collective Liquidation of Specified Transaction Conducted by Financial Institutions, etc.," financial instruments transaction clearing institutions (clearing institutions in Japan) and the Bank of Japan.
(3)Specified foreign corporations are foreign corporations other than foreign financial institutions, etc. (However, they exclude foreign corporations in countries or regions that have no tax treaties with Japan and foreign affiliated persons. Foreign affiliated persons are those who directly or indirectly owned $50 \%$ or greater stakes by specified financial institutions, etc. or those who effectively controlled by specified financial institutions, etc.)

Fig. 2-30 Recent Tax-Related Initiatives

| F iscal Year | Tax Reform (Main Points) |
| :---: | :---: |
| FY 1999 | - Application of tax exemption to interest on coupon-bearing JGBs held by nonresident individuals or foreign corporations which are directly deposited in transfer accounts at J BESPs. <br> - Exemption from tax for redemption profits arising from TBs/FBs (which are now collectively called "T-bills") held by foreign corporations which are directly deposited in transfer accounts at JBESPs. |
| FY 2000 | - Application of tax exemption for the accrued interest on JGBs that needs to be paid back to the national treasury when the JGBs have been reopened (i.e. additional issuance of the existing JGBs). |
| FY 2001 | - Expansion of the tax exemption to cover interest on coupon-bearing JGBs held by nonresident individuals or foreign corporations in transfer accounts with QFIs. |
| FY 2002 | -Expansion of the tax exemption to cover the interest on JGBs held by non-juridical foreign investment trusts, provided that the investment trusts are publicly offered and are not offered in Japan. <br> - Application of tax exemption, under certain conditions, to interest generated from Bond Gensaki Transactions involving JGBs, which is received by foreign financial institutions (till March 31,2004). <br> - Introduction of STRIPS related tax systems in light of the limitation that only corporations can hold principal-only book-entry transfer J GBs and coupon-only book-entry transferJ GBs. <br> - Adoption of the necessary tax related measures in conjunction with the transition to the new JGB book-entry transfer system. |
| FY 2003 | - Application of withholding tax exemption to the interest on coupon-bearing JGBs held by nonfinancial domestic companies capitalized at 100 million yen or more. <br> - Application of withholding tax exemption to the interest on coupon-bearing JGBs held by Japan Government Bond Clearing Corporation. |
| FY 2004 | - Expansion of tax exemption to cover redemption profits arising from TBs/FBs (which are now collectively called "T-bills") held in transfer accounts with QFIs by foreign corporations. <br> - Extension of the applicable period of tax exemption on interest generated from Bond Gensaki Transactions which is received by foreign financial institutions by 2 years (till March 31, 2006). |
| FY 2005 | - Expansion of eligible holders of Inflation-Indexed bonds to include foreign juridical persons, provided that they are not subject to income tax on interest income. <br> - Relaxation/Simplification of the various procedural requirements to apply for beneficial tax treatment schemes related to JGBs held by nonresident individuals or foreign corporations, including: (i) simplification of the procedure required for notification from QFIs to JBESPs when the nonresident individuals or foreign corporations hold the JGBs in transfer accounts with QFIs and (ii) simplification of the procedures required for application of tax exemption concerning the interest on couponbearing JGBs to those who have tax exemption concerning TBs/FBs (which are now collectively called "T-bills") under certain conditions. |
| FY 2006 | - Extension of the applicable period of tax exemption on interest generated from Bond Gensaki Transactions which is received by foreign financial institutions by 2 years (till March 31, 2008). |
| FY 2008 | - Tax exemption on interest generated from Bond Gensaki Transactions which is received by foreign financial institutions becomes a permanent measure. |
| FY 2010 | - The book prepared for each investor by JBESPs upon receiving notice from QFIs can be omitted under certain conditions. <br> - Expansion of the scope of the Qualified Foreign Securities Investment Trusts. |
| FY 2011 | - Procedures for applying tax-exemption measures on interest of book-entry transfer JGBs to Foreign Pension Trusts, partnerships and Trusts Taxable on Beneficiaries were refined. <br> - With respect to the Securities Lending Transactions using JGBs, tax exemption measures were applied on the interest, etc. received by foreign financial institutions, etc. as in the case of Bond Gensaki Transactions. |
| FY 2012 | - Submission, etc. of Application Form for Withholding Tax Exemption on interest, etc. of bookentry transfer JGBs pertaining to the trust property of Trusts Taxable on Beneficiaries were made possible to be performed by the trustees of the relevant trust. |
| FY 2013 | - After January 2016, the taxation system for public and corporate bonds was changed to separate self-assessment taxation. Moreover, the extent of profit-loss offsetting for financial products was expanded to public and corporate bonds (Integration of financial income taxes). |
| FY 2014 | - Regarding the integration of financial income taxes to be implemented in January 2016, the scope of discount bills has been revised. |
| FY 2017 | - Expansion of tax exemption to cover interest, etc. generated from Bond Gensaki Transactions using JGBs which is received by specified foreign corporations (till March 31, 2019). |
| FY 2019 | -Extension of the applicable period of tax exemption on interest, etc. generated from Bond Gensaki Transactions using JGBs which is received by specified foreign corporations by 2 years (till March 31, 2021). |
| FY 2021 | - Extension of the applicable period of tax exemption on interest, etc. generated from Bond Gensaki Transactions using JGBs which is received by specified foreign corporations by 2 years (till March 31, 2023). <br> - Allowing an Application Form for Withholding Tax Exemption, etc. for special taxation measures for interest on book-entry transfer JGBs involving cross-border transactions to be filed electronically. |

## Chapter 2 Financing Bills, Borrowings, Government-Guaranteed Debt and Subsidy Bonds

In addition to issuing JGBs to finance fiscal expenditures as explained in Chapter 1, the central government also issues Financing Bills, has borrowings, and grants government guarantees. They have different features, but they are similar to JGBs in that they are part of the debt associated with financing the fiscal activities of the central government. The government also issues Subsidy Bonds in place of monetary payments. These debt instruments are outlined below:

## 1 Financing Bills

The central government is able to issue Financing Bills (FBs) to finance the national treasury on a short-term basis or cope with temporary fund shortage in special accounts. As Treasury Financing Bills issued to finance the national treasury will address cash position within a fiscal year, they will be redeemed with revenues in the same fiscal year.

## (1) Legal Grounds of Financing Bills

The government may issue Financing Bills for the General Account or some Special Accounts within the parameters as approved by the Diet in accordance with the "Public Finance Act," "Act on Special Accounts," and some other legislation.

Fig. 2-31 Financing Bills by Legal Grounds of Issuance

| Financing Bills | Legal grounds | Main purpose |
| :---: | :--- | :--- |
| Treasury Financing <br> Bills | Article 7 (1) of the <br> Public Finance Act | Issued "when it is required to balance the National <br> Treasury." |
| Fiscal Loan Fund <br> Financing Bills | Article 9 (1) of the <br> Fiscal Loan Fund Act | Issued "when there is insufficient cash in the Fiscal <br> Loan Fund" |
| Foreign Exchange <br> Fund Financing Bills | Article 83 (1) of the <br> Act on Special <br> Accounts | Issued "when there are insufficient reserves in the <br> Foreign Exchange Fund" |
| Petroleum Financing <br> Bills | Article 94 (2) and <br> $95(1)$ of the Act on <br> Special Accounts | Issued "as necessary to provide revenue sources for <br> purchase for national petroleum reserves etc." and <br> "when there is insufficient cash for payment." |
| Nuclear Damage <br> Liability Facilitation <br> Financing Bills | Article 94 (4) and <br> $95(1)$ of the Act on <br> Special Accounts | Issued "as necessary to provide revenue sources <br> for transfer for Special Account for the Government <br> Debt Consolidation Fund etc." and "when there is <br> insufficient cash for payment." |
| Food Financing Bills | Article 136 (1) and <br> $137(1)$ of the Act on <br> Special Accounts | Issued "when revenue sources are required for <br> the purchase of foodstuffs, agricultural products <br> or imported livestock feed" and "when there is <br> insufficient cash for payment." |

(Note 1) Because these different bonds and Treasury Bills (later mention) are all issued as Treasury Discount Bills, there is no difference in each other as financial instruments.
(Note 2) This table shows the types of Financing Bills which have been issued in the past.

## (2) Status of Financing Bills in the Budget

The budget's general provisions set forth the upper limit of Financing Bills for that fiscal year. This upper limit requires an approval at the Diet.

## (3) Auction Methods, etc.

In principle, Financing Bills are issued to the market through public auction. In principle, 3-Month Financing Bills are issued every week, accounting for the largest share of Financing Bills (1) )
If some Financing Bills remain unsold through public auction, or if there emerge unexpected cash needs, the Bank of Japan may exceptionally accept Financing Bills ( Since February 2009, the MOF has jointly issued Treasury Bills (TBs) and Financing Bills, under unified names of Treasury Discount Bills (T-Bills) and these have been circulated in the markets.

Fig. 2-32 Comparison of Treasury Bills and Financing Bills

|  | TBs | FBs |
| :---: | :---: | :---: |
| Official name | Treasury Bills | Financing Bills |
| Purpose of issue | To finance fiscal expenditures (the same as JGBs with other maturities) | To finance the National Treasury on a short-term basis, or cover temporary fund shortage in a special account |
| Manner of issue | Issued at a discount |  |
| Maturities | 6 months, 1 year | 3 months, 6 months, 1 year |
| Minimum face value | 50,000 yen |  |
| Method of issue | - In principle, public auction (conventional, competitive price auction) <br> - Jointly issued by the name of "Treasury discount bills" |  |
| Transfer restrictions | Unrestricted |  |

## (4) Outline of Cash Management of the National Treasury

The balance of the National Treasury may have temporary cash shortage or surplus caused by timing differences between daily receipts and payments. The adjustment means of treasury balance are: issuance of Financing Bills, temporary use of the treasury surplus, advanced redemption of Financing Bills possessed by the BOJ or the National Treasury, and reclassification to domestic designated deposit (interest-bearing deposits). The Financial Bureau of the MOF estimates receipts and payments of the National Treasury in order to secure smooth and stable financing and gives due consideration of impact on private financial markets.

Specifically, the MOF also strives to refrain from concentrated issuance in the market, through active temporary use of treasury surplus into special accounts facing fund shortage as well as through active underwriting in the National Treasury.

## (1) Legal Grounds of Borrowings

The General Account and each special account carry out borrowings within the limit of the amount approved by the Diet pursuant to the "Public Finance Act" and the "Act on Special Accounts."

## (2) Status of Borrowings in the Budget

The maximum amount that each special account can "borrow" or "temporarily borrow" for every fiscal year must be provided under the general budget provisions, which is subject to Diet approval each fiscal year.

## (3) Source of Borrowings

Borrowings of each special account are made from the Fiscal Loan Fund and private financial institutions. At the end of March 2022, the General Account and 6 special accounts had outstanding borrowings from the Fiscal Loan Fund, and 3 special accounts had outstanding borrowings from private financial institutions.
While borrowings from private financial institutions constitute part of the government debt to the private sector, borrowings from the Fiscal Loan Fund are the government debt within the government (

Fig. 2-33 Flow Related to the Borrowings by Special Accounts from the Fiscal Loan Fund


## (4) Borrowings from the Private Sector

The Special Account for Allotment of Local Allocation Tax and Local Transfer Tax (the Special Account for Local Allocation Tax), the Special Account for the National Forest Debt Management, and the Special Account for Energy Policy carry out borrowings from private financial institutions by public auctions.

## A. Special Account for Local Allocation Tax

The Special Account for Local Allocation Tax had borrowed loans to finance local government budget deficits and used them for part of the Local Allocation Tax for the relevant fiscal year. Since July 2000, the Special Account has been borrowing partly from private financial institutions. However, from FY2007, it decided to stop borrowing additional funds. It now borrows only to repay outstanding debt.
Borrowings by the Special Account had been designed to cover the forest environment transfer tax during a transitional period to the creation of the forest environment transfer tax. In FY2020, however, the government decided to use the reserves for interest rate volatility at the Japan Finance Organization for Municipalities, instead of the borrowings by the Special Account for Local Allocation Tax, for the coverage and to take in no new borrowings. The borrowings regarding the forest environment transfer tax were repaid in FY2020.

## B. Special Account for the National Forest Debt Management

The Special Account for National Forest Service has undergone certain reforms in FY1998 enforcing the "Special Measure Act for the Reform of the National Forest Service." In that fiscal year, the Special Account switched its borrowing source from the Fiscal Loan Fund to private financial institutions.
To ensure that such borrowings are made in a fair, equitable and transparent manner, in FY2003 the Special Account switched from the previous practice of using syndicated loans to obtaining loans by public auctions.
Pursuant to the "Law concerning Partial Revision, Etc. of Laws, Etc. including the Law on Management and Operation of the National Forests to Enhance the Public Interest Functions of National Forests" which came into effect in April 2013, the Special Account for National Forest Service was abolished, whereupon obligations relating to borrowings attributed to the Account were transferred to the Special Account for the National Forest Debt Management. Borrowings of the Special Account for the National Forest Debt Management from private financial institutions are to be used to repay the outstanding debt. No new additional borrowings are being made.

## C. Special Account for Energy Policy

Japan National Oil Corporation (JNOC) was abolished in accordance with "Reorganization and Rationalization Plan for Special Public Institutions." The state oil reserves that had until that point been taken care of by JNOC came under the direct control and management of the government in the form of the Special Accounts for Petroleum and the More Sophisticated Structure of Demand and Supply of Energy Policies (the Special Account for Petroleum) (ㄱ). In line with the transfer, the Special Account for Petroleum began to borrow to finance its costs and expenses related to the construction of stockpiling facilities.

Pursuant to the "Act on Special Accounts" that took effect in April 2007, the Special Account for Petroleum was abolished, whereupon the rights and obligations attributed to the Account were transferred to the Special Account for Energy Policy.
Borrowings of the Special Account for Energy Policy from private financial institutions are to be used to repay the outstanding debt. No new additional borrowings are being made.
The government has borrowed funds in the Nuclear Damage Liability Facilitation Account since February 2012 to cover the redemption of JGBs granted to the Nuclear Damage Compensation and Decommissioning Facilitation Corporation (a) (2).

## (5) Borrowing through Public Auction on Private-sector Borrowings

For borrowings from private sectors, the government employs the interest rate competitive bidding or noncompetitive bidding process (only for the Special Account for Local Allocation Tax) in which the government will accept biddings that offer lower interest rates until the borrowing amount reaches the scheduled fundraising amount. Bidding participants are private financial institutions, including major city banks and regional banks. A total of 120 private financial institutions participate in the bidding program as of March 31, 2022.
(2) The Nuclear Damage Compensation Facilitation Corporation was reorganized into the Nuclear Damage Compensation and Decommissioning Facilitation Corporation as a revision to the Nuclear Damage Compensation Facilitation Corporation Act took effect in August 2014.

## 3 Government-Guaranteed Debt

Incorporated administrative agencies run businesses for public purposes as government agencies. The government guarantees their debt within the maximum amount provided in the budget to make it easier for them to raise funds. As is the case with JGBs, the government works to ensure smooth and stable fundraising and to make sure that the given terms and conditions are favorable and appropriate as government-guaranteed debt.

## (1) Legal Ground of Government Guarantee

In principle, government guarantees for corporate debt are prohibited under Article 3 of the "Act on Restrictions on Financial Assistance by Government to Corporations." Exceptions are only made by specific acts under cases where the following conditions are satisfied:
i) Conducting businesses for highly public purposes as agencies for the government.
ii) Their financial accounting and administration are under governmental supervision, and thus the use of guaranteed-debt borrowing and repayment schedules are thoroughly monitored.

When guarantees are given, appropriate supervisions including checking financial condition are exercised at the ministries and agencies that hold jurisdiction over the relevant agencies.

## (2) Features of Government-Guaranteed Debt

Government-guaranteed debt is broadly divided into Government-Guaranteed Bonds and Borrowings. Government-Guaranteed Bonds are divided into domestic and foreign bonds. Raising funds through Government-Guaranteed Borrowings generally has the advantage of flexibility in meeting temporary demands for funds, but also has the defect in liquidity of the secondary market as compared to Government-Guaranteed Bonds.

## (3) Treatment in the Budget and Examination Process

## A. Treatment in the budget

a. The maximum amount of government guarantee

There are cases in which the government is permitted to guarantee debt based on specific acts, as mentioned above. These acts also provide that the government must receive Diet approval for the maximum amount of government guarantee. Therefore, the maximum amount for individual corporations is provided under the general provisions of the General Account budget, which is subjected to Diet approval in each fiscal year.

## b. Provision in the FILP Plan

The maximum amount of government-guaranteed debt is specified in the budget as stated above. The government guarantees for those agencies that are eligible for FILP lending or specified by cabinet orders, when the guarantee term is 5 years or longer, shall be reported in the FILP Plan based on Article 5, paragraph (2), item(iii) of the Act for the Special Measures on the Long-Term Management of the Fiscal Loan Fund.

## B. Examination of Government-Guaranteed Bonds and Borrowings

Every fiscal year, the MOF plans the issuance amount of Government-Guaranteed Bonds and the maturity structure of the following fiscal year taking account of market trends, and announces them together with the JGB Issuance Plan (For FY2022, the scheduled issuances are tabulated below.). Furthermore, whenever an agency raises funds through issuance of Government-Guaranteed Bonds or Borrowings, the MOF examines whether or not interest rates and prices in each case are appropriate for the guaranteed debt.

Fig. 2-34 Breakdown of the Planned Issuance Amount for FY2022 of Government-Guaranteed Bonds
(Unit: billion yen)

|  | $\begin{array}{\|l\|l\|} \text { FY } 2021 \\ \text { (Initial) } \end{array}$ | FY 2021 <br> (Revised) | FY2022 (Initial) |  |  | Main Issuer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (a) | (b) | (c) | (c)-(a) | (c)-(b) |  |
| 40-year | 5.0 | 5.0 | 20.0 | 15.0 | 15.0 | Development Bank of Japan Inc. (DBJ), Organization for Promoting Urban Development |
| 30-year | 60.0 | 60.0 | - | -60.0 | -60.0 |  |
| 20-year | 98.2 | 98.2 | 145.0 | 46.8 | 46.8 | Japan Expressway Holding and Debt Repayment Agency, Organization for Promoting Urban Development |
| 15-year | - | - | 65.0 | 65.0 | 65.0 | Japan Housing Finance Agency(JHF) |
| 12-year | - | 80.0 | 80.0 | 80.0 | - | J HF |
| 10-year | 611.6 | 613.7 | 122.5 | -489.1 | -491.2 | J apan Overseas Infrastructure Investment Corporation for Transport \& Urban Development, DBJ , etc. |
| 7-year | 20.0 | 20.0 | 80.0 | 60.0 | 60.0 | DBJ |
| 5-year | 270.0 | 190.0 | 140.0 | -130.0 | -50.0 | J HFA, Private Finance Initiative Promotion Corporation of J apan, etc. |
| 4-year | 620.0 | 620.0 | 150.0 | -470.0 | -470.0 | Nuclear Damage Compensation and Decommissioning Facilitation Corporation(NDF) |
| 3-year | 150.0 | 150.0 | - | -150.0 | -150.0 |  |
| 2-year | 380.0 | 380.0 | 350.0 | -30.0 | -30.0 | Deposit Insurance Corporation of J apan, NDF |
| Subtotal | 2,214.8 | 2,216.9 | 1,152.5 | -1,062.3 | -1,064.4 |  |
| Short-Term Bonds | 300.0 | 300.0 | - | -300.0 | -300.0 |  |
| Foreign Bonds | 2,266.5 | 2,266.5 | 2,174.0 | -92.5 | -92.5 | J apan Bank for International Cooperation, DBJ, etc. |
| Total | 4781.3 | 4783.4 | 3326.5 | -1454.8 | -1456.9 |  |

Note 1: Apart from the plan shown above, Japan Finance Corporation (JFC) and Development Bank of Japan Inc. (DBJ) plan further issuances (maturity less than 5 years)
depending on the progress of projects. The maximum amounts of these further issuances are 100 billion yen for JFC and DBJ, respectively.
Note 2: Short-Term Bonds are bonds of less than 1 year. The figure for Short-Term Bonds is the upper limit of its outstanding amount.
Note 3: The maturity and issuance amount may be modified depending on such as progress of projects during FY2022.

Fig. 2-35 Breakdown of the Planned Issuance Amount for FY2022 of Government-Guaranteed Bonds by Issuers and Maturities

| (Unit: billion yen) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issuer | 40-year | 20-year | 15-year | 12-year | 10-year | 7-year | 5-year | 4-year | 2-year | Subtotal (Note 1) | Foreign Bonds | Total |
| J apan Bank for International Cooperation |  |  |  |  |  |  |  |  |  | - | 1,836.0 | 1,836.0 |
| J apan International Cooperation Agency |  |  |  |  |  |  |  |  |  | - | 118.0 | 118.0 |
| Japan Expressway Holding and Debt RepaymentAgency |  | 120.0 |  |  |  |  |  |  |  | 120.0 |  | 120.0 |
| J apan Housing Finance Agency |  |  | 65.0 | 80.0 |  |  | 75.0 |  |  | 220.0 |  | 220.0 |
| Development Bank of J apan Inc. | 10.0 |  |  |  | 40.0 | 80.0 |  |  |  | 130.0 | 220.0 | 350.0 |
| Deposit Insurance Corporation of J apan |  |  |  |  |  |  |  |  | 200.0 | 200.0 |  | 200.0 |
| Nuclear Damage Compensation and Decommissioning Facilitation Corporation |  |  |  |  |  |  |  | 150.0 | 150.0 | 300.0 |  | 300.0 |
| Private Finance Initiative Promotion Corporation of J apan |  |  |  |  |  |  | 50.0 |  |  | 50.0 |  | 50.0 |
| J apan Overseas Infrastructure Investment Corporation for Transport \& Urban Development |  |  |  |  | 58.9 |  |  |  |  | 58.9 |  | 58.9 |
| Fund Corporation for the Overseas Development of J apan's ICT and Postal Services Inc. |  |  |  |  | 15.5 |  |  |  |  | 15.5 |  | 15.5 |
| Organization for Promoting Urban Development | 10.0 | 25.0 |  |  |  |  |  |  |  | 35.0 |  | 35.0 |
| Central J apan International Airport Co.,Ltd. |  |  |  |  | 8.1 |  | 15.0 |  |  | 23.1 |  | 23.1 |
| Total | 20.0 | 145.0 | 65.0 | 80.0 | 122.5 | 80.0 | 140.0 | 150.0 | 350.0 | 1,152.5 | 2,174.0 | 3,326.5 |

Note 1: Apart from the plan shown above, Japan Finance Corporation (JFC) and Development Bank of Japan Inc. (DBJ) plan further issuances (maturity less than 5 years) depending on the progress of projects. The maximum amounts of these further issuances are 100 billion yen for JFC and DBJ, respectively.
Note 2: The maturity and issuance amount may be modified depending on such as progress of projects during FY2022.

## 4 Subsidy Bonds

Subsidy Bonds are the government bonds issued in place of provision of cash. Accordingly, issuance of Subsidy Bonds does not generate revenues (
Subsidy Bonds include (narrowly defined) Subsidy Bonds issued by the government in place of monetary payments including condolence money and benefits and Subscription/Contribution Bonds issued for subscriptions or contributions to international organizations such as the International Monetary Fund.

## (1) Subsidy Bonds (narrowly defined)

Subsidy Bonds are currently issued to the bereaved families of the war dead or those who suffered physical or spiritual damage in World War II and those who were repatriated after the war, in lieu of monetary payments such as condolence money and benefits.
The first such government bonds were issued to the bereaved families of the war dead and others based on the "Act on Relief of War Victims and Survivors" (Act No.127, 1952) established in 1952. Since then, a total of 47 types of Subsidy Bonds have been issued under relevant special laws by the end of FY2021. The number of such bond issues totals 19.6 million, worth 4,426.7 billion yen. Subsidy Bonds outstanding at the end of FY2021 totaled 151.1 billion yen.

In the context of leveling fiscal spending, redemption of these bonds is made over a period of several years on an installment payment basis (

## (2) Subscription/Contribution Bonds

Subscription/Contribution Bonds () are kinds of Subsidy Bonds, and are issued to pay the subscription or contribution in whole or in part to international institutions, in lieu of the amount to be paid in the currency. Thus, these bonds are non-interest bearing, nontransferable, and payable on demand (whenever the institution concerned needs the currency and requests for encashment, the cash should be paid to the institution).
As of the end of FY2021, there is a total of 19 outstanding issues of subscription or contribution bonds issued to 13 institutions, including the IMF. As prescribed in the articles of agreement for each institution, using government bonds to make a payment to an international institution is permitted only when the institution concerned does not require the currency for the time being for the conduct of its operations.
Domestically, the Accession Measures Act for each international institution provides a legal base for the issuance of these Subscription/Contribution Bonds.

Subscription/Contribution Bonds, Government Bonds issued to the Development Bank of Japan for crisis response operations and Government Bonds issued to the Nuclear Damage Compensation and Decommissioning Facilitation Corporation are also issued by the government in place of provision of cash and do not generate revenues. Therefore, they are treated as widely defined Subsidy Bonds in addition to narrowly defined Subsidy Bonds in (1).

Also, given the purpose for issuance and the nature that the recipients of redemption money are limited, Subsidy Bonds are offered as name bonds, and in principle their transfer and attachment are prohibited.

While the difference between "subscription" and "contribution" paid to international institutions is not very clear, the former is used if all of the following requirements (1) to (3) are met, otherwise the latter is used.
(1) Funds necessary for institutions with independent articles of agreement to perform their primary operations set forth in their articles of agreement are provided.
(2) The purpose of providing the funds is to participate in the management of the institution concerned and voting rights commensurate with the amount of funds paid are granted.
(3) In cases including withdrawal from the institution concerned, the right to distribution of property commensurate with funds paid until then is granted.

## (3) Others

## A. Government Bonds issued to Development Bank of Japan

Government Bonds issued to the Development Bank of Japan (DBJ) are government bonds issued/provided for the purpose of strengthening the financial foundations of the DBJ to facilitate the implementation of crisis response operations carried out by the DBJ; these bonds are non-interest bearing, non-transferable, and payable on demand (whenever the DBJ needs to reinforce its financial foundation and requests for encashment, the cash should be paid to the DBJ).

## B. Government Bonds issued to Nuclear Damage Compensation and Decommissioning Facilitation Corporation

Government Bonds issued to the Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF) are issued/provided to raise funds for the NDF to cover special financial assistance. These bonds are non-interestbearing, non-transferable, and payable on demand (whenever the NDF needs to subsidize funds for a nuclear energy firm to pay damages compensation and requests the encashment of these bonds, the cash should be paid to the NDF). It should be noted that these bonds are redeemed with cash at the expense of the Special Account for Energy Policy (Nuclear Damage Liability Facilitation Account).

## Chapter 3 Other Public Debt

In addition to the bonds or borrowings explained in chapter 1 and 2 such as Construction Bonds, there are other categories of Public Debt, such as Public Pensions, Local Government Bonds (LGBs), and the debt of Incorporated Administrative Agencies, etc. Although these debt categories are subject to governance frameworks which are different from those used for JGBs and Borrowings by the central government, and none of these debt categories relate to fundraising in connection with fiscal activities of the central government, these are considered to be potentially influential factors on the country's debt management principles. The following section will specifically discuss LGBs and the debt of Incorporated Administrative Agencies, etc.

## 1 Local Government Bonds (LGBs)

## (1) Basic Scheme of LGBs

## A. Basic scheme

LGBs are issued by local governments to cover part of their expenditures and constitute their debt.
While, in principle, LGBs can only be issued as resources for construction expenses, etc. as stipulated in Article 5 of the "Local Government Finance Act," there are exceptions such as extraordinary financial countermeasures bonds ( ), etc.
When a local government intends to issue LGBs, it needs to consult with the Minister for Internal Affairs and Communications or its prefectural governor and obtain his/her consent. If the Minister is planning to grant his/her consent in the consultation process, he/she needs to consult with the Minister of Finance in advance.

Local governments which satisfy certain requirements are able to issue their LGBs financed with private funds, etc. from FY2012 and with a part of public funds from FY2016 by giving prior notice to the Minister for Internal Affairs and Communications or prefectural governor.

Fig. 2-36 Consultation System for the LGB Issuance


Until FY2000, shortages in ordinary revenue appearing in the Local Public Finance Program has been covered by the borrowings of the Special Account for Local Allocation Tax. From FY2001, extraordinary financial countermeasures bonds, a type of LGBs, were introduced as a new bond to cover shortfall.

## B. Classification of LGBs

The planned issuance amount of LGBs for the following fiscal year is announced by the central government in the LGB Program at the time of determination of a government budget draft for the following fiscal year. According to the LGB Program, the following tables show the breakdown by funding resources, project types and accounts.

## a. Breakdown by funding resource

Fig. 2-37 Breakdown by Funding Resources of LGBs

| LocalGovernment <br> Bonds $\operatorname{Public~Funds}$ | Fiscal Loan Funds | Japan Finance Organization for <br> Municipalities (JFM) Funds ( |
| :---: | :--- | :--- |
|  | Private Funds | Public Offering Funds |
|  |  | Private Placement Funds |

LGBs can be classified by the funding resources: Public Funds (Fiscal Loan Funds and Japan Finance Organization for Municipalities Funds) and Private Funds (Public Offering Funds and Private Placement Funds). The LGB Program provides the planned issuance amount for each group.

From the viewpoint of encouraging local governments’ self-reliant fiscal operations, local governments should basically employ LGBs to raise private funds, while public funds should rather play complementary roles.

## b. Breakdown by project type

As for project types financed with LGBs, General Account Bonds are covering public works, disaster restoration projects, education/welfare facilities development projects, depopulation and remote region projects, and some other projects. On the other hand, Municipal Enterprise Bonds are financing water-supply projects, transportation projects, hospital and elderly care service projects, and sewage projects. The LGB Program sets forth the budgeted LGB amount for each project type.

## c. Breakdown by accounts issuing LGBs

LGBs can be classified by the following two accounts: ordinary account ( and public enterprise account.
An outlook on annual revenues and expenditures for the following year appearing in the Local Public Finance Program is submitted to the Diet. The LGB issuance amount appearing in the Local Public Finance Program covers only ordinary accounts, excluding public enterprise accounts.

Japan Finance Organization for Municipalities Funds are based on the funds raised by Japan Finance Organization for Municipalities through the issuance of bonds. Japan Finance Organization for Municipalities is founded by investment from all Prefectures and Municipalities, and accommodates local governments with long-term and lowinterest rate funds for LGBs.

## (2) LGB Program

The FY2022 LGB Program has been designed to secure local bond funds required for steadily promoting measures implemented urgently by local governments to prevent and reduce disasters, the adequate management of public facilities and the vitalization of local communities, totaling 10,181.4 billion yen (compared with 13,638.3 billion yen in FY2021).

## A. Loans to Local Government by Public Funds

As for the funds for LGBs, public funds totaling 4,372.8 billion yen (compared with 5,867.3 billion yen in FY2021) are planned for promoting the development of infrastructure linked closely to local residents' livelihood ( )

## B. Local Funds Offered by Private Sectors, etc.

a. Public Offering Funds

Public Offering Funds mean the funds that local governments will raise by issuing their security certificates through markets. Local governments are urged to take greater responsibility for their administrative and fiscal management in line with the promotion of decentralization.
(1) Joint-LGBs, etc.
i. Joint-LGBs

In FY2003, local governments started offering Joint-LGBs to reduce costs and to secure stable financing by increasing the lot size of issuance. "Joint-LGBs" are issued every month under the name of local governments, and the bonds are the joint debt of local governments based on Article 5-7 of the "Local Government Finance Act."

## ii. Citizen Participatory-type Public Offering LGB

Since March 2002, apart from "Nationwide Public Offering LGB," "Citizen Participatorytype Public Offering LGB" have been issued. This is not only to diversify financing methods of public offerings targeting at individual investors but also to encourage the residents' participation in local government.

## (2) Method of issuing Public Offering LGB

The method of issuance includes "issuance for offering/underwriting by a syndicate composed of financial institutions and securities companies ("Underwriting Syndicate")," "issuance for offering/underwriting led by the lead manager," and "issuance for offering/ underwriting by auction." Issuance terms were discussed and deliberated on from April 2002, and were set out in two tables: one for Tokyo Metropolitan Government Bonds, and the other for other local government bonds. In 2004 and 2006, the method for determining the appropriate terms was revised, and now each local government issuer decides on the terms of each issue separately and independently.

The breakdown consists of 2,626.4 billion yen in Fiscal Loan Funds (FY2021: 3,684.7 billion yen) and 1,746.4 billion yen in Japan Finance Organization for Municipalities Funds (FY2021: 2,182.6 billion yen).

Fig. 2-38 Planned Issuance of Public Offering LGB in FY2022

```
Total about 6.6 trillion yen (about }7.6\mathrm{ trillion yen)
    Nationwide Public Offering LGB about 6.6 trillion yen (about 7.6 trillion yen)
        10-years about 3.4 trillion yen (about 4.2 trillion yen)
            |.Joint-type about 1.2 trillion yen (about 1.4 trillion yen)
            - Independent-type about 2.2 trillion yen (about 2.8 trillion yen)
        Medium-term (5-years etc.) about 1.2 trillion yen (about 1.3 trillion yen)
        Super Long-term (20 or 30-years etc.)
            about 1.1 trillion yen (about 1.4 trillion yen)
        Flexible issues about 0.9 trillion yen (about 0.6 trillion yen)
    Citizen Participatory-type Public Offering LGB about 0.03 trillion yen (about 0.03 trillion yen)
Note 1: Figures may not sum up to total because of rounding.
Note 2: The amount of planned issuance may be changed.
Note 2: The amount of planned issuance may be changed.
Note 3: Flexible issues include LGB issues for which matur
Note 5: Amounts in parentheses are planned Public Offering LGB issuance amounts adjusted in connection with flexible issues based on the FY2021
    LGB issuance plan.
(Source) Ministry of Internal Affairs and Communications
```


## b. Private Placement Funds

Private Placement Funds are funds based on borrowings from financial institutions and the several mutual aid associations which have business transactions with the local governments.
The bonds financed through the Private Placement Funds are called "Private Placement Bond," and this is financed either by deed borrowings or by actual issuance of the bonds.

## 2 Debt of Incorporated Administrative Agencies, etc.

## (1) Debt of Incorporated Administrative Agencies, etc.

The debt of "Incorporated Administrative Agencies, etc." includes government-guaranteed debt, borrowings from the General Account, the Fiscal Loan Fund, and other Special Accounts. Their debt also includes FILP Agency Bonds, etc. as means of financing from the private sector.
"Incorporated Administrative Agencies, etc." refer to Incorporated Administrative Agencies (1) ), public corporations (2) , and authorized organizations (3). All of these are corporations that are engaged in public policy implementation under governmental supervision.

## A. Financing from the central government

## a. Borrowing from Fiscal Loan Fund

Some projects of "Incorporated Administrative Agencies, etc." are financed by FILP to flexibly cope with national demand or socioeconomic changes. In line with FILP reform efforts, FILP-target projects are further focused and made more efficient. The organizations that utilize FILP are called FILP Agencies.

## b. Other Borrowings from the central government

There are also interest-free loans from the General Account and Special Accounts to "Incorporated Administrative Agencies, etc."

## B. Financing from the private sector

As a result of the FILP reform, FILP Agency Bonds, which are not guaranteed by the government and are publicly offered, have been introduced as a new financial method for FILP Agencies to raise funds independently. It is thought that FILP Agencies promote information disclosure and improve their business operational efficiency by FILP Agency Bonds issuing. Some kinds of "Incorporated Administrative Agencies, etc." such as finance corporations, etc. need Diet authorization to issue bonds. Furthermore, an approval from the Competent Minister is required in general for a FILP Agency to issue bonds or make long-term borrowings. The Competent Minister can give their approval only after consulting with the Minister of Finance.
(1)The term generally refers to corporate bodies established pursuant to stipulations in Article 2, paragraph (1) of the "Act on General Rules for Incorporated Administrative Agencies": "A corporation, incorporated pursuant to the provisions of this Act and the relevant Individual Act as an agency managed under the medium-term objectives, a national research and development agency or an agency engaged in administrative execution, for the purpose of effectively and efficiently conducting, from among the processes and services that need to be implemented securely from a public perspective, such as the stability of the lives of the people, society and the economy, and that do not need to be implemented directly by the State itself, those affairs that may not necessarily be implemented properly if entrusted to private entities or that need to be conducted monopolistically by a single entity." Here, the "Individual Acts" refer to laws that provide for matters concerning the name, purpose, and scope of operations, etc. of the respective incorporated administrative agencies.
(2) The term generally refers to "the corporations established directly by law, or the corporations required by a special law to be established by a special procedure (excluding Incorporated Administrative Agencies)" as stipulated in Article 4, paragraph (1), item (viii) of "Act for Establishment of the Ministry of Internal Affairs and Communications." In this case, "established through special measures" refers to establishment conducted by government appointed commissioners.
(3) The term generally refers to "corporate bodies established independently by an interested party from the private sector, the establishment of which requires approval by the Competent Minister, based on the special acts due to the public nature of their activities" (Source: "Legal Terms Dictionary," Legislative Terminology Research Forum Edition).

## (2) Financial Conditions of Incorporated Administrative Agencies, etc.

"Incorporated Administrative Agencies, etc." disclose information on their financial conditions in various forms.

Incorporated Administrative Agencies compile financial statements, which are based on corporate accounting principles as a general rule, pursuant to the provisions of order of the competent ministry, in accordance with the "Act on General Rules for Incorporated Administrative Agencies." The financial statements are audited by an auditor and an accounting auditor and are approved by the Competent Minister before their disclosure ( Government supervision of Incorporated Administrative Agencies has shifted its focus from ex-ante control to ex-post check in order to strengthen their independence. The financial statements of Incorporated Administrative Agencies contribute not only to better understanding of how these agencies conduct businesses but also to appropriate evaluations of their business results.
Each public corporation and authorized organization also compiles financial statements in accordance with the Act under which it was established, receives approval from the Competent Minister, and discloses this information. Each institution compiles and discloses an "administrative cost analysis statement," etc., based on corporate accounting principles to fulfill its accountability to explain future burden on taxpayers.
The financial statements of major "Incorporated Administrative Agencies, etc." in which the government has invested are attached to the budget submitted to the Diet as reference materials as stipulated in Article 28 of the "Public Finance Act."

Auditing by an accounting auditor is not required for an Incorporated Administrative Agency whose operational size, including its capital amount, fails to reach the standards provided by Cabinet Order (Article 39, paragraph (1) of the "Act on General Rules for Incorporated Administrative Agencies.").

## Chapter 4 Debt Management in Foreign Countries

## 1 Debt Management Policies in Foreign Countries

## (1) Debt Management Policy Frameworks

In Japan, the basic objectives of the debt management policy are set as: (1) ensuring the smooth and secure issuance of Japanese Government Bonds and (2) minimizing medium- to long-term fundraising costs. In line with these objectives, the government carefully pays attention to market conditions and makes efforts to manage JGBs based on investor needs and market trends. Basically, foreign countries also take almost the same stance on their debt management policies, but they have their unique characteristics.

Further, the JGB Issuance Plan is established in line with annual budget formulation and an annual planned issuance amount for each maturity and other data are published in Japan but methods for publishing such data also vary from country to country. At the end of each fiscal year, Germany publishes the total government bond issue amount and its breakdown by maturity for the following fiscal year. This method is considered similar to that of Japan. On the other hand, the U.S. determines and publishes necessary issuance amounts not on a fiscal year basis but on a quarterly basis, complying with the debt limit specified by law. In addition, the timing of information disclosure during the period from the announcement of a planned issuance amount to an actual auction for the issue also varies (Figs. 2-39 and 2-40).

