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 2023, QE)

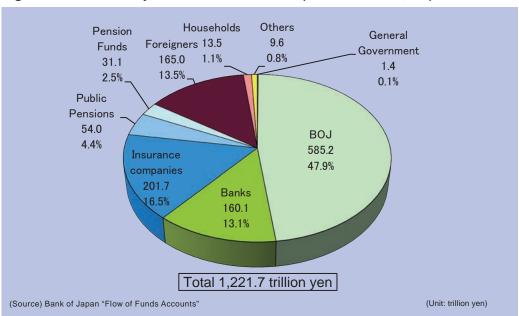


Fig. 1-20 Breakdown by JGB Holders (December 2023, QE)

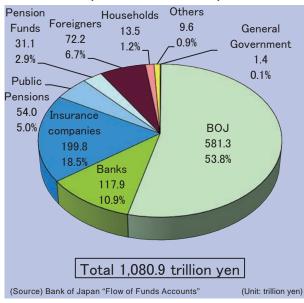
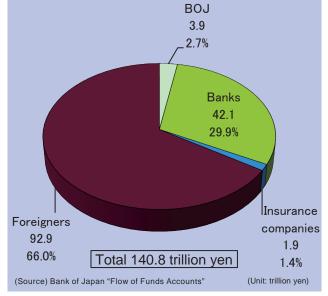


Fig. 1-21 Breakdown by T-Bill Holders (December 2023, QE)



Note 1: "T-Bill" is the sum of "Treasury Bills (TBs)" and "Financial Bills (FBs)" with a maturity of 1 year or less. TBs and FBs have been jointly issued since February 2009.

Note 2: "JGB" in the figures represents the outstanding balance of JGBs (including FILP bonds) excluding TBs maturing within 1 year or less. Note 3: "Banks" includes "Japan Post Bank," "Securities investment trusts," "Securities companies," etc

Note 4: "Insurance companies" includes "Life insurance," "Nonlife insurance," and "Mutual aid insurance. Note 5: "General Government" excludes "Public Pensions."

(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.

In FY2023, although sales to retail investors remained approximately the same as the previous year at about 3.4 trillion yen, the balance of JGB holdings by households increased as interest rates rose and redemptions before maturity decreased.

However, over the long term, households' share of JGB ownership has remained low. Given such a trend, the government has developed advertisements to expand the scope of purchasers of JGBs for Retail Investors over the medium to long term. In FY2023, with the main target being individuals who have no experience purchasing financial products and with the subtarget being individuals who do have experience purchasing financial products, we developed advertisements to guide people to financial institution branch locations (including websites) for the purpose of purchasing JGBs for retail investors.

Specifically, in addition to JGB promotion characters Kokochan for JGBs for Retail Investors and Kokusai Sensei (JGB teacher), popular entertainers were employed to develop Internet ads (banner ads, social media ads, and YouTube video ads, etc.), newspaper ads, magazine ads, public transportation ads, large-screen display ads, and TV commercials, posters and pamphlets were also created and distributed, and booths were set up at events. Furthermore, in Iwate Prefecture, Niigata Prefecture, and Kagawa Prefecture, etc., there were also measures such as using area-specific ads and conducting seminars and dispatch classes.

In FY2024, the main target is the existing primary purchaser group, composed of individuals in their 60s and older to individuals in their 50s, and we will conduct advertisements that encourage individuals to make purchasing decisions, taking into account their experience/inexperience in purchasing JGBs for retail investors. We are also planning to conduct advertisements that will appeal to working-age and young people other than our main target, such as by focusing on the ease of purchasing JGBs for retail investors.

