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Financial System Report

April 2026



(English translation prepared by the Bank's staff based on the Japanese original)

The total of major banks, regional banks, and *shinkin* banks covered in this *Report* is as follows (as of end-March 2026).

Major banks comprise the following 10 banks: Mizuho Bank, MUFG Bank, Sumitomo Mitsui Banking Corporation, Resona Bank, Saitama Resona Bank, Mitsubishi UFJ Trust and Banking Corporation, Mizuho Trust and Banking Company, Sumitomo Mitsui Trust Bank, SBI Shinsei Bank, and Aozora Bank. Regional banks comprise the 61 member banks of the Regional Banks Association of Japan (regional banks I) and the 35 member banks of the Second Association of Regional Banks (regional banks II). *Shinkin* banks are the 247 *shinkin* banks that hold current accounts at the Bank of Japan.

This *Report* basically uses data available as of end-March 2026.

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Objectives of the *Financial System Report*

The Bank of Japan's *Financial System Report* has two main objectives. The first is to assess the stability of Japan's financial system. The second is to communicate with all related parties on the future tasks and challenges in order to ensure the system's stability.

The *Report* assesses the vulnerabilities of the financial system from a macroprudential perspective. Within a macroprudential framework, institutional designs and policy measures are developed based on risk assessments in the financial system in order to ensure the stability of the overall financial system. In so doing, the interconnectedness of the real economy, financial markets, and financial institutions' behavior is taken into account.

The Bank uses the results of the analysis set out in the *Report* in planning policies to ensure the stability of the financial system and for providing guidance and advice to financial institutions through on-site examinations and off-site monitoring. It makes use of the results in international discussions on regulation, supervision, and vulnerability assessment. In relation to the conduct of monetary policy, the macro assessment of financial system stability is also regarded as important input for the Bank in assessing risks in economic and price developments from a medium- to long-term perspective.

Motivations behind the April 2026 issue

In global and domestic financial markets, crude oil prices surged and asset prices and long-term interest rates fluctuated significantly in the wake of increased tension over the situation in the Middle East since the end of February. In addition to the future course of the situation in the Middle East, the performance of major foreign high-tech stocks, and the loan and investment activities of foreign non-bank financial intermediaries (NBFIs) have also been drawing close attention. This *Report* assesses the stability of the financial system under such significant changes in the external environment.

With regard to foreign NBFIs, such as hedge funds, which are increasing their presence both domestically and globally, this *Report* examines the characteristics of their global investment activities and assesses the potential impact on Japanese financial markets of shocks originating in foreign markets. It also examines developments in private funds.

In addition, while no major imbalances have been seen in the domestic financial cycle, Japanese banks have increased their lending, both domestically and globally, as they actively respond to strong loan demand. Specifically, the growth in real estate-related lending has accelerated as the upward trend in real estate prices continues, and there has been an increase in loans to foreign investment funds, which have unique risk characteristics. This *Report* examines banks' lending stance and the risks associated with such loan exposures.

Corporate bankruptcies and corporate loan defaults, housing loan delinquency rates, and banks' resilience to rising interest rates exhibit no significant changes at present, amid the changing environment regarding interest rates. With that being said, this *Report* also examines the key points that warrant attention under the continued increase in interest rates and their impact on banks' balance sheets.

The macro stress test assesses the adequacy of banks' capital by using stress scenarios that were constructed following the increased tensions in the Middle East.