Fig. 2-39 Debt Management Policies

|  | J apan | U.S. | U.K. | Germany | France |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Debt Management Office | Financial Bureau, Ministry of Finance | Department of the Treasury, Office of Debt Management <br> Department of the Treasury, Bureau of the Fiscal Service | HM Treasury, UK Debt Management Office (DMO) | Bundes ministerium der Finanzen, Bundesrepublik Deutschland - <br> Finanzagentur GmbH (German Finance Agency) | Ministère de l'É conomie et des Finances, Direction générale du Trésor, Agence France Trésor (AFT) |
| The Objective of Debt Management Policy | - Ensuring stable smooth issuance of J GBs <br> - Minimizing medium-to-long term financing costs | - To finance government borrowing needs at the lowest cost over time <br> - To issue debt in a regular and predictable pattern | - To minimise, over the long term, the costs of meeting the government's financing needs, taking into account risk, while ensuring that debt management policy is consistent with the aims of monetary policy. | - To keep interest costs as low as possible across a number of years and market phases while limiting the interest rate risks resulting from the portfolio structure. | - Raising sufficient funds on the markets to finance the State by keeping the debt burden to taxpayers down to a minimum under optimum conditions of security. |
| Fiscal Year | April to March next year | October previous year to September | April to March next year | J anuary to December | J anuary to December |
| Issuance Plan | - Announcement of total $J G B$ issuance amount for the next fiscal year, breakdowns by maturity, and frequency of issuance, etc. in lateDecember each year. | - Announcement of planned issuance amounts by maturity, auction schedule, etc. on a quarterly basis (February, May, August and November). | - Announcement of total issuance amount for the next fiscal year, breakdowns by maturity, etc. in March each year. <br> - Announcement of specific details of issues and auction schedule on a quarterly basis. | - Announcement of planned issuance amounts by maturity, auction schedule, New issue/Reopening, etc. for the next fiscal year in December each year. Thereafter, announcement of auction schedule again on a quarterly basis. | - Announcement of total issuance amount for the next fiscal year in December each year. <br> - Specific issuance amounts are determined at a meeting with PD held in the week preceding the issuance date. |

[^13]Fig. 2-40 Announcement Time of Issuance Amount and Auction Date


Note 1: As for issuance lots per auction announced in the previous fiscal year, the fixed amounts are announced one week before in Japan and again every quarter in Germany.
Note 2: Planned quarterly amounts financed from the market.
Note 3: Scheduled auction date is announced again every quarter.
(Source) Relevant countries' debt management authorities

## (2) Bond Types and Issuance Methods

Methods of issuing government bonds adopted in various foreign countries are divided into two types: offering to the market through auctions or other means (marketable bonds) and offering to retail investors without going through the market (non-marketable bonds).
Marketable bonds are normally offered mainly through the public auction method which uses both competitive and noncompetitive auctions. As for competitive auctions, notable is the fact that the U.K., Germany and France employ the multiple price (conventional) method (1) for almost all maturities as is the case of Japan while the U.S. employs the single price (Dutchstyle) (2) method for all maturities. In addition, the U.K. and France use the syndication method. Germany used the syndication method in 2020 for the first time in five years and did so in 2021 as well.
(1) Auction method by which each winning bidder purchases the security at one's bidding price (or yield).
(2)Auction method by which all winning bidders pay the lowest accepted bid price regardless of their original bid prices (or yields).

Fig. 2-41 Marketable Bond Types and Issuance Methods

|  | J apan | U.S. | U.K. | Germany | France |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Short-term | 3-month 6 -month, 1-year (Note 2) | 4-week, 8-week, 13-week, 26-week, 52-week, CMB (Note 3) | 1-month, 3-month, 6 -month, 12-month (Note 4) | 3-month, 5-month, 6-month, 9 -month, 11-month, 12 -month | Less than or equal to 1 -year |
| Medium-term | 2-year, 5-year | 2-year, 3-year, 5-year, 7 -year | over 1 ~ 7-year | 2-year, 5-year, 7-year (Note 5) | 2 ~ 8.5-year |
| Long-term | 10-year | 10-year | over $7 \sim 15$-year | 10-year |  |
| Super Long-term | 20-year, 30-year, 40-year | 20-year, 30-year (Note 5) | over 15 ~ 55-year | 15-year, 30-year (Note 5) | over 8.5 ~ 50-year |
| Others | - Inflation-Indexed <br> Bonds (10-year) | - Inflation-Indexed Bonds (5-year, 10-year, 30-year) <br> -Floating-R ate Bonds (2-year) | - Inflation-Indexed Bonds (5 ~ 55-year) -Green Bonds (12-year, 32-year) (Note 6) | - Inflation-Indexed Bonds (5-year, 10-year, 30-year) -Green Bonds (5-year, 10-year, 30-year) (Note 7) | - Inflation-Indexed Bonds (2 ~ 30-year) -Green Bonds (18 ~ 23-year) (Note 8) |
| Issuance Method | Multiple price (conventional) method (40-year, InflationIndexed Bonds: single price/yield (Dutch-style) method) | Single price (Dutch-style) method | Multiple price (conventional) method (Inflation-Indexed Bonds: single price (Dutch-style) method) (Note 9) | Multiple price (conventional) method (Note 9) | Multiple price (conventional) method (Note 9) |

Note 1: As of March 2022
Note 2: 3-month issues are limited to Financing Bills.
Note 3: CMBs (Cash Management Bills) are issued according to short-term cash flow needs.
Note 4: 12 -month issues are institutionally made available for issuance but have never been issued.
Note 5: The U.S. issued a 20-year issue in May 2020 for the first time in 34 years since 1986. Germany issued 7-year and 15 -year issues in May 2020 for the first time ever. Note 6: The U.K. placed two Green Bond issues: a 12 -year issue worth 10 billion pounds in September 2021 and a 32 -year issue worth 6.1 billion pounds in 0 ctober 2021.
Note 7: Germany placed four Green Bond issues: a 10-year issue worth 8 billion euros (including reopening) in September 2020, a 5 -year issue worth 5 billion euros in November 2020, a 30-year issue worth 6 billion euros in May 2021 and a 10-year issue worth 6.5 billion euros (including reopening) in September 2021.
Note 8: France placed two Green Bond issues: a 22-year issue worth 30.94 billion euros (including reopening) in January 2017 and a 23 -year issue worth 14.19 billion euros (including reopening) in March 2021.
Note 9: The U.K., Germany and France use syndication for issuing some bonds.
(Source) Relevant countries' debt management authorities

Representative non-marketable bonds are bonds for holdings only by households and other retail investors (savings-type bonds), issued in Japan, the U.S. and the U.K. The U.K. features unique non-marketable bonds, including Premium Bonds that offer a monthly prize draw instead of earning interest, as well as Green Savings Bonds (fixed-interest 3-year bonds). Germany and France issued government bonds for retail investors in the past but have discontinued the issuance.

## (Reference) Green Bonds

Green Bonds in Fig. 2-41 are issued by business corporations, local governments and other entities to raise funds for renewable energy and other projects that contribute to resolving global warming and other environmental problems. The global Green Bond market, including Japanese issues, has grown at the initiative of the private sector.

Government Green Bonds have been issued in 22 countries (as of March 2022), including France and other European countries, since Poland became the first country to issue such bonds in 2016. France initiated a government Green Bond issue worth 7 billion euros in January 2017 and has reopened the issue multiple times annually. Its balance of outstanding government Green Bonds was the highest in the world. No government Green Bonds have been issued in the U.S., China and Japan as of March 2022.
Regarding government Green Bonds, measures should be taken to prevent such debt issue from being criticized as "greenwashing" If government Green Bonds are to be issued separately from other government bonds, it will have to be cautiously considered that their liquidity could decline and cause a rise in fundraising costs.

## (3) Liquidity Maintenance/Enhancement Measures

Countries use various methods to maintain and enhance liquidity of government bond markets. Japan annually reopens four issues each of 20 - and 30 -Year JGBs and one issue of 40 -Year and Inflation-Indexed JGBs in principle. It also reopens four 10-Year JGB issues annually unless yields fluctuate wildly (the gap between the market yield and the coupon on a new issue exceeds 30 basis points). Japan thus tries to maintain and enhance liquidity by securing a sufficient outstanding value for each issue. Through liquidity enhancement auctions, Japan also reopens issues that have structural liquidity shortages or temporary liquidity shortages caused by expanding demand.

Among foreign countries, the U.S. and Germany have adopted reopening for on-the-run issues (excluding 7-year or shorter issues in the U.S.) in principle. In the U.K. and France, the debt management authorities discretionarily reopen any issues whether they are on- or off-the-run (Fig. 2-42).
In Germany, meanwhile, the authority reserves part of each debt issue and gradually sells such reserves or uses them for the repo market in consideration of secondary market conditions.

Fig. 2-42 Reopening Issuances

|  | J apan | U.S. | U.K. | Germany | France |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reopening | -5-year (Note 1) <br> -10-year (Note 2) <br> -20-year <br> -30-year <br> -40-year <br> - Inflation-Indexed Bonds (10-year) | -10-year <br> -20-year <br> -30-year <br> -Floating-R ate Bonds <br> (2-year) <br> -Inflation-Indexed Bonds (5-year, 10-year, 30year) | -Medium-term (over 1 ~ 7-year) <br> - Long-term (over 7 ~ 15-year) <br> -Super Long-term (over 15 ~ 55-year) <br> - Inflation-Indexed Bonds (5 ~ 55-year) | -2-year <br> -5-year <br> -7-year <br> -10-year (note 3) <br> -15-year <br> -30-year <br> - Inflation-Indexed Bonds <br> (5-year, 10-year, 30-year) | -Medium-term (2 ~ 8.5-year) <br> -Long-term, Super Long-term (over 8.5 ~ 50-year) (Note 3) -Inflation-Indexed Bonds (2 ~ 30-year) |
| Without reopening | - 2-year | - 2-year <br> - 3-year <br> - 5-year <br> - 7 -year | - | - | - |

Note 1: Reopening issuance only in case nominal coupon and interest payment date are the same as that of the previous issue.
Note 2: "Reopening method in principle" except in case of significant change in market environments.
Note 3: Green Bonds are included.
(Source) Relevant countries' debt management authorities

## (4) Primary Dealer System

Primary dealers (PDs) originally referred to government-certified dealers in the U.S. Candidates for PD designation are examined beforehand for their market-making capabilities, financial conditions, government securities auction participation records, etc. Companies designated as PDs are entitled to directly trade with the Federal Reserve Bank of New York when it conducts open market operations and to participate in periodic meetings with the authorities for the exchange of opinions. At the same time, they are obliged to bid for government bonds in auctions, to conduct marketmaking services and to provide information to the authorities. In this way, companies with special qualifications and responsibilities in regard to government bond markets are designated as PDs to ensure that government bond market liquidity, efficiency and stability are maintained and improved. Such a system is generally called the PD system.

Nowadays, various countries have similar PD systems, including Japan’s JGB Market Special Participant Scheme. But PDs' responsibilities and qualifications vary from country to country as shown below (Fig. 2-43).

Fig. 2-43 Primary Dealer System

|  |  | J apan | U.S. | U.K. | Germany (Note 1) | France |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Name | J GB Market Special Participants | Primary Dealers | Gilt-edged Market Makers (GEMMs) | Bietergruppe Bundesemissionen (Bund Issues Auction Group) | Spécialistes en Valeurs du Trésor (SVT) |
| Introduction time |  | 2004 | 1960 | 1986 | 1990 | 1987 |
| Number of members (as of April 2022) |  | 20 companies | 25 companies | 17 companies | 32 companies | 15 companies |
|  | Bidding | - Participation in all auctions <br> - At least $100 / n \%$ of the planned issuance amount * "n" refers to the number of J GB Market Special Participants. | - Participation in all auctions <br> - Total planned issuance amount/the number of PDs | - Participation in all auctions <br> - $5 \%$ or more of total issuance amount over a rolling 6-month period | - | - Participation in all auctions |
|  | Purchasing | <Short-term> $0.5 \%$ or more of total planned issuance amount in auctions for the preceding two quarters. <br> <Excluding Short-term> $1 \%$ or more of the said amount in auctions for the preceding two quarters. | - | $2 \%$ or more of total issuance amount over a rolling 6-month period | 0.05\% or more of total issuance amount for a year | $2 \%$ or more of total issuance amount of each sector (short-term, medium-term, longterm and super longterm, and inflationindexed bonds) for the preceding year (Note 2) |
|  | Market making | Providing sufficient liquidity to the J GB secondary market | Maintain a share of Treasury market making activity of at least 0.25 percent. | Having a 2\% or more share in the secondary market | - | Having a 2\% or more share in the secondary market for the preceding year |
|  | Information provision | Report to the MOF | Report to the New York Fed | Report to the DMO | - | Report to the AFT |
|  | Exclusive participation in auction | - Non-Price Competitive Auction I (Up to 20\% of total issuance amount) -Non-Price Competitive Auction II (Up to 10\% of total amounts of bids accepted in the competitive auction and Non-Price Competitive Auction I) <br> -Liquidity Enhancement Auction <br> -Buy-back Auctions, etc. | - | - Competitive Auctions <br> - Buy-back Auctions <br> -Syndication, etc. | - Competitive Auctions <br> - Non-Competitive Auctions <br> -Buy-back Auctions, etc. | - Competitive Auctions <br> - Non-Competitive Auctions (Up to $25 \%$ of amounts of bids accepted in the competitive auction) -Syndication, etc. |
|  | Regular meeting, etc. | - Meeting with the MOF <br> (About 5 times a year) | - Meeting with the New York Fed (annually) <br> - Meeting with U.S. Department of the Treasury (quarterly) | - Meeting with the HM Treasury (annually) <br> - Meeting with the DMO (quarterly) | - | - Meeting with the AFT (periodically) |

Note 1: Germany's "Bund Issues Auction Group" is similar to the primary dealer system in other countries in that only the group members are allowed to participate in government debt auctions. However, the only required qualification for a Bund Issues Auction Group member is a financial institution based in the European Union, and each member, though required to purchase a certain part of each issue, is free from any obligation to make bids in auctions or have consultations with the authorities. Therefore, the German group is viewed as different from the PD group in other countries.
Note 2: Conditions other than those in the table for France's bidding responsibilities include " $2 \%$ or more of the total issuance amount over the last one year for three of four sectors (short-term, medium-term, long-term and super long-term, and inflation-indexed bonds) and the average for the four sectors at $3 \%$ or more of the total issuance amount over the last one year."
(Source) Relevant countries' debt management authorities

## 2 Debt Management Status in Foreign Countries

## (1) Government Debt Issuance Trends

As the Novel Coronavirus (COVID-19) expansion has exerted huge impacts on the world economy since 2020, foreign countries have come up with economic assistance, etc. Subsequently, they have been forced to raise more funds by changing government bond issuance plans and increasing government bond issuances substantially from the previous year. Since 2021, however, government bond issuances have been falling back to levels before the COVID-19 expansion thanks to economic policy normalization, etc. (Figs. 2-44 and 2-45).

Fig. 2-44 Issuance Amount of Coupon-bearing Bonds and Discount Bonds


Note 1: As of December 2021. 1Q stands for the J anuary-March quarter, 2 Q for the April-J une quarter, 3 Q for the July-September quarter and 4 Q for the 0 ctober-December quarter.
Note 2: Data for U.K. are calculated on a revenue basis while data for the other countries are calculated on a nominal value basis.
Note 3: Green bonds and syndicated auctions are included for U.K., Germany and France
Note 4: "Other issuance" of issuance amount of discount bonds for U.K. refers to discount bonds issued bilaterally between DMO and eligible investors at the request of those investors.
Note 5: IIB is Inflation-Indexed Bonds. FR Bond is Floating-Rate Bonds.
(Source) Calculated by Ministry of Finance based on the data of relevant countries' debt management authorities on an auction date basis

Coupon-bearing bond issuances in foreign countries as of the end of 2021 indicate that 5 -year or shorter issues accounted for some $50 \%$ of the total issuances in the U.S. and Germany while longer issues command around $80 \%$ of the total in the U.K. and France. The maturity mix thus varies from country to country.

Fig. 2-45 Outstanding Amount of Coupon-bearing Bonds and Discount Bonds


In Japan, the MOF flexibly adjusts Inflation-Indexed Bond issuance amounts according to the market environment and investment needs, based on dialogue with market participants. In foreign countries, Inflation-Indexed Bonds are issued as necessary. Particularly in the U.K. and France, Inflation-Indexed Bonds account for some 10\% of the total issuance amounts, representing a relatively large share.

## (2) Average Maturity

The "stock-based average maturity" is viewed as an important benchmark for assessing refunding risks. The stockbased average maturity is an indicator of overall outstanding government bonds, computed by weighted-averaging remaining maturities for outstanding government bonds.
Comparison between stock-based average maturities for government bonds in selected countries indicates that the average stands at as high as about 15 years in the U.K. with super long-term issues accounting for a large share of all government bonds, the averages range from five to eight years in the U.S., Germany and France. In Japan, the average bottomed out at 4.9 years at the end of FY2003 and continued to lengthen after that, reaching 9.2 years at the end of FY2019 (Fig. 2-46). Although the Japanese average fell back to 8.9 years at the end of FY2020 as Japan increased mainly short- to medium-term bond issues due to the COVID-19 expansion in FY2020, the average extended to 9.0 years again at the end of FY2021 due to a cut in short-term issues.

Fig. 2-46 Average Maturity


[^14]In addition, the following indicator is also useful for identifying more specific refunding needs. Fig. 2-47 indicates the proportions for outstanding bonds that are scheduled to be refunded or mature within one year and three years.

In Japan, the U.S., Germany and France, which had increased mainly short-term bond issuances to raise funds required for responding to the spread of COVID-19, the proportions at the end of December 2020 (at the end of March 2021 in Japan) increased year on year. In the U.S., particularly, the proportion for those maturing within one year rose by nearly 10 percentage points from $27.3 \%$ to $36.6 \%$. At the end of December 2021 (at the end of March 2022 in Japan), however, the proportion declined year on year in Japan, the U.S. and France, while continuing to increase in Germany. In the U.K., which increased more-than-one-year coupon-bearing bond issuances in response to the spread of COVID-19, the proportion for those maturing within one year declined year on year at the end of December 2020 but rose back slightly at the end of December 2021.

Fig. 2-47 Proportion of Outstanding with Remaining Maturity Within 1 Year and 3 Years


Note 1: Data for each year are as of March next year for Japan alone and as of December for other countries.
Note 2: Data are calculated on a stock basis. Non-marketable bonds are excluded.
(Sources) Ministry of Finance for Japan, calculated by Ministry of Finance based on Bloomberg for the others

## (3) Breakdown by Government Bond Holders

According to a breakdown of government bonds by holder category published in each country, the foreign ownership of JGBs, though rising now, was limited to around $14 \%$ at the end of December 2021. On the other hand, the foreign ownership of government bonds is higher in foreign countries, standing at around $30 \%$ in the U.S. and around 40-50\% in Germany and France (Fig. 2-48).

Fig. 2-48 Breakdown of Government Bonds by Holder Category


Note: Japanese government bonds include Fiscal Investment and Loan Program Bonds and Treasury Discount Bills (T-Bills). Data for the U.S exclude holdings by government-controlled public institutions, trust funds, etc. but include non-marketable government bonds held by the Federal Government Employee Retirement Funds, etc. In Germany and France, the total covers municipal bonds (the central bank's share in France is not made available).
(Sources) Japan: Bank of Japan, U.S.: Federal Reserve Board, U.K.: Office for National Statistics, UK Debt Management Office, Germany: Deutsche Bundesbank, France: Banque de France

Among other data, a working paper of the International Monetary Fund (IMF) in 2012 analyzed the estimated breakdowns of government bond holdings based on data from national debt management authorities, the Bank for International Settlements and other sources. Specifically, the study divided government bond holders into six sectors (domestic central banks, domestic banks, domestic nonbanks, foreign official sector, foreign banks and foreign nonbanks) and estimated their respective shares of government bond holdings (Fig. 2-49). The estimated breakdowns have been updated and published on the IMF website every quarter

Fig. 2-49 Breakdown of Government Bonds by Holder Category


Note 1: As of December 2021
Note 2: Domestic banks are depository corporations residing in the country (IFS definition). Foreign banks are BIS reporting banks residing outside the country. Foreign official sector includes foreign central bank holdings as foreign exchange reserves, SMP holdings of foreign central banks, and foreign official loans. Foreign nonbanks and domestic nonbanks are imputed from external and total debt.
(Source) Serkan Arslanalp and Takahiro Tsuda, 2012, "Tracking G lobal Demand for Advanced Economy Sovereign Debt", IMF Working Paper, WP/12/284

## 3 Collaboration and Cooperation with Foreign Countries

National debt management authorities can exchange information through international conferences sponsored by international organizations.
These conferences include the OECD (Organization for Economic Cooperation and Development) Working Party on Public Debt Management, the OECD Global Forum on Public Debt Management, the IMF (International Monetary Fund) Public Debt Management Forum, the World Bank Government Borrowers Forum and the ADB (Asian Development Bank) Regional Public Debt Management Forum.
The Japanese debt management authorities have proactively attended these international conferences, giving presentations on Japan's debt management policies and sharing information and with foreign counterparts on debt management policies.

## III

## Appendices

This part contains supplementary information which was not covered in previous parts of this brochure.

1 Primary Market for Government Bonds
(1) Issuance Amount of Government Bonds

| $\left\|\begin{array}{c} F Y \\ \text { (Unit) } \end{array}\right\|$ | Issuance Amount |  |  |  |  |  |  |  | Bond Dependency Ratio (\%) | GB Outstanding |  | $\begin{array}{r} (\mathrm{A}) \\ \hline \text { GDP } \\ (\%) \end{array}$ | National Debt Service (Initial) (B) <br> (billion yen) | $\frac{(B)}{\text { General }}$ <br> Account Total <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Subtotal (billion yen) | Constuction Bonds (billion yen) | Special Deficit- <br> Financing Bonds (billion yen) | Special Bonds for covering Public Pension Funding (billion yen) | $\left\|\begin{array}{c} \text { Reconstruction } \\ \text { Bonds } \\ \text { (billion yen) } \end{array}\right\|$ | FILP <br> Bonds (billion yen) | Refunding Bonds (billion yen) | Total (billion yen) |  | General Bonds Outstanding (A) (billion yen) | FILP Bonds Outstanding (billion yen) |  |  |  |
| $\begin{array}{\|l\|} \hline 1947 \\ \sim 64 \\ \hline \end{array}$ | In the period of balanced budget, there hadn't been J GBs issued. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65 | 197.2 | - | 197.2 | - | - | - | - | 197.2 | 5.3 | 200.0 | - | 0.6 | 22.0 | 0.6 |
| 66 | 665.6 | 665.6 | - | - | - | - | - | 665.6 | 14.9 | 875.0 | - | 2.2 | 48.9 | 1.1 |
| 67 | 709.4 | 709.4 | - | - | - | - | - | 709.4 | 13.9 | 1,595.0 | - | 3.4 | 115.3 | 2.3 |
| 68 | 462.1 | 462.1 | - | - | - | - | - | 462.1 | 7.8 | 2,054.4 | - | 3.7 | 201.3 | 3.5 |
| 69 | 412.6 | 412.6 | - | - | - | - | - | 412.6 | 6.0 | 2,463.4 | - | 3.8 | 278.8 | 4.1 |
| 70 | 347.2 | 347.2 | - | - | - | - | - | 347.2 | 4.2 | 2,811.2 | - | 3.7 | 290.9 | 3.7 |
| 71 | 1,187.1 | 1,187.1 | - | - | - | - | - | 1,187.1 | 12.4 | 3,952.1 | - | 4.8 | 319.3 | 3.4 |
| 72 | 1,950.0 | 1,950.0 | - | - | - | - | - | 1,950.0 | 16.3 | 5,818.6 | - | 6.0 | 455.4 | 4.0 |
| 73 | 1,766.2 | 1,766.2 | - | - | - | - | 595.8 | 2,362.0 | 12.0 | 7,550.4 | - | 6.5 | 704.5 | 4.9 |
| 74 | 2,160.0 | 2,160.0 | - | - | - | - | 635.8 | 2,795.8 | 11.3 | 9,658.4 | - | 7.0 | 862.2 | 5.0 |
| 75 | 5,280.5 | 3,190.0 | 2,090.5 | - | - | - | 415.6 | 5,696.1 | 25.3 | 14,973.1 | - | 9.8 | 1,039.4 | 4.9 |
| 76 | 7,198.2 | 3,725.0 | 3,473.2 | - | - | - | 371.2 | 7,569.4 | 29.4 | 22,076.7 | - | 12.9 | 1,664.7 | 6.9 |
| 77 | 9,561.2 | 5,028.0 | 4,533.3 | - | - | - | 312.8 | 9,874.1 | 32.9 | 31,902.4 | - | 16.8 | 2,348.7 | 8.2 |
| 78 | 10,674.0 | 6,330.0 | 4,344.0 | - | - | - | 632.6 | 11,306.6 | 31.3 | 42,615.8 | - | 20.4 | 3,222.7 | 9.4 |
| 79 | 13,472.0 | 7,133.0 | 6,339.0 | - | - | - | - | 13,472.0 | 34.7 | 56,251.3 | - | 25.0 | 4,078.4 | 10.6 |
| 80 | 14,170.2 | 6,955.0 | 7,215.2 | - | - | - | 290.3 | 14,460.5 | 32.6 | 70,509.8 | - | 28.4 | 5,310.4 | 12.5 |
| 81 | 12,899.9 | 7,039.9 | 5,860.0 | - | - | - | 895.2 | 13,795.1 | 27.5 | 82,273.4 | - | 31.1 | 6,654.2 | 14.2 |
| 82 | 14,044.7 | 7,036.0 | 7,008.7 | - | - | - | 3,272.7 | 17,317.5 | 29.7 | 96,482.2 | - | 34.9 | 7,829.9 | 15.8 |
| 83 | 13,486.3 | 6,809.9 | 6,676.5 | - | - | - | 4,514.5 | 18,000.9 | 26.6 | 109,694.7 | - | 38.0 | 8,192.5 | 16.3 |
| 84 | 12,781.3 | 6,409.9 | 6,371.4 | - | - | - | 5,360.3 | 18,141.7 | 24.8 | 121,693.6 | - | 39.5 | 9,155.1 | 18.1 |
| 85 | 12,308.0 | 6,303.0 | 6,005.0 | - | - | - | 8,957.3 | 21,265.3 | 23.2 | 134,431.4 | - | 40.7 | 10,224.2 | 19.5 |
| 86 | 11,254.9 | 6,248.9 | 5,006.0 | - | - | - | 11,488.6 | 22,743.5 | 21.0 | 145,126.7 | - | 42.4 | 11,319.5 | 20.9 |
| 87 | 9,418.1 | 6,880.0 | 2,538.2 | - | - | - | 15,449.0 | 24,867.2 | 16.3 | 151,809.3 | - | 41.9 | 11,333.5 | 20.9 |
| 88 | 7,152.5 | 6,196.0 | 956.5 | - | - | - | 13,946.1 | 21,098.6 | 11.6 | 156,780.3 | - | 40.4 | 11,512.0 | 20.3 |
| 89 | 6,638.5 | 6,430.0 | 208.5 | - | - | - | 15,079.8 | 21,718.3 | 10.1 | 160,910.0 | - | 38.7 | 11,664.9 | 19.3 |
| 90 | 7,312.0 | 6,343.2 | (968.9) | - | - | - | 18,653.2 | 25,965.2 | 9.2 | 166,337.9 | - | 36.8 | 14,288.6 | 21.6 |
| 91 | 6,730.0 | 6,730.0 | - | - | - | - | 18,875.7 | 25,605.7 | 9.5 | 171,647.3 | - | 36.2 | 16,036.0 | 22.8 |
| 92 | 9,536.0 | 9,536.0 | - | - | - | - | 21,496.9 | 31,032.9 | 13.5 | 178,368.1 | - | 36.9 | 16,447.3 | 22.8 |
| 93 | 16,174.0 | 16,174.0 | - | - | - | - | 21,812.9 | 37,986.9 | 21.5 | 192,539.3 | - | 39.9 | 15,442.3 | 21.3 |
| 94 | 16,490.0 | 12,345.7 | $\begin{array}{r} <3,333.7> \\ {[810.6]} \\ \hline \end{array}$ | - | - | - | 22,881.7 | 39,371.7 | 17.9 | 206,604.6 | - | 40.4 | 14,360.2 | 19.6 |
| 95 | 21,247.0 | 16,440.1 | $\begin{array}{r} <2,851.1> \\ 1955.8 \\ \hline \end{array}$ | - | - | - | 25,376.7 | 46,623.8 | 24.2 | 225,184.7 | - | 42.9 | 13,221.3 | 18.6 |
| 96 | 21,748.3 | 10,707.0 | $\begin{array}{r} <1,879.6> \\ 9161.7 \\ \hline \end{array}$ | - | - | - | 26,552.4 | 48,300.7 | 25.2 | 244,658.1 | - | 45.4 | 16,375.2 | 21.8 |
| 97 | 18,458.0 | 9,940.0 | 8,518.0 | - | - | - | 31,432.0 | 49,890.0 | 23.5 | 257,987.5 | - | 47.6 | 16,802.3 | 21.7 |
| 98 | 34,000.0 | 17,050.0 | 16,950.0 | - | - | - | 42,431.0 | 76,431.0 | 40.3 | 295,249.1 | - | 55.2 | 17,262.8 | 22.2 |
| 99 | 37,513.6 | 13,166.0 | 24,347.6 | - | - | - | 40,084.4 | 77,597.9 | 42.1 | 331,668.7 | - | 62.5 | 19,831.9 | 24.2 |
| 00 | 33,004.0 | 11,138.0 | 21,866.0 | - | - | - | 53,269.7 | 86,273.7 | 36.9 | 367,554.7 | - | 68.4 | 21,965.3 | 25.8 |
| 01 | 30,000.0 | 9,076.0 | 20,924.0 | - | - | 43,883.1 | 59,329.6 | 133,212.7 | 35.4 | 392,434.1 | 43,760.5 | 74.4 | 17,170.5 | 20.8 |
| 02 | 34,968.0 | 9,148.0 | 25,820.0 | - | - | 31,843.5 | 69,615.5 | 136,427.1 | 41.8 | 421,099.1 | 75,564.4 | 80.4 | 16,671.2 | 20.5 |
| 03 | 35,345.0 | 6,693.0 | 28,652.0 | - | - | 28,508.6 | 74,948.9 | 138,802.5 | 42.9 | 456,973.6 | 91,849.0 | 86.8 | 16,798.1 | 20.5 |
| 04 | 35,490.0 | 8,704.0 | 26,786.0 | - | - | 40,129.7 | 84,450.5 | 160,070.2 | 41.8 | 499,013.7 | 121,553.2 | 94.2 | 17,568.6 | 21.4 |
| 05 | 31,269.0 | 7,762.0 | 23,507.0 | - | - | 28,249.4 | 105,519.5 | 165,037.9 | 36.6 | 526,927.9 | 139,353.2 | 98.7 | 18,442.2 | 22.4 |
| 06 | 27,470.0 | 6,415.0 | 21,055.0 | - | - | 25,559.5 | 108,120.6 | 161,150.2 | 33.7 | 531,701.5 | 138,906.1 | 99.0 | 18,761.6 | 23.5 |
| 07 | 25,382.0 | 6,044.0 | 19,338.0 | - | - | 16,769.6 | 99,189.4 | 141,341.0 | 31.0 | 541,458.4 | 139,754.3 | 100.6 | 20,998.8 | 25.3 |
| 08 | 33,168.0 | 6,975.0 | 26,193.0 | - | - | 8,600.0 | 93,909.5 | 135,677.5 | 39.2 | 545,935.6 | 131,050.1 | 105.8 | 20,163.2 | 24.3 |
| 09 | 51,955.0 | 15,011.0 | 36,944.0 | - | - | 9,410.0 | 90,480.3 | 151,845.3 | 51.5 | 593,971.7 | 122,225.3 | 119.4 | 20,243.7 | 22.9 |
| 10 | 42,303.0 | 7,603.0 | 34,700.0 | - | - | 8,400.0 | 100,835.5 | 151,538.5 | 44.4 | 636,311.7 | 118,191.8 | 126.0 | 20,649.1 | 22.4 |
| 11 | 42,798.0 | 8,368.0 | 34,430.0 | - | 11,250.0 | 13,100.0 | 109,020.0 | 176,168.0 | 42.5 | 669,867.4 | 110,912.2 | 134.0 | 21,549.1 | 23.3 |
| 12 | 47,465.0 | 11,429.0 | 36,036.0 | 2,584.2 | 2,303.3 | 14,220.0 | 110,957.9 | 177,530.3 | 48.9 | 705,007.2 | 109,260.7 | 141.2 | 21,944.2 | 24.3 |
| 13 | 40,851.0 | 7,014.0 | 33,837.0 | 2,603.5 | - | 10,700.0 | 110,156.9 | 164,311.4 | 40.8 | 743,867.6 | 104,210.4 | 145.1 | 22,241.5 | 24.0 |
| 14 | 38,492.9 | 6,577.0 | 31,915.9 | - | 120.0 | 14,000.0 | 119,372.8 | 171,985.7 | 39.0 | 774,083.1 | 98,991.0 | 147.9 | 23,270.2 | 24.3 |
| 15 | 34,918.3 | 6,479.0 | 28,439.3 | - | 1,320.0 | 13,400.0 | 114,230.8 | 163,869.1 | 35.5 | 805,418.2 | 96,115.5 | 148.9 | 23,450.7 | 24.3 |
| 16 | 38,034.6 | 8,901.4 | 29,133.2 | - | 790.9 | 19,600.0 | 109,479.8 | 167,905.3 | 39.0 | 830,573.3 | 96,250.9 | 152.4 | 23,612.1 | 24.4 |
| 17 | 33,554.6 | 7,281.8 | 26,272.8 | - | 76.8 | 12,000.0 | 106,382.0 | 152,013.4 | 34.2 | 853,178.9 | 94,525.9 | 153.5 | 23,528.5 | 24.1 |
| 18 | 34,395.4 | 8,097.2 | 26,298.2 | - | - | 10,630.0 | 103,285.3 | 148,310.7 | 34.8 | 874,043.4 | 92,245.6 | 157.1 | 23,302.0 | 23.8 |
| 19 | 36,581.9 | 9,143.7 | 27,438.2 | - | 810.0 | 12,550.0 | 104,238.3 | 154,180.1 | 36.1 | 886,694.5 | 91,090.1 | 159.1 | 23,508.2 | 23.2 |
| 20 | 108,553.9 | 22,596.0 | 85,957.9 | - | 722.4 | 39,075.1 | 108,503.9 | 256,855.3 | 73.5 | 946,646.8 | 118,645.0 | 176.8 | 23,351.5 | 22.7 |
| 21 | 65,655.0 | 9,168.0 | 56,487.0 | - | 40.0 | 15,000.0 | 143,663.3 | 224,358.3 | 46.0 | 1,004,505.8 | 109,440.7 | 184.3 | 23,758.8 | 22.3 |
| 22 | 36,926.0 | 6,251.0 | 30,675.0 | - | 171.6 | 25,000.0 | 152,940.4 | 215,038.0 | 34.3 | 1,026,489.7 | 112,523.7 | 181.8 | 24,339.3 | 22.6 |

Note 1: Figures may not sum up to total because of rounding.
Note 2: Issuance Amount is calculated on a revenue basis, up to FY2020; actual, FY2021; supplementary budget, FY2022; initial
The figures in ( ) indicate Ad-hoc Deficit-Financing Bonds, < > are Special Deficit-Financing Bonds for Offset tax cuts, [ ] are Special Deficit-Financing Bonds for Earthquake.
Note 3: Reconstruction Bonds are issued under the General Account in FY2011 and under the Special Account for Reconstruction from the Great East J apan Earthquake from FY 2012 onward.
Note 4: The figure of Special Deficit-Financing Bonds in FY1965 includes Revenue Supplementary Bonds issued at the time of supplementary budget for reasons of expediency.
Note 5: Bond Dependency Ratio is the issuance amount of (Construction Bonds+Special Deficit-Financing Bonds)/general account total, up to FY2020; actual, FY2021; supplementary budget, FY2022; initial.
Note 6: JGB Outstanding at the end of each fiscal year is calculated on a nominal basis, up to FY2020; actual, FY2021; supplementary budget, FY2022; initial
Note 7: JGB Outstanding/GDP is calculated on a nominal basis: actual GDP for years up to FY2020 and estimated GDP for FY2021 and 2022 in the "F iscal 2022 Economic Outlook and Basic Stance for Economic and Fiscal Management" (Cabinet Decision on J anuary 17, 2022).
Note.8: National Debt Service and National Debt Service/General Account Total are on an initial budget basis for all years. FY2019 and 2020 data cover extraordinary and special measures.