Ref: II Chapter 1 1(3) "Methods of Issuance" (P43)

<Kokusai Sensei>

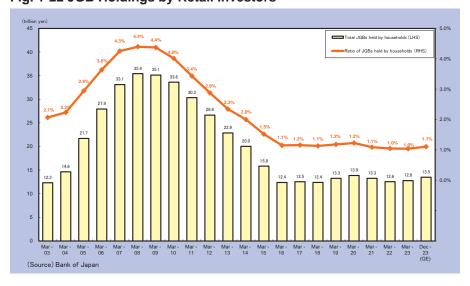


< Kokochan





Fig. 1-22 JGB Holdings by Retail Investors





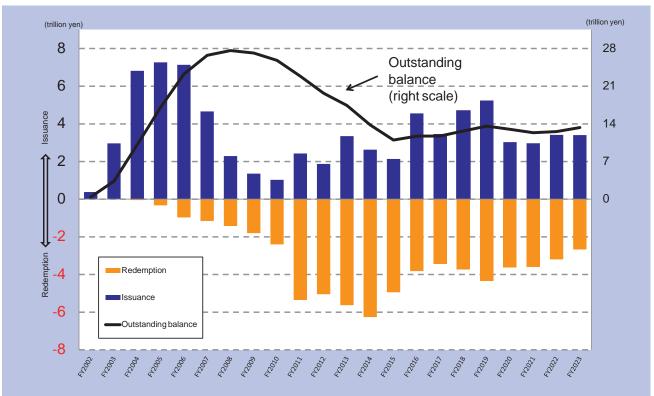
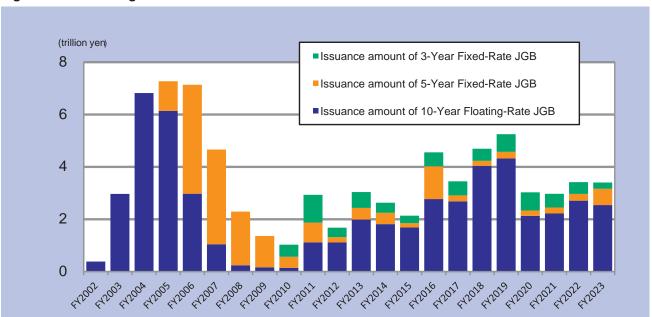


Fig. 1-24 Outstanding JGBs for Retail Investors



(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.

In CY 2023, the share of JGBs held by foreign investors began to decline due to various changes in the market conditions, including a period in which foreign investors were net sellers of JGBs against a backdrop of interest rate hikes due to the BOJ's decision to conduct yield curve control with greater flexibility. On the other hand, looking at medium- to long-term trends, 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 upward trend. Some foreign investors hold JGBs in favor of their stable yield trends compared to those of other countries. At the end of December 2023, foreign investors' share of outstanding JGBs totaled 165.0 trillion yen, or 13.5%.

Foreign investors' JGB investment has featured a focus on T-Bills. At the end of December 2023, they held 6.7% of outstanding JGBs (excluding T-Bills) and 66.0% 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 2023 reached 49.5% for spot trading and 73.3% 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

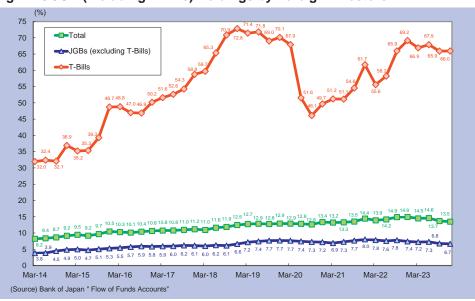
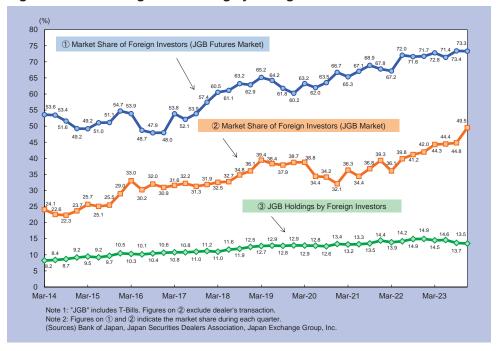


Fig. 1-26 JGB (including T-Bills) Holdings by Foreign Investors

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 long-term holdings, while hedge funds mainly invest in a 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 statistics (Regional Portfolio Investment and Financial Derivatives Position (Liabilities)). According to these statistics, JGB and other Japanese bond holdings total (1) 110.7 trillion yen in Europe, (2) 52.2 trillion yen in North America (3) 31.6 trillion yen in Asia, (4) 10.5 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 49.3 trillion yen, (2) Belgium with 46.5 trillion yen, (3) Luxembourg with 25.9 trillion yen, (4) the U.K. with 14.6 trillion yen, and (5) China with 13.2 trillion yen.