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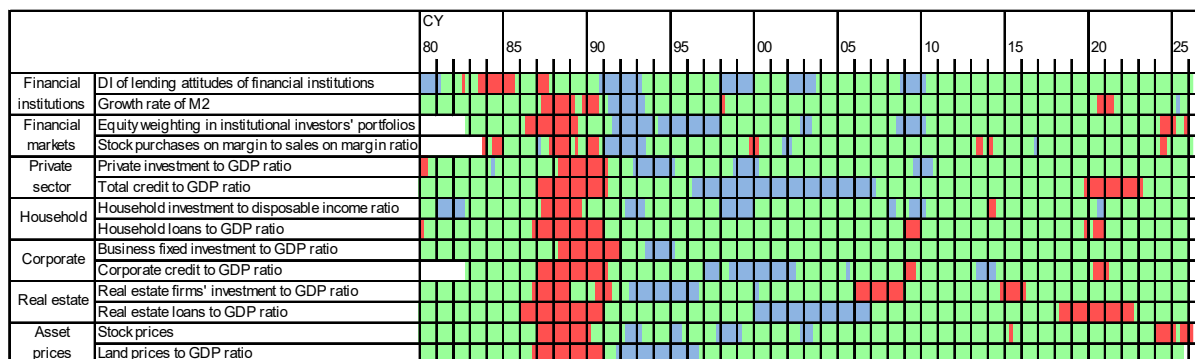
I. Executive summary: Stability assessment of Japan's financial system

Japan's financial system has been maintaining stability on the whole.

In the loan market, financial intermediation has continued to function smoothly as firms' demand for loans has continued to rise and banks' lending stance has remained active. Under such circumstances, no major financial imbalances have been seen in current financial activities.

Japanese banks have sufficient capital bases and stable funding bases to withstand various stress situations, specifically including (1) stress equivalent to the global financial crisis that would cause major corrections in financial markets and the real economy at home and abroad; and (2) a compound stress of the materialization of geopolitical risks such as a rise in crude oil prices, together with shrinking expectations about future prospects for AI, and a substantial rise in interest rates, all happening simultaneously. However, it is necessary to carefully monitor the impact on the financial system, which could materialize through various channels, of developments in the economic policy formulation in each jurisdiction, geopolitical risks particularly regarding the situation in the Middle East, and activities of the foreign non-bank financial intermediary (NBF) sector. From a long-term perspective, if structural factors such as a decline in firms' loan demand reflecting the shrinking population and other factors persist, banks' profitability and loss-absorbing capacity could decline, depending on the supply and demand balance in the loan market, and this could lead to a contraction of financial intermediation activities or an overheating, such as excessive search for yield. From the perspective of maintaining stability in Japan's financial system, close attention is warranted on future developments in the system, while examining both overheating and contraction risks (Chart I-1).

Chart I-1: Heat map

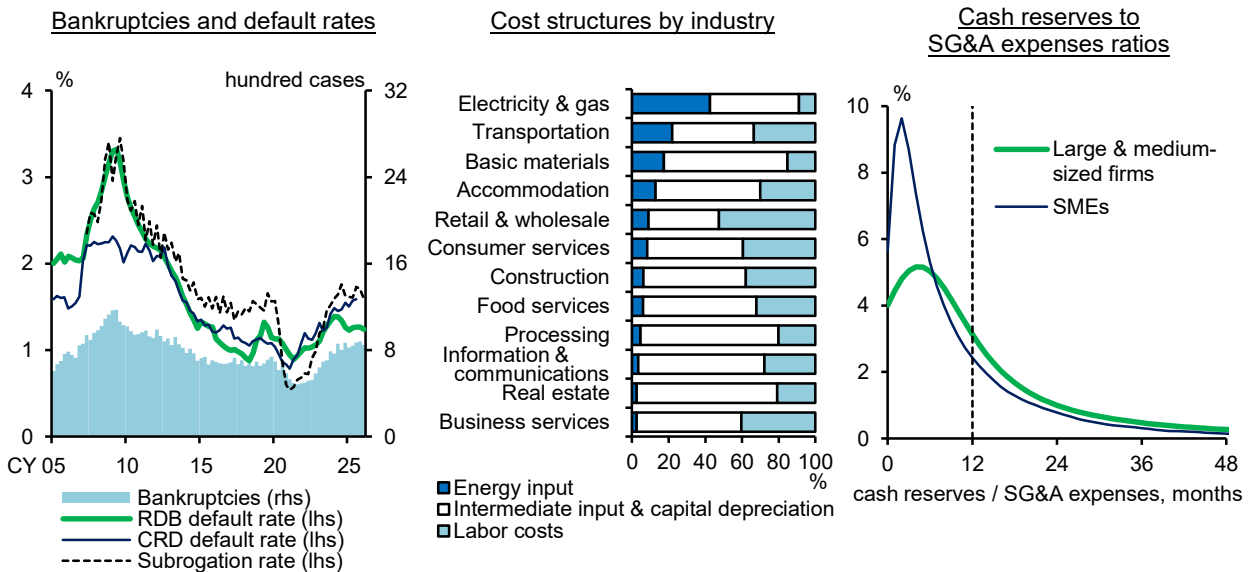


Note: See Chart V-1-1.