## (2) Historical Changes in JGB Market Issuance by JGB Types

(Unit: billion yen, \%)

|  | FY2003 (Actual) |  | FY2004 (Actual) |  | FY2005 (Actual) |  | FY2006 (Actual) |  | FY2007 (Actual) |  | FY2008 (Actual) |  | FY2009 (Actual) |  | FY2010 (Actual) |  | FY2011 (Actual) |  | FY 2012 (Actual) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |
| 40-Year | - | - | - | - | - | - | - | - | 99.9 | 0.1 | 601.9 | 0.6 | 1,100.0 | 0.8 | 1,198.7 | 0.8 | 1,598.9 | 1.1 | 1,597.5 | 1.1 |
| 30-Year | 1,599.3 | 1.4 | 1,998.3 | 1.7 | 1,998.7 | 1.7 | 2,299.2 | 2.0 | 2,397.4 | 2.2 | 2,898.7 | 2.7 | 3,995.5 | 2.9 | 4,795.1 | 3.4 | 5,593.9 | 3.9 | 5,593.1 | 3.7 |
| 20-Year | 5,392.6 | 4.7 | 7,190.4 | 6.1 | 8,390.4 | 7.1 | 9,595.0 | 8.5 | 9,590.4 | 8.7 | 10,091.7 | 9.5 | 12,597.7 | 9.2 | 13,190.1 | 9.2 | 13,189.9 | 9.1 | 14,389.8 | 9.6 |
| 15-Year CMT | 5,994.2 | 5.3 | 7,194.2 | 6.1 | 8,794.2 | 7.4 | 5,389.1 | 4.8 | 3,396.7 | 3.1 | 599.6 | 0.6 | - | - | - | - | - | - | - | - |
| 10-Year | 22,800.0 | 20.0 | 22,800.0 | 19.4 | 22,800.0 | 19.3 | 22,799.0 | 20.2 | 22,792.5 | 20.8 | 22,657.7 | 21.4 | 24,992.5 | 18.2 | 26,389.9 | 18.5 | 26,388.5 | 18.2 | 27,788.4 | 18.6 |
| $\begin{gathered} \text { 10-Year } \\ \text { JGBi } \end{gathered}$ | 99.8 | 0.1 | 799.2 | 0.7 | 1,998.5 | 1.7 | 2,498.9 | 2.2 | 2,997.5 | 2.7 | 1,499.3 | 1.4 | - | - | - | - | - | - | - | - |
| 5-Year | 22,790.3 | 20.0 | 23,987.6 | 20.4 | 23,988.5 | 20.3 | 23,992.3 | 21.2 | 23,989.0 | 21.9 | 22,962.9 | 21.7 | 27,190.0 | 19.8 | 28,790.0 | 20.2 | 29,188.1 | 20.2 | 30,387.8 | 20.3 |
| 2-Year | 20,985.4 | 18.4 | 20,384.4 | 17.3 | 20,388.0 | 17.2 | 20,390.6 | 18.1 | 20,389.7 | 18.6 | 21,316.3 | 20.1 | 28,389.2 | 20.7 | 31,189.0 | 21.8 | 31,594.4 | 21.8 | 32,388.7 | 21.7 |
| Subtotal | 79,661.7 | 70.0 | 84,354.1 | 71.6 | 88,358.3 | 74.7 | 86,964.1 | 77.0 | 85,653.1 | 78.1 | 82,628.1 | 78.0 | 98,264.9 | 71.5 | 105,552.8 | 73.9 | 107,553.7 | 74.3 | 112,145.4 | 75.1 |
| TB total | 34,198.4 | 30.0 | 33,395.9 | 28.4 | 29,910.7 | 25.3 | 24,799.5 | 22.0 | 22,795.9 | 20.8 | 20,999.7 | 19.8 | 32,899.3 | 23.9 | 29,999.2 | 21.0 | 29,999.0 | 20.7 | 29,999.1 | 20.1 |
| TB1Y | 20,399.1 | 17.9 | 19,998.6 | 17.0 | 17,911.0 | 15.1 | 16,799.8 | 14.9 | 16,798.5 | 15.3 | 17,999.7 | 17.0 | 27,399.3 | 19.9 | 29,999.2 | 21.0 | 29,999.0 | 20.7 | 29,999.1 | 20.1 |
| TB6M | 13,799.3 | 12.1 | 13,397.3 | 11.4 | 11,999.7 | 10.1 | 7,999.7 | 7.1 | 5,997.4 | 5.5 | 3,000.0 | 2.8 | 5,500.0 | 4.0 | - | - | - | - | - | - |
| Liquidity Enhancement Auction | - | - | - | - | - | - | 1,196.3 | 1.1 | 1,195.9 | 1.1 | 2,295.2 | 2.2 | 6,286.2 | 4.6 | 7,190.6 | 5.0 | 7,182.0 | 5.0 | 7,181.6 | 4.8 |
| Total | 113,860.0 | 100.0 | 117,750.0 | 100.0 | 118,269.0 | 100.0 | 112,959.9 | 100.0 | 109,644.9 | 100.0 | 105,923.0 | 100.0 | 137,450.4 | 100.0 | 142,742.6 | 100.0 | 144,734.7 | 100.0 | 149,326.0 | 100.0 |


|  | FY2013 (Actual) |  | FY2014 (Actual) |  | FY2015 (Actual) |  | FY2016 (Actual) |  | FY2017 (Actual) |  | FY2018 (Actual) |  | FY 2019 (Actual) |  | FY2020 (Actual) |  | FY2021(Actual) |  | $\begin{aligned} & \text { FY } 2022 \\ & \text { (Initial) } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |  | Share |
| 40-Year | 1,597.8 | 1.0 | 1,598.0 | 1.0 | 1,998.3 | 1.3 | 2,797.1 | 1.9 | 2,997.0 | 2.1 | 2,396.1 | 1.8 | 2,397.4 | 1.9 | 2,997.3 | 1.4 | 3,596.3 | 1.8 | 4,200.0 | 2.1 |
| 30-Year | 6,791.8 | 4.3 | 7,991.4 | 5.2 | 9,591.0 | 6.3 | 9,592.1 | 6.5 | 9,589.3 | 6.8 | 8,389.0 | 6.3 | 8,390.7 | 6.5 | 10,189.4 | 4.8 | 10,788.6 | 5.3 | 10,800.0 | 5.4 |
| 20-Year | 14,389.4 | 9.2 | 14,388.8 | 9.3 | 14,388.5 | 9.5 | 13,189.8 | 9.0 | 11,988.6 | 8.5 | 11,988.4 | 8.9 | 10,790.4 | 8.3 | 13,489.5 | 6.4 | 14,388.9 | 7.0 | 14,400.0 | 7.3 |
| 15-Year CMT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10-Year | 28,789.7 | 18.4 | 28,791.8 | 18.6 | 28,791.8 | 18.9 | 28,791.5 | 19.6 | 27,589.7 | 19.5 | 26,388.1 | 19.7 | 25,191.9 | 19.5 | 29,690.6 | 14.1 | 31,189.2 | 15.2 | 32,400.0 | 16.3 |
| $\begin{gathered} \text { 10-Year } \\ \mathrm{JGBi} \end{gathered}$ | 599.4 | 0.4 | 1,799.5 | 1.2 | 1,999.5 | 1.3 | 1,599.7 | 1.1 | 1,598.3 | 1.1 | 1,598.3 | 1.2 | 1,598.6 | 1.2 | 799.3 | 0.4 | 799.1 | 0.4 | 800.0 | 0.4 |
| 5-Year | 32,388.6 | 20.7 | 32,390.3 | 21.0 | 29,990.3 | 19.7 | 28,791.6 | 19.6 | 26,389.9 | 18.7 | 23,989.7 | 17.9 | 22,790.1 | 17.6 | 28,191.9 | 13.4 | 29,990.1 | 14.6 | 30,000.0 | 15.1 |
| 2-Year | 34,790.5 | 22.2 | 32,392.4 | 21.0 | 29,991.1 | 19.7 | 27,591.8 | 18.8 | 26,391.2 | 18.7 | 25,192.5 | 18.8 | 23,993.7 | 18.6 | 32,992.1 | 15.7 | 35,990.2 | 17.6 | 33,600.0 | 16.9 |
| Subtotal | 119,347.2 | 76.2 | 119,352.2 | 77.3 | 116,750.5 | 76.7 | 112,353.6 | 76.5 | 106,544.0 | 75.5 | 99,942.1 | 74.5 | 95,152.8 | 73.6 | 118,350.1 | 56.2 | 126,742.4 | 61.8 | 126,200.0 | 63.5 |
| TB total | 29,999.4 | 19.2 | 26,700.0 | 17.3 | 25,800.0 | 17.0 | 25,000.0 | 17.0 | 23,800.0 | 16.9 | 21,600.0 | 16.1 | 21,600.0 | 16.7 | 80,899.1 | 38.4 | 66,899.2 | 32.6 | 60,400.0 | 30.4 |
| TB1Y | 29,999.4 | 19.2 | 26,700.0 | 17.3 | 25,800.0 | 17.0 | 25,000.0 | 17.0 | 23,800.0 | 16.9 | 21,600.0 | 16.1 | 21,600.0 | 16.7 | 36,899.7 | 17.5 | 41,299.5 | 20.1 | 42,000.0 | 21.1 |
| TB6M | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 43,999.4 | 20.9 | 25,599.7 | 12.5 | 18,400.0 | 9.3 |
| Liquidity Enhancement Auction | 7,187.8 | 4.6 | 8,383.4 | 5.4 | 9,579.8 | 6.3 | 9,579.2 | 6.5 | 10,865.4 | 7.7 | 12,567.1 | 9.4 | 12,566.6 | 9.7 | 11,365.0 | 5.4 | 11,361.0 | 5.5 | 12,000.0 | 6.0 |
| Total | 156,534.4 | 100.0 | 154,435.6 | 100.0 | 152,130.3 | 100.0 | 146,932.8 | 100.0 | 141,209.4 | 100.0 | 134,109.2 | 100.0 | 129,319.4 | 100.0 | 210,614.2 | 100.0 | 205,002.6 | 100.0 | 198,600.0 | 100.0 |

[^15]Note 2: The figures include the amount of issuance to Syndicate until FY2005.
(3) Auction Results for JGBs and T-bills in FY2021

40-Year

| ISSue Number | Auction Date | Issue Date | Maturity Date | Nominal Coupon (\%) | Offering Amount (billion yen) | Amount of <br> Competive Bids <br> (billion yen) | Amount of Bids Accepted (billion yen) | Lowest Price (yen) | Yield at the Lowest Price (\%) | Non-Pice <br> Competive Auction <br> (billion yen) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 5.27 .21 | 5.28 .21 | 3.20 .61 | 0.7 | 600 | 1,679.2 | 599.3 | 99.65 | 0.710 | 59.0 |
| 14 | 7.27 .21 | 7.28 .21 | 3.20 .61 | 0.7 | 600 | 1,627.6 | 599.3 | 98.80 | 0.735 | 43.9 |
| 14 | 9.28 .21 | 9.29 .21 | 3.20 .61 | 0.7 | 600 | 1,514.4 | 599.7 | 97.62 | 0.770 | 46.8 |
| 14 | 11.25 .21 | 11.26 .21 | 3.20 .61 | 0.7 | 600 | 1,419.0 | 599.4 | 99.15 | 0.725 | 34.2 |
| 14 | 1.25 .22 | 1.26 .22 | 3.20 .61 | 0.7 | 600 | 1,541.6 | 598.8 | 97.97 | 0.760 | 22.7 |
| 14 | 3.29 .22 | 3.30 .22 | 3.20 .61 | 0.7 | 600 | 1,315.8 | 599.8 | 87.50 | 1.095 | 52.4 |

30-Year

| $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Issue } \\ \text { Number } \end{array} \\ \hline \end{array}$ | Auction Date | Issue Date | Maturity Date | Nominal Coupon (\%) | Ofiering Amount (billion yen) | $\begin{array}{\|c} \text { Amount of } \\ \text { Competive Bids } \\ \text { (billion yen) } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Amount of } \\ \text { Bids Accepted } \\ \text { (billion yen) } \\ \hline \end{array}$ | Average Price (yen) | Yield at the Average Price (\%) | Lowest Price (yen) | Yield at the Lowest Price (\%) | $\begin{gathered} \text { Non-Price } \\ \text { Competive Auction I } \\ \text { (billion yen) } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Non-Pice } \\ & \text { Compelitive Auction II } \\ & \text { (billion yen) } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70 | 4.6.21 | 4.7.21 | 3.20 .51 | 0.7 | 900 | 2,285.1 | 735.4 | 100.28 | 0.688 | 100.20 | 0.691 | 163.7 | 63.0 |
| 70 | 5.13 .21 | 5.14 .21 | 3.20 .51 | 0.7 | 900 | 2,313.6 | 742.2 | 101.36 | 0.645 | 101.25 | 0.649 | 156.8 | 0.0 |
| 70 | 6.8.21 | 6.9.21 | 3.20 .51 | 0.7 | 900 | 2,479.2 | 731.8 | 100.15 | 0.693 | 100.05 | 0.697 | 167.3 | 80.5 |
| 71 | 7.6.21 | 7.7.21 | 6.20 .51 | 0.7 | 900 | 2,643.1 | 727.8 | 100.48 | 0.680 | 100.45 | 0.681 | 171.1 | 84.5 |
| 71 | 8.11 .21 | 8.12.21 | 6.20 .51 | 0.7 | 900 | 2,254.4 | 734.0 | 101.31 | 0.647 | 101.20 | 0.651 | 164.9 | 46.4 |
| 71 | 9.7.21 | 9.8.21 | 6.20 .51 | 0.7 | 900 | 2,193.5 | 731.1 | 101.17 | 0.653 | 101.10 | 0.655 | 167.7 | 71.3 |
| 72 | 10.12.21 | 10.13.21 | 9.20 .51 | 0.7 | 900 | 2,124.1 | 731.4 | 99.94 | 0.702 | 99.85 | 0.706 | 167.9 | 71.3 |
| 72 | 11.9.21 | 11.10.21 | 9.20 .51 | 0.7 | 900 | 2,505.3 | 726.4 | 100.42 | 0.683 | 100.35 | 0.685 | 172.2 | 80.7 |
| 72 | 12.7.21 | 12.8.21 | 9.20 .51 | 0.7 | 900 | 2,344.6 | 729.4 | 100.65 | 0.673 | 100.55 | 0.677 | 169.7 | 14.9 |
| 73 | 1.7.22 | 1.11.22 | 12.20 .51 | 0.7 | 900 | 2,656.5 | 732.1 | 99.51 | 0.719 | 99.50 | 0.720 | 166.9 | 86.5 |
| 73 | 2.3.22 | 2.4.22 | 12.20 .51 | 0.7 | 900 | 2,493.9 | 723.5 | 97.86 | 0.788 | 97.85 | 0.788 | 176.0 | 24.2 |
| 73 | 3.3.22 | 3.4.22 | 12.20 .51 | 0.7 | 900 | 2,248.4 | 721.1 | 95.45 | 0.893 | 95.40 | 0.895 | 178.2 | 88.3 |

20-Year

| Issue Number | Auction Date | Issue Date | Maturity Date | Nominal Coupon (\%) | Ofiering Amount (billion yen) | $\begin{array}{\|c\|} \hline \text { Amount of } \\ \text { Competitive Bids } \\ \text { (billion yen) } \\ \hline \end{array}$ | Amount of Bids Accepted (billion yen) | Average Price (yen) | Yield at the <br> Average P Price <br> (\%) | Lowest Price (yen) | Yield at the Lowest Price (\%) | $\begin{aligned} & \text { Non-Price } \\ & \text { Competitive Auction I } \\ & \text { (billion yen) } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \text { Non.Pice } \\ \text { Compeltive Auction II } \\ \text { (billion yen) } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 176 | 4.20 .21 | 4.21 .21 | 3.20 .41 | 0.5 | 1,200 | 3,215.5 | 961.8 | 101.12 | 0.438 | 101.10 | 0.439 | 237.4 | 26.0 |
| 176 | 5.21 .21 | 5.24 .21 | 3.20 .41 | 0.5 | 1,200 | 3,350.5 | 963.4 | 101.00 | 0.445 | 100.90 | 0.450 | 235.4 | 19.9 |
| 176 | 6.24 .21 | 6.25 .21 | 3.20 .41 | 0.5 | 1,200 | 3,547.2 | 980.4 | 101.21 | 0.433 | 101.15 | 0.436 | 218.8 | 96.3 |
| 177 | 7.13 .21 | 7.14 .21 | 6.20 .41 | 0.4 | 1,200 | 3,446.1 | 980.4 | 99.92 | 0.404 | 99.85 | 0.408 | 218.4 | 67.4 |
| 177 | 8.26 .21 | 8.27 .21 | 6.20 .41 | 0.4 | 1,200 | 3,561.5 | 974.9 | 99.89 | 0.405 | 99.85 | 0.408 | 224.2 | 82.8 |
| 177 | 9.16 .21 | 9.17.21 | 6.20 .41 | 0.4 | 1,200 | 3,146.8 | 982.6 | 99.77 | 0.412 | 99.70 | 0.416 | 216.4 | 0.0 |
| 178 | 10.19.21 | 10.20 .21 | 9.20 .41 | 0.5 | 1,200 | 2,624.4 | 974.6 | 100.51 | 0.471 | 100.45 | 0.475 | 224.4 | 84.0 |
| 178 | 11.18.21 | 11.19.21 | 9.20 .41 | 0.5 | 1,200 | 3,629.8 | 960.0 | 100.64 | 0.464 | 100.60 | 0.466 | 239.0 | 12.0 |
| 178 | 12.16.21 | 12.17.21 | 9.20 .41 | 0.5 | 1,200 | 3,623.2 | 990.6 | 100.86 | 0.452 | 100.80 | 0.455 | 208.6 | 90.2 |
| 179 | 1.14 .22 | 1.17.22 | 12.20 .41 | 0.5 | 1,200 | 3,102.0 | 975.8 | 99.41 | 0.532 | 99.35 | 0.536 | 223.2 | 72.2 |
| 179 | 2.17.22 | 2.18.22 | 12.20.41 | 0.5 | 1,200 | 3,293.2 | 971.0 | 95.91 | 0.736 | 95.85 | 0.739 | 228.3 | 75.4 |
| 179 | 3.10 .22 | 3.11 .22 | 12.20 .41 | 0.5 | 1,200 | 2,834.8 | 968.1 | 97.47 | 0.644 | 97.40 | 0.648 | 231.2 | 90.9 |

10-Year

| Issue <br> Number | Auction Date | Issue Date | Maturity Date | Nominal Coupon (\%) | Offering Amount (billion yen) | Amount of <br> Competivve Bids <br> (bilifion yen) | Amount of Bids Accepted (billion yen) | Average Price (yen) | Yield at the Average Price (\%) | Lowest Price (yen) | Yield at the Lowest Price (\%) | Noncompetitive (billion yen) | $\begin{gathered} \text { Non-Price } \\ \text { Competitive Auction I } \\ \text { (billion yen) } \end{gathered}$ | $\begin{aligned} & \text { Non-Price } \\ & \text { Compeetive Auction II } \\ & \text { (billion yen) } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 362 | 4.1.21 | 4.2.21 | 3.20 .31 | 0.1 | 2,600 | 7,442.4 | 2,100.5 | 99.77 | 0.123 | 99.76 | 0.124 | 2.265 | 496.4 | 248.7 |
| 362 | 5.11 .21 | 5.12.21 | 3.20 .31 | 0.1 | 2,600 | 6,410.0 | 2,109.9 | 100.27 | 0.072 | 100.25 | 0.074 | 0.295 | 489.2 | 146.0 |
| 362 | 6.3.21 | 6.4.21 | 3.20 .31 | 0.1 | 2,600 | 6,378.1 | 2,168.0 | 100.21 | 0.078 | 100.15 | 0.084 | 1.401 | 429.8 | 0.0 |
| 363 | 7.1.21 | 7.2.21 | 6.20 .31 | 0.1 | 2,600 | 7,441.3 | 2,101.6 | 100.41 | 0.058 | 100.40 | 0.059 | 1.507 | 495.7 | 249.9 |
| 363 | 8.3.21 | 8.4.21 | 6.20 .31 | 0.1 | 2,600 | 6,997.0 | 2,099.1 | 100.89 | 0.009 | 100.86 | 0.012 | 1.265 | 498.6 | 221.2 |
| 363 | 9.2.21 | 9.3.21 | 6.20 .31 | 0.1 | 2,600 | 7,092.6 | 2,112.7 | 100.75 | 0.023 | 100.73 | 0.025 | 1.280 | 484.6 | 0.0 |
| 364 | 10.5.21 | 10.6.21 | 9.20 .31 | 0.1 | 2,600 | 5,144.6 | 2,097.8 | 100.50 | 0.049 | 100.47 | 0.052 | 2.275 | 499.1 | 0.0 |
| 364 | 11.1.21 | 11.2.21 | 9.20 .31 | 0.1 | 2,600 | 6,651.3 | 2,120.5 | 99.93 | 0.107 | 99.88 | 0.112 | 0.485 | 478.5 | 234.2 |
| 364 | 12.2.21 | 12.3.21 | 9.20 .31 | 0.1 | 2,600 | 6,712.3 | 2,121.5 | 100.38 | 0.060 | 100.36 | 0.063 | 0.454 | 477.1 | 82.7 |
| 365 | 1.5.22 | 1.6.22 | 12.20 .31 | 0.1 | 2,600 | 7,254.1 | 2,097.8 | 100.03 | 0.096 | 100.02 | 0.097 | 1.367 | 499.9 | 121.0 |
| 365 | 2.1.22 | 2.2.22 | 12.20.31 | 0.1 | 2,600 | 6,890.5 | 2,108.0 | 99.27 | 0.175 | 99.26 | 0.176 | 1.385 | 489.7 | 129.1 |
| 365 | 3.1.22 | 3.2.22 | 12.20.31 | 0.1 | 2,600 | 6,834.9 | 2,112.6 | 99.23 | 0.179 | 99.22 | 0.180 | 0.350 | 486.3 | 246.5 |

10-Year Inflation-Indexed Bonds

| Issue Number | Auction Date | Issue Date | Maturity Date | Nominal Coupon (\%) | Ofiering Amount (billion yen) | Amount of <br> Competitive Bids <br> (billion yen) | Amount of Bids Accepted (billion yen) | Lowest Price (yen) | Yield at the Lowest Price (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 5.17.21 | 5.18 .21 | 3.10 .31 | 0.005 | 200 | 763.2 | 199.9 | 101.90 | © 0.185 |
| 26 | 8.5.21 | 8.6.21 | 3.10 .31 | 0.005 | 200 | 574.5 | 199.6 | 101.75 | - 0.174 |
| 26 | 11.4.21 | 11.5.21 | 3.10 .31 | 0.005 | 200 | 661.9 | 199.7 | 103.50 | - 0.357 |
| 26 | 2.8.22 | 2.9.22 | 3.10 .31 | 0.005 | 200 | 839.1 | 199.9 | 103.70 | 4 0.388 |

5-Year

| Issue Number | Auction Date | Issue Date | Maturity Date | Nominal Coupon (\%) | Offering Amount (billion yen) | Amount of <br> Competitive Bids <br> (billion yen) | A mount of Bids Accepted (billion yen) | Average Price (yen) | Yield at the Average Price <br> (\%) | Lowest Price (yen) | Yield at the Lowest Price $(\%)$ | Noncompetitive (billion yen) | Non-Pice Competitive Auction (billion yen) | Non.Pice <br> Competivive Auction II <br> (billion yen) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 147 | 4.8.21 | 4.9.21 | 3.20 .26 | 0.005 | 2,500 | 9,191.4 | 2,021.3 | 100.48 | - 0.091 | 100.46 | © 0.087 | 0.000 | 477.9 | 149.0 |
| 147 | 5.19 .21 | 5.20 .21 | 3.20 .26 | 0.005 | 2,500 | 6,825.4 | 2,068.5 | 100.50 | - 0.097 | 100.48 | - 0.093 | 0.000 | 430.9 | 10.0 |
| 147 | 6.22 .21 | 6.23 .21 | 3.20 .26 | 0.005 | 2,500 | 7,763.1 | 2,048.5 | 100.49 | - 0.097 | 100.46 | - 0.091 | 0.000 | 450.9 | 7.7 |
| 148 | 7.8.21 | 7.9.21 | 6.20 .26 | 0.005 | 2,500 | 7,192.5 | 2,035.6 | 100.60 | - 0.115 | 100.57 | - 0.109 | 0.000 | 463.6 | 10.0 |
| 148 | 8.24 .21 | 8.25 .21 | 6.20 .26 | 0.005 | 2,500 | 7,627.7 | 2,030.6 | 100.61 | 4 0.120 | 100.59 | © 0.116 | 0.000 | 468.7 | 61.2 |
| 148 | 9.9.21 | 9.10 .21 | 6.20 .26 | 0.005 | 2,500 | 8,972.0 | 2,030.4 | 100.52 | - 0.103 | 100.51 | © 0.101 | 0.000 | 468.7 | 184.5 |
| 149 | 10.14.21 | 10.15.21 | 9.20 .26 | 0.005 | 2,500 | 7,793.9 | 2,018.8 | 100.42 | ^ 0.079 | 100.41 | © 0.077 | 0.000 | 480.3 | 15.0 |
| 149 | 11.16.21 | 11.17.21 | 9.20 .26 | 0.005 | 2,500 | 9,179.1 | 2,023.1 | 100.40 | - 0.077 | 100.39 | - 0.075 | 0.000 | 475.1 | 248.0 |
| 149 | 12.9.21 | 12.10.21 | 9.20 .26 | 0.005 | 2,500 | 7,371.0 | 2,032.7 | 100.44 | - 0.086 | 100.43 | - 0.084 | 0.000 | 466.4 | 56.8 |
| 150 | 1.12.22 | 1.13 .22 | 12.20.26 | 0.005 | 2,500 | 6,757.7 | 2,025.7 | 100.23 | - 0.041 | 100.21 | - 0.037 | 0.000 | 473.9 | 0.0 |
| 150 | 2.15.22 | 2.16.22 | 12.20.26 | 0.005 | 2,500 | 6,824.3 | 2,015.3 | 99.83 | 0.040 | 99.81 | 0.044 | 0.000 | 483.9 | 0.0 |
| 150 | 3.8.22 | 3.9.22 | 12.20.26 | 0.005 | 2,500 | 6,674.9 | 2,027.9 | 100.06 | - 0.007 | 100.04 | - 0.003 | 1.000 | 470.4 | 0.0 |

2-Year

| $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Issue } \\ \text { Number } \end{array} \end{array}$ | Auction Date | Issue Date | Maturity Date | Nominal Coupon <br> (\%) | Offering Amount (billion yen) | $\begin{array}{\|c} \text { Amount of } \\ \text { Competitive Bids } \\ \text { (billion yen) } \end{array}$ | $\begin{aligned} & \text { Amount of } \\ & \text { Bids Accepted } \\ & \text { (billion yen) } \end{aligned}$ | Average Price (yen) | $\begin{gathered} \text { Yield at the } \\ \text { Average Price } \\ (\%) \end{gathered}$ | Lowest Price (yen) | Yield at the Lowest Price (\%) | Noncompetitive (billion yen) | Non-Price Competitive Auction I (billion yen) | $\begin{array}{\|l} \text { Non-Price } \\ \text { Competive Auction II } \\ \text { (billion yen) } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 424 | 4.28 .21 | 5.6.21 | 5.1.23 | 0.005 | 3,000 | 10,997.0 | 2,448.3 | 100.270 | 4 0.130 | 100.265 | © 0.128 | 0.000 | 550.8 | 15.0 |
| 425 | 5.31.21 | 6.1.21 | 6.1.23 | 0.005 | 3,000 | 9,944.2 | 2,506.1 | 100.262 | - 0.125 | 100.260 | - 0.124 | 0.000 | 493.1 | 92.4 |
| 426 | 6.29 .21 | 7.1.21 | 7.1.23 | 0.005 | 3,000 | 10,515.8 | 2,450.4 | 100.243 | - 0.116 | 100.240 | - 0.114 | 0.000 | 548.7 | 51.1 |
| 427 | 7.29.21 | 8.2.21 | 8.1.23 | 0.005 | 3,000 | 10,159.9 | 2,427.5 | 100.263 | - 0.126 | 100.255 | - 0.122 | 0.000 | 572.0 | 98.1 |
| 428 | 8.31.21 | 9.1.21 | 9.1.23 | 0.005 | 3,000 | 10,977.1 | 2,437.3 | 100.269 | - 0.129 | 100.265 | - 0.127 | 0.000 | 561.7 | 119.0 |
| 429 | 9.30 .21 | 10.1.21 | 10.1.23 | 0.005 | 3,000 | 10,569.4 | 2,490.3 | 100.242 | - 0.115 | 100.240 | - 0.114 | 0.000 | 509.1 | 100.2 |
| 430 | 10.27.21 | 11.1.21 | 11.1.23 | 0.005 | 3,000 | 10,164.9 | 2,517.4 | 100.205 | © 0.097 | 100.195 | © 0.092 | 0.000 | 482.4 | 14.6 |
| 431 | 11.30.21 | 12.1.21 | 12.1.23 | 0.005 | 3,000 | 9,942.5 | 2,453.9 | 100.253 | - 0.121 | 100.250 | 4 0.119 | 0.000 | 545.1 | 14.3 |
| 432 | 12.27.21 | 1.4.22 | 1.1.24 | 0.005 | 3,000 | 10,432.2 | 2,455.5 | 100.196 | - 0.093 | 100.190 | 4 0.090 | 0.000 | 543.6 | 169.6 |
| 433 | 1.27.22 | 2.1.22 | 2.1.24 | 0.005 | 3,000 | 9,451.2 | 2,439.4 | 100.119 | - 0.054 | 100.110 | - 0.049 | 0.000 | 559.6 | 213.5 |
| 434 | 2.25.22 | 3.1.22 | 3.1.24 | 0.005 | 3,000 | 11,026.4 | 2,418.8 | 100.051 | - 0.020 | 100.045 | © 0.017 | 0.000 | 580.3 | 216.3 |
| 435 | 3.31.22 | 4.1.22 | 4.1.24 | 0.005 | 2,800 | 12,330.2 | 2,272.1 | 100.062 | - 0.025 | 100.055 | - 0.022 | 0.000 | 527.3 | 136.6 |

T-Bills

| $\begin{array}{\|l\|} \hline \begin{array}{l} \text { lssue } \\ \text { Number } \end{array} \\ \hline \end{array}$ | Auction Date | Issue Date | Maturity Date | $\begin{array}{\|l\|} \hline \text { Ofiering Amount } \\ \text { (billion yen) } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Amount of } \\ \text { Compotive eids } \\ \text { (bilion yen) } \end{array}$ | $\begin{aligned} & \text { Amount of } \\ & \text { Bids Accepted } \\ & \text { (billion yen) } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Average Price } \\ \text { (yen) } \end{array} \\ \hline \end{array}$ | $\qquad$ | $\begin{gathered} \text { Lowest Price } \\ \text { (yen) } \end{gathered}$ | $\begin{aligned} & \text { Yield at the } \\ & \text { Lowest rice } \\ & (\%) \end{aligned}$ | $\begin{gathered} \text { Non-Price } \\ \text { Competiove Aution I } \\ \text { (bilition yen) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 984 | 4.2.21 | 4.5.21 | 7.12.21 | 6,700.0 | 16,873.20 | 5,461.94 | 100.0250 | © 0.0930 | 100.0240 | © 0.0893 | 1,238.00 |
| 985 | 4.8.21 | 4.12.21 | 10.11.21 | 3,400.0 | 13,750.10 | 2,771.63 | 100.048 | - 0.0962 | 100.048 | ¢ 0.0962 | 628.30 |
| 986 | 4.9.21 | 4.12.21 | 7.19.21 | 6,500.0 | 20,268.17 | 5,298.22 | 100.0254 | © 0.0945 | 100.0250 | © 0.0930 | 1,201.70 |
| 987 | 4.16.21 | 4.19.21 | 7.26.21 | 6,500.0 | 21,899.70 | 5,298.20 | 100.0266 | © 0.0990 | 100.0260 | © 0.0968 | 1,201.70 |
| 988 | 4.19.21 | 4.20 .21 | 4.20 .22 | 3,500.0 | 10,632.00 | 2,860.66 | 100.127 | © 0.1268 | 100.126 | ¢ 0.1258 | 639.30 |
| 989 | 4.22.21 | 4.26.21 | 10.25.21 | 3,400.0 | 14,727.80 | 2,771.64 | 100.055 | © 0.1102 | 100.054 | $\triangle 0.1082$ | 628.30 |
| 990 | 4.23.21 | 4.26.21 | 8.2.21 | 6,500.0 | 22,615.00 | 5,301.23 | 100.0278 | © 0.1035 | 100.0275 | © 0.1023 | 1,198.70 |
| 991 | 5.6.21 | 5.10 .21 | 11.10.21 | 3,400.0 | 9,585.70 | 2,772.07 | 100.055 | © 0.1090 | 100.053 | © 0.1050 | 627.90 |
| 992 | 5.7.21 | 5.10 .21 | 8.10 .21 | 6,500.0 | 17,691.60 | 5,308.82 | 100.0263 | © 0.1043 | 100.0255 | © 0.1011 | 1,191.10 |
| 993 | 5.14.21 | 5.17.21 | 8.16 .21 | 6,500.0 | 21,177.79 | 5,307.81 | 100.0249 | © 0.0998 | 100.0245 | - 0.0982 | 1,192.10 |
| 994 | 5.19.21 | 5.20 .21 | 5.20.22 | 3,500.0 | 9,882.40 | 2,867.43 | 100.122 | ¢ 0.1218 | 100.120 | © 0.1198 | 632.50 |
| 995 | 5.21 .21 | 5.24.21 | 8.23.21 | 6,300.0 | 24,201.65 | 5,143.85 | 100.0261 | © 0.1046 | 100.0260 | $\triangle 0.1042$ | 1,156.10 |
| 996 | 5.24.21 | 5.25.21 | 11.25.21 | 3,400.0 | 13,164.50 | 2,777.20 | 100.055 | © 0.1090 | 100.054 | © 0.1070 | 622.70 |
| 997 | 5.28.21 | 5.31.21 | 8.30.21 | 6,300.0 | 18,220.40 | 5,143.83 | 100.0280 | © 0.1122 | 100.0265 | © 0.1062 | 1,156.10 |
| 998 | 6.4.21 | 6.7.21 | 9.6.21 | 6,300.0 | 17,894.39 | 5,143.82 | 100.0254 | © 0.1018 | 100.0245 | © 0.0982 | 1,156.10 |
| 999 | 6.9.21 | 6.10.21 | 12.10.21 | 3,400.0 | 11,376.00 | 2,776.23 | 100.051 | © 0.1016 | 100.050 | ¢ 0.0996 | 623.70 |
| 1000 | 6.11.21 | 6.14 .21 | 9.13 .21 | 6,000.0 | 18,472.95 | 4,898.91 | 100.0255 | © 0.1022 | 100.0245 | © 0.0982 | 1,101.00 |
| 1001 | 6.15 .21 | 6.16 .21 | 12.16.21 | 3,400.0 | 12,949.40 | 2,776.22 | 100.052 | © 0.1036 | 100.050 | © 0.0996 | 623.70 |
| 1002 | 6.16 .21 | 6.21 .21 | 6.20 .22 | 3,500.0 | 8,585.70 | 2,857.47 | 100.116 | © 0.1161 | 100.109 | © 0.1091 | 642.40 |
| 1003 | 6.17 .21 | 6.21 .21 | 9.21 .21 | 6,000.0 | 17,656.73 | 4,898.40 | 100.0255 | © 0.1011 | 100.0250 | © 0.0991 | 1,101.50 |
| 1004 | 6.25.21 | 6.28.21 | 9.27 .21 | 6,000.0 | 18,288.43 | 4,902.39 | 100.0245 | © 0.0982 | 100.0240 | © 0.0962 | 1,097.50 |
| 1005 | 7.2.21 | 7.5.21 | 10.4.21 | 6,000.0 | 15,479.70 | 4,886.62 | 100.0249 | ¢ 0.0998 | 100.0240 | © 0.0962 | 1,113.30 |
| 1006 | 7.8.21 | 7.12.21 | 1.11.22 | 3,400.0 | 13,019.30 | 2,769.97 | 100.056 | © 0.1116 | 100.055 | © 0.1096 | 630.00 |
| 1007 | 7.9.21 | 7.12.21 | 10.11.21 | 5,300.0 | 13,966.60 | 4,316.17 | 100.0259 | ¢ 0.1038 | 100.0250 | $\triangle 0.1002$ | 983.80 |
| 1008 | 7.15.21 | 7.19.21 | 10.18.21 | 5,300.0 | 21,068.15 | 4,315.68 | 100.0267 | © 0.1070 | 100.0265 | © 0.1062 | 984.30 |
| 1009 | 7.19.21 | 7.20 .21 | 7.20.22 | 3,500.0 | 12,005.80 | 2,853.07 | 100.118 | © 0.1178 | 100.118 | 4 0.1178 | 646.90 |
| 1010 | 7.20.21 | 7.26.21 | 1.25.22 | 3,400.0 | 12,038.40 | 2,768.95 | 100.061 | © 0.1215 | 100.059 | © 0.1176 | 631.00 |
| 1011 | 7.21 .21 | 7.26 .21 | 10.25.21 | 5,300.0 | 15,344.33 | 4,333.12 | 100.0274 | © 0.1098 | 100.0260 | © 0.1042 | 966.80 |
| 1012 | 7.30.21 | 8.2.21 | 11.1.21 | 5,300.0 | 16,818.60 | 4,317.40 | 100.0265 | © 0.1062 | 100.0255 | © 0.1022 | 982.50 |


| Ssine | Auction Date | Issue Date | Maturit Date | Offering Amount (billion yen) |  |  | $\begin{array}{\|c\|} \hline \text { Average Price } \\ \text { (yen) } \end{array}$ |  | Lowest Price (yen) |  | Non-Price Competitive Auction (billion yen) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1013 | 8.5.21 | 8.10.21 | 2.10.22 | 3,400.0 | 12,098.60 | 2,764.06 | 100.060 | 4 0.1189 | 100.060 | प 0.1189 | 635.90 |
| 1014 | 8.6.21 | 8.10.21 | 11.8.21 | 5,000.0 | 19,743.85 | 4,061.30 | 100.0273 | 4 0.1106 | 100.0265 | 40.1074 | 38.6 |
| 1015 | 8.13.21 | 8.16.21 | 11.15.21 | 5,000.0 | 21,560.40 | 4,061.85 | 100.0280 | - 0.1122 | 100.0280 | - 0.1122 | 938.10 |
| 1016 | 8.19.21 | 8.20.21 | 8.22.22 | 3,500.0 | 11,984,20 | 2,844.07 | 100.133 | 40.1320 | 100.128 | 4 0.1271 | 655.90 |
| 1017 | 8.20.21 | 8.23.21 | 11.22.21 | 5,000.0 | 20,406.20 | 4,061.24 | 100.0309 | - 0.1239 | 100.0290 | - 0.1162 | 938.70 |
| 1018 | 8.24.21 | 8.25.21 | 2.25.22 | 3,400.0 | 15,061.70 | 2,765.85 | 100.066 | 40.1308 | 100.063 | 40.1248 | 634.10 |
| 1019 | 8.27.21 | 8.30.21 | 11.29.21 | 5,000.0 | 18,547.40 | 4,061.86 | 100.0300 | 4 0.1202 | 100.0290 | - 0.1162 | 938.10 |
| 1020 | 9.3.21 | 9.6.21 | 12.6.21 | 5.000 .0 | 18,263.39 | 4,061.84 | 100.0298 | 4 0.1194 | 100.0285 | - 0.1142 | 38.10 |
| 1021 | 9.9.21 | 9.10.21 | 3.10.22 | 3,400.0 | 10,001.50 | 2,763.05 | 100.059 | - 0.1189 | 100.058 | 4 0.1168 | 636.9 |
| 1022 | 9.10.21 | 9.13.21 | 12.13.21 | 5,000.0 | 16,844.90 | 4,061.84 | 100.0293 | A 0.1174 | 100.0280 | 40.1122 | 8.10 |
| 1023 | 9.16.21 | 9.21.21 | 9.20.22 | 3,500.0 | 9,498.60 | 2,884.07 | 100.116 | 4 0.1161 | 100.110 | 4 0.1101 | 615.90 |
| 1024 | 9.17.21 | 9.21.21 | 12.20.21 | 5,000.0 | 18,916.20 | 4,061.85 | 100.0280 | 4 0.1135 | 100.0270 | - 0.1094 | 938.10 |
| 1025 | 9.21.21 | 9.27.21 | 3.25.22 | 3,400.0 | 13,693.50 | 2,763.55 | 100.056 | 40.1141 | 100.054 | 40.1100 | 636.40 |
| 1026 | 9.24.21 | 9.27.21 | 1.6.22 | 5,000.0 | 15,497.42 | 4,072.96 | 100.0383 | 40.1383 | 100.0360 | 40.1300 | 927.00 |
| 1027 | 10.1.21 | 10.4.21 | 1.11.22 | 5,000.0 | 15,503.50 | 4,061.35 | 100.0361 | $\triangle 0.1330$ | 100.0345 | - 0.1271 | 938.60 |
| 1028 | 10.7.21 | 10.11.21 | 4.11.22 | 3,450.0 | 12,092.60 | 2,805.83 | 100.057 | 40.1142 | 100.055 | 4 0.1102 | 644.10 |
| 1029 | 10.8.21 | 10.11.21 | 1.17.22 | 5,000.0 | 11,914.70 | 4,061.38 | 100.0322 | 40.1198 | 100.0295 | 40.1098 | 938.60 |
| 1030 | 10.15.21 | 10.18.21 | 1.24.22 | 5,000.0 | 20,713.40 | 4,061.30 | 100.0315 | 40.1172 | 100.0300 | © 0.1117 | 938.60 |
| 1031 | 10.19.21 | 10.20.21 | 10.20.22 | 3,500.0 | 12,856.40 | 2,891.55 | 100.110 | 40.1098 | 100.109 | - 0.1088 | 688.40 |
| 1032 | 10.21.21 | 10.25.21 | 4.25.22 | 3,450.0 | 15,294.00 | 2,823.33 | 100.053 | $\Delta 0.1062$ | 100.053 | 4 0.1062 | 626.60 |
| 1033 | 10.22.21 | 10.25.21 | 1.31.22 | 5,000.0 | 18,413.80 | 4,061.34 | 100.0295 | - 0.1098 | 100.0285 | - 0.1061 | 938.60 |
| 1034 | 10.29.21 | 111.1.21 | 2.7.22 | 5,000.0 | 20,207.90 | 4,062.33 | 100.0307 | 40.1143 | 100.0300 | 40.1117 | 937.60 |
| 1035 | 11.5.21 | 11.8.21 | 2.14.22 | 4,300.0 | 16,098.90 | 3,498.03 | 100.0326 | 40.1213 | 100.0315 | - 0.1172 | 801.90 |
| 1036 | 11.9.21 | 11.10.21 | 5.10.22 | 450.0 | 10,612.10 | 2,818.85 | 100.058 | 40.1168 | 100.056 | 40.1128 | 631.10 |
| 1037 | 11.12.21 | 11.15.21 | 2.21.22 | 4,300.0 | 17,403.60 | 3,498.07 | 100.0333 | 40.1239 | 100.0325 | 40.1210 | 801.90 |
| 1038 | 11.18.21 | 11.22.21 | 11.21.22 | 3,500.0 | 10,747.90 | 2,847.86 | 100.126 | 40.1261 | 100.124 | 40.1241 | 652.10 |
| 1039 | 11.19.21 | 11.22.21 | 2.28.22 | 4,300.0 | 17,194.80 | 3,498.09 | 100.0373 | 40.1388 | 100.0370 | - 0.1377 | 801.90 |
| 1040 | 11.24.21 | 11.25.21 | 5.25.22 | 3,450.0 | 13,904.30 | 2,806.88 | 100.068 | 40.1370 | 100.066 | ( 0.1330 | 643.10 |
| 1041 | 11.26.21 | 11.29.21 | 3.7.22 | 4,300.0 | 14,451.40 | 3,498.06 | 100.0408 | 4 0.1518 | 100.0395 | 40.1470 | 801.90 |
| 1042 | 12.3.21 | 12.6.21 | 3.14.22 | 4,300.0 | 13,224.60 | 3,498.06 | 100.0417 | 40.1552 | 100.0390 | - 0.1451 | 801.90 |
| 1043 | 12.9.21 | 12.10.21 | 6.10.22 | 3,450.0 | 9,702.30 | 2,806.87 | 100.055 | 40.1102 | 100.053 | - 0.1062 | 643.10 |
| 1044 | 12.10.21 | 12.13.21 | 3.22.22 | 4,300.0 | 13,733.00 | 3,498.06 | 100.0316 | 40.1164 | 100.0290 | 40.1068 | 801.90 |
| 1045 | 12.14.21 | 12.16.21 | 6.16.22 | 3,450.0 | 12,806.20 | 2,806.86 | 100.054 | 40.1082 | 100.053 | - 0.1062 | 643.10 |
| 1046 | 12.15.21 | 12.20.21 | 12.20.22 | 3,500.0 | 10,520.60 | 2,857.37 | 100.109 | 40.1088 | 100.107 | 40.1068 | 642.60 |
| 1047 | 12.16.21 | 12.20.21 | 3.28.22 | 4,300.0 | 15,636.40 | 3,498.05 | 100.0303 | 40.1128 | 100.0295 | A 0.1098 | 801.90 |
| 1048 | 1.5.22 | 1.6.22 | 4.4.22 | 5,000.0 | 12,656.70 | 4,066.66 | 100.0285 | $\Delta 0.1181$ | 100.0260 | А 0.1078 | 933.30 |
| 1049 | 1.6.22 | 1.11.22 | 7.11.22 | 3,450.0 | 10,477.80 | 2,806.84 | 100.053 | 40.1068 | 100.049 | 40.0987 | 643.10 |
| 1050 | 1.7.22 | 1.11.22 | 4.11.22 | 5,000.0 | 11,942.60 | 4,066.68 | 100.0260 | 40.1054 | 100.0245 | 40.0993 | 933.30 |
| 1051 | 1.14.22 | 1.17.22 | 4.18.22 | 5,000.0 | 12,023.85 | 4,066.26 | 100.0242 | 40.0970 | 100.0230 | $\triangle 0.0922$ | 933.70 |
| 1052 | 1.19.22 | 1.20.22 | 1.20.23 | 3,500.0 | 9,010.60 | 2,847.86 | 100.091 | 40.0909 | 100.088 | \0.0879 | 652.10 |
| 1053 | 1.21.22 | 1.24.22 | 4.25.22 | 5,000.0 | 13,681.20 | 4,066.71 | 100.0229 | 40.0918 | 100.0220 | - 0.0882 | 933.20 |
| 1054 | 1.24.22 | 1.25.22 | 7.25.22 | 3,450.0 | 12,433.10 | 2,815.45 | 100.045 | 40.0907 | 100.043 | - 0.0866 | 634.50 |
| 1055 | 1.28 .22 | 1.31.22 | 5.9.22 | 5,000.0 | 15,270.30 | 4,066.77 | 100.0248 | - 0.0923 | 100.0240 | 40.0893 | 933.20 |
| 1056 | 2.4.22 | 2.7.22 | 5.16 .22 | 5,000.0 | 13,179.15 | 4,053.16 | 100.0260 | 40.0968 | 100.0250 | 40.0930 | 946.80 |
| 1057 | 2.9.22 | 2.10.22 | 8.10.22 | 3,400.0 | 9,776.00 | 2,756.51 | 100.045 | 40.0907 | 100.043 | - 0.0866 | 643.40 |
| 1058 | 2.10.22 | 2.14.22 | 5.23.22 | 5,700.0 | 11,559.70 | 4,620.96 | 100.0244 | $\triangle 0.0908$ | 100.0220 | - 0.0819 | 1,079.00 |
| 1059 | 2.17.22 | 2.21.22 | 2.20.23 | 3,500.0 | 8,025.60 | 2,937.67 | 100.055 | - 0.0551 | 100.049 | - 0.0491 | 562.3 |
| 1060 | 2.18.22 | 2.21.22 | 5.30.22 | 5,700.0 | 12,935.90 | 4,620.93 | 100.0220 | 40.0819 | 100.0205 | - 0.0763 | 1,079.00 |
| 1061 | 2.24.22 | 2.25.22 | 8.25.22 | 3,400.0 | 11,266.20 | 2,756.59 | 100.038 | 40.0766 | 100.038 | - 0.0766 | 643.40 |
| 1062 | 2.25.22 | 2.28.22 | 6.6.22 | 5,700.0 | 14,307.30 | 4,620.96 | 100.0243 | \0.0904 | 100.0225 | \0.0837 | 1,079.00 |
| 1063 | 3.4.22 | 3.7.22 | 6.13 .22 | 5,700.0 | 11,504.60 | 4,620.92 | 100.0251 | 40.0934 | 100.0230 | - 0.0856 | 1,079.00 |
| 1064 | 3.9.22 | 3.10.22 | 9.12.22 | 3,400.0 | 9,641.90 | 2,756.57 | 100.042 | 40.0823 | 100.041 | 4 0.0804 | 643.40 |
| 1065 | 3.11.22 | 3.14.22 | 6.20.22 | 5,700.0 | 11,666.30 | 4,620.41 | 100.0235 | 4 0.0875 | 100.0215 | - 0.0800 | 1,079.50 |
| 1066 | 3.16.22 | 3.22.22 | 3.20.23 | 3,500.0 | 9,589.90 | 2,837.61 | 100.060 | 40.0602 | 100.055 | $\triangle 0.0552$ | 662.30 |
| 1067 | 3.17.22 | 3.22.22 | 6.27 .22 | 5,700.0 | 12,660.30 | 4,624.39 | 100.0206 | $\Delta 0.0774$ | 100.0200 | - 0.0752 | 1,075.50 |
| 1068 | 3.24.22 | 3.25.22 | 9.26.22 | 3,400.0 | 10,812.30 | 2,756.26 | 100.039 | 40.0769 | 100.039 | - 0.0769 | 643.70 |
| 1069 | 3.25.22 | 3.28.22 | 7.4.22 | 5,700.0 | 13,570.40 | 4,620.44 | 100.0219 | 40.0815 | 100.0215 | \0.0800 | 1,079.50 |

