

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)

		Initial	Supplemen	tary Budget
		(a)	(b)	(b)-(a)
	Newly-issued Bonds	43,597.0	65,655.0	22,058.0
	Construction Bonds	6,341.0	9,168.0	2,827.0
	Special Deficit- Financing Bonds	37,256.0	56,487.0	19,231.0
	Reconstruction Bonds	218.3	40.0	▲ 178.3
F	FILP Bonds	45,000.0	15,000.0	▲ 30,000.0
F	Refunding Bonds	147,192.9	143,663.3	▲ 3,529.6
	For matured Reconstruction Bonds	2,871.0	2,737.5	▲ 133.5
	Total	236,008.2	224,358.3	▲ 11,649.9

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		Initial	Supplemer	ntary Budget	
		(a)	(p)	(b)-(a)	
	JGB Market Issuance (Calendar Base)	221,400.0	212,200.0	▲ 9,200.0	
	Non-Price Competitive Auction II, etc.	8,230.0	7,031.9	▲ 1,198.1	
	Adjustment between fiscal years	78.2	85.9	7.7	
Subtotal Financed in the Market		229,708.2	219,317.8	▲ 10,390.4	
Sales for Households		4,100.0	2,840.5	▲ 1,259.5	
BOJ Rollover		2,200.0	2,200.0	_	
Total		236,008.2	224,358.3	▲ 11,649.9	

(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.

⁽Note 1) Figures may not sum up to the total because of rounding.

Fig. 1-8 Market Issuance Plan by JGB Types for FY2021

(Unit: trillion yen)

	FY2021(Initial)		FY2021(Supplementary Budg	jet)
	(per time)	(total ; a)	(per time) (total;	b) (b)-(a)
40-Year	0.6 × 6 times	3.6	0.6 × 6 times 3	.6 —
30-Year	0.9 × 12 times	10.8	0.9 × 12 times 10	.8 —
20-Year	1.2 × 12 times	14.4	1.2 × 12 times 14	.4 —
10-Year	2.6 × 12 times	31.2	2.6 × 12 times 31	.2 —
5-Year	2.5 × 12 times	30.0	2.5 × 12 times 30	.0 —
2-Year	3.0 × 12 times	36.0	3.0 × 12 times 36	.0 —
TBs		83.2	74	.0 • 9.2
10-Year Inflation- Indexed	0.2 × 4 times	0.8	0.2 × 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 × 12 times 42.0	3.5 × 12 times 42.0	_		
TBs (6-Month)	41.2	32.0	▲ 9.2		

(Note 1) The 40-Year bond will be issued in May, July, September, November, January 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) 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 policy of maintaining the issuance size of 20-Year Bonds and other bonds with a longer maturity, increasing 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.

"JGBs by Legal Grounds of Issuance" (P36)

(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)

(Crit.: Billion yen						
		FY2021(Initial)	FY2021 (Supplementary Budget)	FY2022 (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
Construc Bonds	tion	6,341.0	9,168.0	6,251.0	▲ 90.0	▲ 2,917.0
Special D Financing		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	5	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 matu Reconstr Bonds		2,871.0	2,737.5	3,858.9	987.9	1,121.4
Tota	al	236,008.2	224,358.3	215,038.0	▲ 20,970.3	▲ 9,320.3

(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.

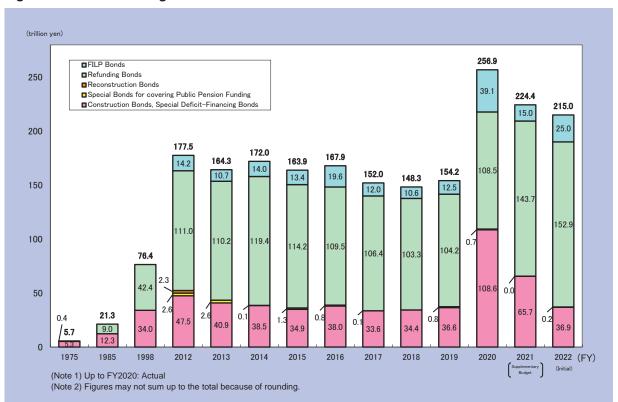
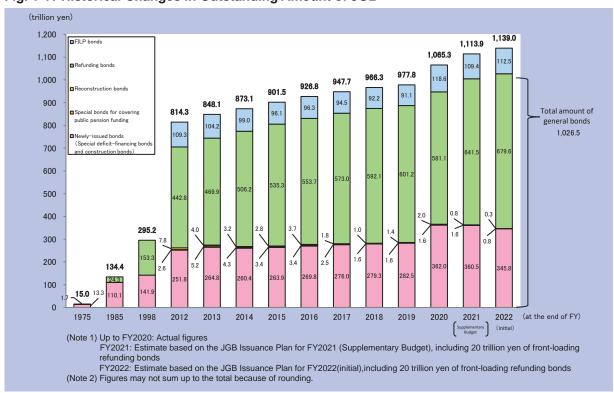


Fig. 1-10 Historical Changes in JGB Issuance Plan





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 calendar-base 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)

- 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.
- Non-Price Competitive Auction II (Ref: II Chapter 1 1 (3) "Methods of Issuance" (P41)).
- → ③ The issuance for Non-Price 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)

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		FY2021 (Initial)	FY2021 (Supplementary Budget)	FY2022 (Initial)		
		(a)	(p)	(c)	(c)-(a)	(c)-(p)
	JGB 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 n the Market	229,708.2	219,317.8	209,938.0	▲ 19,770.3	▲ 9,379.8
1 1	Sales for Households	4,100.0	2,840.5	2,900.0	▲ 1,200.0	59.5
В	3OJ 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

(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 1 1(1) "JGBs by Legal Grounds of Issuance" (P36)).