Corporate bankruptcies and defaults → Chapters IV-A, VI-B, and Box 3

Corporate bankruptcies and default rates have been more or less unchanged, albeit with fluctuations (left panel of Chart I-2). Corporate profits have been improving on the whole amid the continuing moderate economic recovery, and the share of firms making operating losses with negative net worth or those making operating losses, which increased during the pandemic, has been falling. However, attention should continue to be paid to the point that labor costs and past increases in raw material prices are imposing an additional burden, particularly on financially vulnerable firms.

Chart I-2: Developments in corporate bankruptcies and defaults



Note: In the right-hand chart, SG&A expenses stands for Selling, General and Administrative expenses. See Charts IV-1-3 and IV-1-4.

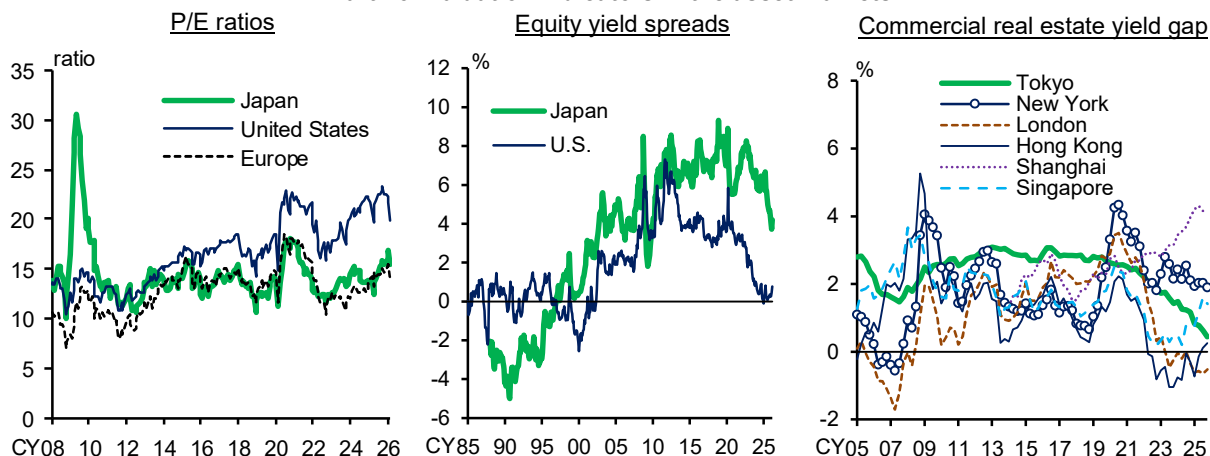
Moreover, crude oil prices surged in the wake of increased tension over the situation in the Middle East that happened at the end of February. Depending on the future course of the situation in the Middle East, firms' commodity procurement costs could be elevated, and there is a risk that production activities face downward pressure through the effects on supply chains. Under these circumstances, it remains necessary to pay close attention to the possibility that this could have an impact on firms' financial positions and their cash flow management (middle and right panels of Chart I-2).

Developments in asset prices → Chapters II, IV-B, V-A, and Boxes 4 and 5

Regarding the stock market, the *stock prices* indicator has continued to deviate upward from its trend, as shown by "red" in the heat map, although stock prices have declined in the wake of increased tension over the situation in the Middle East since the end of February (Chart I-1). In terms of stock valuations as of the end of March, price-earnings (P/E) ratios have remained broadly around their average levels since 2008, reflecting an increase in expected earnings per share (EPS), which is the denominator (left panel of Chart I-3). Risk premiums indicated by the equity yield spreads, i.e., the difference between expected equity yields and 10-year Japanese government bond (JGB) yields, have declined somewhat amid rising interest rates (middle panel of Chart I-3). Given that there are concerns about geopolitical risks, particularly regarding the situation in Middle East, and adjustment risks in foreign high-tech-related stocks, and that Japanese banks have a certain amount of market risk associated with stockholdings, close attention should continue to be paid to developments in risky asset prices, including stock prices.