(4) Issuance Amount of JGBs and T-Bills Offered to the Market at Each Auction JGBs


T-Bills

(5) Principal/Coupon Payment Corresponding to Days of Issuance in FY2022

5, 10, 20, 30-Year Bonds

| Month of Issuance | Initial Coupon Payment Month | Coupon Payment Months | Month of Redemption | Maturity |
| :---: | :---: | :---: | :---: | :---: |
| April | September | March, September | March | Maturity -1 month |
| May | September | March, September | March | Maturity -2 months |
| June | September | March, September | March | Maturity -3 months |
| July | December | June, December | June | Maturity -1 month |
| August | December | June, December | J une | Maturity -2 months |
| September | December | J une, December | J une | Maturity -3 months |
| October | March | March, September | September | Maturity -1 month |
| November | March | March, September | September | Maturity -2 months |
| December | March | March, September | September | Maturity -3 months |
| January | June | June, December | December | Maturity -1 month |
| February | June | June, December | December | Maturity -2 months |
| March | June | June, December | December | Maturity -3 months |

Note 1: The coupon payment date and the redemption date are the twentieth of the month.
Note 2: Issuance shall occur on $\mathrm{T}+1$ (day of auction +1 business day).

2-Year Bonds

| Month of Issuance | Initial Coupon Payment Month | Coupon Payment Months | Month of Redemption | Maturity |
| :---: | :---: | :---: | :---: | :---: |
| April | October | April, October | April | As for term |
| May | November | May, November | May | As for term |
| June | December | June, December | J une | As for term |
| July | J anuary | January, July | July | As for term |
| August | February | February, August | August | As for term |
| September | March | March, September | September | As for term |
| October | April | April, October | October | As for term |
| November | May | May, November | November | As for term |
| December | June | June, December | December | As for term |
| January | July | January, July | January | As for term |
| February | August | February, August | February | As for term |
| March | September | March, September | March | As for term |

Note 1: The coupon payment date and redemption date are the first of the month.
Note 2: With regard to establishing the day of issuance, as a rule, issuance shall occur on the first of the month.

40-Year Bonds

| Month of Issuance | Initial Coupon Payment Month | Coupon Payment Months | Month of Redemption | Maturity |
| :---: | :---: | :---: | :---: | :---: |
| May | September | March, September | March | Maturity -2 months |
| J uly | September | March, September | March | Maturity -4 months |
| September | March | March, September | March | Maturity -6 months |
| November | March | March, September | March | Maturity -8 months |
| January | March | March, September | March | Maturity -10 months |
| March | September | March, September | March | Maturity -12 months |

Note 1: The coupon payment date and redemption date are the twentieth of the month.
Note 2: Issuance shall occur on $T+1$ (day of auction +1 business day).

10-Year Inflation-Indexed Bonds

| Month of Issuance | Intial Coupon Payment Month | Coupon Payment Months | Month of Redemption | Maturity |
| :---: | :---: | :---: | :---: | :---: |
| May | September | March, September | March | Maturity -2 months |
| August | September | March, September | March | Maturity -5 months |
| November | March | March, September | March | Maturity -8 months |
| February | March | March, September | March | Maturity -11 months |

[^16](6) Successful Bids Share for JGBs by Investor Type in FY2021

|  | Securities |  |  |  |  |  | Insurance | Short-Term Credit |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Co | Domestic | Foreign |  | Domestic | Foreign | Companies | Finance Companies |  |  |
| 2-Year | 24,017.8 | 18,238.4 | 5,779.4 | 5,437.3 | 5,437.3 | 0.0 | 0.0 | 43.7 | 0.0 | 29,498.8 |
| Share | 81.4 | 61.8 | 19.6 | 18.4 | 18.4 | 0.0 | 0.0 | 0.1 | 0.0 | 100.0 |
| 5-Year | 21,388.5 | 13,862.7 | 7,525.8 | 2,989.9 | 2,989.9 | 0.0 | 0.0 | 0.0 | 0.0 | 24,378.4 |
| Share | 87.7 | 56.9 | 30.9 | 12.3 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| 10-Year | 22,332.6 | 14,359.5 | 7,973.1 | 3,017.4 | 3,017.4 | 0.0 | 0.0 | 0.0 | 0.0 | 25,350.0 |
| Share | 88.1 | 56.6 | 31.5 | 11.9 | 11.9 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| 20-Year | 8,742.3 | 5,675.7 | 3,066.6 | 2,864.1 | 2,864.1 | 0.0 | 0.0 | 0.0 | 77.2 | 11,683.6 |
| Share | 74.8 | 48.6 | 26.2 | 24.5 | 24.5 | 0.0 | 0.0 | 0.0 | 0.7 | 100.0 |
| 30-Year | 7,916.2 | 4,559.6 | 3,356.6 | 561.6 | 561.6 | 0.0 | 288.4 | 0.0 | 0.0 | 8,766.2 |
| Share | 90.3 | 52.0 | 38.3 | 6.4 | 6.4 | 0.0 | 3.3 | 0.0 | 0.0 | 100.0 |
| 40-Year | 3,537.8 | 1,831.2 | 1,706.6 | 32.0 | 32.0 | 0.0 | 26.5 | 0.0 | 0.0 | 3,596.3 |
| Share | 98.4 | 50.9 | 47.5 | 0.9 | 0.9 | 0.0 | 0.7 | 0.0 | 0.0 | 100.0 |
| 10-Year JGBi | 594.1 | 200.8 | 393.3 | 205.0 | 205.0 | 0.0 | 0.0 | 0.0 | 0.0 | 799.1 |
| Share | 74.3 | 25.1 | 49.2 | 25.7 | 25.7 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| T-Bills | 261,627.9 | 171,962.1 | 89,665.8 | 51,741.2 | 51,327.0 | 414.2 | 0.0 | 4,879.6 | 1,205.9 | 319,454.5 |
| Share | 81.9 | 53.8 | 28.1 | 16.2 | 16.1 | 0.1 | 0.0 | 1.5 | 0.4 | 100.0 |

[^17](7) Issuance of JGBs for Retail Investors

| Month of issue | 3-Year Fixed-Rate |  | 5-Year Fixed-Rate |  | 10-Year Floating-Rate |  | Total | Month of issue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (interestrate) |  | (interestrale) |  | (stinecestata) |  |  |
| Apr-12 | 46.9 | ( 0.12\%) | 97.3 | ( 0.27\%) | 240.6 | ( 0.64\%) | 384.8 | Jul-18 |
| May-12 | 84.2 | ( 0.14\%) | - | - | - | - | 84.2 | Aug-18 |
| Jun-12 | 38.6 | (0.10\%) | - | - | - | - | 38.6 | Sep-18 |
| Jul-12 | 33.5 | ( 0.07\%) | 82.7 | ( 0.19\%) | 403.3 | ( 0.57\%) | 519.5 | Oct-18 |
| Aug-12 | 54.2 | ( 0.07\%) | - | - | - | - | 54.2 | Nov-18 |
| Sep-12 | 26.9 | (0.07\%) | - | - | - | - | 26.9 | Dec-18 |
| Oct-12 | 23.3 | ( 0.07\%) | 57.6 | ( 0.17\%) | 222.5 | ( 0.53\%) | 303.4 | Jan-19 |
| Nov-12 | 43.9 | ( 0.07\%) | - | - | - | - | 43.9 | Feb-19 |
| Dec-12 | 18.0 | ( 0.07\%) | - | - | - | - | 18.0 | Mar-19 |
| Jan-13 | 26.2 | (0.07\%) | 49.4 | (0.13\%) | 278.3 | ( 0.48\%) | 353.9 | Apr-19 |
| Feb-13 | 32.5 | (0.07\%) | - | - | - | - | 32.5 | May-19 |
| Mar-13 | 14.9 | ( 0.05\%) | - | - | - | - | 14.9 | Jun-19 |
| Apr-13 | 28.1 | (0.05\%) | 14.5 | (0.06\%) | 207.1 | ( 0.42\%) | 249.7 | Jul-19 |
| May-13 | 26.2 | (0.05\%) | - | - | - | - | 26.2 | Aug-19 |
| Jun-13 | 33.3 | ( 0.12\%) | - | - | - | - | 33.3 | Sep-19 |
| Jul-13 | 41.5 | ( 0.14\%) | 128.6 | (0.30\%) | 296.6 | (0.57\%) | 466.8 | Oct-19 |
| Aug-13 | 91.7 | ( 0.14\%) | - | - | - | - | 91.7 | Nov-19 |
| Sep-13 | 94.3 | (0.12\%) | - | - | - | - | 94.3 | Dec-19 |
| Oct-13 | 89.0 | ( 0.11\%) | 137.9 | ( 0.24\%) | 666.1 | ( 0.51\%) | 893.0 | Jan-20 |
| Nov-13 | 107.9 | (0.10\%) | - | - | - | - | 107.9 | Feb-20 |
| Dec-13 | 34.1 | ( 0.10\%) | - | - | - | - | 34.1 | Mar-20 |
| Jan-14 | 67.1 | ( 0.08\%) | 77.9 | (0.15\%) | 625.3 | (0.43\%) | 770.3 | Apr-20 |
| Feb-14 | 44.8 | ( 0.09\%) | 62.1 | (0.17\%) | 235.5 | (0.48\%) | 342.4 | May-20 |
| Mar-14 | 36.5 | ( 0.08\%) | 36.8 | (0.15\%) | 166.2 | (0.40\%) | 239.5 | Jun-20 |
| Apr-14 | 46.9 | ( 0.07\%) | 52.3 | (0.14\%) | 265.7 | (0.40\%) | 364.9 | Jul-20 |
| May-14 | 43.7 | ( 0.08\%) | 64.6 | (0.15\%) | 210.0 | (0.42\%) | 318.4 | Aug-20 |
| Jun-14 | 27.7 | ( 0.08\%) | 33.1 | (0.14\%) | 96.3 | (0.40\%) | 157.1 | Sep-20 |
| Jul-14 | 37.0 | ( 0.07\%) | 53.8 | (0.14\%) | 256.2 | (0.40\%) | 347.0 | Oct-20 |
| Aug-14 | 35.8 | ( 0.06\%) | 65.4 | (0.12\%) | 169.3 | (0.37\%) | 270.5 | Nov-20 |
| Sep-14 | 25.8 | ( 0.06\%) | 29.0 | (0.10\%) | 125.0 | (0.34\%) | 179.8 | Dec-20 |
| Oct-14 | 25.0 | ( 0.06\%) | 42.0 | ( 0.12\%) | 163.3 | (0.34\%) | 230.3 | Jan-21 |
| Nov-14 | 24.8 | ( 0.05\%) | 53.9 | (0.11\%) | 142.8 | (0.34\%) | 221.5 | Feb-21 |
| Dec-14 | 17.4 | ( 0.05\%) | 14.8 | (0.08\%) | 63.4 | (0.29\%) | 95.7 | Mar-21 |
| Jan-15 | 30.4 | ( 0.05\%) | 9.6 | (0.05\%) | 139.1 | (0.31\%) | 179.0 | Apr-21 |
| Feb-15 | 41.8 | ( 0.05\%) | 10.3 | (0.05\%) | 92.4 | (0.20\%) | 144.5 | May-21 |
| Mar-15 | 29.2 | ( 0.05\%) | 4.0 | (0.05\%) | 90.8 | (0.20\%) | 124.1 | Jun-21 |
| Apr-15 | 27.5 | ( 0.05\%) | 11.8 | (0.05\%) | 135.5 | (0.26\%) | 174.8 | Jul-21 |
| May-15 | 40.7 | ( 0.05\%) | 15.2 | (0.05\%) | 127.8 | (0.24\%) | 183.7 | Aug-21 |
| Jun-15 | 20.5 | ( 0.05\%) | 11.1 | (0.08\%) | 114.9 | (0.28\%) | 146.6 | Sep-21 |
| Jul-15 | 28.7 | ( 0.05\%) | 8.2 | (0.05\%) | 159.3 | (0.30\%) | 196.3 | Oct-21 |
| Aug-15 | 19.2 | ( 0.05\%) | 31.1 | (0.09\%) | 175.3 | (0.34\%) | 225.5 | Nov-21 |
| Sep-15 | 20.2 | ( 0.05\%) | 7.2 | (0.05\%) | 132.6 | (0.26\%) | 160.1 | Dec-21 |
| Oct-15 | 19.3 | ( 0.05\%) | 9.2 | (0.05\%) | 131.0 | (0.28\%) | 159.5 | Jan-22 |
| Nov-15 | 21.8 | ( 0.05\%) | 12.9 | (0.05\%) | 147.6 | (0.22\%) | 182.3 | Feb-22 |
| Dec-15 | 14.5 | (0.05\%) | 3.7 | (0.05\%) | 54.7 | (0.21\%) | 72.9 | Mar-22 |

(Unit: billion yen)



〈FY Total〉

|  | 3-Year Fixed-Rate | 5-Year Fixed-Rate | 10-Year Floating-Rate | Total |
| :---: | ---: | ---: | ---: | ---: |
| FY2002 | - | - | 383.5 | 383.5 |
| FY2003 | - | - | $2,967.1$ | $2,967.1$ |
| FY2004 | - | - | $6,821.0$ | $6,821.0$ |
| FY2005 | - | $1,128.5$ | $6,142.7$ | $7,271.2$ |
| FY2006 | - | $4,162.7$ | $2,975.6$ | $7,138.3$ |
| FY2007 | - | $3,617.7$ | $1,044.0$ | $4,661.7$ |
| FY2008 | - | $2,051.9$ | 241.0 | $2,292.9$ |
| FY2009 | - | $1,193.9$ | 165.9 | $1,359.8$ |
| FY2010 | 462.0 | 422.1 | 143.7 | $1,027.8$ |
| FY2011 | $1,059.0$ | 756.5 | $1,117.8$ | $2,933.4$ |
| Issued in FY2012 | 169.7 | 97.3 | 240.6 | 507.6 |
| FY2012 | 361.0 | 204.2 | $1,111.2$ | $1,676.4$ |
| Issued in FY2013 | 87.6 | 14.5 | 207.1 | 309.3 |
| FY2013 | 606.9 | 443.3 | $1,989.7$ | $3,039.9$ |
| FY2014 | 385.4 | 432.8 | $1,814.4$ | $2,632.6$ |
| FY2015 | 285.8 | 168.1 | $1,682.8$ | $2,136.7$ |
| FY2016 | 533.9 | $1,251.0$ | $2,770.7$ | $4,555.6$ |
| FY2017 | 538.5 | 226.8 | $2,684.0$ | $3,449.3$ |
| FY2018 | 461.0 | 196.0 | $4,035.7$ | $4,692.7$ |
| FY2019 | 675.3 | 251.6 | $4,321.5$ | $5,248.4$ |
| FY2020 | 692.6 | 205.7 | $2,130.7$ | $3,029.0$ |
| FY2021 | 523.1 | 230.2 | 2219.5 | 2972.8 |

Note 1: From J anuary 2012 to J une 2013, J GBs for Retail Investors have been issued as Reconstruction Bonds.
Note 2: J GBs for Retail Investors issued from April to J une 2012 were posted under revenues in FY2011 and issued from April to J une 2013 were posted under revenues in FY2012, because Reconstruction Bonds are accepted to be issued between accounting adjustment term.
Note 3: Amounts of 10-Year Floating-Rate JGBs issued for FY2011 and FY2012 include those of Reconstruction Supporters' Bonds for Retail Investors.
(8) Issuance by the Bank of Japan Rollover

Note: Figures are calculated on a revenue basis. Up to FY2021; Actual, FY2022; Initial.
(9) Front-Loading Issuance of Refunding Bonds

|  | Maximum Amount of Issuance (Face Value) | Issuance Amount (Revenue Basis) |
| :---: | :---: | :---: |
| FY2012 (Issued in FY 2011) | 12,000.0 | 9,647.3 |
| $\begin{gathered} \text { FY2013 } \\ \text { (Issued in FY2012) } \end{gathered}$ | 12,000.0 | 11,360.7 |
| FY2014 (Issued in FY2013) | 28,000.0 (initial plan: 20,000.0) | 23,275.8 |
| FY2015 (Issued in FY 2014) | 29,000.0 (initial plan: 25,000.0) | 28,834.1 |
| $\begin{gathered} \text { FY2016 } \\ \text { (Issued in FY2015) } \end{gathered}$ | 44,000.0 (intital plan: 32,000.0) | 42,250.9 |
| $\begin{gathered} \text { FY2017 } \\ \text { (Issued in FY2016) } \end{gathered}$ | 56,000.0 (initial plan: 48,000.0) | 45,104.6 |
| $\begin{gathered} \text { FY } 2018 \\ \text { (Issued in FY2017) } \end{gathered}$ | 56,000.0 | 49,440.7 |
| FY2019 (Issued in FY2018) | 55,000.0 | 52,463.1 |
| $\begin{gathered} \text { FY2020 } \\ \text { (Issued in FY2019) } \end{gathered}$ | 53,000.0 | 45,082.7 |
| $\begin{gathered} \text { FY2021 } \\ \text { (Issued in FY2020) } \end{gathered}$ | 43,000.0 | 9,372.6 |
| $\begin{gathered} \text { FY2022 } \\ \text { (Issued in FY2021) } \end{gathered}$ | 20,000.0 | 15,135.8 |
| $\begin{gathered} \text { FY2023 } \\ \text { (Issued in FY2022) } \end{gathered}$ | 20,000.0 | - |

Note: Refunding Bonds issued in order to refinance JGBs that will mature in $F Y X$ are basically issued in $F Y$ X, but they can be issued in $F Y$ X-1 within an upper limit authorized by the General Rules for the Special Account Budget of FY X-1. This kind of issuance is called Front-Loading Issuance of Refunding Bonds.

## III

(10) List of Commissions for Issuing JGBs, etc.

| Categories |  | Calculation Formula | Payable to |
| :---: | :---: | :---: | :---: |
| Bond Sales Fee (New OTC Sales J GBs) | 10-Year | 0.20 yen per 100 yen nominal par | Handling Institutions |
|  | 5-Year | 0.15 yen per 100 yen nominal par |  |
|  | 2-Year | 0.10 yen per 100 yen nominal par |  |
| Bond Sales Fee (J GBs for R etail Investors) | 10-Year Floating Rate | 0.14 yen per 100 yen nominal par | Handling Institutions |
|  | 5-Year Fixed Rate | 0.11 yen per 100 yen nominal par |  |
|  | 3-Year Fixed Rate | 0.08 yen per 100 yen nominal par |  |
| Bond Issuance Fee |  | Necessary fee amount permitted by the Minister of Finance | Bank of J apan |
| Management Fee (J GBs for Retail Investors) |  | Principal receivable at interest payment $\times$ 2/10,000 <br> Except for JGBs held at a self-account (except for trust account) | Handling Institutions |
| Interest P ayment Fee |  | Principal receivable at interest payment $\times$ 0.006/1,000 <br> Except for JGBs held at a self-account (except for trust account) | BOJ Agents, etc. |
| Redemption Fee | Treasury Bills Financing Bills | Redemption proceeds receivable $\times$ 0.9/1,000,000 <br> However, the following upper limit is a pplicable to fees per J GB category Self-account: 10,000 yen; and customer account: 15,000 yen | BOJ Agents, etc. |
|  | Except for Above | Principal receivable $\times 0.006 / 1,000$ Except for JGBs held at a self-account (except for trust account) |  |
| Premature Redemption Fee (J GBs for Retail Investors) |  | J GB purchase amount payable $\times$ 0.9/1,000 | Handling Institutions |
| Subsidy J GBs Delivery Fee |  | 357 yen per JGB certificate | BOJ Agents, etc. |
| Subsidy J GBs Redemption Fee$\left(\begin{array}{l} \text { Interest Payment Fee } \\ \text { Principal/Interest Payment Fee } \\ \text { R edemption Amount Payment Fee } \end{array}\right)$ |  | 378 yen per interest coupon or attached coupon | BOJ Agents, etc. |
| Subsidy JGBs Buy-Back Redemption Fee |  | 1,282 yen per JGB certificate | BOJ Agents, etc. |

[^18]
## 2 Secondary Market for Govermment Bonds

(1) 10-Year JGB Yield

(2) 10-Year Government Bonds Yields

(3) Yields of JGBs in FY2021

(4) JGB Yield Curves

(5) Various Rates in the Short-term Financial Market in FY2021

(6) Break-Even-Inflation (BEI) Rate

(7) JGB Share in Total Trading Volume of Yen Bonds

(8) JGB Share in Total Issuance Amount of Yen Bonds

(9) Portfolio Investment Assets in FY2021



Note 1: Figures indicate the situation of investment by residents in securities issued by non-residents.
Note 2: "Long-term debt securities" are securities with an original maturity of more than one year and include central government bonds, government agency securities, supranational bonds, local government bonds, bank bonds, corporate bonds, S amurai bonds, etc.
Note 3: "Short-term debt securities" are securities with an original maturity of no more than one year and include T-Bills,commercial papers, etc.
Note 4: "Total" includes "General government", "Banks (trust accounts)" and "Trust banks (trust accounts)", etc. in addition to the data shown above.
(S ource) Ministry of Finance
(10) Portfolio Investment Liabilities in FY2021


Note 1: Figures indicate the situation of investment by non-residents in securities issued by residents
Note 2: "Long-term debt securities" are securities with an original maturity of more than one year and include central government bonds, government agency securities, supranational bonds, local government bonds, bank bonds, corporate bonds, and Samurai bonds, etc.
Note 3: "Short-term debt securities" are securities with an original maturity of no more than one year and include T-Bills, commercial papers, etc Note 4: "Total" includes "Central and South America", "O ceania" and "Middle East", etc. in addition to the data shown above. (Source) Ministry of F inance, Bank of J apan
(11) Trends in JGB Transactions (by investor type) in FY2021



Regional Banks


Fin. Insts. for Agriculture \& Forestry



Life \& Non-Life Insuarance Companies






Note 1: Turnover figures represent transaction totals (excluding Gensaki transactions) by members (securities companies) and special members (registered financial instutions conducting dealing duties, etc.) of J apan Securities Dealers Association. Figures are calculated on a nominal basis.
Note 2: In addition to the data shown here, J apan Securities Dealers Association also publishes turnover charts for "Investment Trusts" "Mutual Aid Association of Govt. publishes turnover charts for "Investment Trusts" "Mutual Aid Association of Govt.
Offices" "Business Corporations" "Other Corporations" "Individuals" "Others" and "Bond Dealers"
(12) Trading Volume of Yen Bonds

|  | Yen Bonds | J GBs |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Super lonotem Bonds | Longtem Bonds | Medium-tem Bonds | Shortiem Bonds |
| FY2012 | 3,485.5 | 3,420.4 | 383.1 | 846.7 | 986.2 | 1,204.4 |
| FY2013 | 3,184.7 | 3,129.5 | 342.0 | 690.9 | 767.9 | 1,328.6 |
| FY2014 | 3,440.1 | 3,386.7 | 413.5 | 698.4 | 999.9 | 1,274.9 |
| FY2015 | 2,812.6 | 2,764.0 | 372.9 | 641.5 | 723.9 | 1,025.7 |
| FY2016 | 2,365.5 | 2,322.8 | 389.1 | 471.5 | 696.2 | 766.0 |
| FY2017 | 2,301.2 | 2,257.1 | 435.3 | 498.1 | 567.1 | 756.6 |
| FY2018 | 2,285.4 | 2,242.0 | 459.3 | 525.1 | 495.9 | 761.7 |
| FY2019 | 2,335.9 | 2,292.6 | 439.8 | 499.4 | 560.6 | 792.9 |
| FY2020 | 2,650.4 | 2,605.6 | 429.1 | 441.7 | 454.9 | 1,279.9 |
| FY2021 | 2,599.4 | 2,559.0 | 469.7 | 517.9 | 461.3 | 1,110.0 |

Note: Bond Gensaki transactions are excluded.
(Source) J apan Securities Dealers Association
(13) Trading Volume of JGB Futures
(Unit: trillion yen)

|  | Trading Volume |  |  | Open Interest (End of FY) | 10-Year J GB Futures | 20-Year J GB Futures |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 10-Year J GB Futures | 20-Year J GB Futures |  |  |  |
| FY2012 | 948.3 | 948.1 | - | 10.1 | 10.1 | - |
| FY2013 | 857.0 | 856.9 | - | 10.3 | 10.3 | - |
| FY2014 | 904.9 | 903.9 | - | 8.7 | 8.7 | - |
| FY2015 | 849.7 | 849.1 | 0.3 | 7.2 | 7.2 | 0.0 |
| FY2016 | 700.0 | 699.9 | 0.0 | 8.0 | 8.0 | 0.0 |
| FY2017 | 880.7 | 880.7 | 0.0 | 11.7 | 11.7 | 0.0 |
| FY2018 | 1,023.5 | 1,023.4 | 0.0 | 11.1 | 11.1 | 0.0 |
| FY2019 | 955.3 | 955.3 | 0.0 | 6.9 | 6.9 | - |
| FY2020 | 712.7 | 712.7 | - | 7.7 | 7.7 | - |
| FY2021 | 813.2 | 813.2 | - | 8.9 | 8.9 | - |

Note: Trading in 20 -year J GB Futures had been suspended due to little demand but was re-lauched based on J GB market conditions and discussions with investors in April 2014. (Source) J apan Securities Clearing Corporation
(14) Trading Volume of Bond Gensaki
(Unit: trillion yen)

|  | Trading Volume |  |  | Outstanding (End of FY) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yen Bonds (excluding JGB baskets) | J GBs | J GB Baskets | Transactions Other Than Subsequent Collateral Allocation Repos (Standard Repos, etc.) | Subsequent Collateral Allocation Repos |
| FY 2012 | 5,035.6 | 5,002.7 | - | 23.5 | - |
| FY2013 | 6,275.4 | 6,238.0 | - | 26.4 | - |
| FY2014 | 7,064.3 | 7,004.9 | - | 30.8 | - |
| FY2015 | 7,582.8 | 7,486.9 | - | 30.5 | - |
| FY2016 | 6,918.4 | 6,887.5 | - | 33.4 | - |
| FY2017 | 7,622.2 | 7,579.0 | - | 40.2 | - |
| FY2018 | 13,575.8 | 13,537.7 | 3,112.7 | 101.6 | 14.8 |
| FY2019 | 17,259.1 | 17,222.5 | 6,450.2 | 133.6 | 22.7 |
| FY2020 | 18,843.3 | 18,837.1 | 9,085.0 | 120.6 | 27.8 |
| FY2021 | 20,160.0 | 20,146.9 | 8,924.9 | 155.9 | 22.6 |

Note 1: Trading Volume is the total amount of buying and selling.
Note 2: The Outstanding at the end of fiscal year is the total outstanding of securities companies and financial institutions for dealing.
Note 3: J GB Baskets and Subsequent Collateral Allocation Repos are traded price base (otherwise nominal).
Note 4: Yen Bonds are all bonds except JGBs for retail investors, corporate bonds with equity-purchase warrants and foreign currency bonds.
(Source) J apan Securities Dealers Association
(15) Trading Volume of Bond-Lending
(Unit: trillion yen)

|  | Lending |  |  | Borrowings |  | Without Collateral |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | with collateral | Without Collateral |  | With Collateral |  |
| FY2012 | 6,397.5 | 6,378.9 | 18.6 | 4,550.3 | 4,472.1 | 78.2 |
| FY2013 | 6,965.7 | 6,946.1 | 19.5 | 5,271.8 | 5,186.7 | 85.1 |
| FY2014 | 8,347.4 | 8,328.5 | 18.8 | 6,616.5 | 6,547.9 | 68.5 |
| FY2015 | 8,228.7 | 8,213.1 | 15.6 | 5,809.2 | 5,736.5 | 72.7 |
| FY2016 | 8,547.9 | 8,535.8 | 12.1 | 5,966.5 | 5,893.2 | 73.3 |
| FY2017 | 8,548.4 | 8,442.5 | 105.9 | 5,627.7 | 5,557.3 | 70.5 |
| FY 2018 | 5,622.5 | 5,291.4 | 331.1 | 3,601.8 | 3,518.8 | 83.0 |
| FY2019 | 3,090.5 | 2,781.8 | 308.7 | 2,003.5 | 1,921.6 | 81.9 |
| FY2020 | 2,782.6 | 2,371.9 | 410.7 | 1,476.7 | 1,403.0 | 73.7 |
| FY2021 | 2,107.1 | 1,749.3 | 357.7 | 1,305.4 | 1,233.6 | 71.8 |

Note: Trading volume is the total of contracts by both members of Japan Securities Dealers Association (Securities Companies) and special members (registered financial institutions for dealing).
(Source) J apan Securities Dealers Association
(16) Trading Volume of JGBs Option by OTC

|  | Total | Call Options |  | Put Options |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bid | Offer | Bid | Offer |
| FY2012 | 100.6 | 46.0 | 18.3 | 15.8 | 20.5 |
| FY2013 | 114.3 | 39.9 | 22.3 | 24.6 | 27.5 |
| FY2014 | 102.3 | 41.5 | 18.2 | 19.9 | 22.6 |
| FY2015 | 65.8 | 32.8 | 9.1 | 11.3 | 12.6 |
| FY2016 | 68.9 | 26.8 | 11.8 | 15.0 | 15.3 |
| FY2017 | 97.9 | 31.2 | 20.6 | 22.6 | 23.6 |
| FY2018 | 119.6 | 35.3 | 28.9 | 29.9 | 25.5 |
| FY2019 | 131.8 | 36.1 | 31.7 | 33.2 | 30.8 |
| FY2020 | 81.0 | 25.1 | 18.2 | 18.8 | 18.8 |
| FY2021 | 81.4 | 25.4 | 18.0 | 18.4 | 19.5 |

[^19](17) Trading Volume of JGB Futures Options

|  | Trading Volume |  |  | Open Interest (End of FY) | Call | Put |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Call | Put |  |  |  |
| FY2012 | 220.4 | 76.0 | 144.4 | 2.0 | 0.4 | 1.7 |
| FY2013 | 145.0 | 49.7 | 95.3 | 2.2 | 0.4 | 1.8 |
| FY2014 | 118.7 | 33.1 | 85.5 | 1.4 | 0.2 | 1.2 |
| FY2015 | 102.5 | 31.3 | 71.2 | 0.9 | 0.2 | 0.7 |
| FY2016 | 92.5 | 28.0 | 64.5 | 1.4 | 0.2 | 1.2 |
| FY2017 | 86.2 | 30.2 | 56.1 | 1.6 | 0.5 | 1.1 |
| FY2018 | 70.9 | 25.7 | 45.2 | 0.9 | 0.3 | 0.6 |
| FY2019 | 64.4 | 31.1 | 33.4 | 0.0 | 0.0 | 0.0 |
| FY2020 | 24.6 | 11.7 | 12.9 | 0.1 | 0.0 | 0.1 |
| FY2021 | 16.0 | 7.5 | 8.5 | 0.1 | 0.1 | 0.0 |

(Source) Japan Exchange Group, Inc.
(18) Outstanding Amount of STRIPS-Principal-Only Book-entry Transfer JGBs
(Unit: billion yen)

|  | 40-Year Bonds |  | 30-Year Bonds |  | 20-Year Bonds |  | 10-Year Bonds |  | 5-Year Bonds |  | 2-Year Bonds |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FY2012 | 35.8 | (6,636.1) | 136.7 | (43,847.1) | 21.2 | (122,769.9) | 158.9 | (295,827,6) | 25.3 | (143,336,1) | 0.6 | (68,497.0) | 378.6 | (680,113.8) |
| FY2013 | 39.3 | (8,493.4) | 143.1 | (53,274,0) | 23.8 | (139,142.0) | 152.5 | (299,174,5) | 24.6 | (153,383,2) | - | (70,172.0) | 383.3 | (723,639.1) |
| FY2014 | 39.6 | (10,445.5) | 143.3 | (64,211.4) | 24.5 | (157,00.2) | 138.5 | (298,055.7) | 16.6 | (158,260, ) | - | (69,152.9) | 362.6 | (757,125.7) |
| FY2015 | 49.6 | (13,133.4) | 146.4 | (76,987.9) | 23.9 | (174,881.3) | 119.3 | $(301,008.5)$ | 12.1 | (160,006,5) | - | (63,932.8) | 351.3 | (790,710.4) |
| FY2016 | 49.6 | (16,597.6) | 146.4 | (88,628.2) | 20.7 | $(192,56,6)$ | 94.4 | (302,813,6) | 6.5 | (160,409.4) | - | (60,419.9) | 317.5 | (820,925.1) |
| FY2017 | 49.6 | (20,283,7) | 146.4 | (100,696.1) | 20.6 | (208,33.0) | 66.4 | $(308,203.8)$ | 3.6 | (156,681.3) | - | (57,975.4) | 286.7 | (852,175.2) |
| FY2018 | 49.6 | (23,191.4) | 146.4 | (111,350.1) | 20.6 | $(226,008.7)$ | 46.1 | (314,323,3) | 1.2 | (117,403.4) | - | (55,436.4) | 263.9 | (877,713.3) |
| FY2019 | 49.7 | (26,504.6) | 146.4 | (121,641.1) | 20.6 | (24,077,3) | 23.0 | (313,956,3) | 0.4 | (138,030,0) | - | (52,360.6) | 240.0 | (895,56.8) |
| FY2020 | 49.7 | (30,453.0) | 146.4 | (133,637.9) | 20.6 | (261,115.0) | 13.9 | (316,538.4) | - | $(135,198.7)$ | - | (60,130.9) | 230.6 | (937,67.9) |
| FY 2021 | 49.9 | $(35,098.5)$ | 146.4 | (146,955.0) | 20.6 | (281,354,0) | 6.0 | (320,319.2) | - | (136,099.3) | - | (71,542.0) | 222.8 | (991,368.) |

<Key> Outstanding Amount of Principal-Only Book-entry Transfer JGBs at the end of each period (Outstanding amount of JGBs qualified for STRIPS) Note: Figures may not sum up to the total because of rounding.
(19) Japan's Sovereign Rating by Major Credit Rating Agencies
(Long-term debt denominated in home currency on Apr. 28, 2022)

| Moody's | S\&P | Fitch | R \& |  | JCR |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {a }}$ Aaa | An $A$ A | AAA | AAA | Oet 31, 00 | AAA |
| Se0,, 00 Aal | Nov27,01 $A$ A+ | Nov20,01 ${ }^{\text {a }}$ A + | AA+ |  | AA+ |
| Aa2 | AA | AA | AA |  | AA |
| Aa3 | AA- | AA- | AA- |  | AA- |
| Mey 1,02 A1 ${ }^{\text {a }}$ ( ${ }^{\text {a }}$ | $A+\beta{ }^{\text {sep } 16.15}$ |  | A+ |  | A+ |
| A2 ${ }^{\text {octli, } 07}$ | A | A | A |  | A |
| A3 | A- | A- | A- |  | A- |
| Baal | BBB+ | BBB + | BBB+ |  | BBB+ |
| Baa2 | BBB | BBB | BBB |  | BBB |
| Baa3 | BBB - | BBB - | BBB- |  | BBB - |