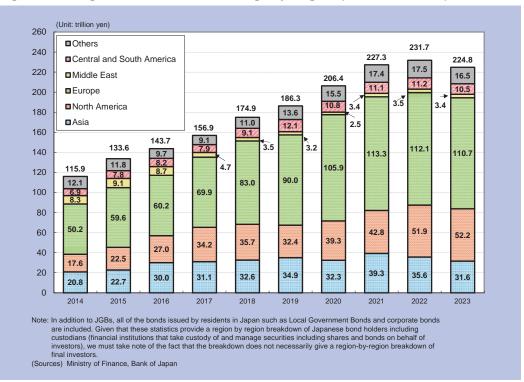


Fig. 1-28 Foreign Investors' Bond Holdings by Region (Custodian Base)

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's 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, practical topics, such as macroeconomic trends, various government policy measures, JGB issuance plans, and JGB market trends are frequently covered.

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 meetings related to government debt management and other occasions. 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 spread of COVID-19 starting in FY2020, 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. In FY2022, in light of relaxed travel restrictions, etc., we resumed overseas IR activities through on-site visits. Going forward, we will continue to conduct proactive and effective overseas IR, primarily via face-to-face exchanges, while using online conferences.

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 made efforts to disseminate information by, for example, publishing the "JGB Newsletter" (English version) on a monthly basis.

c. Overseas IR Activies in FY2023

In FY2023, in addition to our overseas IR as usual, we also conducted overseas IR for our first issuance of Japan Climate Transition Bonds. We visited 16 cities in 11 countries and 1 region in North America, Europe, Asia, and the Middle East, with a focus on cities such as New York, London, Paris, Singapore, and Hong Kong, where many investors are located, and throughout the fiscal year we conducted a total of 11 local IR visits. In addition to interviews with local investors, we also gave lectures and shared information, for example, by participating in the Regional Forum on Investment Management of Foreign Exchange Reserves hosted by the Asian Development Bank.

In addition, as part of our activities in Japan, we are actively involved in providing lectures at seminars where foreign investors are invited to attend and interview foreign investors visiting Japan.

Through these overseas IR activities, we conducted a total of 185 interviews throughout the fiscal year (Fig. 1-29). Foreign investors indicated their interests in Japan's government debt management policy, its target for achieving a primary balance surplus and macroeconomic trends such as wages and price conditions in Japan and GX policies.

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

| | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 |
|--------------------|--------|--------|--------|--------|--------|--------|
| Number of Meetings | 213 | 120 | 82 | 76 | 130 | 185 |

Note: Number of meetings (including local visits, online interviews, and domestic interviews) conducted by the Office of Debt Management and JGB Investor Relations.

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.

Box 5 Demand for T-Bills by Foreign Investors

Looking at the status of JGB holdings by foreign investors (Fig. B5-1), their share of outstanding JGBs (excl. T-Bills) was 6.7% (as of the end of December 2023), while their share of outstanding T-Bills issued with a maturity of one year or less was 66.0% (as of the end of December 2023), which shows that foreign investors have a strong presence in the T-Bill market. There are a variety of foreign investors, such as hedge funds and institutional investors known as real money, which make investment decisions based on various perspectives such as their investment strategies and domestic and international economic trends, and one of the ways in which foreign investors invest in T-Bills is through the use of currency basis swaps. This Box introduces the mechanism by which currency basis swaps are used for investments.