(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 supplementary 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)

	FY2021 (Init	21 (Initial) FY2021 (Supplementary Budget)		FY2022 (Initial)				
	(per time)	(total ; a)	(per time)	(total;b)	(per time)	(total ; c)	(c)-(a)	(c)-(b)
40-Year	0.6 × 6 times	3.6	0.6 × 6 times	3.6	0.7 × 6 times	4.2	0.6	0.6
30-Year	0.9 × 12 times	10.8	0.9 × 12 times	10.8	0.9 × 12 times	10.8	_	_
20-Year	1.2 × 12 times	14.4	1.2 × 12 times	14.4	1.2 × 12 times	14.4	_	_
10-Year	2.6 × 12 times	31.2	2.6 × 12 times	31.2	2.7 × 12 times	32.4	1.2	1.2
5-Year	2.5 × 12 times	30.0	2.5 × 12 times	30.0	2.5 × 12 times	30.0	_	_
2-Year	3.0 × 12 times	36.0	3.0 × 12 times	36.0	2.8 × 12 times	33.6	▲ 2.4	▲ 2.4
TBs		83.2		74.0		60.4	▲ 22.8	▲ 13.6
10-Year Inflation- Indexed	0.2 × 4 times	0.8	0.2 × 4 times	0.8	0.2 × 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, July, September, November, January and March.

(Note 2) Treasury Bills (TBs) are jointly issued with Financing Bills (FBs), under unified names of Treasury Discount Bills (T-Bills).

Fig. 1-14 Planned TB issuance amounts by maturity

(Unit: trillion yen)

	FY2021 (Initial)		FY2021 (Supplementary Budget)		FY2022 (Initial)			
	(a)		(b)		(c)		(c)-(a)	(c)-(b)
TBs (1-Year)	3.5 × 12 times	42.0	3.5 × 12 times	42.0	3.5 × 12 times	42.0	_	_
TBs (6-Month)		41.2		32.0		18.4	▲ 22.8	▲ 13.6

⁽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. 1-15 Issuance Amounts by Zones for Liquidity Enhancement Auctions

(Unit: trillion yen)

	FY2021 (Initial)	FY2021 (Supplementary Budget)	FY2022 (Initial)		ıl)
	(a)	(b)	(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

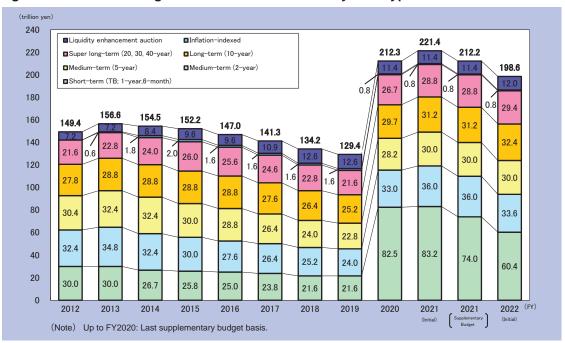
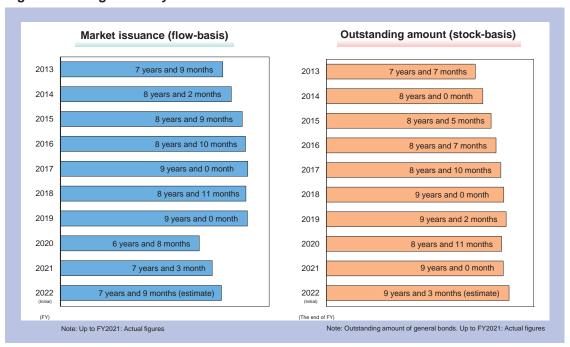


Fig. 1-17 Average Maturity of JGBs



(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)

(Unit: billion yen)

		FY2022 (Initial)	FY2022 (Supplemen	tary Budget)	
		(a)	(b)	(b)-(a)	
N	lewly-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	
F	econstruction Bonds	171.6	171.6	_	
F	ILP Bonds	25,000.0	25,000.0	_	
F	tefunding 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)	FY2022 (Supplemen	tary Budget)
		(a)	(p)	(c)-(b)
	JGB 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

⁽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.

Box 3 Cost-at-Risk Analysis

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

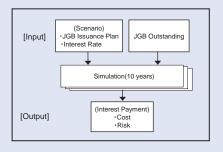
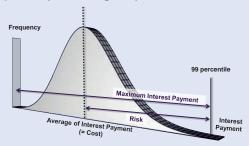


Fig. B3-2 Distribution of Interest Payments (Conceptual Diagram)

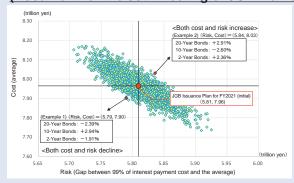


3 Cost and Risk Trend

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))



- [Assumptions]
- Target bonds: General Bonds (excluding the Special Bonds for Covering Public Pension Funding and the Reconstruction Bonds)
- Analysis period: 10 years from FY2021
- Analysis period. To years from 17221.

 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 JGE vields in the past 20 years.

Box 4 Review of Advisory Council on Government Debt Management and Its Successor

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>

KOEDA Junko Professor, Faculty of Political Science and Economics, Waseda University

SHINO Junnosuke Associate Professor, Faculty of International Research and Education, Waseda University

TAKIZAWA Miho Professor, Faculty of Economics, Gakushuin University

TOMURA Hajime Professor, Faculty of Political Science and Economics, Waseda University

UEYAMA Takahiro Executive Officer, Head of Fixed Income Group,

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

(5 members) (Alphabetical order)