[Outlook]

| Stable (Dec. 1, 2014) | Stable (Jun. 9, 2020) | Stable (Mar. 25, 2022) | Stable (Aug. 30, 2018) | Stable (Aug. 9, 2018) |
| :---: | :---: | :---: | :---: | :---: |

(20) List of Sovereign Ratings by Major Credit Rating Agencies
(Long-term debt denominated in home currency on Apr. 28, 2022)

|  | Moody's | S\&P | Fitch | R \& | JCR |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa/AAA | U.S. Germany Canada | Germany Canada | U.S. ( $\downarrow$ ) Germany | U.S. <br> U.K. <br> Germany <br> France | Japan U.S. U.K. Germany France Canada |
| Aa1/AA+ |  | U.S. | Canada | Japan |  |
| Aa2/AA | France Korea | U.K. <br> France <br> Korea | France ( $\downarrow$ ) |  | Spain |
| Aa3/AA- | U.K. | Ireland | Korea Ireland U.K. | China Korea Ireland | China Korea |
| A1/A+ | $\frac{J \text { apan }}{\text { China }}$ | $\frac{\text { Japan }}{\text { China }}$ | China |  |  |
| A2/A | Ireland ( $\uparrow$ ) | Spain | Japan | Spain | Italy Portugal |
| A3/A- |  |  | Spain |  |  |
| Baa1/BBB+ | Spain |  |  | Italy |  |
| Baa2/BBB | P ortugal | Italy ( $\uparrow$ ) <br> Portugal | Portugal Italy | P ortugal |  |
| Baa3/BBB- | Italy |  |  |  |  |
| Ba1/BB+ |  | Greece |  |  |  |
| Ba2/BB |  |  | Greece ( $\uparrow$ ) | Greece |  |
| Ba3/BB- | Greece |  |  |  |  |
| B1/B+ |  |  |  |  |  |
| B2/B |  |  |  |  |  |
| B3/B- |  |  |  |  |  |
| Caa1/CCC+ |  |  | - |  | - |
| Caa2/CCC |  |  |  |  |  |
| Caa3/CCC- |  |  | - |  | - |
| Ca/CC |  |  |  |  |  |
| C |  |  |  |  |  |
| SD/RD |  |  |  |  |  |

[^20]
## 3 <br> Debt Management Systems

(1) Revenues and Expenditures for the Special Account for the GDCF (FY2022 Initial Budget)

Revenues

| (Unit: million yen) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { FY } 2021 \text { (Initial) } \\ \text { (A) } \end{gathered}$ | $\begin{gathered} \hline \text { FY2022 (Initial) } \\ \text { (B) } \end{gathered}$ | $\begin{gathered} \hline \text { Changes } \\ (\mathrm{B})-(\mathrm{A}) \\ \hline \end{gathered}$ |
| Grant from Other Accounts | 97,775,682 | 92,333,090 | - 5,442,592 |
| Grant from the General Account | 23,757,663 | 24,338,491 | 580,828 |
| Grant from Special Accounts | 74,018,020 | 67,994,600 | - 6,023,420 |
| Local Allocation Tax and Local Transfer Tax | 31,973,861 | 30,183,195 | - 1,790,665 |
| Forex fund | 506,936 | 496,252 | A 10,684 |
| FILP | 26,616,741 | 22,591,732 | -4,025,009 |
| Energy Projects | 12,941,640 | 12,671,641 | - 269,999 |
| Labor Insurance | - | 52 | 52 |
| Pension | 1,458,231 | 1,452,416 | - 5,815 |
| Stable Food Supply | 124,705 | 211,319 | 86,615 |
| Administration of National Forestry Management Debt | 361,562 | 354,649 | - 6,914 |
| Motor Vehicles Safety | 34,344 | 33,343 | - 1,001 |
| Grant from the Special Account for Reconstruction from the GreatEastJ apan Earthquake or Other Accounts | 27,645 | 20,369 | © 7,276 |
| Grant from Special Accounts | 27,645 | 20,369 | - 7,276 |
| Reconstruction from the Great EastJ apan Earthquake | 27,645 | 20,369 | - 7,276 |
| Tax | 113,200 | 112,600 | $\triangle 600$ |
| Revenues from J GBs | 147,192,946 | 152,940,382 | 5,747,436 |
| Revenues from J GBs | 144,321,975 | 149,081,480 | 4,759,505 |
| Revenues from Reconstruction-related Refunding Public Bonds | 2,870,971 | 3,858,902 | 987,930 |
| Revenues from Equity Sale Related to the Reconstruction from the Great East) apan Earthquake | 1,449,215 | 172,108 | © 1,277,108 |
| Dividend Income Related to the Reconstruction from the Great EastJ apan Earthquake | 50,450 | 3,972 | - 46,478 |
| Tokyo Metro | 8,069 | 3,972 | - 4,097 |
| J apan Post | 42,381 | - | - 42,381 |
| Investment Income | 51,307 | 29,864 | - 21,443 |
| Interest Income | 51,306 | 29,864 | - 21,442 |
| Sales/Redemption Profit | 1 | 0 | $\triangle 0$ |
| Investment Income Related to the Reconstruction from the Great EastJ apan Earthquake | 2,410 | 122 | - 2,288 |
| Interest Income | 2,410 | 122 | - 2,288 |
| Miscellaneous Income | 126,372 | 178,954 | 52,582 |
| Accrued Interest Receivable | 124,837 | 177,849 | 53,012 |
| Miscellaneous Income | 1,535 | 1,105 | - 430 |
| Miscellaneous Income Related to the Reconstruction from the Great East) apan Earthquake | 27 | 21 | - 5 |
| Accrued Interest Receivable | 27 | 21 | $\triangle 5$ |
| Total | 246,789,254 | 245,791,483 | - 997,771 |

Expenditures

|  | FY2021(Initial) <br> (A) | FY2022 (Initial) <br> (B) | Changes $\text { (B) }-(A)$ |
| :---: | :---: | :---: | :---: |
| Government Debt Consolidation Expenditures | 242,388,537 | 241,735,989 | - 652,548 |
| Cerrificate, etc., Production Cost | 180 | 23 | - 157 |
| J GB Handling Fees | 23,551 | 20,393 | - 3,158 |
| Compensations, Redemptions, and Refunds | 823 | 823 |  |
| Currency Exchange Gap Compensations | 0 | 0 | 0 |
| Sales/Redemption Gap Compensations | 50,000 | 29,000 | - 21,000 |
| Debt Redemption Expenses | 232,137,685 | 231,897,311 | - 240,374 |
| Public Bonds, etc., Redemption | 184,750,278 | 186,492,904 | 1,742,626 |
| Financed with the General Account | 158,967,142 | 164,567,465 | 5,600,323 |
| Financed with Special Accounts | 25,783,137 | 21,925,439 | - 3,857,698 |
| Borrowings Redemption | 42,361,907 | 40,909,807 | - 1,452,099 |
| Financed with the General Account | 589,148 | 588,197 | $\triangle 951$ |
| Financed with Special Accounts | 41,772,759 | 40,321,610 | - 1,451,149 |
| Financing Bills Redemption | 5,025,500 | 4,494,600 | - 530,900 |
| Interest and Discount Expenses | 10,176,298 | 9,788,439 | - 387,859 |
| Interests on Public Bonds, etc. | 9,493,321 | 9,122,752 | - 370,569 |
| Financed with the General Account | 8,668,923 | 8,465,485 | - 203,438 |
| Financed with Special Accounts | 824,398 | 657,267 | - 167,131 |
| Interests on Borrowings | 102,242 | 95,913 | - 6,329 |
| Financed with the General Account | 13,380 | 12,475 | - 906 |
| Financed with Special Accounts | 88,862 | 83,438 | - 5,423 |
| Interests on Financing Bills | 580,735 | 569,775 | - 10,961 |
| Financed with the General Account | 60,000 | 60,000 |  |
| Financed with Special Accounts | 520,735 | 509,775 | - 10,961 |
| Reconstruction Bonds Consolidation Expenditures | 4,400,717 | 4,055,494 | - 345,224 |
| J GB Handling Fees | 329 | 162 | - 167 |
| Equity Sale Fees | 25,676 | 4,174 | - 21,502 |
| Sales/Redemption Gap Compensations | 2,405 | 121 | - 2,283 |
| Debt Redemption Expenses | 4,344,961 | 4,030,808 | - 314,153 |
| Public Bonds, etc., Redemption | 4,344,961 | 4,030,808 | - 314,153 |
| Financed with Special Accounts | 4,344,961 | 4,030,808 | - 314,153 |
| Interest and Discount Expenses | 27,347 | 20,229 | - 7,119 |
| Interests on Public Bonds, etc. | 26,847 | 19,904 | - 6,944 |
| Financed with Special Accounts | 26,847 | 19,904 | - 6,944 |
| Interests on Borrowings | 500 | 325 | - 175 |
| Financed with Special Accounts | 500 | 325 | - 175 |
| Total | 246,789,254 | 245,791,483 | - 997,771 |

Note 1: "Financed with the General Account" in "Government Debt Consolidation Expenditures" and "Financed with Special Accounts" in "Reconstruction Bonds Consolidation Expenditures" include GDCF's original revenue.
Note 2: Figures may not sum up to the total because of rounding.

## (2) Payment Status of Debt Redemption Expenses and Interest, Discount Expenses and so on of the Each Account (FY2022 Initial Budget, FY2020 Settlement of Accounts)

The GDCF Special Account centrally conducts accounting for redemption and interest payments for public bonds and borrowings, using fiscal transfers from the General Account and other special accounts.

A FY2022 Initial Budget
(Unit: million yen)

|  | Debt Redemption Expenses | Interest and Discount Expenses | Others | Total | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Grant from Other Accounts | 82,814,966 | 9,497,720 | 20,404 | 92,333,090 |  |
| Grant from the General Account | 16,073,317 | 8,247,240 | 17,933 | 24,338,491 | The redemption and interest of public bonds and borrowings, Treasury Financing Bills discount expense, etc. |
| Grant from Special Accounts | 66,741,649 | 1,250,480 | 2,471 | 67,994,600 |  |
| Local Allocation Tax and Local Transfer Tax | 30,112,295 | 70,900 | - | 30,183,195 | The redemption and interest of borrowings, and the interest of temporary borrowings |
| Forex Fund | - | 495,472 | 780 | 496,252 | The discount expense of Foreign Exchange Fund Financing Bills, etc. |
| FILP | 21,925,439 | 664,620 | 1,673 | 22,591,732 | The redemption and interest of FILP Bonds, the discount expense of Fiscal Loan Fund Financing Bills, etc |
| Energy Projects | 12,662,244 | 9,381 | 16 | 12,671,641 | The redemption and interest of borrowings, the redemption and discount expense of Petroleum Financing Bills and Nuclear Damage Liability Facilitation Financing Bills, etc. |
| Labor Insurance | - | 52 | - | 52 | The interest of temporary borrowings |
| Pension | 1,446,630 | 5,787 | - | 1,452,416 | The redemption and interest of borrowings, and the interest of temporary borrowings |
| Stable Food Supply | 210,339 | 979 | 1 | 211,319 | The redemption and interest of borrowings, the redemption and discount expense of Food Financing Bills, etc |
| Administration of National Forestry Management Debt | 353,411 | 1,237 | - | 354,649 | The redemption and interest of borrowings, and the interest of temporary borrowings |
| Motor Vehicles Safety | 31,291 | 2,052 | - | 33,343 | The redemption and interest of borrowings, and the interest of temporary borrowings |
| Grant from the Special Account for Reconstruction from the Great East J apan Earthquake or Other accounts | - | 20,207 | 162 | 20,369 |  |
| Grant from Special Accounts | - | 20,207 | 162 | 20,369 |  |
| Reconstruction from the Great EastJ apan Earthquake | - | 20,207 | 162 | 20,369 | The interest of reconstruction bonds, the interest of temporary borrowings, etc. |

Note: Figures may not sum up to the total because of rounding.
B FY2020 Settlement of Accounts

|  | Debt Redemption Expenses | Interest and Discount Expenses | Others | Total | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Grant from Other Accounts | 69,142,072 | 8,032,172 | 16,862 | 77,191,105 |  |
| Grant from the General Account | 14,931,550 | 7,377,058 | 15,911 | 22,324,519 | The redemption and interest of public bonds and borrowings, etc. |
| Grant from Special Accounts | 54,210,522 | 655,114 | 951 | 54,866,586 |  |
| Local Allocation Tax and Local Transfer Tax | 31,328,372 | 135 | - | 31,328,507 | The redemption and interest of borrowings and the interest of temporary borrowings |
| Forex Fund | - | - | 280 | 280 | J GB handling fees |
| FILP | 11,311,517 | 652,914 | 663 | 11,965,095 | The redemption and interest of FILP Bonds, etc. |
| Energy Projects | 9,616,403 | 732 | 8 | 9,617,143 | The redemption of Government Bonds issued to Nuclear Damage Compensation and Decommissioning Facilitation Corporation, the redemption and interest of borrowings, the redemption of Petroleum Financing Bills, etc. |
| Pension | 1,452,421 | 42 | - | 1,452,463 | The redemption and interest of borrowings, and the interest of temporary borrowings |
| Stable Food Supply | 103,695 | 226 | 0 | 103,921 | The redemption and interest of borrowings, the redemption of Food Financing Bills, etc. |
| Administration of National Forestry Management Debt | 363,002 | 350 | - | 363,352 | The redemption and interest of borrowings |
| Motor Vehicles Safety | 35,111 | 714 | - | 35,825 | The redemption and interest of borrowings |
| Grant from the Special Account for Reconstruction from the Great East J apan Earthquake or Other accounts | - | 4,406 | 78 | 4,484 |  |
| Grant from Special Accounts | - | 4,406 | 78 | 4,484 |  |
| Reconstruction from the Great EastJ apan Earthquake | - | 4,406 | 78 | 4,484 | The interest of Reconstruction Bonds, etc. |

(3) Transfer of Redemption Sources, Redemption Amount, Outstanding Amount and Refunding Amount of the GDCF(FY2022 Initial Budget)

| (Unit: billion yen) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | FY 2020 (Actual) | FY 2021 (Forecast) | FY2022 (Forecast) |
| <Transfer of financial resources for redemption> |  |  |  |
| J GBs | 26,467.2 | 42,594.4 | 37,851.9 |
| (Financial Resources for Reconstruction Bond Redemption) | (34.6) | $(1,390.7)$ | (171.9) |
| General Account | 14,588.8 | 17,050.6 | 15,753.7 |
| Special Accounts <br> (Financial Resources for Reconstruction Bond Redemption) | $\begin{array}{r} 11,828.0 \\ (-) \\ \hline \end{array}$ | $\begin{array}{r} 24,397.7 \\ (246.0) \\ \hline \end{array}$ | $\begin{array}{r} 21,925.4 \\ (-) \\ \hline \end{array}$ |
| Revenue from the sales of shares <br> (Financial Resources for Reconstruction Bond Redemption) | $\begin{gathered} - \\ (-) \end{gathered}$ | $\begin{array}{r} 1,086.7 \\ (1,086.7) \end{array}$ | $\begin{array}{r} 167.9 \\ (167.9) \end{array}$ |
| Investment revenue, etc. <br> (Financial Resources for Reconstruction Bond Redemption) | $\begin{array}{r} 50.4 \\ (34.6) \\ \hline \end{array}$ | $\begin{array}{r} 59.4 \\ (57.9) \\ \hline \end{array}$ | $\begin{array}{r} 4.8 \\ (4.0) \end{array}$ |
| Borrowings | 41,453.5 | 42,102.6 | 40,641.2 |
| General Account | 342.7 | 329.9 | 319.6 |
| Special Accounts | 41,110.8 | 41,772.8 | 40,321.6 |
| Total | 67,920.7 | 84,697.1 | 78,493.1 |
| <R edemption Amount> |  |  |  |
| J GBs | 26,482.3 | 42,597.3 | 37,851.1 |
| General Bonds | 14,221.6 | 16,674.2 | 15,288.4 |
| Subscription/ Contribution Bonds | 914.6 | 380.7 | 465.4 |
| FILP Bonds | 11,311.5 | 24,151.7 | 21,925.4 |
| Reconstruction Bond | 34.6 | 1,390.7 | 171.9 |
| Borrowings | 41,453.5 | 42,102.6 | 40,641.2 |
| Total | 67,935.8 | 84,699.9 | 78,492.3 |
| O utstanding Balance of GDCF at the End of FY | 3,005.0 | 3,002.1 | 3,003.0 |
| (Financial Resources for Reconstruction Bond Redemption) | $(-)$ | $(-)$ | $(-)$ |

(Reference)

| Refunding Bonds as Stipulated in Article 47(1) of the Act on Special Accounts | $9,372.6$ | $20,000.0$ | $20,000.0$ |
| :--- | ---: | ---: | ---: |
| Outstanding Balance of GDCF at the End of FY Incl. Refunding <br> Bonds as Stipulated in Article 47(1) of the Act on Special Accounts | $12,377.5$ | $23,002.1$ | $23,003.0$ |


| Refunding Amount of J GBs | $108,503.9$ | $143,663.3$ | $152,940.4$ |
| :--- | ---: | ---: | ---: |
| (Refunding Amount of Reconstruction Bonds) | $(2,668.8)$ | $(2,737.5)$ | $(3,858.9)$ |

Note 1: Expenses associated with share sales have been deducted from the revenue from share sales.
Note 2: Investment revenue etc. includes dividend revenue and carry-over from the previous year.
Note 3: Outstanding balance of GDCF at the end of FY does not include Refunding Bonds as stipulated in Article 47(1) of the Act on Special Accounts.
Note 4: Refunding Bonds as stipulated in Article 47(1) of the Act on Special Accounts for FY2021(forecast) and FY2022(forecast) are the limit of general provisions concerning the Budget.
Note 5: Figures may not sum up to the total because of rounding.

## (4) GDCF Investment in JGBs

(Unit: trillion yen)

|  | FY2012 | FY2013 | FY 2014 | FY 2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY 2020 | FY 2021 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Treasury DiscountBills | 12.8 | 17.2 | 17.1 | - | - | - | - | - | - | - |
| Gensaki, etc. | 9.3 | 8.9 | 14.4 | 0.1 | 0.3 | 0.3 | 0.2 | 0.6 | 0.2 | 0.1 |
| Total | 22.1 | 26.1 | 31.5 | 0.1 | 0.3 | 0.3 | 0.2 | 0.6 | 0.2 | 0.1 |

[^21](5) Budgetary Surplus of the Special Account of the GDCF

|  |  | (Unit: billion yen) |  |
| :---: | ---: | ---: | :---: |
|  | Budgetary Surplus |  |  |
| FY 2016 | $3,082.4$ | Outstanding Balance of GDCF |  |
| FY 2017 | $3,093.2$ | $3,006.2$ |  |
| FY 2018 | $3,076.4$ | $3,007.4$ |  |
| FY 2019 | $3,091.8$ | $3,005.9$ |  |
| FY 2020 | $3,052.2$ | $3,020.0$ |  |
| FY 2021 | $3,002.1$ | $3,005.0$ |  |
| FY 2022 | $3,003.0$ | $3,002.1$ |  |

Note: Data for FY2021 and FY2022 are based on the initial budget for FY2022.
(6) Results of Liquidity Enhancement Auctions in FY2021

|  | 331st | 332nd | 333rd | 334th | 335th | 336th | 337th | 338th | 339th | 340th | 341st | 342nd |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Auction Date | 4/13/21 | 4/15/21 | 5/7/21 | 5/25/21 | 6/10/21 | 6/15/21 | 7/15/21 | 7/20/21 | 8/13/21 | 8/19/21 | 9/14/21 | 9/21/21 |
| Amount of Competitive Bids (billion yen) | 1,545.0 | 2,335.9 | 1,802.6 | 2,121.4 | 2,201.9 | 1,089.5 | 1,929.2 | 1,590.0 | 1,546.2 | 1,078.8 | 2,109.2 | 1,620.8 |
| Amount of Bids Accepted (billion yen) | 497.8 | 496.7 | 397.7 | 495.4 | 497.7 | 498.8 | 399.3 | 498.8 | 498.2 | 498.8 | 497.2 | 398.8 |
| Average Accepted Spread (\%) | © 0.008 | - 0.004 | - 0.005 | - 0.003 | - 0.017 | 0.005 | - 0.005 | - 0.012 | - 0.003 | 0.004 | - 0.002 | - 0.007 |
| Highest Accepted Spread (\%) | - 0.007 | - 0.003 | - 0.004 | - 0.003 | - 0.016 | 0.008 | - 0.002 | - 0.011 | - 0.001 | 0.008 | - 0.001 | - 0.005 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 343rd | 344th | 345th | 346th | 347th | 348th | 349th | 350th | 351st | 352nd | 353rd | 354th |
| Auction Date | 10/7/21 | 10/25/21 | 11/11/21 | 11/22/21 | 12/14/21 | 12/23/21 | 1/19/22 | 1/21/22 | 2/10/22 | 2/22/22 | 3/15/22 | 3/24/22 |
| Amount of Competitive Bids (billion yen) | 1,966.2 | 1,118.3 | 1,584.1 | 2,215.4 | 1,745.7 | 1,036.6 | 1,765.7 | 1,755.5 | 1,005.6 | 1,937.8 | 1,930.5 | 1,622.9 |
| Amount of Bids Accepted (billion yen) | 498.0 | 498.1 | 498.8 | 400.0 | 498.3 | 499.3 | 398.7 | 499.3 | 499.8 | 497.5 | 498.9 | 399.1 |
| Average Accepted Spread (\%) | - 0.007 | 0.007 | 0.011 | - 0.007 | - 0.012 | 0.000 | - 0.008 | - 0.020 | 0.016 | - 0.017 | 0.014 | - 0.002 |
| Highest Accepted Spread (\%) | © 0.007 | 0.009 | 0.013 | © 0.007 | - 0.012 | 0.004 | - 0.007 | - 0.017 | 0.029 | - 0.016 | 0.015 | 0.000 |

(7) Buy-back Results in FY2021

Inflation-Indexed Bonds

| Auction Date | Amount of Bids Received <br> (billion yen) | Amount of Bids Accepted <br> (billion yen) | Average Accepted Spread <br> (yen) | Highest Accepted Spread <br> (yen) |
| :---: | ---: | ---: | ---: | ---: |
| $4 / 22 / 21$ | 152.1 | 50.0 | $\mathbf{\Delta} 0.126$ | $\mathbf{\Delta} 0.08$ |
| $5 / 12 / 21$ | 176.2 | 50.1 | $\mathbf{\Delta} 0.018$ | 0.10 |
| $6 / 21 / 21$ | 253.9 | 50.1 | $\mathbf{\Delta} 0.328$ | $\mathbf{\Delta} 0.22$ |
| $7 / 7 / 21$ | 201.7 | 50.0 | $\mathbf{\Delta} 0.182$ | $\mathbf{\Delta} 0.17$ |
| $8 / 25 / 21$ | 99.2 | 50.1 | $\mathbf{\Delta} 0.050$ | $\mathbf{\Delta} 0.05$ |
| $9 / 10 / 21$ | 209.7 | 50.0 | $\mathbf{\Delta} 0.042$ | 0.04 |
| $10 / 13 / 21$ | 206.6 | 50.2 | $\mathbf{\Delta} 0.095$ | 0.00 |
| $11 / 15 / 21$ | 216.9 | 50.2 | $\mathbf{\Delta} 0.081$ | $\mathbf{\Delta} 0.05$ |
| $12 / 3 / 21$ | 109.2 | 50.2 | 0.541 | 0.73 |
| $1 / 13 / 22$ | 113.6 | 20.0 | $\mathbf{\Delta} 0.293$ | $\mathbf{\Delta} 0.16$ |
| $2 / 4 / 22$ | 135.7 | 20.0 | $\mathbf{\Delta} 0.560$ | $\mathbf{\Delta} 0.52$ |
| $3 / 4 / 22$ | 98.1 | 20.0 | $\mathbf{\Delta} 0.310$ | $\mathbf{\Delta} 0.30$ |

## (8) Buy-back Results

(On nominal basis, billion yen)

|  | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| From the Market | $2,825.2$ | $2,512.6$ | 741.4 | 120.2 | 120.4 | 120.5 | 481.0 | 601.6 |
| From Bank of J apan | 200.0 | 200.0 | - | - | - | - | - | - |
| Total | $3,025.2$ | $2,712.6$ | 741.4 | 120.2 | 120.4 | 120.5 | 481.0 | 601.6 |

[^22]
## (9) Various Meetings

\author{

A. Study Group on Government Debt Management <br> <Members> <br> \begin{tabular}{ll}
KOEDA J unko \& Professor, Faculty of Political Science and Economics, Waseda University <br>

SHINO J unnosuke \& | Associate Professor, Faculty of International Research and Education, |
| :--- |
| Waseda University | <br>

TAKIZAWA Miho \& Professor, Faculty of Economics, Gakushuin University <br>
TOMURA Hajime \& Professor, Faculty of Political Science and Economics, Waseda University <br>

UEYAMA Takahiro \& | Executive Officer, Head of Fixed Income Group, Mitsubishi UFJ Morgan |
| :--- |
| Stanley Securities Co., Ltd. |

\end{tabular} <br> KOEDA J unko

SHINO J unnosuke <br> TAKIZAWA Mino <br> TOMURA Hajime <br> UEYAMA Takahiro Stanley Securities Co., Ltd.
}
<Actual Achievement>

| Date | Content |
| :---: | :---: |
| J une 13, 2022 <br> (1st Round) | •Current status and issues regarding J GB issuance |

## B The Meeting of JGB Market Special Participants

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<Members>
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Barclays S ecurities J apan Limited

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Barclays S ecurities J apan Limited
BNP Paribas Securities (J apan) Limited
BNP Paribas Securities (J apan) Limited
BofA Securities J apan Co., Ltd.
BofA Securities J apan Co., Ltd.
Citigroup Global Markets J apan Inc.
Citigroup Global Markets J apan Inc.
Credit Agricole Securities Asia B.V.
Credit Agricole Securities Asia B.V.
Credit Suisse Securities (J apan) Limited
Credit Suisse Securities (J apan) Limited
Daiwa Securities Co. Ltd.
Daiwa Securities Co. Ltd.
Deutsche Securities Inc.
Deutsche Securities Inc.
Goldman Sachs J apan Co., Ltd.
Goldman Sachs J apan Co., Ltd.
J PMorgan Securities J apan Co., Ltd.
J PMorgan Securities J apan Co., Ltd.
Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Mizuho Bank, Ltd.
Mizuho Bank, Ltd.
Mizuho Securities Co., Ltd.
Mizuho Securities Co., Ltd.
Morgan Stanley MUFG Securities Co., Ltd.
Morgan Stanley MUFG Securities Co., Ltd.
Nomura Securities Co., Ltd.
Nomura Securities Co., Ltd.
Okasan Securities Co., Ltd.
Okasan Securities Co., Ltd.
SMBC Nikko Securities Inc.
SMBC Nikko Securities Inc.
Societe Generale Securities J apan Limited
Societe Generale Securities J apan Limited
Sumitomo Mitsui Banking Corporation
Sumitomo Mitsui Banking Corporation
Tokai Tokyo Securities Co., Ltd.
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Tokai Tokyo Securities Co., Ltd.
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(20 companies)
(Alphabetical order) (As of May 26, 2021)
<Actual Achievement>
\begin{tabular}{|c|c|}
\hline Date & Content \\
\hline \begin{tabular}{l}
June 23, 2021 (94th Round) \\
* Held in writing
\end{tabular} & \begin{tabular}{l}
- Issuance size of Inflation-Indexed Bonds in the July-September 2021 quarter \\
- Issuance size of Liquidity Enhancement Auctions in the July-September 2021 quarter \\
- Latest J GB market situation and outlook in the future
\end{tabular} \\
\hline \begin{tabular}{l}
September 28, 2021 \\
(95th Round) \\
* Held in writing
\end{tabular} & \begin{tabular}{l}
- Issuance size of Inflation-Indexed Bonds in the October-December 2021 quarter \\
- Issuance size of Liquidity Enhancement Auctions in the October-December 2021 quarter \\
- Latest J GB market situation and outlook in the future
\end{tabular} \\
\hline \begin{tabular}{l}
November 29, 2021 (96th Round) \\
*In-person conference/ Online conference
\end{tabular} & - Current status and issues for the compilation of the J GB Issuance Plan for FY2022 \\
\hline \begin{tabular}{l}
December 10, 2021 \\
(97th Round) \\
* Held in writing
\end{tabular} & \begin{tabular}{l}
- Issuance size of Inflation-Indexed Bonds in the January-March 2022 quarter \\
- Issuance size of Liquidity Enhancement Auctions in the January-March 2022 quarter \\
- J GB Issuance Plan for FY2022 \\
- Latest J GB market situation and outlook in the future
\end{tabular} \\
\hline March 22, 2022 (98th Round) * Held in writing & \begin{tabular}{l}
- Reopening rule and auction methods of nominal interest-bearing bonds in FY2022 \\
- Issuance size of Inflation-Indexed Bonds in the April-June 2022 quarter \\
- Issuance size of Liquidity Enhancement Auctions in the April-June 2022 quarter \\
- J GB Market Special Participants Scheme (Bidding responsibility) \\
- Latest JGB market situation and outlook in the future
\end{tabular} \\
\hline \begin{tabular}{l}
June 15, 2022 (99th Round) \\
* Held in writing
\end{tabular} & \begin{tabular}{l}
- Issuance size of Inflation-Indexed Bonds in the July-September 2022 quarter \\
- Issuance size of Liquidity Enhancement Auctions in the July-September 2022 quarter \\
- Latest J GB market situation and outlook in the future
\end{tabular} \\
\hline
\end{tabular}
(As of May 26, 2021)
C The Meeting of JGB Investors
<Members>
1. Investors
Capula Investment Management LLP
J apan Post Bank Co., Ltd.
J apan Post Insurance Co., Ltd.
Mitsubishi UFJ Trust and Banking Corporation
National Mutual Insurance Federation of Agricultural Cooperatives
North Pacific Bank, Ltd.
Pension Fund Association
PG IM J apan Co., Ltd.
Shinkin Central Bank
Sumitomo Mitsui Banking Corporation
Sumitomo Mitsui TrustAsset Management Co., Ltd.
The Dai-ichi Life Insurance Company, Limited
The Norinchukin Bank
The Shizuoka Bank, Ltd.
Tokio Marine \& Nichido Fire Insurance Co., Ltd.
(15 companies) (Alphabetical order)
2. Academics

KOHYAMA Hiroyuki
- Professor, The University of Tokyo Graduate Schools for Law and Politics

TOMITA Toshiki
- Guest Scholar, Nomura Institute of Capital Markets Research
(Chairperson)YOSHINO Naoyuki
- Professor Emeritus of Keio University
- Director of Financial Research Center, Financial Services Agency
- Visiting Professor, National Graduate Institute for Policy Studies
(3 members)
(Alphabetical order)
(As of April 28, 2022)
<Actual Achievement>
\begin{tabular}{|c|l|}
\hline Date & \multicolumn{1}{c|}{ Content } \\
\hline \begin{tabular}{c} 
November 29, 2021 \\
(87th R ound) \\
*In-person conference/ \\
Online conference
\end{tabular} & - Current status and issues for the compilation of the J GB Issuance Plan for FY2022 \\
\hline \begin{tabular}{c} 
March 22, 2022 \\
(88th Round) \\
* Held in writing
\end{tabular} & \begin{tabular}{l} 
Reopening rule of nominal interest-bearing bonds in FY2022 \\
- Issuance size of Inflation-Indexed Bonds in the April-June 2022 quarter \\
- Issuance size of Liquidity Enhancement Auctions in the April-June 2022 quarter \\
Latest JB Garket situation and outlook for future investments
\end{tabular} \\
\hline
\end{tabular}

\section*{D The Meeting of JGB Top Retailers}
<Members>
Chuo Labour Bank
Daiwa Securities Co. Ltd.
Hamamatsu Iwata Shinkin Bank
JA-MIYAZAKICHUOH
J apan Post Bank Co., Ltd.
Mizuho Bank, Ltd.
Mizuho Securities Co., Ltd.
MUFG Bank, Ltd.
Nomura Securities Co., Ltd.
North Pacific Bank, Ltd.