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. B5-2 below outlines dollar-yen basis swap. In the figure, α 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 α . If demand is strong for raising dollars even at the cost of a decline in yen interest receipts, downward pressure is exerted on α . In recent years, because demand is strong for raising dollars, α has generally always remained negative in all maturities of dollar yen basis swap, and this state of negative value for α is referred to as a "premium in dollar funding is occurring."

Breakdown by JGB Holders (excluding T-Bills) (December 2023, QE)

Foreigners Households Others General Government (ex Public Pensions) 72.2 1.2% 0.9% 1.4 6.7%
Pension Funds 31.1 5.5 0.5 581.3 53.8%
Public Pensions Funds 11.29 66.0%

Foreigners Households Others General Government (ex Public Pensions) 7.2.7%

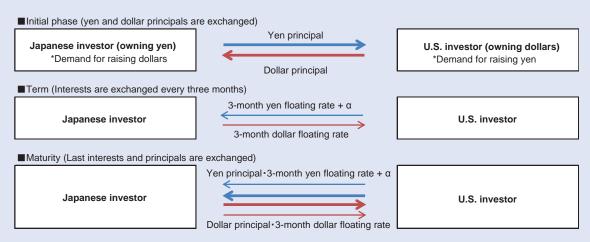
BBOJ 9.9 9.9 9.9 9.9 9.9 9.9 9.9 9.9 66.0%

Insurance companies 1.9 92.9 66.0%

(Source) Bank of Japan "Flow of Funds Accounts" (Unit: trillion yen)

Fig. B5-1 Status of JGB Holdings by Foreign Investors

Fig. B5-2 Scheme Diagram of Currency Basis Swap (dollar-yen basis swap)



Given that α for a 1-year transaction (a basis spread for dollar-yen basis swap maturing in one year) stands at around minus 0.35% (minus 35 basis points), for instance, the U.S. investor in Fig. B5-2, if using 1-year dollar-yen basis swap, will receive a 3-month dollar floating rate and pay a 3-month yen floating rate + α (- 35 bp) every three months over one year. The U.S. investor's payment of interest equivalent to minus 35 bp means the receipt of interest equivalent to plus 35 bp. Given relevant interest rate levels, the receipt of interest equivalent to 35 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. B5-3) Comparison Between a U.S. Investor Swapping Dollars to Yen and investing in JGBs and the Investor Investing in U.S. Treasury Securities (using 1-year dollar-yen basis swap) (transactions in the mid-term portion of Fig. B5-2)

(1) 1-Year dollar-yen basis swap + T-Bill (1-Year JGB) purchase



- \rightarrow The U.S. investor earns an annual yield of 5.70% (=5.30% (0.05% + (-0.35%)) + (0.10%))
- (2) 1-Year U.S. Treasury purchase



- →The U.S. investor earns an annual yield of **5.00%**.
- \rightarrow Comparison of (1) and (2) indicates a yield gap of <u>0.70%</u> (= 5.70% 5.00%)

Fig. B5-3 compares a U.S. investor swapping dollars for yen and investing in JGBs with the investor investing in U.S. Treasury securities (Japanese and U.S. interest levels here are assumption values). If a U.S. investor swaps dollars for yen and invests in JGBs (combining 1-year dollar-yen basis swap with the purchase of 1-year T-Bills), the annual yield for the U.S. investor is simply calculated to be 5.70% (the 3-month dollar floating rate (5.30%) – (the 3-month yen floating rate (0.05%) + α (-0.35%)) + the interest rate of 1-year T-Bills (0.10%)). If the investor invests in U.S. Treasury securities (purchases 52-Week Treasury Bills), the investor will receive an annual yield of 5.00% on the 52-Week Treasury Bills. By swapping dollars for yen and investing in JGBs, therefore, the U.S. investor will earn a yield that is 0.70% (=5.70% – 5.00%) 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 fluctuate.
- Note 2: Interest rate swap transactions for fixing the 3-month yen floating rate and the 3-month dollar floating rate are omitted here to simplify the explanation.