SMBC Nikko Securities Inc.
Sumitomo Mitsui Banking Corporation
Sumitomo Mitsui Trust Bank, Limited
The Chugoku Bank, Ltd.
The Higo Bank, Ltd.
The Hokkaido Bank, Ltd.
The Keiyo Bank, Ltd.
The Sapporo Chuo Credit Cooperative
The Tama Shinkin Bank
Tomato Bank, Ltd.
(20 companies)
(Alphabetical order)
(As of J une 1, 2022)
<Actual Achievement>
\begin{tabular}{|c|l|}
\hline Date & \multicolumn{1}{c|}{ Content } \\
\hline \begin{tabular}{c} 
February 19, 2018 \\
(17th Round)
\end{tabular} & \begin{tabular}{l} 
- Explanation from the Financial Bureau regarding trends vis-à-vis the sale of JGBs for \\
Retail Investors, recent investment behavior of Retail Investors, and advertisement \\
of J GBs for Retail Investors \\
- Exchange of opinions with regard to each content
\end{tabular} \\
\hline May 30, 2019 \\
(18th Round)
\end{tabular}\(\quad\)\begin{tabular}{l} 
- Explanation from the Financial Bureau regarding trends vis-à-vis the sale of JGBs for \\
Retail Investors and advertisement of J GBs for Retail Investors \\
- Exchange of opinions with regard to each content
\end{tabular}
(10) History of Postwar Debt Management Policy
\begin{tabular}{|c|c|c|}
\hline FY & Debt Management Policy & Fiscal Policy, etc. \\
\hline \multicolumn{3}{|l|}{\[
\begin{array}{|l|}
\hline 47 \\
\sim
\end{array}
\]} \\
\hline 65 & \begin{tabular}{l}
66.1 Launching of underwriting Syndicate (7-year) \\
66.3 Launching of underwriting by Trust Funds Bureau
\end{tabular} & The issuance of Revenue-Financing Bonds in the supplementary budget (Start of issuance of bonds) \\
\hline 66 & & Introduction of Construction Bonds \\
\hline 67 & & \\
\hline 68 & 68.4 Introduction of "Tokubetsu-Maruyu" tax free saving schemes 68.5 Formation of Redemption system & \\
\hline \multicolumn{3}{|l|}{69} \\
\hline 70 & & \\
\hline 71 & 72.1 Extension of term-to-maturity of JGBs ( 7 years \(\rightarrow 10\) years) & Nixon Shock \\
\hline 72 & & \\
\hline 73 & & First year of the welfare era 1973 energy crisis \\
\hline \multicolumn{3}{|l|}{74 l|lll} \\
\hline 75 & & Launching of the issuance of Special Deficit-Financing Bonds \\
\hline 76 & 77.1 Launching of auction for discount bonds (5-year) & \\
\hline 77 & 77.4 Launching of securitization of JGBs which financial institutions acquired & \\
\hline 78 & 78.6 Launching of auction for medium-term bonds (3-year) & For 7\% growth that promised in Bonn summit proactive fiscal management \\
\hline 79 & \begin{tabular}{l}
79.6 Launching of auction for medium-term bonds (2-year) \\
80.1 Launching of sales of Fund of medium-term JGB \\
80.2 Creation of a Book-Entry Transfer System
\end{tabular} & \begin{tabular}{l}
1979 energy crisis \\
Locomotive theory \\
Setting the goal (fiscal year 1984) of grow out of dependence on Special Deficit-Financing Bonds
\end{tabular} \\
\hline 80 & 80.6 Launching of auction for medium-term bonds (4-year) & The first step toward fiscal reconstruction \\
\hline 81 & 81.9 Direct issuance of 6-Year bonds & The global depression \\
\hline 82 & 83.2 Direct issuance of 15-Year Floating-Rate JGB & Setting of "Zero-Ceiling" \\
\hline 83 & \begin{tabular}{l}
83.4 Launching of handling of offering of JGBs by financial institutions \\
83.9 Direct issuance of \(20-\) Year bonds
\end{tabular} & Setting of "Minus-Ceiling" Setting the goal (fiscal year 1990) of grow out of dependence on Special Deficit-Financing Bonds \\
\hline 84 & 84.6 Launching of dealing of JGBs by financial institutions & \\
\hline 85 & \begin{tabular}{l}
85.6 Amendment of the law for the Act on GDCF Special Account \\
(1) Launching of issuance of short-term bonds, of Refunding Bonds (front-loading) \\
(2) Reversion of former NTT stocks etc. to the Account \\
85.10 Launching of transactions of J GB futures \\
86.2 Launching of auction for short-term bonds
\end{tabular} & \\
\hline 86 & 86.10 Launching of underwriting Syndicate (20-year) & \\
\hline 87 & \begin{tabular}{l}
87.9 Launching of auction for Fixed-rate bonds (20-year) \\
87.11 Introduction of system of underwriting auction for 10-Year Bonds
\end{tabular} & \\
\hline 88 & 88.4 Launching of handling offering of JGBs in post offices & \\
\hline 89 & 89.4 Introduction of partial auction system for 10-Year Bonds by Syndicate & Introduction of consumption tax (3\%) \\
\hline 90 & 90.10 Extension of the ratio of bids by Syndicate (10-Year Bonds; \(40 \% \rightarrow 60 \%\) ) & Grow out of dependence on Special Deficit-Financing Bonds Issuance of Ad-hoc Deficit-Financing Bonds \\
\hline 91 & 91.4 Same-day-announcement of auction results of 10-Year Bonds & \\
\hline 92 & 92.4 Tax exemption of profit from redemption for TB and FB owned by foreign corporations & \\
\hline 93 & \begin{tabular}{l}
94.1 Extension of targets of "Maruyu" tax free saving schemes (350 million yen) \\
94.2 Launching of auction for Fixed-rate bonds (6-year)
\end{tabular} & \\
\hline 94 & & Issuance of tax reduction-related Special Deficit-Financing Bonds Issuance of Special Deficit-Financing Bonds for Earthquake \\
\hline 95 & & Re-issuance of Special Deficit-Financing Bonds \\
\hline 96 & \begin{tabular}{l}
96.4 Introduction of auction for 20-Year Bonds in every quarter of year \\
96.4 Launching of Japanese version of cash-secured bond lending transactions
\end{tabular} & Setting the goal of fiscal consolidation (Grow out of dependence on Special Deficit-Financing Bonds by fiscal year 2005) \\
\hline 97 & & Approval of the special treatment law regarding the promotion of fiscal reconstruction \\
\hline 98 & \begin{tabular}{l}
98.4 Launching of non-competitive auction for medium-term JGB \\
99.1 Abolishment of the article pre-maturity redemption \\
99.3 Launching of prior announce of auction schedule and amount of issuance
\end{tabular} & \begin{tabular}{l}
Consumption tax hike from \(3 \% \rightarrow 5 \%\) \\
Approval of the stop-law for special treatment law regarding the promotion of fiscal reconstruction
\end{tabular} \\
\hline 99 & \begin{tabular}{ll} 
99.4 & Launching of auction for T-Bill (1-year) \\
99.9 & Launching of auction for Fixed-rate bonds (30-year) \\
00.2 & Introduction of Fixed-rate bonds (5-year)
\end{tabular} & Reduction for income tax and corporate tax \\
\hline 00 & \begin{tabular}{l}
00.6 Launching of auction for 15-Year Floating-Rate Bonds \\
00.9 Launching of Meeting of J GB Market \\
00.11 Launching of auction for discount bonds (3-year) \\
01.3 Introduction of the immediate reopening rule
\end{tabular} & \\
\hline 01 & \begin{tabular}{l}
01.4 Introduction of new Gensaki transactions \\
01.10 Alteration of announcement of auction calendar (announce next 3 months)
\end{tabular} & Formation of the Koizumi Cabinet Launching of issuance of FILP Bonds \\
\hline 02 & \begin{tabular}{l}
02.4 Launching of The Meeting of J GB Investors \\
02.5 Raising of the ratio of auction for underwriting Syndicate (F rom \(60 \%\) to \(75 \%\); applied since May, 2002) \\
02.5 Reduction of the fee of underwriting Syndicate (From 0.63 yen to 0.39 yen; applied since May, 2002) \\
03.1 Introduction of a new Book-Entry Transfer System \\
03.1 Introduction of STRIPS \\
03.2 Launching of the auction for Buy-Back \\
03.3 Introduction of J GBs for Retail Investors
\end{tabular} & \\
\hline 03 & \begin{tabular}{l}
03.5 R aising of the ratio of competition auction in Syndicate (From \(75 \%\) to \(80 \%\); applied since May, 2003) \\
03.12 Announcement of "Forthcoming Development of Debt Management Policy" \\
04.2 Launching of WI transactions \\
04.3 Introduction of 10-Year Inflation-Index Bonds
\end{tabular} & \\
\hline 04 & \begin{tabular}{l}
04.5 R aising of the ratio of competition auction in Syndicate \\
(From 80\% to 85\%; applied since May, 2004) \\
04.5 Reduction of the fee of Underwriting Syndicate \\
(From 0.39 yen to 0.23 yen; applied since May, 2004) \\
04.7 Reinforcement of Debt Management System \\
Establishment of Senior Director and Market Analyst \\
Separation of the Debt Management Division into two \\
Appointment of non-government persons etc. \\
04.10 Introduction of J GB Market Special Participants Scheme \\
Designation of Special Participants \\
Launching of Meeting of Special Participants \\
Launching of the Non-Price Competitive Auction II \\
04.11 Launching of Advisory Council on Government Debt Management \\
05.1 Launching of overseas IRs
\end{tabular} & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline FY & & Debt Management Policy & F iscal Policy, etc. \\
\hline 05 & \begin{tabular}{ll}
05.4 & L \\
05.4 \\
& R \\
05.7 \\
& \\
06.1 \\
06.1 \\
06.3
\end{tabular} & \begin{tabular}{l}
Launching of the Non-Price Competitive Auction I \\
Raising of the ratio of competition auction in Syndicate \\
(From \(85 \%\) to \(90 \%\); applied since April, 2005) \\
Revision of rules related to auctions \\
Introduction of bid limitation for auction of bonds and FB \\
Alteration of auction system for 15 -Year Floating-Rate Bonds (conventional method) \\
Introduction of new type of JGBs for Retail Investors (fixed-rate) \\
Extension of targets of Auction for Buy-Back (for all brands) \\
Abolishment of the government bond for underwriting Syndicate
\end{tabular} & \\
\hline 06 & \[
\begin{array}{ll}
\hline 06.4 & \mathrm{La} \\
06.12 & \mathrm{Re} \\
& \mathrm{ar} \\
07.1 & \mathrm{In} \\
\hline
\end{array}
\] & \begin{tabular}{l}
Launching of Liquidity Enhancement Auctions \\
Re-opening issuance in principle of 10-Year Inflation-Indexed Bonds and \(30-\) Year bonds \\
Introduction of FB (6-Month) (transferred from TB (6-Month))
\end{tabular} & Formation of the Abe Cabinet \\
\hline 07 & \begin{tabular}{ll}
07.4 & E \\
& (leg \\
07.4 & A \\
07.6 & L \\
07.9 & A \\
& Fl \\
07.10 & In \\
07.11 & L
\end{tabular} & \begin{tabular}{l}
Execution of law regarding Special Accounts (legislation of rules of swaption transaction, etc.) \\
Alteration of auction system for \(30-\mathrm{Year}\) bonds (conventional method) \\
Launching of Meeting of J GB Top Retailers \\
Announcement of re-opening issuance in principle of \(15-Y e a r\) \\
Floating-Rate Bonds \\
Introduction of New Over-The-Counter (OTC) Sales System \\
Launching of auction for fixed-rate bonds (40-year)
\end{tabular} & Formation of the Fukuda Cabinet \\
\hline 08 & \begin{tabular}{cc}
08.4 & In \\
08.4 & S \\
& as \\
08.4 & E \\
& ( \\
& In \\
08.6 & La \\
08.8 & R \\
& (f \\
\(08.9,10\) & R \\
& (S \\
08.12 & R \\
09.1 & R \\
& R \\
09.2 & La
\end{tabular} & \begin{tabular}{l}
Introduction of Special Liquidity Enhancement Auctions \\
Setting the issuance date of coupon-bearing bonds \\
as T (auction date) +3 , in principle \\
Extension of targets of Liquidity Enhancement Auctions \\
(Coupon-bearing bonds from 6 -year to 29 -year except for \(10-Y e a r\) \\
Inflation-Indexed Bonds and 15-Year Floating-Rate Bonds) \\
Launching of Buy-Back of STRIPS \\
Reduction of planned issuance amount of 15 -Year Floating-Rate Bonds \\
(four times per year \(\rightarrow\) twice per year) \\
Reduction of planned issuance amount of 10-Year Inflation-Indexed Bonds (Suspension of issuance) \\
Reduction of planned issuance amount of 10 -Year Inflation-Indexed \\
Bonds and 15 -Year Floating-Rate Bonds (Suspension of issuance; Feb, 2009) etc. \\
Raising of the Bidding upper limit for Non-Price Competitive Auction II from "10\% \\
of the amount in the normal auction " to "15\%" \\
Launching of the issuance of T-Bills by the integration of TB and FB
\end{tabular} & Global financial crisis Formation of the Aso Cabinet \\
\hline 09 &  & \begin{tabular}{l}
Extension of total amount of Buy-Back from the market ( \(3 \rightarrow 4\) trillion yen) \\
(Centering on 10 -Year Inflation-Indexed Bonds and 15-Year Floating-Rate Bonds) \\
Extension of targets of Liquidity Enhancement Auctions \\
(Coupon-bearing bonds from 5 -year to 29 -year) \\
Reduction of amount of Buy-Back for 10-Year Inflation-Indexed Bonds and \\
15-Year Floating-Rate Bonds \\
(In terms of change from responding to the financial crisis to ordinary support) \\
Announcement of real interest rate (constant maturity basis) based \\
on the daily JGB prices in the secondary market on the MOF website
\end{tabular} & Formation of the Hatoyama Cabinet \\
\hline 10 & \[
\begin{array}{ll}
\hline 10.7 \\
& 2 \\
10.12
\end{array}
\] & \begin{tabular}{l}
Issuance of JGBs for Retail Investors (3-year) since July (offered in June), 2010 \\
Execution of Buy-Back whose resources are reduced from GDCF
\end{tabular} & Formation of the Kan Cabinet \\
\hline 11 & \[
\begin{aligned}
& 11.7 \\
& 12.1
\end{aligned}
\] & \begin{tabular}{l}
Revisions of Rate-Setting Formula for JGBs for Retail Investors (10-Year Floating Rate) \\
Issuance of Reconstruction Bonds for Retail Investors since January, 2012 (offered in December, 2011)
\end{tabular} & Formation of the Noda Cabinet Issuance of Reconstruction Bonds \\
\hline 12 & \[
\begin{array}{|cc}
\hline 12.4 & \mathrm{Is} \\
& \mathrm{Ar} \\
& \mathrm{~S} \\
& \mathrm{pr} \\
13.1 & \mathrm{Ar} \\
& \mathrm{G} \\
\hline
\end{array}
\] & \begin{tabular}{l}
Issuance of Reconstruction Supporters' Bonds for Retail Investors since April, 2012 (offered in March, 2012) \\
Setting the issuance date of JGB and T-Bill as T (auction date) +2 , in principle \\
Announcement of reduction of the Issuance of Refunding Bonds by using the Government Debt Consolidation Fund(GDCF)
\end{tabular} & \begin{tabular}{l}
Formation of the Abe Cabinet \\
Issuance of Special Bonds for covering Public Pension Funding
\end{tabular} \\
\hline 13 & \[
\begin{array}{ll}
\hline 13.7 & \mathrm{E} \\
& \text { (C } \\
13.10 & \mathrm{Rt} \\
13.12 & \mathrm{Lz} \\
& (1 \\
& \mathrm{Ar}
\end{array}
\] & \begin{tabular}{l}
Extension of targets of Liquidity Enhancement Auctions (Coupon-bearing bonds from 5- to 39-year bonds) \\
Resumption of the issuance of Inflation-Indexed Bonds \\
Launching the monthly offering and issuance of JGBs for retail investors \\
(10-Year Floating Rate and 5 -Year Fixed Rate) \\
Announcement of re-opening issuance in principle of 20-year bonds
\end{tabular} & \\
\hline 14 & 14.5
15.1 & Announcement of allowing Retail Investors to hold J GBi from J anuary 2015 Launching of the purchase of J GBi by Retail Investors through direct negotiation & Consumption tax hike from 5\% to 8\% \\
\hline 15 & \[
\begin{array}{ll}
\hline 15.4 & \mathrm{R} \\
& \mathrm{is} s \\
15.4 & \mathrm{R} \\
& \mathrm{fro} \\
\hline
\end{array}
\] & \begin{tabular}{l}
Reduction of the Bidding upper limit for auction participants from "planned issuance amount" to "half of planned issuance amount" \\
Raising of the bidding responsibility for J GB market Special Participants from " \(3 \%\) or more of planned issuance amount" to " \(4 \%\) or more"
\end{tabular} & Achievement of the interim target of halving the primary deficit \\
\hline 16 & \begin{tabular}{l}
16.4 \\
16.4
\end{tabular} & Extension of targets of Liquidity Enhancement Auctions (Coupon-bearing bonds from 1- to 39-year bonds) Launching Buy-Backs of Inflation-Indexed Bonds & \\
\hline 17 & \[
\begin{aligned}
& 17.7 \\
& 17.7
\end{aligned}
\] & \begin{tabular}{l}
Raising of the upper issue limit for Non-Price Competitive \\
Auction I from " \(10 \%\) of the planned issue amount" to " \(20 \%\) " \\
Raising of the minimum bidding responsibility amount for J GB market Special Participants from 4\% of the planned issue amount to 5\%
\end{tabular} & \\
\hline 18 & 18.5 & Setting the issuance date of JGB and T-Bill as T (auction date) +1 , in principle & \\
\hline 19 & \[
\begin{aligned}
& 20.1 \\
& 20.3 \\
& \hline
\end{aligned}
\] & Reduction of the Bidding upper limit for Non-Price Competitive Auction II from "15\% of the amount in the normal auction" to "10\%" Buy-Back of Inflation-Indexed Bonds worth 300 billion yen & Consumption tax hike from 8\% to 10\% Implementation of the reduced tax rate system for the consumption tax Spread of COVID-19 \\
\hline 20 & 20.4
20.4
20.10 & Suspension of Non-Price Competitive Auction II for Inflation-Indexed Bonds Raising the Buy-Back of Inflation-Indexed Bonds from 20 billion yen to 50 billion yen Revision of a fee system for J GBs for Retail Investors (Introduction of a management fee) & Formation of the Suga Cabinet \\
\hline 21 & \[
\begin{aligned}
& 21.4 \\
& \\
& 21.6 \\
& 22.3
\end{aligned}
\] & \begin{tabular}{l}
Reduction of the lower limit for a coupon on interest-bearing JGBs from 0.1\% to 0.005\% \\
Termination of the Advisory Council on Government Debt Management Change of the minimum bidding responsibility amount for J GB Market Special Participants from " \(5 \%\) of the planned issue amount" to " \(100 / \mathrm{n}\left({ }^{*}\right) \%\) " \\
\({ }^{*} n\) is the number of the Special \(P\) articipants
\end{tabular} & \\
\hline
\end{tabular}

\section*{(11) Government Bond-related Legal Systems}

\section*{A. Legal basis of issuance}

All JGBs are issued in accordance with applicable laws. Depending on legal grounds, JGBs are categorized into JGBs (Construction Bonds, Special Deficit-Financing Bonds, Reconstructions Bonds, Refunding Bonds and Fiscal Investment and Loan Program (FILP) Bonds), Financing Bills for financing temporary cash shortage of the national treasury, and Subsidy Bonds granted in place of cash payments.
According to Article 85 of the Japanese Constitution, the Diet approval is necessary when the central government intends to assume new liabilities.

\section*{a. Public Finance Act, Art. 4(1), Proviso (Construction Bonds)}

Proviso to Art. 4(1) of the "Public Finance Act" permits as an exception the ability to issue bonds and take out loans within amounts that correspond to public works expenditure, capital subscriptions, and lending. These expenditures, which are not consumptive, contribute to the asset formation of the state, normally with long-term benefits. Therefore, with regard to this type of expenditure, financial resource can be procured through public debt issuance or borrowing, and the understanding is that future generations can be required to share in the burden of debt service.

In other words, Art. 4(1) of the "Public Finance Act" rests on the concept of an equitable sharing of the financial burden across the generations, and is interpreted to stipulate a principle of sound fiscal policy such that public debt issuance and/or borrowing are permitted, limited to public works expenditure, etc.
However, debt and loan amounts must be within the scope allowed for by Diet approval, with the issuance ceiling amount provided in the general provisions of the general account budget.
Furthermore, Art. 4(2) provides that when this ceiling amount is put to a parliamentary vote, the government is obliged to submit to the Diet a redemption plan that shows the redemption amount for each fiscal year, the redemption method and the redemption periods.

\section*{b. Special Law for Special Deficit-Financing Bonds (Special Deficit-Financing Bonds)}

A special law for Special Deficit-Financing Bonds legislated in each fiscal year and the "Act on Special Provisions concerning Issuance of Government Bonds to Secure Revenue Resources Necessary for Fiscal Management" provide for "issuance in addition to the public debt issued pursuant to the proviso of Art. 4(1) of the Public Finance Act." The purpose of this provision is to limit the issuance of Special Deficit-Financing Bonds to cases where, despite the issuance of Construction Bonds, a revenue shortfall is expected to arise.
These laws provide merely the authority to issue Special Deficit-Financing Bonds, but leave it to the general provisions of the general account budget to stipulate a specific issuance ceiling. The reason for this structure is that the applicable ceilings for the issuance of public debt each fiscal year are decided within the balance of total income and expenditure for the fiscal year in question. In this sense, since the ceiling amount for JGBs is inseparably linked to budgeted income and expenditure, it is considered most appropriate to have these matters stipulated in the general provisions of the general account budget and to hold a parliamentary debate and obtain a decision as part of wider income and expenditure considerations.
Moreover, as with Construction Bonds, when the issuance ceiling for Special Deficit-Financing Bonds requires Diet approval, a redemption plan must be submitted to the Diet for reference during the deliberations.
Issuance of Special Deficit-Financing Bonds is an exceptional measure. Actual issuance must be within the scope allowed for by Diet approval, must be made with consideration for the state of income sources such as tax revenues, and must be kept as low as possible. In this context, it is allowed to issue Special Deficit-Financing Bonds even during the accounting adjustment term. Specifically, the government is allowed to issue Special Deficit-Financing Bonds until the end of June in the next fiscal year, in order to adjust the issue amount of Special Deficit-Financing Bonds until the end of May in the next fiscal year: the deadline for collecting the tax revenue for the fiscal year. In addition, the government must strive to expeditiously reduce Special Deficit-Financing Bonds.
c. Act on Special Measures concerning the securing of financial resources to execute measures necessary for recovery from the Great East Japan Earthquake, Art. 69(1) and (4) (Reconstruction Bonds)
Reconstruction Bonds are JGBs issued for raising necessary financial resources to cover reconstruction from the Great East Japan Earthquake from FY2011 to FY2025 in accordance with Paragraphs 1 and 4, Article 69 of the "Act on Special Measures concerning the securing of financial resources to execute measures necessary for recovery from the Great East Japan Earthquake." Reconstruction Bonds were issued as a general account item in FY2011, but the government issued these bonds from FY2012 onward under the Special Account for Reconstruction from the Great East Japan Earthquake.
As with Construction Bonds and Special Deficit-Financing Bonds, Reconstruction Bonds may be issued within the upper limit as approved by the Diet and the ceiling amount is provided under the general provisions of the general account budget with regard to FY2011 and under the general provisions of the special account budget with regard to FY2012 and beyond. In addition, as with Special Deficit-Financing Bonds, the accounting adjustment term issuance system is provided.
Reconstruction Bonds, including their Refunding Bonds, will be redeemed in FY2037 at the latest. Redemption of these bonds will be financed with revenues generated from the Special Taxes for Reconstruction, etc. from FY2012 to FY2037.

\section*{d. Act on Special Accounts, Art. 46(1) and Art. 47(1) (Refunding Bonds)}

Art. 46(1) of the "Act on Special Accounts" allows the government to issue Refunding Bonds up to the amount necessary for JGB adjustment or redemption without Diet approval of the issuance ceiling or submission of a redemption plan. The reason is that unlike new financial resource bonds such as Construction Bonds and Special Deficit-Financing Bonds, the issuance of Refunding Bonds does not entail an increase in the outstanding debt balance. Besides, since circumstances will require that the issuance of Refunding Bonds must occur promptly and flexibly in accordance with financial market conditions, the time constraints associated with the issuance of Refunding Bonds do not allow for procedures such as the advance submission of redemption plans or advance Diet approval of issuance ceiling.
In addition, in order to enable flexible issuance in response to financial conditions, Art. 47(1) allows front-loaded issuance of Refunding Bonds. However, this front-loading is restricted to the ceiling amount stipulated in the general provisions of the special account budget approved in advance by the Diet.

\section*{e. Act on Special Accounts, Art. 62(1) (FILP Bonds)}

Along with the 2001 reform of the FILP. Art. 62(1) of the "Act on Special Accounts" permits the issuance of Fiscal Investment and Loan Program Bonds (so-called FILP Bonds), which is charged to the Fiscal Loan Fund account, in order to finance the Fiscal Loan Fund operations. According to Paragraph 2 of the same Article of the said Act, as the central government issues FILP Bonds backed by its credibility, an approval from the Diet is necessary on the bond issuance upper limit in a similar manner to other JGBs. Art. 62(3) stipulates that the expenditure schedule must be accompanied by a redemption plan.
f. Others (Financing Bills, etc.)

Financing Bills are issued in accordance with Article 7 of the "Public Finance Act" or the "Act on Special Accounts", etc. Subsidy Bonds are issued in line with their respective condolence money allowance legislations, and specific legislations, such as the Act on Nuclear Damage Compensation and Decommissioning Facilitation Corporation.

\author{
B. Other laws \\ a. Act on National Government Bonds (Basic matters of JGB) \\ The "Act on National Government Bonds" defines basic matters of JGBs. The "Act on National Government Bonds" stipulates, among others, the following matters: \\ - Matters related to bond issuance such as the conditions of JGB issuance, and necessary matters concerning debt service, securities certificates and registration are determined by the Minister of Finance \\ - Clerical tasks concerning JGBs are performed by the Bank of Japan \\ - Matters concerning the registration of JGBs \\ - Matters concerning restrictions on the transfer of JGBs \\ -Remedies in cases of the destruction or loss of JGB certificates \\ - Matters concerning the extinctive prescription of JGBs
}

In relation to matters not stipulated in this law, the Civil Code and the Commercial Code, as well as general rules such as transaction conventions, are applicable.
Specific procedures for the issuance and redemption of JGBs are stipulated in the "Rules Concerning National Government Bonds"; the "Ordinance of the Ministry of Finance on Issuance, etc. of National Government Bonds"; the "Rules for the Handling of National Government Bonds in the Bank of Japan"; and the "Ordinance of the Ministry of Finance Concerning Special Handling Procedures of the Bank of Japan for the Payment, etc., of Principal and Interest of National Government Bonds," among others.
b. Act on Special Accounts, Art. 38 through 49 (Redemption of JGBs, etc.)

The redemption of JGBs (payment of principal) and the payment of interest occur through the GDCF established by the "Act on Special Accounts."
With regard to the GDCF, this act stipulates the following, among other matters.
- Matters concerning the establishment of the GDCF for the redemption of JGBs including borrowings
- Matters concerning redemption resource and transfer methods
- Matters concerning the issuance of JGBs (Refunding Bonds) for JGB consolidation and/or redemption - Matters concerning the successive carry-over of debt redemption cost.

\section*{Chapter 2 Financing Bills, Borrowings and Government-Guaranteed Debt}

\section*{Financing Bills (FBs)}
(1) Outstanding Amount of FBs-Breakdown by the Types (as of the end of FY2021)
(Unit: billion yen)
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & \begin{tabular}{c} 
Treasury \\
FBs
\end{tabular} & \begin{tabular}{c} 
Fiscal Loan \\
Fund FBs
\end{tabular} & \begin{tabular}{c} 
Foreinn Exchange \\
Fund FBs
\end{tabular} & \begin{tabular}{c} 
Petroleum \\
FBs
\end{tabular} & \begin{tabular}{c} 
Nuclear Damage \\
Liabilit Fandiltaition \\
Fund FBs
\end{tabular} & Food FBs & Total \\
\hline \begin{tabular}{c} 
Outstanding as of \\
the End of FY2021
\end{tabular} & - & - & \(84,859.5\) & \(1,160.4\) & - & 179.0 & \(86,198.9\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Maximum Issuance Amount in FY2021 & 20,000.0 & 15,000.0 & 195,000.0 & 1,457.4 & 3,717.4 & 316.3 & 235,491.1 \\
\hline Maximum Issuance Amount in FY2022 & 20,000.0 & 15,000.0 & 195,000.0 & 1,488.3 & 3,079.6 & 323.8 & 234,891.7 \\
\hline
\end{tabular}

Note 1: FY 2021:supplementary budget,FY2022:initial budget.
Note 2: Figures may not sum up to the total because of rounding
(2) Outstanding Amount of FBs

(3) Issuance Amount of FBs in FY2021-Breakdown by Funding Resources

(4) Receipts and Payments on the National Treasury for FY2021


\section*{2 Borrowings}

\section*{(1) Outstanding Amount of Borrowings}

(2) Outstanding Amount of Borrowings-Breakdown by the Types of Account (as of the end of FY2021)
(Unit: billion yen)
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Name of Account} & \multirow[t]{2}{*}{\[
\begin{aligned}
& \text { End of } \\
& \text { FY2020 }
\end{aligned}
\]} & \multirow[t]{2}{*}{\[
\begin{aligned}
& \text { End of } \\
& \text { FY2021 }
\end{aligned}
\]} & \multicolumn{3}{|c|}{Creditor} \\
\hline & & & Fiscal Loan Fund & Financial Instituions & Others \\
\hline General Account \({ }^{1)}\) & 9,408.6 & 8,819.5 & 8,778.1 & - & 41.4 \\
\hline Former Temporary Military Expenditure & 41.4 & 41.4 & - & - & 41.4 \\
\hline Allotment of Local Allocation Tax and Local Transfer Tax & 9,342.1 & 8,758.2 & 8,758.2 & - & - \\
\hline Former National Centers for Advanced and Specialized Medical Care & 25.1 & 19.8 & 19.8 & - & - \\
\hline SA for Allotment of Local Allocation Tax and Local Transfer Tax & 30,962.3 & 30,112.3 & 6,066.7 & 24,045.6 & - \\
\hline SA for Energy Policy & 8,264.9 & 8,333.1 & 103.3 & 8,229.8 & - \\
\hline SA for Pension & 1,446.6 & 1,440.9 & 1,440.9 & - & - \\
\hline SA for Stable Food Supply & 30.1 & 24.0 & 24.0 & - & - \\
\hline SA for National Forest Debt Management & 1,165.5 & 1,143.8 & 44.0 & 1,099.8 & - \\
\hline SA for Motor Vehicle Safety & 515.3 & 554.9 & 417.8 & - & \({ }^{\text {2) }} 137.1\) \\
\hline Total & 51,793.3 & 50,428.5 & 16,874.8 & 33,375.2 & 178.6 \\
\hline
\end{tabular}

Note 1: For breakdown of the General Account, "Former Temporary Military Expenditure"(41.4) arise from the former Special Account for Temporary Military Expenditure. For "Allotment of Local Allocation Tax and Local Transfer Tax" (8,758.2) and "Former National Centers for Advanced and Specialized Medical Care" (19.8), part of the debt of "Special Account for Allotment of Local Allocation Tax and Local Transfer Tax" (April 2007), and part of the debt of "Special Account for National Centers for Advanced and Specialized Medical Care" (April 2010) were attributed to the General Account, respectively.
Note 2: These loans were made from local governments.
Note 3: Figures may not sum up to the total because of rounding.
(4) Amount of Bids Accepted and Average Interest Rate at Each Auction by the Special Account for Local Allocation Tax

(5) Auction Results of the Borrowings of the Special Account for Local Allocation Tax in FY2021
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Auction Date & Borrowing Date & Maturity Date & Amount of Competitive Bids (billion yen) & Amount of Bids Accepted (billion yen) & Average Interest R ate & Highest Interest Rate \\
\hline 4/1/21 & 4/9/21 & 10/8/21 & 30,565.5 & 1,100.048 & 0.000\% & 0.000\% \\
\hline 4/6/21 & 4/16/21 & 10/15/21 & 32,279.2 & 1,100.012 & 0.000\% & 0.000\% \\
\hline 4/14/21 & 4/23/21 & 10/22/21 & 41,197.9 & 1,100.014 & 0.000\% & 0.000\% \\
\hline 4/20/21 & 5/7/21 & 11/4/21 & 42,335.8 & 1,100.034 & 0.000\% & 0.000\% \\
\hline 4/23/21 & 5/11/21 & 11/10/21 & 40,723.0 & 1,100.012 & 0.000\% & 0.000\% \\
\hline 4/28/21 & 5/14/21 & 11/12/21 & 40,551.2 & 1,100.013 & 0.000\% & 0.000\% \\
\hline 5/11/21 & 5/21/21 & 11/18/21 & 43,675.9 & 1,100.016 & 0.000\% & 0.000\% \\
\hline 5/19/21 & 5/31/21 & 11/30/21 & 43,924.2 & 1,100.034 & 0.000\% & 0.000\% \\
\hline 5/25/21 & 6/2/21 & 12/3/21 & 43,690.2 & 1,100.020 & 0.000\% & 0.000\% \\
\hline 6/1/21 & 6/11/21 & 12/10/21 & 41,711.5 & 1,100.064 & 0.000\% & 0.000\% \\
\hline 6/8/21 & 6/18/21 & 12/17/21 & 42,820.2 & 1,100.009 & 0.000\% & 0.000\% \\
\hline 7/6/21 & 7/16/21 & 1/18/22 & 42,222.5 & 1,100.017 & 0.000\% & 0.000\% \\
\hline 7/13/21 & 7/26/21 & 1/26/22 & 41,242.5 & 1,100.011 & 0.000\% & 0.000\% \\
\hline 7/15/21 & 7/28/21 & 1/28/22 & 40,817.7 & 1,100.006 & 0.000\% & 0.000\% \\
\hline 7/21/21 & 7/30/21 & 2/1/22 & 40,962.9 & 1,100.037 & 0.000\% & 0.000\% \\
\hline 7/28/21 & 8/6/21 & 2/4/22 & 39,188.1 & 1,100.004 & 0.000\% & 0.000\% \\
\hline 8/3/21 & 8/13/21 & 2/10/22 & 41,524.4 & 1,100.011 & 0.000\% & 0.000\% \\
\hline 8/6/21 & 8/20/21 & 2/18/22 & 40,409.7 & 1,100.019 & 0.000\% & 0.000\% \\
\hline 8/20/21 & 8/31/21 & 2/28/22 & 39,960.6 & 1,100.005 & 0.000\% & 0.000\% \\
\hline 8/24/21 & 9/2/21 & 3/4/22 & 38,209.9 & 1,050.001 & 0.000\% & 0.000\% \\
\hline 8/27/21 & 9/7/21 & 3/8/22 & 38,563.8 & 1,050.033 & 0.000\% & 0.000\% \\
\hline 8/31/21 & 9/10/21 & 3/11/22 & 38,215.8 & 1,045.025 & 0.000\% & 0.000\% \\
\hline 9/29/21 & 10/8/21 & 4/8/22 & 42,046.2 & 1,100.036 & 0.000\% & 0.000\% \\
\hline 10/5/21 & 10/15/21 & 4/15/22 & 45,160.9 & 1,100.036 & 0.000\% & 0.000\% \\
\hline 10/13/21 & 10/22/21 & 4/22/22 & 45,512.3 & 1,100.027 & 0.000\% & 0.000\% \\
\hline 10/22/21 & 11/4/21 & 5/9/22 & 46,367.3 & 1,100.042 & 0.000\% & 0.000\% \\
\hline 10/29/21 & 11/10/21 & 5/11/22 & 48,159.5 & 1,100.014 & 0.000\% & 0.000\% \\
\hline 11/2/21 & 11/12/21 & 5/13/22 & 47,890.0 & 1,100.046 & 0.000\% & 0.000\% \\
\hline 11/9/21 & 11/18/21 & 5/18/22 & 49,311.9 & 1,100.005 & 0.000\% & 0.000\% \\
\hline 11/19/21 & 11/30/21 & 5/31/22 & 48,480.7 & 1,100.028 & 0.000\% & 0.000\% \\
\hline 11/25/21 & 12/3/21 & 6/2/22 & 48,039.1 & 1,100.023 & 0.000\% & 0.000\% \\
\hline 12/1/21 & 12/10/21 & 6/10/22 & 51,072.3 & 1,100.050 & 0.000\% & 0.000\% \\
\hline 12/8/21 & 12/17/21 & 6/17/22 & 47,798.1 & 1,100.025 & 0.000\% & 0.000\% \\
\hline 1/7/22 & 1/18/22 & 7/20/22 & 50,928.6 & 1,100.012 & 0.000\% & 0.000\% \\
\hline 1/14/22 & 1/26/22 & 7/27/22 & 47,461.1 & 1,100.003 & 0.000\% & 0.000\% \\
\hline 1/19/22 & 1/28/22 & 7/29/22 & 47,317.4 & 1,100.029 & 0.000\% & 0.000\% \\
\hline 1/21/22 & 2/1/22 & 8/2/22 & 46,531.1 & 1,100.036 & 0.000\% & 0.000\% \\
\hline 1/26/22 & 2/4/22 & 8/5/22 & 45,293.3 & 1,100.034 & 0.000\% & 0.000\% \\
\hline 2/1/22 & 2/10/22 & 8/10/22 & 46,638.8 & 1,100.040 & 0.000\% & 0.000\% \\
\hline 2/8/22 & 2/18/22 & 8/19/22 & 45,239.4 & 1,100.002 & 0.000\% & 0.000\% \\
\hline 2/17/22 & 2/28/22 & 8/31/22 & 44,432.6 & 1,100.033 & 0.000\% & 0.000\% \\
\hline 2/22/22 & 3/4/22 & 9/2/22 & 42,649.8 & 1,050.036 & 0.000\% & 0.000\% \\
\hline 2/25/22 & 3/8/22 & 9/6/22 & 40,756.5 & 1,050.042 & 0.000\% & 0.000\% \\
\hline 3/2/22 & 3/11/22 & 9/9/22 & 43,007.0 & 1,045.036 & 0.000\% & 0.000\% \\
\hline
\end{tabular}

\section*{III Appendices}

1qว
(7) Auction Results of the Borrowings of the Special Account for Energy Policy in FY2021
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Auction Date & Borrowing Date & Maturity Date & \begin{tabular}{c} 
Amount of \\
Competitive Bids \\
(billion yen)
\end{tabular} & \begin{tabular}{c} 
Amount of \\
Bids Accepted \\
(billion yen)
\end{tabular} & \begin{tabular}{c} 
Average \\
Interest Rate
\end{tabular} & \begin{tabular}{c} 
Highest \\
Interest Rate
\end{tabular} \\
\hline \(4 / 9 / 21\) & \(4 / 20 / 21\) & \(4 / 20 / 22\) & \(22,594.3\) & 799.979 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(5 / 7 / 21\) & \(5 / 20 / 21\) & \(5 / 20 / 22\) & \(22,631.0\) & 799.976 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(6 / 10 / 21\) & \(6 / 21 / 21\) & \(6 / 20 / 22\) & \(22,056.7\) & 799.997 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(7 / 9 / 21\) & \(7 / 20 / 21\) & \(7 / 20 / 22\) & \(22,682.2\) & 799.999 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(8 / 11 / 21\) & \(8 / 20 / 21\) & \(8 / 22 / 22\) & \(19,244.6\) & 649.992 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(9 / 10 / 21\) & \(9 / 21 / 21\) & \(9 / 20 / 22\) & \(18,466.4\) & 599.973 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(10 / 8 / 21\) & \(10 / 20 / 21\) & \(10 / 20 / 22\) & \(21,409.3\) & 649.986 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(11 / 11 / 21\) & \(11 / 22 / 21\) & \(11 / 21 / 22\) & \(22,213.8\) & 649.975 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(12 / 10 / 21\) & \(12 / 20 / 21\) & \(12 / 20 / 22\) & \(21,159.7\) & 649.992 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(1 / 12 / 22\) & \(1 / 20 / 22\) & \(1 / 20 / 23\) & \(22,265.1\) & 649.968 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(2 / 10 / 22\) & \(2 / 21 / 22\) & \(2 / 20 / 23\) & \(21,303.7\) & 649.992 & \(0.000 \%\) & \(0.000 \%\) \\
\hline \(3 / 10 / 22\) & \(3 / 22 / 22\) & \(3 / 20 / 23\) & \(17,476.3\) & 529.993 & \(0.000 \%\) & \(0.000 \%\) \\
\hline
\end{tabular}

\section*{3 Government-Guaranteed Debt}
(1) Changes in the Outstanding Amount of Government-Guaranteed Debt

(2) Changes in the Issuance Amount of Government-Guaranteed Domestic Bonds Offered to the Market
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{16}{|r|}{(Unit: billion yen)} \\
\hline & 40-Year Bonds & \begin{tabular}{l}
30-Year \\
Bonds
\end{tabular} & \begin{tabular}{l}
20-Year \\
Bonds
\end{tabular} & 15-Year Bonds & 12-Year Bonds & 10-Year Bonds & 9-Year Bonds & 8-Year Bonds & \begin{tabular}{l}
7-Year \\
Bonds
\end{tabular} & 6-Year Bonds & 5-Year Bonds & 4-Year Bonds & \begin{tabular}{l}
3-Year \\
Bonds
\end{tabular} & 2-Year Bonds & Total (Note) \\
\hline FY 2012 & - & 90.0 & 360.0 & - & - & 2,462.1 & - & - & - & 535.0 & - & 820.0 & 25.0 & 430.0 & 4,722.1 \\
\hline FY2013 & - & 90.0 & 360.0 & - & - & 2,779.7 & - & 200.0 & - & 420.0 & - & 610.0 & - & 600.0 & 5,059.7 \\
\hline FY 2014 & - & 120.0 & 400.0 & - & - & 2,005.7 & - & - & - & 414.0 & - & 550.0 & - & 730.0 & 4,219.7 \\
\hline FY 2015 & 20.0 & 120.0 & 400.0 & - & - & 1,443.6 & - & 112.0 & - & 250.0 & - & 200.0 & - & 600.0 & 3,145.6 \\
\hline FY2016 & 40.0 & 160.0 & 400.0 & - & - & 746.9 & - & 120.0 & - & 370.0 & - & 440.0 & - & 830.0 & 3,106.9 \\
\hline FY 2017 & 70.0 & 240.0 & 400.0 & - & - & 1,351.4 & - & - & - & 165.0 & - & 630.0 & 200.0 & 900.0 & 3,956.4 \\
\hline FY2018 & 100.0 & 280.0 & 402.0 & - & - & 754.1 & 13.0 & - & - & 155.0 & - & 550.0 & 100.0 & 750.0 & 3,104.1 \\
\hline FY 2019 & 110.0 & 300.0 & 15.0 & - & - & 272.9 & - & 50.0 & 90.0 & 45.0 & - & 220.0 & 150.0 & 550.0 & 1,802.9 \\
\hline FY 2020 & 70.0 & - & 92.0 & - & - & 127.3 & - & - & 90.0 & - & - & 510.0 & 250.0 & 280.0 & 1,419.3 \\
\hline FY2021 & 5.0 & 60.0 & 83.2 & - & 80.0 & 31.0 & - & - & 20.0 & - & 160.0 & 310.0 & 100.0 & 280.0 & 1,129.2 \\
\hline \[
\begin{array}{|c|}
\text { FY } 2022 \\
\text { (Plan) }
\end{array}
\] & 20.0 & - & 145.0 & 65.0 & 80.0 & 122.5 & - & - & 80.0 & - & 140.0 & 150.0 & - & 350.0 & 1,152.5 \\
\hline
\end{tabular}

\footnotetext{
Note: Apart from the plan shown above, J apan Finance Corporation (JFC) and Development Bank of J apan Inc. (DBJ) plan further issuances (maturity less than 5 years)
} depending on the progress of projects. The maximum amounts of these further issuances are 100 billion yen for JFC and DBJ, respectively.
(3) Breakdown of the Government-Guaranteed Debt by Agencies

\section*{A Government-Guaranteed Domestic Bonds}
\begin{tabular}{|l|r|r|r|r|}
\hline & \begin{tabular}{c} 
Outstanding \\
(End of FY2020)
\end{tabular} & \begin{tabular}{c} 
Issuance \\
(FY2021)
\end{tabular} & \begin{tabular}{c} 
Redemption \\
(FY2021)
\end{tabular} & \begin{tabular}{c} 
Outstanding \\
(End of FY2021)
\end{tabular} \\
\hline J FC & 815.0 & - & 80.0 & 735.0 \\
\hline J EHDRA & \(14,901.5\) & 120.0 & \(1,350.0\) & \(13,671.5\) \\
\hline J HFA & - & 220.0 & - & 220.0 \\
\hline New Kansai International Airport C 0.,Ltd. & 296.5 & - & 49.4 & 247.1 \\
\hline DBJ Inc. & \(1,720.0\) & 45.0 & 450.0 & \(1,315.0\) \\
\hline DICJ & \(1,850.0\) & 280.0 & 650.0 & \(1,480.0\) \\
\hline NDF & 800.0 & 250.0 & 250.0 & 800.0 \\
\hline CREB & 20.0 & - & 20.0 & - \\
\hline PFIPCJ & 68.0 & 20.0 & - & 88.0 \\
\hline J OIN & - & - & - & - \\
\hline JICT & 10.0 & - & - & 10.0 \\
\hline Organization for Promoting Urban Development & 85.8 & 10.0 & - & 95.8 \\
\hline CJ IAC & 139.2 & 24.2 & 8.9 & 154.5 \\
\hline J FM & \(4,922.9\) & 160.0 & \(1,072.9\) & \(4,010.0\) \\
\hline & \(25,628.8\) & \(1,129.2\) & \(3,931.1\) & \(22,826.9\) \\
\hline
\end{tabular}
\begin{tabular}{|r|r|}
\hline \begin{tabular}{r} 
Planned \\
Issuance \\
(FY2022)
\end{tabular} & \begin{tabular}{r} 
Planned \\
Redemption \\
(FY2022)
\end{tabular} \\
\hline- & 180.0 \\
\hline 120.0 & \(1,876.0\) \\
\hline 220.0 & - \\
\hline- & 43.0 \\
\hline 130.0 & 240.0 \\
\hline 200.0 & 610.0 \\
\hline 300.0 & 300.0 \\
\hline- & - \\
\hline 50.0 & - \\
\hline 58.9 & - \\
\hline 15.5 & - \\
\hline 35.0 & - \\
\hline 23.1 & 23.1 \\
\hline- & 755.0 \\
\hline \(1,152.5\) & \(4,027.1\) \\
\hline
\end{tabular}

\section*{B Government-Guaranteed Borrowings}
\begin{tabular}{|l|r|r|r|r|}
\hline & \begin{tabular}{c} 
Outstanding \\
(End of FY2020)
\end{tabular} & \begin{tabular}{c} 
Borrowings \\
(FY2021)
\end{tabular} & \begin{tabular}{c} 
Repayment \\
(FY2021)
\end{tabular} & \begin{tabular}{c} 
Outstanding \\
(End of FY2021)
\end{tabular} \\
\hline FPF & 247.3 & 50.8 & 95.9 & 202.2 \\
\hline JRTT & 1.8 & - & 1.8 & - \\
\hline J OGMEC & 641.6 & 476.4 & 641.6 & 476.4 \\
\hline DICJ & 73.0 & 25.5 & 73.0 & 25.5 \\
\hline BSPC & 150.0 & 180.0 & 150.0 & 180.0 \\
\hline JIC & 255.0 & 150.0 & 255.0 & 150.0 \\
\hline NDF & 200.0 & 200.0 & 200.0 & 200.0 \\
\hline CREB & 3.6 & 14.6 & 3.6 & 14.6 \\
\hline Organization for Promoting Urban Development & 5.8 & 5.7 & 6.0 & 5.5 \\
\hline & \(1,578.0\) & \(1,102.9\) & \(1,426.8\) & \(1,254.2\) \\
\hline
\end{tabular}

Note 1: Figures may not sum up to the total because of rounding.
Note 2: Apart from the plan shown above, JFC and DBJ plan further issuances (maturity less than 5 years) depending on the progress of projects in FY2022. The maximum amounts of these further issuances are 100 billion yen for JFC and DBJ, respectively.
Note 3: Calculation are on a nominal value basis.
(4) Issuance Calendar of Government-Guaranteed Domestic Bonds by Agencies in FY2021
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{15}{|l|}{10-Year Bonds Offering Price (yen), Issuance Amount (billion yen)} \\
\hline & \[
\begin{array}{|c|}
\hline \text { FY2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & Jun. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{array}{|l|}
\hline \text { FY } 2021 \\
\text { Total }
\end{array}
\] \\
\hline JFC & 500.0 & & & & & & & & & & & & & - \\
\hline DBJ Inc. & 30.0 & & & 10.0 & & & 10.0 & & & & & & & 20.0 \\
\hline J OIN & 54.7 & & & & & & & & & & & & & - \\
\hline J ICT & 8.0 & & & & & & & & & & & & & - \\
\hline Organization for Promoting Urban Development & 10.0 & & & & & & & & & & & & & - \\
\hline CJIAC & 11.0 & & & & & & & & & & & & 11.0 & 11.0 \\
\hline Nominal Coupon & & & & 0.130\% & & & 0.085\% & & & & & & 0.224\% & \\
\hline Offering Price & & & & 100.00 & & & 100.00 & & & & & & 100.00 & \\
\hline Yield & & & & 0.130\% & & & 0.085\% & & & & & & 0.224\% & \\
\hline
\end{tabular}

40-Year Bonds
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY } 2021 \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & Jun. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{gathered}
\text { FY2021 } \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline \multirow{4}{*}{DBJ Inc.} & & 5.0 & & & 5.0 & & & & & & & & & & 5.0 \\
\hline & Nominal Coupon & & & & 0.696\% & & & & & & & & & & \\
\hline & Offering Price & & & & 100.00 & & & & & & & & & & \\
\hline & Yield & & & & 0.696\% & & & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY 2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & Jun. & Jul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{gathered}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline \multirow{4}{*}{JEHDRA} & & 60.0 & & & 15.0 & & 15.0 & & 15.0 & & & & 15.0 & & 60.0 \\
\hline & Nominal Coupon & & & & 0.644\% & & 0.630\% & & 0.680\% & & & & 0.875\% & & \\
\hline & Offering Price & & & & 100.00 & & 100.00 & & 100.00 & & & & 100.00 & & \\
\hline & Yield & & & & 0.644\% & & 0.630\% & & 0.680\% & & & & 0.875\% & & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY 2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & Jun. & Jul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{gathered}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline \multirow{4}{*}{J EHDRA} & & 60.0 & & 10.0 & & 10.0 & & 10.0 & & 10.0 & & 10.0 & & 10.0 & 60.0 \\
\hline & Nominal Coupon & & & 0.429\% & & 0.404\% & & 0.394\% & & 0.444\% & & 0.497\% & & 0.636\% & \\
\hline & Offering Price & & & 100.00 & & 100.00 & & 100.00 & & 100.00 & & 100.00 & & 100.00 & \\
\hline & Yield & & & 0.429\% & & 0.404\% & & 0.394\% & & 0.444\% & & 0.497\% & & 0.636\% & \\
\hline \multirow{4}{*}{\begin{tabular}{l}
Organization for \\
Promoting \\
Urban Development
\end{tabular}} & & 25.0 & & & & & & & & & & & 10.0 & & 10.0 \\
\hline & Nominal Coupon & & & & & & & & & & & & 0.689\% & & \\
\hline & Offering Price & & & & & & & & & & & & 100.00 & & \\
\hline & Yield & & & & & & & & & & & & 0.689\% & & \\
\hline \multirow{4}{*}{CJIAC} & & 13.2 & & & & & & & & & & & & 13.2 & 13.2 \\
\hline & Nominal Coupon & & & & & & & & & & & & & 0.671\% & \\
\hline & Offering Price & & & & & & & & & & & & & 100.00 & \\
\hline & Yield & & & & & & & & & & & & & 0.671\% & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY 2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & Jun. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{gathered}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline \multirow{4}{*}{JHFA} & & 80.0 & & & & & & 30.0 & & & 30.0 & & 20.0 & & 80.0 \\
\hline & Nominal Coupon & & & & & & & 0.086\% & & & 0.096\% & & 0.265\% & & \\
\hline & Offering Price & & & & & & & 100.00 & & & 100.00 & & 100.00 & & \\
\hline & Yield & & & & & & & 0.086\% & & & 0.096\% & & 0.265\% & & \\
\hline
\end{tabular}

5-Year Bonds
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & J un. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{gathered}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline \multirow{4}{*}{HFA} & & 140.0 & & & 100.0 & & & & & & 40.0 & & & & 140.0 \\
\hline & Nominal Coupon & & & & 0.001\% & & & & & & 0.001\% & & & & \\
\hline & Offering Price & & & & 100.431 & & & & & & 100.583 & & & & \\
\hline & Yield & & & & -0.085\% & & & & & & -0.115\% & & & & \\
\hline \multirow{4}{*}{PFI} & & 50.0 & & & & & & 20.0 & & & & & & & 20.0 \\
\hline & Nominal Coupon & & & & & & & 0.001\% & & & & & & & \\
\hline & Offering Price & & & & & & & 100.457 & & & & & & & \\
\hline & Yield & & & & & & & -0.090\% & & & & & & & \\
\hline
\end{tabular}

\section*{4-Year Bonds}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY2021 } \\
\text { (Planned) }
\end{array}
\] & Apr. & May & J un. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{array}{c|}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{array}
\] \\
\hline \multirow{4}{*}{DICJ} & & 230.0 & & & & & & & & & & & & & - \\
\hline & Nominal Coupon & & & & & & & & & & & & & & \\
\hline & Offering Price & & & & & & & & & & & & & & \\
\hline & Yield & & & & & & & & & & & & & & \\
\hline \multirow{4}{*}{NDF} & & 150.0 & & & & & & & & 150.0 & & & & & 150.0 \\
\hline & Nominal Coupon & & & & & & & & & 0.001\% & & & & & \\
\hline & Ofiering Price & & & & & & & & & 100.388 & & & & & \\
\hline & Yield & & & & & & & & & -0.094\% & & & & & \\
\hline \multirow{4}{*}{JFM} & & 240.0 & & & 80.0 & & 80.0 & & & & & & & & 160.0 \\
\hline & Nominal Coupon & & & & 0.001\% & & 0.001\% & & & & & & & & \\
\hline & Offering Price & & & & 100.22 & & 100.29 & & & & & & & & \\
\hline & Yield & & & & -0.053\% & & -0.071\% & & & & & & & & \\
\hline
\end{tabular}

\section*{3-Year Bonds}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|}
\hline \text { FY2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & J un. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{array}{c|}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{array}
\] \\
\hline \multirow{4}{*}{JICA} & & 50.0 & & & & & & & & & & & & & - \\
\hline & Nominal Coupon & & & & & & & & & & & & & & \\
\hline & Offering Price & & & & & & & & & & & & & & \\
\hline & Yield & & & & & & & & & & & & & & \\
\hline \multirow{4}{*}{NDF} & & 100.0 & & & 100.0 & & & & & & & & & & 100.0 \\
\hline & Nominal Coupon & & & & 0.001\% & & & & & & & & & & \\
\hline & Offering Price & & & & 100.218 & & & & & & & & & & \\
\hline & Yield & & & & -0.070\% & & & & & & & & & & \\
\hline
\end{tabular}

\section*{2-Year Bonds}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \[
\begin{array}{|c|c|c|}
\hline \text { FY2021 } \\
\text { (Planead) }
\end{array}
\]
(Planned) & Apr. & May & J un. & J ul. & Aug. & Sep. & Oct. & Nov. & Dec. & Jan. & Feb. & Mar. & \[
\begin{gathered}
\hline \text { FY } 2021 \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline \multirow{8}{*}{DICJ} & & 380.0 & & & & 100.0 & & & & 80.0 & & & & & 280.0 \\
\hline & Nominal Coupon & & & & & 0.001\% & & & & 0.001\% & & & & & \\
\hline & Offering Price & & & & & 100.13 & & & & 100.22 & & & & & \\
\hline & Yield & & & & & -0.064\% & & & & -0.108\% & & & & & \\
\hline & & & & & & 100.0 & & & & & & & & & \\
\hline & Nominal Coupon & & & & & 0.001\% & & & & & & & & & \\
\hline & Offering Price & & & & & 100.17 & & & & & & & & & \\
\hline & Yield & & & & & -0.084\% & & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{array}{|c|}
\hline \text { FY2021 } \\
\text { (Planned) } \\
\hline
\end{array}
\] & Apr. & May & J un. & Jul. & Aug. & Sep. & Oct. & Nov. & Dec. & J an. & Feb. & Mar. & \[
\begin{gathered}
\hline \text { FY2021 } \\
\text { Total } \\
\hline
\end{gathered}
\] \\
\hline Subtotal of 10-Year Bonds & 613.7 & & & 10.0 & & & 10.0 & & & & & & 11.0 & 31.0 \\
\hline Subtotal of 40-Year Bonds & 5.0 & & & 5.0 & & & & & & & & & & 5.0 \\
\hline Subtotal of 30-Year Bonds & 60.0 & & & 15.0 & & 15.0 & & 15.0 & & & & 15.0 & & 60.0 \\
\hline Subtotal of 20-Year Bonds & 98.2 & & 10.0 & & 10.0 & & 10.0 & & 10.0 & & 10.0 & 10.0 & 23.2 & 83.2 \\
\hline Subtotal of 12-Year Bonds & 80.0 & & & & & & 30.0 & & & 30.0 & & 20.0 & & 80.0 \\
\hline Subtotal of 7-Year Bonds & 20.0 & & & & & & & & 20.0 & & & & & 20.0 \\
\hline Subtotal of 5-Year Bonds & 190.0 & & & 100.0 & & & 20.0 & & & 40.0 & & & & 160.0 \\
\hline Subtotal of 4-Year Bonds & 620.0 & & & 80.0 & & 80.0 & & & 150.0 & & & & & 310.0 \\
\hline Subtotal of 3-Year Bonds & 150.0 & & & 100.0 & & & & & & & & & & 100.0 \\
\hline Subtotal of 2-Year Bonds & 380.0 & & & & 200.0 & & & & 80.0 & & & & & 280.0 \\
\hline Short -Term Bonds & 300.0 & & & & & & & & & & & & & - \\
\hline Total & 2,516.9 & - & 10.0 & 310.0 & 210.0 & 95.0 & 70.0 & 15.0 & 260.0 & 70.0 & 10.0 & 45.0 & 34.2 & 1,129.2 \\
\hline
\end{tabular}

Note 1: Japan Finance Corporation (JFC) had planned to issue 300 billion yen (a limit on the outstanding balance) in Short-Term (less-than-one-year) bonds, but it did not Note 2: Calculation are on a nominal value basis.
(5) Outstanding Amount of Government-Guaranteed Foreign Bonds -Breakdown by Denomination and by Agencies (as of the end of FY2021)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \begin{tabular}{l}
US \$ \\
(million)
\end{tabular} & \begin{tabular}{l}
Euro € \\
(million)
\end{tabular} & \begin{tabular}{l}
UK \(£\) \\
(million)
\end{tabular} &  & \begin{tabular}{l}
Total \\
<Conversion in J PY by Government Expenditure and Accounting Rate> (billion yen)
\end{tabular} \\
\hline J BIC & 45,300 & & 250 & & 4,926.7 \\
\hline J ICA & 2,580 & & & & 278.6 \\
\hline DBJ Inc. & 13,150 & 700 & & 280.0 & 1,784.9 \\
\hline Total & 61,030 & 700 & 250 & 280.0 & 6,990.2 \\
\hline
\end{tabular}
(R eference)
Government
Expenditure and
Accounting R ate
(FY2021)


Note 1: Figures may not sum up to the total because of rounding.
Note 2: "Government Expenditure Rate" is the foreign exchanged rate specified by Article 11-2(4) of the Government Expenditure. Regulations of the Ministry of Finance. "Government Accounting Rate" is the foreign exchanged rate specified by Article 14 and 16 of the Government Accounting Regulations of the Ministry of Finance.
(6) Yields of 10-year Government-Guaranteed Bonds in FY2021


\section*{Chapter 3 Other Public Debt}

\section*{1 Local Government Bonds (LGBs)}
(1) Overview of LGB Program in FY2022
\begin{tabular}{|c|}
\hline Local Public Finance Program \\
91.0 \\
\hline
\end{tabular}
Local Government B ond Program 10.2

Fiscal Investment and Loan Program 18.9
\begin{tabular}{|c|c|c|c|}
\hline Local Allocation Tax 18.2 & Ordinary Accounts/ Public Enterprise Accounts & Source of Funds & Supporting cash flow, enhancing \\
\hline Local Special Grant 0.2 & \multirow{4}{*}{Ordinary Accounts 7.6} & Fiscal Loan Funds 2.6 & 5.8 \\
\hline Local Tax. & & \multirow[t]{2}{*}{I apan Finance Organization
for Municipalities Funds
1.7} & \[
\begin{gathered}
\text { Concentrated investment for } \\
\text { strengthening growth potential, etc. } 1.6 \\
\hline
\end{gathered}
\] \\
\hline \[
43.9
\] & & & Support for global development by Japanese companies, etc. 2.5 \\
\hline National Treasury Disbursement 15.1 & & Public Offering Funds
\[
3.7
\] & Education, welfare and medical services 6.4 \\
\hline Local G overnment B ond 7.6 & \multirow[t]{2}{*}{\begin{tabular}{|c} 
Public Enterpise Accounts \\
2.6
\end{tabular}} & \multirow[t]{2}{*}{Private Placement Funds
2.1} & Local Governments \\
\hline Others 6.0 & & & 2.6 \\
\hline
\end{tabular}

Note: Figures may not sum up to total because of rounding.
(Unit: trillion yen)

\section*{(2) LGB Program-Breakdown by Funding Resources}

(3) Outstanding Amount of LGB Program-Breakdown by Funding Resources

(4) Issuance Conditions of Public Offering LGBs in FY2021
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{4}{*}{} & \multicolumn{6}{|c|}{Public Offering LGBs} & \multicolumn{3}{|c|}{(Reference)} \\
\hline & \multicolumn{6}{|c|}{10-Year Bonds} & \multicolumn{3}{|c|}{GBs (Long term)} \\
\hline & \multicolumn{3}{|c|}{Joint-LGBs} & \multicolumn{3}{|c|}{Tokyo} & \multicolumn{3}{|c|}{10-Year Bonds} \\
\hline & \begin{tabular}{l}
Nominal Coupon \\
(\%)
\end{tabular} & Offering Price (yen) & Yied do Subscribars (\%) & \begin{tabular}{l}
Nominal Coupon \\
(\%)
\end{tabular} & Ofiering Price (yen) & Yeid to Suscriners (\%) & \begin{tabular}{l}
Nominal Coupon \\
(\%)
\end{tabular} & Average Price (yen) & Yedadiarerie Pice (\%) \\
\hline 2021 A pril & 0.199 & 100.00 & 0.199 & 0.160 & 100.00 & 0.160 & 0.1 & 99.77 & 0.123 \\
\hline May & 0.150 & 100.00 & 0.150 & 0.145 & 100.00 & 0.145 & 0.1 & 100.27 & 0.072 \\
\hline J une & 0.145 & 100.00 & 0.145 & 0.080 & 100.00 & 0.080 & 0.1 & 100.21 & 0.078 \\
\hline J uly & 0.095 & 100.00 & 0.095 & 0.060 & 100.00 & 0.060 & 0.1 & 100.41 & 0.058 \\
\hline August & 0.070 & 100.00 & 0.070 & 0.080 & 100.00 & 0.080 & 0.1 & 100.89 & 0.009 \\
\hline September & 0.115 & 100.00 & 0.115 & 0.090 & 100.00 & 0.090 & 0.1 & 100.75 & 0.023 \\
\hline October & 0.145 & 100.00 & 0.145 & 0.125 & 100.00 & 0.125 & 0.1 & 100.50 & 0.049 \\
\hline November & 0.145 & 100.00 & 0.145 & 0.125 & 100.00 & 0.125 & 0.1 & 99.93 & 0.107 \\
\hline December & 0.110 & 100.00 & 0.110 & 0.095 & 100.00 & 0.095 & 0.1 & 100.38 & 0.060 \\
\hline 2022 J anuary & 0.179 & 100.00 & 0.179 & 0.199 & 100.00 & 0.199 & 0.1 & 100.03 & 0.096 \\
\hline February & 0.244 & 100.00 & 0.244 & 0.268 & 100.00 & 0.268 & 0.1 & 99.27 & 0.175 \\
\hline March & 0.199 & 100.00 & 0.199 & 0.254 & 100.00 & 0.254 & 0.1 & 99.23 & 0.179 \\
\hline
\end{tabular}
(Sources) Ministry of Finance, J apan Local Government Bond Association
(5) Issuance Amount of Public Offering LGBs
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{9}{|r|}{(Unit: billion yen)} \\
\hline & \multicolumn{7}{|c|}{Nationwide Public Offering LGBs} & \multirow[t]{3}{*}{\begin{tabular}{l}
Cilizen \\
Participatory- \\
Type Public Offering LGBs
\end{tabular}} \\
\hline & \multicolumn{2}{|l|}{10-Year Bonds} & \multirow[t]{2}{*}{2 or 3-Year Bonds} & \multirow[t]{2}{*}{5-Year Bonds} & \multirow[t]{2}{*}{6 or 7-Year Bonds} & \multirow[t]{2}{*}{\[
\begin{array}{c|}
\hline \text { 12,15,18,20,25 or } 30- \\
\text { Year Bonds }
\end{array}
\]} & \multirow[t]{2}{*}{Total} & \\
\hline & Independent-Type & Joint-Type & & & & & & \\
\hline FY 2011 & 2,618.0 & 1,536.0 & 70.0 & 1,326.0 & 30.0 & 859.0 & 6,439.0 & 213.7 \\
\hline FY2012 & 2,616.0 & 1,515.0 & 70.0 & 1,230.0 & 90.0 & 853.0 & 6,374.0 & 202.8 \\
\hline FY 2013 & 2,863.0 & 1,517.0 & 135.0 & 1,258.0 & 101.0 & 984.0 & 6,858.0 & 186.4 \\
\hline FY 2014 & 2,693.0 & 1,474.0 & 116.0 & 1,242.0 & 70.0 & 1,224.0 & 6,819.0 & 174.6 \\
\hline FY2015 & 2,710.0 & 1,421.0 & 60.0 & 1,171.0 & 60.0 & 1,211.0 & 6,633.0 & 148.6 \\
\hline FY2016 & 2,579.0 & 1,204.0 & - & 1,010.0 & - & 1,429.0 & 6,222.0 & 37.3 \\
\hline FY2017 & 2,241.0 & 1,206.0 & - & 1,060.0 & - & 1,586.0 & 6,093.0 & 18.2 \\
\hline FY 2018 & 2,348.0 & 1,207.0 & - & 1,074.0 & - & 1,672.0 & 6,301.0 & 20.9 \\
\hline FY2019 & 2,373.0 & 1,237.0 & - & 1,168.0 & - & 1,667.0 & 6,445.0 & 15.3 \\
\hline FY2020 & 2,738.0 & 1,206.0 & - & 1,356.0 & - & 1,685.0 & 6,885.0 & 16.3 \\
\hline FY 2021 & 2,648.0 & 1,375.0 & - & 1,430.0 & - & 1,747.0 & 7,200.0 & 15.6 \\
\hline
\end{tabular}

Note 1: 3-Year Bonds were not issued in FY2012 and FY2015.
Note 2: 6-Year Bonds were not issued in FY2011, FY2014 and FY2015.
Note 3: 12-Year Bonds were not issued in FY2011 and FY2016-FY2021.
Note 4: 18-Year Bonds were not issued in FY2011-FY2013 and FY2015-FY2021.
Note 5: 25-Year Bonds were not issued in FY2011-FY2015.
(Source) J apan Local G overnment Bond Association

\section*{2 Debt of Incorporated Administrative Agencies, etc.}

\section*{(1) FY2022 FILP Plan}
(Unit: billion yen)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Section & Fiscal Loan & Industrial Investment & Government Guarantee & Total Amount of FILP Financing & (Reference) Own Funds, etc. \\
\hline \multicolumn{6}{|l|}{<Special Accounts>} \\
\hline Special Account for Stable Supply of Food & 0.8 & - & - & 0.8 & 13.6 \\
\hline Special Account for Energy Measures & 10.4 & - & - & 10.4 & 1,488.3 \\
\hline Special Account for Motor Vehicles Safety & 164.5 & - & - & 164.5 & 10.4 \\
\hline \multicolumn{6}{|l|}{<Government Financial Institutions>} \\
\hline J apan Finance Corporation & 4,792.7 & 18.9 & - & 4,811.6 & \[
\begin{array}{|c|}
\hline(290.0) \\
5,975.8 \\
\hline
\end{array}
\] \\
\hline The Okinawa Development Finance Corporation & 221.7 & 2.6 & - & 224.3 & \((10.0)\)
70.4 \\
\hline J apan Bank for International Cooperation & 401.0 & 85.0 & 1,120.0 & 1,606.0 & (20.0)
694.0 \\
\hline J apan International Cooperation Agency (Incorporated Administrative Agency) & 523.7 & - & 118.0 & 641.7 & \[
\begin{aligned}
& (80.0) \\
& 778.3 \\
& \hline
\end{aligned}
\] \\
\hline \multicolumn{6}{|l|}{<Incorporated Administrative Agencies, etc.>} \\
\hline National Federation of Land Improvement Associations & 0.9 & - & - & 0.9 & 0.9 \\
\hline The Promotion and Mutual Aid Corporation for Private Schools of J apan & 22.1 & - & - & 22.1 & 34.9 \\
\hline Japan Student Services Organization (Incorporated Administrative Agency) & 584.9 & - & - & 584.9 & (120.0)
35.9 \\
\hline J apan Science and Technology Agency (National Research and Development Agency) & 4,888.9 & - & - & 4,888.9 & \((20.0)\)
20.0 \\
\hline Welfare And Medical Service Agency (Incorporated Administrative Agency) & 856.5 & - & - & 856.5 & \[
\begin{aligned}
& (20.0) \\
& 20.7 \\
& \hline
\end{aligned}
\] \\
\hline National Hospital Organization (Incorporated Administrative Agency) & 11.1 & - & - & 11.1 & 16.2 \\
\hline National Center for Child Health and Development (National Research and Development Agency) & 1.0 & - & - & 1.0 & - \\
\hline National Center for Geriatrics and Gerontology (National Research and Development Agency) & 0.2 & - & - & 0.2 & - \\
\hline National Institution for Academic Degrees and Quality Enhancement of Higher Education (Incorporated Administrative Agency) & 51.1 & - & - & 51.1 & (5.0)
4.5 \\
\hline J apan Railway Construction, Transport and Technology Agency (Incorporated Administrative Agency) & 237.0 & 3.1 & - & 240.1 & \[
\begin{gathered}
(80.0) \\
207.3
\end{gathered}
\] \\
\hline J apan Housing Finance Agency (Incorporated Administrative Agency) & 34.9 & - & 220.0 & 254.9 & \[
\begin{gathered}
(2,377.2) \\
2,236.6
\end{gathered}
\] \\
\hline Urban Renaissance Agency (Incorporated Administrative Agency) & 512.4 & - & - & 512.4 & \[
\begin{aligned}
& (110.0) \\
& 842.9
\end{aligned}
\] \\
\hline Japan Expressway Holding and Debt Repayment Agency (Incorporated Administrative Agency) & 200.0 & - & 120.0 & 320.0 & \[
\begin{array}{r}
(200.0) \\
4,141.8 \\
\hline
\end{array}
\] \\
\hline J apan Water Agency (Incorporated Administrative Agency) & 1.4 & - & - & 1.4 & \[
\begin{gathered}
(7.0) \\
129.9
\end{gathered}
\] \\
\hline Forest Research and Management Organization (National Research and Development Agency) & 4.9 & - & - & 4.9 & 27.0 \\
\hline J apan Oil, Gas and Metals National Corporation (Incorporated Administrative Agency) & 0.3 & 54.6 & - & 54.9 & 74.0 \\
\hline \multicolumn{6}{|l|}{<Local Governments>} \\
\hline Local Governments & 2,626.4 & - & - & 2,626.4 & 7,555.0 \\
\hline \multicolumn{6}{|l|}{<Special Corporations>} \\
\hline Fund for supporting carbon neutrality & - & 20.0 & - & 20.0 & 4.0 \\
\hline Development Bank of J apan Inc. & 300.0 & 50.0 & 350.0 & 700.0 & \[
\begin{gathered}
(630.0) \\
1,890.0
\end{gathered}
\] \\
\hline Organization for Promoting Urban Development & - & - & 35.0 & 35.0 & 10.0 \\
\hline Central J apan International Airport Co., Ltd. & - & - & 23.1 & 23.1 & \[
\begin{array}{r}
\hline(5.0) \\
5.5 \\
\hline
\end{array}
\] \\
\hline Private Finance Initiative Promotion Corporation of J apan & - & - & 50.0 & 50.0 & 30.0 \\
\hline Cool J apan Fund Inc. & - & 9.0 & - & 9.0 & 20.0 \\
\hline J apan Overseas Infrastructure Investment Corporation for Transport \& Urban Development & - & 58.0 & 58.9 & 116.9 & 5.8 \\
\hline Fund Corporation for the Overseas Development of J apan's ICT and Postal Services Inc. & - & 25.0 & 15.5 & 40.5 & - \\
\hline Total & 16,448.8 & 326.2 & 2,110.5 & 18,885.5 & (3,974.2) \\
\hline
\end{tabular}

\footnotetext{
Note 1: Figures are besed on the initial plan of FY2022
Note 2: For "(Reference) Own Funds, etc.", figures in ( ) are the amounts procured by the issuance of FILP agency bonds, public bonds without Government Guarantees issued by individual incorporated administrative agencies, etc. in private financial markets.
}
（2）Planned and Actual Issuance Amount of FILP Agency Bonds
（Unit：billion yen）
\begin{tabular}{|c|c|c|c|c|}
\hline \multirow{3}{*}{Section} & \multicolumn{4}{|c|}{Amount} \\
\hline & \multicolumn{2}{|c|}{FY2020} & FY2021 & FY 2022 \\
\hline & Planned Issuance & Results & Planned Issuance & Planned Issuance \\
\hline J apan Finance Corporation & 300.0 & 260.0 & 290.0 & 290.0 \\
\hline Micro Business and Individual Operations & 170.0 & 170.0 & 170.0 & 170.0 \\
\hline Small and Medium Enterprise Operations & 100.0 & 80.0 & 100.0 & 100.0 \\
\hline Agicicture，Foresty，Fisheries and Food Business Operations & 30.0 & 10.0 & 20.0 & 20.0 \\
\hline The Okinawa Development Finance Corporation & 10.0 & 10.0 & 10.0 & 10.0 \\
\hline J apan Bank for International Cooperation & 20.0 & － & 20.0 & 20.0 \\
\hline J apan International Cooperation Agency （Incorporated Administrative Agency） & 80.0 & 60.0 & 140.0 & 80.0 \\
\hline J apan Housing Finance Agency （Incorporated Administrative Agency） & 2，915．1 & 2，629．4 & 2，644．0 & 2，377．2 \\
\hline Including Straight Bonds & 690.0 & 715.0 & 460.0 & 540.0 \\
\hline Asset Backed Securities & 2，225．1 & 1，914．4 & 2，184．0 & 1，837．2 \\
\hline Urban Renaissance Agency （Incorporated Administrative Agency） & 80.0 & 70.0 & 110.0 & 110.0 \\
\hline J apan Water Agency （Incorporated Administrative Agency） & 5.0 & 5.0 & 5.0 & 7.0 \\
\hline J apan Railway Construction，Transport and Technology Agency （Incorporated Administrative Agency） & 105.6 & 101.6 & 82.0 & 80.0 \\
\hline Welfare And Medical Service Agency （Incorporated Administrative Agency） & 20.0 & 20.0 & 20.0 & 20.0 \\
\hline J apan Science and Technology Agency & Out of FILP Plan & Out of FILP Plan & － & 20.0 \\
\hline National Institution for Academic Degrees and Quality Enhancement of Higher Education （Incorporated Administrative Agency） & 5.0 & 8.5 & 5.0 & 5.0 \\
\hline J apan Student Services Organization （Incorporated Administrative Agency） & 120.0 & 120.0 & 120.0 & 120.0 \\
\hline Japan Expressway Holding and Debt Repayment Agency （Incorporated Administrative Agency） & 200.0 & 200.0 & 200.0 & 200.0 \\
\hline East Nippon Expressway Co．，Ltd． & 490.0 & 370.0 & Out of FILP Plan & Out of FILP Plan \\
\hline Central Nippon Expressway Co．，Ltd． & 600.0 & 511.8 & Out of FILP Plan & Out of FILP Plan \\
\hline West Nippon Expressway Co．，Ltd． & 420.0 & 400.0 & Out of FILP Plan & Out of FILP Plan \\
\hline Central J apan International Airport Co．，Ltd． & － & 19.5 & 4.7 & 5.0 \\
\hline Development Bank of J apan Inc． & 610.0 & 553.8 & 620.0 & 630.0 \\
\hline \begin{tabular}{l}
Total \\
【Number of Agencies】
\end{tabular} & \begin{tabular}{l}
5，980．7 \\
【16】
\end{tabular} & \begin{tabular}{l}
5，339．6 \\
【16】
\end{tabular} & \begin{tabular}{l}
4，270．7 \\
【14】
\end{tabular} & \begin{tabular}{l}
3，974．2 \\
【15】
\end{tabular} \\
\hline Including Straight Bonds & 3，755．6 & 3，425．2 & 2，086．7 & 2，137．0 \\
\hline Asset Backed Securities & 2，225．1 & 1，914．4 & 2，184．0 & 1，837．2 \\
\hline
\end{tabular}

Note：Amounts are calculated on a nominal value basis．
(3) Yields of 10-Year FILP Agency Bonds in FY2021

(Source) J apan Securities Dealers Association

\section*{(Supplement) Fiscal Conditions and Debt Outstandings}
(1) Trend in General Account Tax Revenues, Total Expenditures and Government Bond Issuances

(2) Government Bond Issuance and Bond Dependency Ratio

(3) Changes in Ratio of Primary Balance to GDP

(4) Projections in Primary Balance (Central and Local government basis ; percentage of GDP)


Note: Excluding the expenditures and fiscal resources for the recovery and reconstruction measures related to the 2011 Earthquake.
(Source) Cabinet Office "Economic and Fiscal Projections for Medium to Long Term Analysis (J an, 2022)"
(5) Government Debt-related Expenditures in the General Account-Breakdown by Categories(FY2022)
\begin{tabular}{|c|c|c|c|}
\hline Category & FY 2021 (Initial) & FY 2022 (Initial) & Changes \\
\hline Debt Redemption Expenses & 15,233.0 & 16,073.3 & 840.3 \\
\hline J GB Redemption & 14,903.1 & 15,753.7 & 850.6 \\
\hline Transfer Fund by the 60-Year Redemption Rule & 14,032.2 & 14,982.5 & 950.2 \\
\hline Transfer Fund Equivalent to Income from Special Account for Social Infrastructure Improvement & 53.5 & 43.2 & © 10.3 \\
\hline Transfer Fund by the Budget & 817.4 & 728.1 & -89.3 \\
\hline Borrowing Redemption & 329.9 & 319.6 & -10.3 \\
\hline Transfer Fund by the 60-Year Redemption Rule & 158.8 & 149.5 & \(\triangle 9.3\) \\
\hline Transfer Fund by the Budget & 171.1 & 170.1 & \(\triangle 1.0\) \\
\hline Interest Payment and Discount Expenses & 8,503.6 & 8,247.2 & - 256.3 \\
\hline J GB Interest P ayment & 8,430.2 & 8,174.8 & - 255.4 \\
\hline Borrowing Interest Payment & 13.4 & 12.5 & \(\Delta 0.9\) \\
\hline Financing Bills Discount Expense & 60.0 & 60.0 & - \\
\hline Administration Expense & 21.9 & 18.7 & \(\triangle 3.2\) \\
\hline Total & 23,758.5 & 24,339.3 & 580.8 \\
\hline
\end{tabular}

Note 1: Figures may not sum up to the total because of rounding.
Note 2: Administration Expense in the initial FY2021 budget is reclassified for a comparison with the expense in the initial FY2022 budget.
(6) Historical Changes in Government Debt-related Expenditures


Note 1: Figures may not sum up the total because of rounding.
Note 2: FY 2013-FY 2020: settlement, FY2021 : supplementary budget, FY2022: initial budget.
Note 3: Average coupon is the weighted average of the nominal rate on coupon-bearing J GBs.

\section*{（7）Projection of the FY2022 Budget Impact on Following Years＇Expenditure and Revenue}

\section*{［CASE 1］［Case of 3．0\％nominal economic growth rate】}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{7}{|r|}{FY2021} \\
\hline \multirow{7}{*}{Expenditure} & （1）Central Debt Service Cost & 23.8 & 24.3 & 26.2 & 27.6 & 28.8 \\
\hline & （2）Interest Payment & 8.5 & 8.2 & 9.2 & 10.2 & 11.1 \\
\hline & （3）Social Security－Related Expenditure & 35.8 & 36.3 & 36.8 & 37.5 & 38.2 \\
\hline & （4）Local Allocation Tax Grants，etc． & 15.9 & 15.9 & 16.5 & 17.0 & 17.9 \\
\hline & （5）Others & 31.1 & 31.1 & 26.3 & 26.4 & 26.7 \\
\hline & （6）Total Expenditure & 106.6 & 107.6 & 105.8 & 108.5 & 111.6 \\
\hline & （7）Primary Balance Expenditure & 83.4 & 83.7 & 80.0 & 81.3 & 83.2 \\
\hline \multirow{3}{*}{Tax Revenue， etc．} & （8）Tax Revenue & 57.4 & 65.2 & 66.5 & 68.9 & 72.1 \\
\hline & （9）Other Revenues & 5.6 & 5.4 & 5.6 & 5.6 & 5.6 \\
\hline & （10）Total Revenue & 63.0 & 70.7 & 72.1 & 74.5 & 77.6 \\
\hline \multicolumn{2}{|l|}{（11）Difference of Balance（6）－（10）} & 43.6 & 36.9 & 33.7 & 34.0 & 33.9 \\
\hline
\end{tabular}

Reference：According to this calculation，the budget deficit of the general national account is 28.9 trillion yen in FY2021， 21.3 trillion yen in FY2022， 17.1 trillion yen in FY2023，and 16.9 trillion yen in FY2024，and 16.6 trillion yen in FY2025．The primary balance deficit of the general national account was 20.4 trillion yen in FY2021， 13.0 trillion yen in FY2022， 7.8 trillion yen in FY2023，and 6.8 trillion yen in FY2024 and 5.5 trillion yen in FY2025．The government＇s fiscal consolidation target is to achieve a primary balance surplus of the central and local governments．
Note：FY 2021：Draft budget；FY2022：Budget；FY2023－FY2025：Projections based on the systems and policies underlying the FY2022 budget
a）Figures are mechanically estimated．
b）＂（3）Social Security－Related Expenditure＂for FY2023 and the following years are estimated by adding the expenditure for the enhancement of social security associated with implementation of the＂Comprehensive Reform of Social Security and Tax＂and＂New Economic Policy Package＂to the expenditure projected based on the systems and policies underlying the FY2022 budget．
c）As for＂（5）Others＂，the reserve fund for countermeasures against novel coronavirus infections of 5 trillion yen was appropriated in FY2021 and FY2022，but this reserve fund was not incorporated in the estimates for FY2023 and after that．
d）＂（7）Primary Balance Expenditure＂is obtained by subtracting interest payment and debt redemption（excluding subsidy bond redemption）from the total expenditure．
［CASE 2］【Case of \(1.5 \%\) nominal economic growth rate】
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{} & FY2021 & FY2022 & FY2023 & FY2024 & FY 2025 \\
\hline \multirow{7}{*}{Expenditure} & （1）Central Debt Service Cost & 23.8 & 24.3 & 26.2 & 27.5 & 28.6 \\
\hline & （2）Interest Payment & 8.5 & 8.2 & 9.2 & 10.1 & 10.8 \\
\hline & （3）Social Security－Related Expenditure & 35.8 & 36.3 & 36.8 & 37.4 & 38.0 \\
\hline & （4）Local Allocation Tax Grants，etc． & 15.9 & 15.9 & 16.2 & 16.5 & 17.0 \\
\hline & （5）Others & 31.1 & 31.1 & 26.2 & 26.3 & 26.5 \\
\hline & （6）Total Expenditure & 106.6 & 107.6 & 105.5 & 107.7 & 110.2 \\
\hline & （7）Primary Balance Expenditure & 83.4 & 83.7 & 79.7 & 80.6 & 82.0 \\
\hline \multirow{3}{*}{Tax Revenue， etc．} & （8）Tax Revenue & 57.4 & 65.2 & 65.5 & 66.7 & 68.7 \\
\hline & （9）Other Revenues & 5.6 & 5.4 & 5.6 & 5.6 & 5.6 \\
\hline & （10）Total Revenue & 63.0 & 70.7 & 71.1 & 72.3 & 74.2 \\
\hline \multicolumn{2}{|l|}{（11）Difference of Balance（6）－（10）} & 43.6 & 36.9 & 34.4 & 35.4 & 35.9 \\
\hline
\end{tabular}

Reference：According to this calculation，the budget deficit of the general national account is 28.9 trillion yen in FY2021， 21.3 trillion yen in FY2022， 17.8 trillion yen in FY2023，and 18.3 trillion yen in FY2024，and 18.6 trillion yen in FY2025．The primary balance deficit of the general national account was 20.4 trillion yen in FY2021， 13.0 trillion yen in FY2022， 8.6 trillion yen in FY2023，and 8.2 trillion yen in FY2024 and 7.8 trillion yen in FY2025．The government＇s fiscal consolidation target is to achieve a primary balance surplus of the central and local governments．
Note：FY2021：Draft budget；FY2022：Budget；FY2023－FY 2025：Projections based on the systems and policies underlying the FY2022 budget a）Figures are mechanically estimated．
b）＂（3）Social Security－Related Expenditure＂for FY2023 and the following years are estimated by adding the expenditure for the enhancement of social security associated with implementation of the＂Comprehensive Reform of Social Security and Tax＂and＂New Economic Policy Package＂to the expenditure projected based on the systems and policies underlying the FY2022 budget．
c）As for＂（5）Others＂，the reserve fund for countermeasures against novel coronavirus infections of 5 trillion yen was appropriated in FY2021 and FY2022，but this reserve fund was not incorporated in the estimates for FY2023 and after that．
d）＂（7）Primary Balance Expenditure＂is obtained by subtracting interest payment and debt redemption（excluding subsidy bond redemption）from the total expenditure．

\section*{[Reference] Projections of various interest rate assumptions (Sensitivity analyses based on [CASE 1])}

Difference in Debt Service Cost for various interest rate assumptions
(unit : trillion yen), ( ) for the amount of Debt Service Cost
\begin{tabular}{|c|c|c|c|c|}
\hline \begin{tabular}{c} 
interest rate \\
(Difference from [CASE 1])
\end{tabular} & FY2022 & FY2023 & FY2024 & FY2025 \\
\hline\(+2 \%\) & +0.0 & +1.7 & +4.1 & +7.5 \\
\hline\(+1 \%\) & \((24.3)\) & \((27.9)\) & \((31.8)\) & \((36.3)\) \\
\hline \multirow{2}{*}{\(+1 \%\)} & \((24.3)\) & \((27.0)\) & \((29.7)\) & +3.7 \\
\hline & \((24.3)\) & \(\mathbf{\Delta} 0.8\) & \(\mathbf{\Delta} 2.0\) & \((32.5)\) \\
\hline
\end{tabular}

Note: The interest rate in [CASE 1] is based on FY2022 budget, and the rates after FY2023 are calculated reflecting implied forward rates.

\section*{(8) Cash-flow Projections of the GDCF}
\begin{tabular}{|c|c|c|c|c|}
\hline & \begin{tabular}{c} 
J G B \\
Outstanding at the end of FY
\end{tabular} & \begin{tabular}{c} 
Interest \\
Payments, etc.
\end{tabular} & Redemption Amount & \begin{tabular}{c} 
Issuance of billion yen) \\
Refunding Bonds
\end{tabular} \\
\hline FY2022 & \(1,021,050.0\) & \(8,380.0\) & \(164,680.0\) & \(149,080.0\) \\
\hline FY2023 & \(1,036,560.0\) & \(9,370.0\) & \(160,790.0\) & \(144,210.0\) \\
\hline FY2024 & \(1,054,710.0\) & \(10,300.0\) & \(147,190.0\) & \(130,120.0\) \\
\hline FY2025 & \(1,072,500.0\) & \(11,190.0\) & \(149,440.0\) & \(132,090.0\) \\
\hline FY2026 & \(1,090,020.0\) & \(12,070.0\) & \(149,330.0\) & \(131,730.0\) \\
\hline FY2027 & \(1,107,200.0\) & \(12,870.0\) & \(152,390.0\) & \(134,470.0\) \\
\hline FY2028 & \(1,124,080.0\) & \(13,590.0\) & \(148,460.0\) & \(130,280.0\) \\
\hline FY2029 & \(1,140,670.0\) & \(14,260.0\) & \(142,640.0\) & \(124,190.0\) \\
\hline FY2030 & \(1,157,000.0\) & \(14,840.0\) & \(145,530.0\) & \(126,830.0\) \\
\hline FY2031 & \(1,173,080.0\) & \(15,370.0\) & \(149,400.0\) & \(130,450.0\) \\
\hline
\end{tabular}

Note 1: This calculation is based on the same assumptions as in "Case- 1" of the "Budget Projections in FY2022 Budget Policy". After FY2026, it is assumed that the amount of new issuance is equal to the "gap" in FY2025, with the same interest rates as those in FY2025.
Note 2: This calculation covers JGBs related to the fixed-rate transfers from the General Account and to the transfers equivalent to the gap between issuance-price and face value. The Special Bonds for covering Public Pension Funding are included, while the Reconstruction Bonds are excluded.
Note 3: "Issuance of Refunding Bonds" includes revenues from the Refunding Bonds that are qualified to be issued in the previous fiscal year.
Note 4: "Interest Payments, etc" includes administrative costs, government bonds office handling costs and revenues from Special Tobacco Tax (which are brought into the Special Account for Government Bonds Consolidation Funds).
Note 5: This calculation does not assume surpluses to occur.
Note 6: Figures may not sum up to the total because of rounding.
Note 7: The above data are subject to changes for different assumptions.
(9) Changes in the Outstanding Amount of JGBs, Financing Bills, Borrowings and Government-Guaranteed Debt
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{11}{|r|}{(Unit: billion yen)} \\
\hline Category & FY2012 & FY2013 & FY 2014 & FY2015 & FY2016 & FY2017 & FY 2018 & FY2019 & FY2020 & FY2021 \\
\hline Government Bonds (J GBs) & 821,474.1 & 853,763.6 & 881,484.7 & 910,809.7 & 934,900.2 & 959,141.3 & 976,803.5 & 987,588.6 & 1,074,159.6 & 1,104,680.0 \\
\hline General Bonds (Reconstruction Bonds) & \begin{tabular}{l}
705,007.2 \\
\((10,328.3)\)
\end{tabular} & \[
\begin{array}{r}
743,867.6 \\
(9,013.5)
\end{array}
\] & \[
\begin{array}{r}
774,083.1 \\
(8,279.5)
\end{array}
\] & \begin{tabular}{l}
805,418.2 \\
\((5,945.6)\)
\end{tabular} & \[
\begin{array}{r}
830,573.3 \\
(6,721.3)
\end{array}
\] & \begin{tabular}{l}
\[
853,178.9
\] \\
\((5,481.3)\)
\end{tabular} & \[
\begin{array}{r}
874,043.4 \\
(5,376.3)
\end{array}
\] & \begin{tabular}{l}
886,694.5 \\
\((5,858.5)\)
\end{tabular} & \begin{tabular}{l}
946,646.8 \\
\((6,784.5)\)
\end{tabular} & \[
\begin{array}{r}
991,411.1 \\
(5,430.3)
\end{array}
\] \\
\hline Long-term (10 years or more) & 462,771.8 & 497,452.0 & 532,992.6 & 574,789.9 & 610,823.0 & 642,401.2 & 674,899.5 & 699,182.6 & 714,746.2 & 748,116.2 \\
\hline Medium-term (from 2 to 5 years) & 195,522.5 & 204,708.2 & 203,289.9 & 194,434.2 & 186,776.4 & 183,981.6 & 175,047.9 & 163,714.6 & 159,198.0 & 174,198.3 \\
\hline Short-term (one year or less) & 46,712.9 & 41,707.4 & 37,800.6 & 36,194.1 & 32,974.0 & 26,796.2 & 24,096.1 & 23,797.4 & 72,702.6 & 69,096.6 \\
\hline FILP Bonds & 109,260.7 & 104,210.4 & 98,991.0 & 96,115.5 & 96,250.9 & 94,525.9 & 92,245.6 & 91,090.1 & 118,645.0 & 104,624.2 \\
\hline Long-term (10 years or more) & 86,600.9 & 80,546.4 & 71,341.2 & 62,811.7 & 58,692.3 & 60,631.8 & 61,600.2 & 61,627.4 & 69,131.1 & 68,438.0 \\
\hline Medium-term (from 2 to 5 years) & 22,659.8 & 23,664.0 & 27,649.8 & 33,303.8 & 37,558.7 & 33,894.1 & 30,645.5 & 29,462.7 & 39,121.7 & 36,186.2 \\
\hline Short-term (one year or less) & - & - & - & - & - & - & - & - & 10,392.1 & - \\
\hline Subsidy Bonds & 197.7 & 174.6 & 135.5 & 134.2 & 209.4 & 194.1 & 144.0 & 87.0 & 110.4 & 151.1 \\
\hline Subscription / Contribution Bonds & 2,189.7 & 2,510.0 & 2,681.8 & 4,761.2 & 4,627.7 & 4,444.1 & 4,342.3 & 4,215.0 & 3,771.8 & 3,904.1 \\
\hline Government Bonds issued to Development Bank of Japan & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 & 1,324.7 \\
\hline \begin{tabular}{l}
Government Bonds issued to \\
Nuclear Damage Compensation and Decommissioning Facilitaion Corporation
\end{tabular} & 2,768.7 & 1,313.0 & 4,268.7 & 3,056.0 & 1,914.2 & 5,473.6 & 4,703.4 & 4,177.4 & 3,660.9 & 3,264.9 \\
\hline Govemment Bonds converted from The Japan Expressway Holding and Debt Repayment Agency Bonds & 725.4 & 363.3 & - & - & - & - & - & - & - & - \\
\hline Borrowings & 54,859.3 & 55,504.7 & 54,984.1 & 54,807.5 & 54,420.0 & 54,022.8 & 53,201.8 & 52,532.5 & 52,004.8 & 50,428.5 \\
\hline Long-term (over one year) & 17,245.1 & 16,458.2 & 15,687.6 & 14,861.0 & 14,032.9 & 13,218.5 & 12,526.3 & 11,851.8 & 11,234.5 & 10,645.5 \\
\hline \begin{tabular}{l}
Short-term \\
(one year or less)
\end{tabular} & 37,614.2 & 39,046.5 & 39,296.5 & 39,946.5 & 40,387.0 & 40,804.3 & 40,675.5 & 40,680.7 & 40,770.3 & 39,783.0 \\
\hline Financing Bills & 115,267.7 & 115,688.4 & 116,888.3 & 83,748.9 & 82,239.2 & 74,648.9 & 73,349.0 & 74,418.8 & 90,299.0 & 86,198.9 \\
\hline Total & 991,601.1 & 1,024,956.8 & 1,053,357.2 & 1,049,366.1 & 1,071,559.4 & 1,087,813.0 & 1,103,354.3 & 1,114,540.0 & 1,216,463.4 & 1,241,307.4 \\
\hline
\end{tabular}
\begin{tabular}{|l|r|r|r|r|r|r|r|r|r|}
\hline \multicolumn{1}{|c|}{ Category } & FY2012 & FY2013 & FY2014 & FY2015 & FY2016 & FY2017 & FY2018 & FY2019 & FY2020 \\
\hline \begin{tabular}{l} 
Government- \\
Guaranteed Debt
\end{tabular} & \(44,945.8\) & \(44,532.6\) & \(43,398.4\) & \(41,780.6\) & \(40,283.2\) & \(39,711.7\) & \(38,108.7\) & \(36,171.0\) & \(34,019.9\)
\end{tabular} \(\mathbf{3 1 , 9 6 6 . 2}\)\begin{tabular}{l} 
\\
\hline
\end{tabular}

\footnotetext{
Note: Figures may not sum up to the total because of rounding.
}

\section*{(10) Long-term Debt Outstanding of Central and Local Governments}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{array}{|l|l|}
\hline \text { FY } 1998 \\
\text { <actual }>\mid
\end{array}
\] & \[
\begin{aligned}
& \text { FY2003 } \\
& \text { <actual> }
\end{aligned}
\] & FY2008 <actual> & \[
\begin{aligned}
& \text { FY } 2013 \\
& \text { <actual> }
\end{aligned}
\] & FY2014 <actual> & \[
\begin{aligned}
& \text { FY2015 } \\
& \text { <actual> }
\end{aligned}
\] & FY2016 <actual> & \[
\begin{array}{|l|l|}
\text { FY2017 } \\
\text { eactual> }
\end{array}
\] & \[
\begin{aligned}
& \text { FY2018 } \\
& \text { <actual> }
\end{aligned}
\] & \[
\begin{aligned}
& \text { FY } 2019 \\
& \text { eactual> }
\end{aligned}
\] & FY2020 <actual> & \[
\begin{array}{|l|l}
\text { FY2021 } \\
\text { «estimated> }
\end{array}
\] & \[
\begin{aligned}
& \text { FY } 2022 \\
& \text { <budget> }
\end{aligned}
\] \\
\hline Central Government & \[
\begin{gathered}
390 \\
(387)
\end{gathered}
\] & \[
\begin{gathered}
493 \\
(484)
\end{gathered}
\] & \[
\begin{gathered}
573 \\
(568)
\end{gathered}
\] & \[
\begin{gathered}
770 \\
(747)
\end{gathered}
\] & \[
\begin{gathered}
800 \\
(772)
\end{gathered}
\] & \[
\begin{gathered}
834 \\
(792)
\end{gathered}
\] & \[
\begin{gathered}
859 \\
(815)
\end{gathered}
\] & \[
\begin{gathered}
881 \\
(832)
\end{gathered}
\] & \[
\begin{gathered}
901 \\
(850)
\end{gathered}
\] & \[
\begin{gathered}
914 \\
(870)
\end{gathered}
\] & \[
\begin{gathered}
973 \\
(964)
\end{gathered}
\] & \[
\begin{gathered}
1,030 \\
(1,010)
\end{gathered}
\] & \[
\begin{gathered}
1,055 \\
(1,035)
\end{gathered}
\] \\
\hline Government General Bonds Outstanding & \[
\begin{gathered}
295 \\
(293)
\end{gathered}
\] & \[
\begin{gathered}
457 \\
(448)
\end{gathered}
\] & \[
\begin{gathered}
546 \\
(541)
\end{gathered}
\] & \[
\begin{gathered}
744 \\
(721)
\end{gathered}
\] & \[
\begin{gathered}
774 \\
(746)
\end{gathered}
\] & \[
\begin{gathered}
805 \\
(764)
\end{gathered}
\] & \[
\begin{gathered}
831 \\
(786)
\end{gathered}
\] & \[
\begin{gathered}
853 \\
(805)
\end{gathered}
\] & \[
\begin{gathered}
874 \\
(823)
\end{gathered}
\] & \[
\begin{gathered}
887 \\
(843)
\end{gathered}
\] & \[
\begin{gathered}
947 \\
(937)
\end{gathered}
\] & \[
\begin{aligned}
& 1,004 \\
& (984)
\end{aligned}
\] & \[
\begin{gathered}
1,026 \\
(1,006)
\end{gathered}
\] \\
\hline \% of GDP & \[
\begin{aligned}
& 55 \% \\
& (55 \%)
\end{aligned}
\] & \[
\begin{gathered}
87 \% \\
(85 \%)
\end{gathered}
\] & \[
\begin{gathered}
106 \% \\
(105 \%)
\end{gathered}
\] & \[
\begin{gathered}
145 \% \\
(141 \%)
\end{gathered}
\] & \[
\begin{array}{c|}
\hline 148 \% \\
(142 \%)
\end{array}
\] & \[
\begin{gathered}
149 \% \\
(141 \%)
\end{gathered}
\] & \[
\begin{gathered}
152 \% \\
(144 \%)
\end{gathered}
\] & \[
\begin{gathered}
154 \% \\
(145 \%)
\end{gathered}
\] & \[
\begin{gathered}
157 \% \\
(148 \%)
\end{gathered}
\] & \[
\begin{array}{|l|}
\hline 159 \% \\
(151 \%)
\end{array}
\] & \[
\begin{gathered}
177 \% \\
(175 \%)
\end{gathered}
\] & \[
\begin{gathered}
184 \% \\
(181 \%)
\end{gathered}
\] & \[
\begin{array}{c|}
\hline 182 \% \\
(178 \%)
\end{array}
\] \\
\hline Local Governments & 163 & 198 & 197 & 201 & 201 & 199 & 197 & 196 & 194 & 192 & 192 & 193 & 189 \\
\hline \% of GDP & 30\% & 38\% & 38\% & 39\% & 38\% & 37\% & 36\% & 35\% & 35\% & 34\% & 36\% & 35\% & 34\% \\
\hline Total & \[
\begin{gathered}
553 \\
(550)
\end{gathered}
\] & \[
\begin{gathered}
692 \\
(683)
\end{gathered}
\] & \[
\begin{gathered}
770 \\
(765)
\end{gathered}
\] & \[
\begin{gathered}
972 \\
(949)
\end{gathered}
\] & \[
\begin{aligned}
& 1001 \\
& \text { (972) }
\end{aligned}
\] & \[
\begin{aligned}
& 1,033 \\
& (991)
\end{aligned}
\] & \[
\begin{aligned}
& 1,056 \\
& (1012)
\end{aligned}
\] & \[
\begin{aligned}
& 1,077 \\
& (1028)
\end{aligned}
\] & \[
\begin{aligned}
& 1,095 \\
& (1044)
\end{aligned}
\] & \[
\begin{gathered}
1106 \\
(1062)
\end{gathered}
\] & \[
\begin{gathered}
1,165 \\
(1,156)
\end{gathered}
\] & \[
\begin{gathered}
1,223 \\
(1,203)
\end{gathered}
\] & \[
\begin{gathered}
1,244 \\
(1,224)
\end{gathered}
\] \\
\hline \% of GDP & \[
\begin{aligned}
& \text { 103\% } \\
& (103 \%)
\end{aligned}
\] & \[
\begin{gathered}
\hline 131 \% \\
(130 \%)
\end{gathered}
\] & \[
\begin{gathered}
149 \% \\
(148 \%)
\end{gathered}
\] & \[
\begin{gathered}
190 \% \\
(185 \%)
\end{gathered}
\] & \[
\begin{gathered}
\hline 191 \% \\
(186 \%)
\end{gathered}
\] & \[
\begin{gathered}
191 \% \\
(183 \%)
\end{gathered}
\] & \[
\begin{aligned}
& \text { 194\% } \\
& (186 \%)
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\] & \[
\begin{gathered}
\text { 194\% } \\
(185 \%)
\end{gathered}
\] & \[
\begin{gathered}
\text { 197\% } \\
(188 \%)
\end{gathered}
\] & \[
\begin{gathered}
\hline 198 \% \\
(191 \%)
\end{gathered}
\] & \[
\begin{gathered}
218 \% \\
(216 \%)
\end{gathered}
\] & \[
\begin{gathered}
224 \% \\
(221 \%)
\end{gathered}
\] & \[
\begin{gathered}
\hline 220 \% \\
(217 \%)
\end{gathered}
\] \\
\hline
\end{tabular}
(end of FY)
Note 1: GDP for FY1998 - FY2020: Actual figures, FY2021 and FY2022: Based on the Government Economic Outlook.
Note 2: Central government debt for FY1998 - FY2020: Actual figures, FY2021: Based on the supplementary budget, FY2022: Based on the budget. Local government debt for FY1998 - FY2020: Actual figures, FY2021 and FY2022: Based on local government debt plan, etc.
Note 3: Government bond outstanding includes reconstruction bonds as a source of funds to implement the measures for the reconstruction from the Great East J apan Earthquake and pension-related special deficit-financing bonds as a source of funds to achieve the targeted national contribution to one-half basic pension.
Note 4: FY1998 - FY2020: Figures in parentheses do not include the issuance amount of advance refunding bonds for refinancing in the following fiscal year. FY2021 FY2022: Figures in parentheses do not include the issuance limit of advance refunding bonds for refinancing in the following fiscal year.
Note 5: The borrowings in the special account for local allocation and local transfer tax are divided into each figure of the central government and local governments in accordance with their shares of redemption. The amount of the borrowing outstanding incurred by the central government was transferred to the general account at the beginning of FY2007, so that the borrowing outstanding in the special account since the end of FY2007 is equal to the debt of the local governments (approx. 30 trillion yen in FY2022).
Note 6: Government bond outstanding in the special account for fiscal investment and loan program in FY2022 is approximately 113 trillion yen.
(Reference) "Debt Outstanding" in various statistics
(Unit: trillion yen)

(11) Breakdown of the Outstanding Amount of General Bonds by Remaining Years to Maturity

(12) Term-to-maturity Structure of General Bonds (FY2022 Initial Budget Basis)
(Unit: billion yen)
\begin{tabular}{|c|c|c|c|}
\hline\(F Y\) & Maturity Redemption & \(F Y\) & Maturity Redemption \\
\hline 2023 & \(162,064.0\) & 2043 & \(8,846.2\) \\
\hline 2024 & \(95,965.3\) & 2044 & \(10,012.7\) \\
\hline 2025 & \(70,404.3\) & 2045 & \(11,238.4\) \\
\hline 2026 & \(67,228.6\) & 2046 & \(9,588.4\) \\
\hline 2027 & \(67,939.5\) & 2047 & \(11,600.4\) \\
\hline 2028 & \(42,552.9\) & 2048 & \(10,302.9\) \\
\hline 2029 & \(40,197.3\) & 2049 & \(9,958.9\) \\
\hline 2030 & \(45,739.2\) & 2050 & \(12,582.0\) \\
\hline 2031 & \(42,037.3\) & 2051 & \(10,650.2\) \\
\hline 2032 & \(52,701.1\) & 2052 & \(13,463.2\) \\
\hline 2033 & \(20,647.3\) & 2053 & \(2,323.5\) \\
\hline 2034 & \(23,007.7\) & 2054 & \(2,437.3\) \\
\hline 2035 & \(21,513.7\) & 2055 & \(3,217.7\) \\
\hline 2036 & \(19,871.8\) & 2056 & \(3,052.2\) \\
\hline 2037 & \(19,147.1\) & 2057 & \(2,069.3\) \\
\hline 2038 & \(18,536.1\) & 2058 & \(2,487.6\) \\
\hline 2039 & \(17,564.1\) & 2059 & \(3,533.8\) \\
\hline 2040 & \(21,247.3\) & 2060 & \(2,716.8\) \\
\hline 2041 & \(21,847.6\) & 2061 & \(1,596.5\) \\
\hline 2042 & & 2062 & \(4,596.7\) \\
\hline & & & \\
\hline & & & \(1,026,489.7\) \\
\hline
\end{tabular}

Note: Figures may not sum up to the total because of rounding.
(13) Breakdown of the Outstanding Amount of General Bonds by Maturity Types and Their Average Interest Rate at the end of FY2021

(14) Outstanding Interest Rate Weighted Average, Interest Payment of General Bonds and Average Years to Maturity
(Unit: trillion yen)
\begin{tabular}{|c|c|c|c|c|}
\hline & Outstanding Amount of General Bonds & Interest rate weighted average & Interest payments of General Account & Average years to maturity \\
\hline FY2012 & 705.0 & 1.19 \% & 8.0 & 7Y 3 M \\
\hline FY2013 & 743.9 & 1.15 \% & 8.1 & 7Y7M \\
\hline FY2014 & 774.1 & 1.11 \% & 8.3 & 8Y0M \\
\hline FY2015 & 805.4 & 1.08 \% & 8.3 & 8Y5M \\
\hline FY2016 & 830.6 & 1.01 \% & 8.2 & 8Y7M \\
\hline FY2017 & 853.2 & 0.95 \% & 7.9 & 8 Y 10 M \\
\hline FY2018 & 874.0 & 0.91 \% & 7.8 & 9Y0M \\
\hline FY2019 & 886.7 & 0.87 \% & 7.6 & 9Y2M \\
\hline FY2020 & 946.6 & 0.83 \% & 7.4 & 8 Y 11 M \\
\hline FY2021 & 991.4 & 0.78 \% & 7.3 & 9Y0M \\
\hline FY2022 & 1,026.5 & - & 8.2 & - \\
\hline
\end{tabular}

Note: In FY2021, outstanding amount of General Bonds, interest rate weighted average and average years to maturity: settlement; interest payments of General Account: supplementary budget.
In FY2022,outstanding amount of General Bonds and interest payments of General Account: initial budget.

\section*{(15) Outstanding Amount of JGB and T-Bill -Breakdown by Holders-}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{11}{|r|}{(Unit: billion yen, \%)} \\
\hline \multirow{2}{*}{Holders} & \multicolumn{2}{|l|}{End of FY2012} & \multicolumn{2}{|l|}{End of FY2013} & \multicolumn{2}{|l|}{End of FY2014} & \multicolumn{2}{|l|}{End of FY2015} & \multicolumn{2}{|l|}{End of FY2016} \\
\hline & & Share & & Share & & Share & & Share & & Share \\
\hline General Government (excl. Public Pensions) & 17,603.9 & 1.8 & 23,606.9 & 2.4 & 21,475.1 & 2.1 & 4,238.1 & 0.4 & 3,931.2 & 0.4 \\
\hline Public Pensions & 73,205.4 & 7.5 & 70,971.2 & 7.1 & 57,446.7 & 5.5 & 53,063.6 & 4.9 & 47,482.0 & 4.4 \\
\hline Fiscal Loan Fund & 4,396.3 & 0.5 & 600.0 & 0.1 & 3,056.6 & 0.3 & 0.5 & 0.0 & 1.0 & 0.0 \\
\hline Bank of J apan & 127,881.4 & 13.1 & 201,060.5 & 20.0 & 274,606.7 & 26.3 & 364,415.5 & 33.8 & 427,342.9 & 39.4 \\
\hline Banks, etc. & 405,381.7 & 41.6 & 358,694.0 & 35.8 & 324,509.0 & 31.1 & 270,007.5 & 25.0 & 222,415.6 & 20.5 \\
\hline Life and Non-life Insurance, etc. & 194,928.7 & 20.0 & 196,647.7 & 19.6 & 204,208.9 & 19.6 & 220,757.1 & 20.5 & 214,037.2 & 19.8 \\
\hline Pension Funds & 32,210.4 & 3.3 & 33,585.7 & 3.3 & 32,744.0 & 3.1 & 32,827.5 & 3.0 & 30,065.6 & 2.8 \\
\hline Overseas & 82,452.9 & 8.5 & 81,975.3 & 8.2 & 97,966.3 & 9.4 & 110,327.6 & 10.2 & 116,187.0 & 10.7 \\
\hline Households & 22,856.7 & 2.3 & 20,032.1 & 2.0 & 15,840.6 & 1.5 & 12,373.2 & 1.1 & 12,527.3 & 1.2 \\
\hline Others & 13,889.6 & 1.4 & 15,774.5 & 1.6 & 11,762.8 & 1.1 & 11,137.0 & 1.0 & 9,703.2 & 0.9 \\
\hline Total & 974,807.0 & 100.0 & 1,002,947.9 & 100.0 & 1,043,616.7 & 100.0 & 1,079,147.6 & 100.0 & 1,083,693.0 & 100.0 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Holders} & \multicolumn{2}{|l|}{End of FY2017} & \multicolumn{2}{|l|}{End of FY2018} & \multicolumn{2}{|l|}{End of FY2019} & \multicolumn{2}{|l|}{End of FY2020} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { End of } 2021 \\
& \text { (QE) }
\end{aligned}
\]} \\
\hline & & Share & & Share & & Share & & Share & & Share \\
\hline General Government (excl. Public Pensions) & 3,687.6 & 0.3 & 3,250.8 & 0.3 & 3,127.0 & 0.3 & 2,327.5 & 0.2 & 2,126.9 & 0.2 \\
\hline Public Pensions & 44,156.0 & 4.0 & 42,818.0 & 3.8 & 37,972.8 & 3.4 & 39,797.6 & 3.3 & 45,093.8 & 3.7 \\
\hline Fiscal Loan Fund & 1.0 & 0.0 & 0.5 & 0.0 & 0.5 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline Bank of J apan & 459,028.1 & 41.8 & 485,989.8 & 43.2 & 499,362.0 & 44.2 & 541,596.6 & 44.5 & 529,508.3 & 43.4 \\
\hline B anks, etc. & 203,941.5 & 18.6 & 178,272.9 & 15.8 & 172,064.4 & 15.2 & 202,479.8 & 16.6 & 195,195.2 & 16.0 \\
\hline Life and Non-life Insurance, etc. & 214,488.9 & 19.5 & 219,297.9 & 19.5 & 220,189.7 & 19.5 & 219,491.9 & 18.0 & 220,251.0 & 18.1 \\
\hline Pension Funds & 29,912.1 & 2.7 & 29,471.4 & 2.6 & 29,371.9 & 2.6 & 29,805.8 & 2.4 & 31,184.0 & 2.6 \\
\hline Overseas & 119,737.8 & 10.9 & 142,940.5 & 12.7 & 145,204.5 & 12.8 & 160,063.0 & 13.1 & 174,562.2 & 14.3 \\
\hline Households & 12,382.5 & 1.1 & 13,258.6 & 1.2 & 13,852.5 & 1.2 & 13,255.7 & 1.1 & 12,743.7 & 1.0 \\
\hline Others & 10,000.0 & 0.9 & 10,222.0 & 0.9 & 9,487.1 & 0.8 & 8,875.3 & 0.7 & 8,959.4 & 0.7 \\
\hline Total & 1,097,335.5 & 100.0 & 1,125,522.4 & 100.0 & 1,130,632.4 & 100.0 & 1,217,693.2 & 100.0 & 1,219,624.5 & 100.0 \\
\hline
\end{tabular}

\footnotetext{
Note 1: Figures are as of the end of the fiscal year, up to FY2020 are revised values, and those for 2021 are preliminary values.
Note 2: "J GB" includes "FILP Bonds."
Note 3: "Banks, etc." includes "J apan Post Bank", "Securities investment trust" and "Securities companies."
Note 4: "Life and Non-life Insurance, etc." includes "J apan Post Insurance."
Note 5: "Others" consists of "Nonfinancial corporations" and "Private nonprofit institutions serving households."
Note 6: Since February 2009, TBs and FBs have been jointly issued as T-Bills.
Note 7: Figures of JGBs and T-Bills are calculated at market value in Flow of Funds Accounts. Figures in financial statements are different in basis from those in Flow of Funds Accounts due to a difference of evaluation methods by holding purpose (book value or market value).
(Sources) Bank of J apan "Flow of Funds Accounts Statistics."
}
(16) Balance Sheet of Japanese Government (General Account and Special Accounts) (as of the end of FY2020)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & & & & & (Unit: million yen) \\
\hline & \[
\begin{gathered}
\text { FY2019 } \\
\text { (As of March 31, 2020) }
\end{gathered}
\] & \[
\begin{gathered}
\text { FY } 2020 \\
\text { (As of March 31, 2021) }
\end{gathered}
\] & & \[
\begin{gathered}
\text { FY2019 } \\
\text { (As of March 31, 2020) }
\end{gathered}
\] & \[
\begin{gathered}
\text { FY } 2020 \\
\text { (As of March 31, 2021) }
\end{gathered}
\] \\
\hline <Assets> & & & <Liabilities> & & \\
\hline Cash and Deposits & 46,109,086 & 69,463,685 & Accounts Payable & 10,634,335 & 10,710,654 \\
\hline Securities & 126,486,388 & 119,683,572 & Reserves Claims & 280,568 & 311,398 \\
\hline Inventories & 4,252,567 & 4,107,889 & Accrued Liabilities & 1,157,445 & 1,119,229 \\
\hline Accounts Receivable & 6,391,512 & 6,800,275 & Money in Custody & 1,206,206 & 1,362,732 \\
\hline Accrued Income & 657,712 & 578,822 & Advance Received & 53,481 & 58,690 \\
\hline Accrued Insurance Premiums (Accrued Reinsurance Premiums) & 4,694,101 & 5,292,084 & Deferred R evenues & 684,719 & 662,346 \\
\hline Prepaid Expenses & 4,177,909 & 3,661,400 & \begin{tabular}{l}
Prepaid Insurance Premiums \\
(Prepaid Reinsurance Premiums)
\end{tabular} & 30,238 & 29,534 \\
\hline Loans & 107,182,985 & 120,092,838 & Provision for Bonuses & 346,638 & 343,186 \\
\hline Money in Trust & 113,203,276 & 112,553,157 & Financing Bills & 77,483,680 & 92,778,100 \\
\hline Other Credits & 4,258,542 & 5,156,604 & Government Bonds & 998,805,367 & 1,083,931,301 \\
\hline Allowance for Doubtful Accounts & -1,411,713 & - 1,612,957 & Borrowings & 32,360,084 & 32,862,555 \\
\hline Tangible Fixed Assets & 188,651,909 & 191,271,659 & Money on Deposit & 5,908,994 & 7,070,137 \\
\hline National Property, except for Property for Public Use & 32,073,946 & 32,521,019 & Insurance Liabilities & 9,531,414 & 9,495,717 \\
\hline Land & 18,916,743 & 19,439,784 & Deposit R eserved for the Public Pension & 121,185,912 & 121,797,947 \\
\hline Unfilled Timber & 3,224,820 & 3,263,869 & Provision for Retirement Benefits & 5,949,686 & 5,715,759 \\
\hline Buildings & 3,417,762 & 3,412,176 & Other Liabilities & 7,454,159 & 7,705,062 \\
\hline Structures & 2,547,900 & 2,588,138 & & & \\
\hline Machinery and Equipment & 0 & \[
0
\] & & & \\
\hline Ships & 1,530,281 & 1,588,827 & & & \\
\hline Aircraft & 1,009,615 & 1,057,296 & & & \\
\hline Construction in Progress & 1,426,822 & 1,170,927 & & & \\
\hline Property for Public Use & 152,078,673 & 154,075,248 & & & \\
\hline Property for Public Use (Land) & \[
40,120,856
\] & 40,250,440 & & & \\
\hline Property for Public Use (Facilities) & 111,519,389 & 113,392,496 & & & \\
\hline Construction in Progress & 438,427 & 432,311 & & & \\
\hline Goods & 4,476,775 & 4,653,965 & & & \\
\hline Other Tangible Assets & 22,514 & 21,425 & Total Liabilities & 1,273,072,935 & 1,375,954,353 \\
\hline Intangible Fixed Assets & 328,410 & 353,117 & <Difference Between Ass & sets and Liabilities & \\
\hline Investments in Capital & 76,280,147 & 83,388,788 & Difference Between Assets and Liabilities & - 591,810,097 & - 655,163,414 \\
\hline Total Assets & 681,262,837 & 720,790,938 & Total Liabilities and Difference Between Assets and Liabilities & 681,262,837 & 720,790,938 \\
\hline
\end{tabular}

Note 1: Cash and Deposits ( 69.5 trillion yen at the end of FY 2020 ) take into account receipts and disbursements of cash during the "accounting adjustment term" (As of the end of FY2020, the actual balance of government deposits in the Treasury was 36.9 trillion yen and foreign currency deposits was 11.5 trillion yen).
Note 2: Assets held by the government is largely to use for public purposes directly such as public property, and basically not to sell or change into cash.
Note 3: Government bonds in the liabilities (1083.9 trillion yen at the end of FY 2020) include government bond balance such as in Special Account for Fiscal Investment and Loan Program besides general bonds ( 956.4 trillion yen) that will basically be the future burden on public, and cancel out bonds internally held by the government.

\section*{(17) International Comparison of General Government Fiscal Balance to GDP}

(18) International Comparison of General Government Gross Debt to GDP

(19) International Comparison of General Government Net Debt to GDP


Note 1: Figures represent the general government-based data (the central/local governments and social security funds combined).
Note 2: The 2020-2021 figures forJ apan and the 2021 figures for other countries are estimated figures. Net debts for 2022 are estimated as follows; J apan: 169.2\%, U.S.: 100.8\%, U.K.: 95.2\%, Germany: 52.9\%, France: 100.9\%, Italy: 138.5\%, and Canada: 32.5\%. However, it should be noted that the J apan's figure does not reflect the expected increase in outstanding net debt as a result of the supplementary budget for FY2021 and the budget for FY2022.
(Source) IMF "W orld Economic Outlook" (October 2021).

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\author{
< Newsletters >
}


\title{
Debt Management Report 2022
}

\title{
The Government Debt Management and the State of Public Debts
}

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[^0]:    (Note 1) Figures may not sum up to the total because of rounding.
    (Note 2) Buy-back program in FY2021 is planned to be implemented based on market conditions and through discussions with market participants.
    (Note 3) The maximum amount of front-loading issuance of Refunding Bonds in FY2021 is 20 trillion yen.

[^1]:    (Note 1) The 40-Year bond will be issued in May, July, September, November, J anuary and March.
    (Note 2) Treasury Bills (TBs) are jointly issued with Financing Bills (FBs), under unified names of Treasury Discount Bills (T-Bills)
    (Note 3) The 10-Year inflation-indexed bond is planned to be issued in May, August, November and February. The issuance may be adjusted in a flexible manner in response to market circumstances and demands of investors, which will be determined based on discussions with market participants.
    (Note 4) The issuance of liquidity enhancement auction and its allocation among each zone may be adjusted in a flexible manner in response to market circumstances and demands of investors, which will be determined based on discussions with market participants.

[^2]:    (Note 1) Figures may not sum up to total because of rounding.
    (Note 2) "Adjustment between fiscal years" refers to leveling-off of the issuance between fiscal years through front-loading issuance and deferred issuance during an accounting adjustment period. (Ref: II Chapter $11(1)$ "J GBs by Legal Grounds of Issuance" (P36)).

[^3]:    (Note 1) Figures may not sum up to the total because of rounding.
    (Note 2) Buy-back program in FY2022 is planned to be implemented based on market conditions and through discussions with market participants.
    (Note 3) The maximum amount of front-loading issuance of Refunding Bonds in FY2022 is 20 trillion yen.

[^4]:    [Assumptions]

    - Target bonds: General Bonds (excluding the Special Bonds for Covering Public Pension Funding and the Reconstruction Bonds)
    Analysis period: 10 years from FY2021
    Newly-Issued Bonds: Data for the Economic Growth Achieved Case in the Cabinet Office's Economic and Fiscal Projections for Medium to Long Term Analysis (July 2021)
    Refunding Bonds: Estimated with consideration given to the utilization of surplus in the Special Account of Government Debt Consolidation Fund
    Interest rates: A total of 3,000 interest rate paths generated by the probabilistic interest rate model (the HJM model [Note 1]) were adjusted as follows for each case:
    ( 10 -Year JGB Yield) The average at each time point is identical to the relevant nominal long-term interest rate level for the Economic Growth Achieved Case in the Cabinet Office's Economic and Fiscal Projections for Medium to Long Term Analysis.
    (Other JGB yields) The averages at each time point are identical to the relevant estimates based on a simple linear regression model [Note 2] and the relevant nominal long-term interest rate level for the Economic Growth Achieved Case in the Cabinet Office's Economic and Fiscal Projections for Medium to Long Term Analysis.
    (Note 1) The HJM model generated interest rate paths based on the current yield curve as the standard and volatility over the past 20 years (the current yield curve is as of the end of March 2021).
    (Note 2) The simple linear regression model was estimated from 10-year and other JGB yields in the past 20 years.

[^5]:    (1)In case where the indexation coefficient is below 1 , the inflation-adjusted principal will fall below its face value. (2) In case where the indexation coefficient at maturity is above 1 , the principal and the interest will be paid based on the inflation-adjusted principal per se.
    (3) In case where the indexation coefficient at maturity is below 1 , the principal will be redeemed at its face value. Note: Deflation floor has no effect on interests during the maturing period or at maturity.

[^6]:    Note1: Treasury Discount Bills are discount bills that do not carry any coupon rate. No procedure to determine coupon rates is required for reopening and liquidity enhancement auctions for interest-bearing bonds. When a new issuance of $40-Y$ ear J GB is offered, a coupon rate is fixed according to the yield-competitive auction result.
    Note2: Successful bids in a Liquidity Enhancement Auction are notified at 14:30.
    Note3: Time in parenthesis refers to the time for Treasury Discount Bills.
    Note4: Non-Price Competitive Auction II is not conducted for Inflation-Indexed Bonds and Treasury Discount Bills.

[^7]:    (Source) Japan Exchange Group

[^8]:    Note: On a clearing value basis. Gensaki and cash collateral repos include both starts and ends. (Source) J SCC

[^9]:    (Note) 5-7-10-year butterfly spread: $2 \times 7$-year yield - (5-year yield +10 -year yield)

[^10]:    iii. Direct budget transfer (A discretionary transfer specified by the General Account budget when necessary)

    In addition to the above transfers, to ensure smooth redemption of government bonds, Article 42, paragraph (5) of the "Act on Special Accounts" prescribes that a discretionary transfer, which is specified by the budget can be made as needed from the General Account to the GDCF Special Account.

[^11]:    Note 1: In FY2008, durations to maturity had been divided into two groups --6-15 years and 16-29 years. In the April- une 2009 quarter, durations to maturity had been differently classified into two groups -- 6-16 years and 16-29 years.
    Note 2: From the J uly-September 2009 quarter to the April-J une 2013 quarter, durations to maturity had been differently divided into two groups: $5-15$ years and $15-29$ years. In the J uly-September 2013 quarter, durations to maturity had been differently classified into two groups: 5-15 years and 15-39 years. Since the October-December 2013 quarter, durations to maturity have been differently classified into two groups: $5-15.5$ years and $15.5-39$ years. Since the April-J une 2014 quarter, $30-\mathrm{Year}$ Bonds have been added to the coverage of the 5-15.5-year zone
    Note 3: Liquidity Enhancement Auction for J GBs maturing in 1-5 years or 15.5-39 years (since FY2016) takes place every two months. In the figures are issuance amounts per month
    Note 4: Details of Liquidity Enhancement Auctions such as the allocation of issuance amount for each zone may be adjusted in a flexible manner in response to market environment

[^12]:    Note 1: The tax rates on the income above are $15 \%$ income tax (special income tax for reconstruction (basically $2.1 \%$ of income tax) is imposed additionally from 2013 to 2037) and $5 \%$ local tax.
    Note 2: It is able to offset profit/loss among the income above and income from listed stocks, etc.

[^13]:    (Source) Relevant countries' debt management authorities

[^14]:    Note 1: Data for Japan represent the average weighted maturity of outstanding General Bonds including Treasury Bills and excluding Financing Bills.
    Data for other countries include short-term (one-year and shorter) bills. However, data for U.K. excludes short-term bills for cash management purposes.
    Note 2: Data are calculated on a stock basis. Non-marketable bonds are excluded
    Note 3: Data for each year are as of March next year for Japan alone and as of December for other countries.
    (Sources) OECD, Relevant countries' debt management authorities

[^15]:    Note 1: Figures may not sum up to total because of rounding. Figures are calculated on a nominal basis.

[^16]:    Note 1: The coupon payment date and redemption date are the tenth of the month.
    Note 2: Issuance shall occur on $T+1$ (day of auction +1 business day).

[^17]:    Note 1: Figures may not sum up to the total because of rounding. Figures are calculated on a nominal basis.
    Note 2: Figures are the total of price-/ yield-competitive auctions.

[^18]:    Note: The fees given above do not include consumption tax. Actual fees may include the tax.

[^19]:    Note 1: Trading volume is the total transaction of securities companies and financial institutions for dealing
    Note 2: Trading volume is on a nominal basis.
    (Source) J apan Securities Dealers Association

[^20]:    " ( $\uparrow$ ) "shows that the outlook is positive.
    " ( $\downarrow$ ) "shows that the outlook is negative.

[^21]:    Note: Figures may not sum up to the total because of rounding.

[^22]:    Note: Figures may not sum up to the total because of rounding.