Real estate prices have been rising, particularly in major metropolitan areas. Higher construction costs and supply constraints due to labor shortages have contributed to the rise in real estate prices. In addition, robust property demand supported by a moderately recovering economy, coupled with demand for investments, including condominium transactions and commercial real estate purchases by foreign investors, have also likely contributed to this trend. While rents have been rising, the yield gap, an indicator of the real estate risk premium, has continued to decline (right panel of Chart I-3). Developments in real estate markets continue to warrant attention.

Chart I-3: Valuation indicators in the asset markets

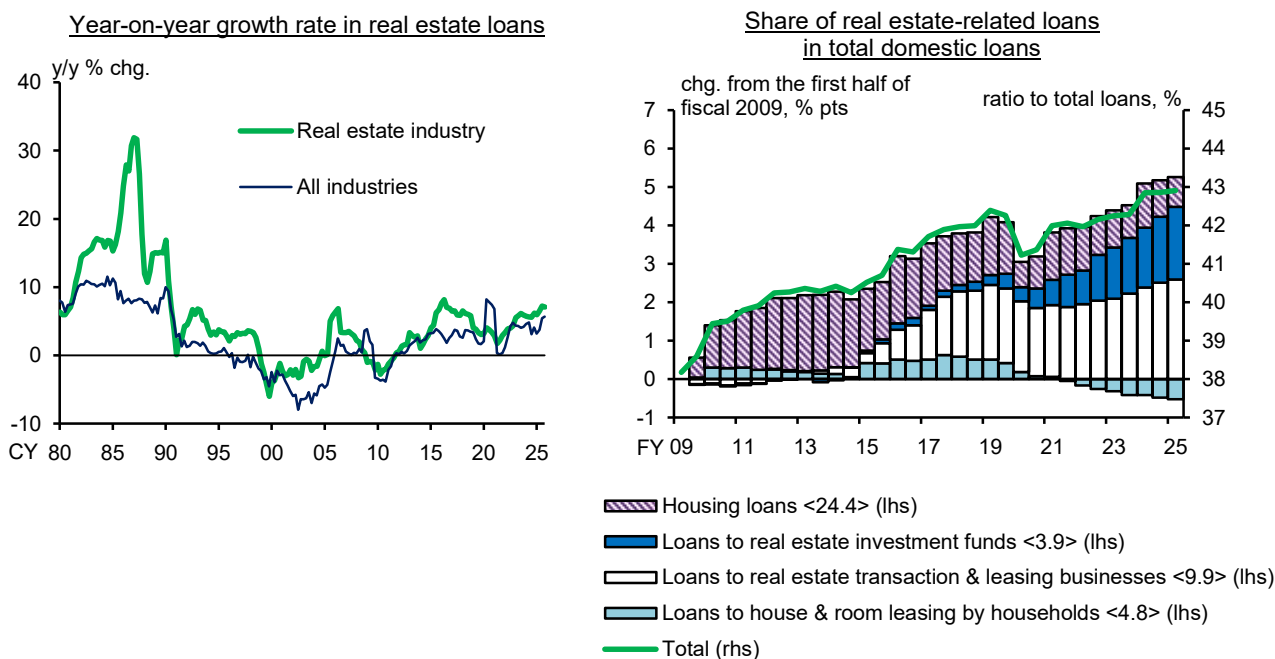


Note: Yield spreads and yield gap are calculated as follows: expected returns of each asset - 10-year government bond yields. See Charts II-2-10, V-1-3 and V-1-6.

Developments in bank lending → Chapters III-A, IV-A, V-A, and Boxes 1, 2, and 5

The growth of bank lending has increased somewhat recently. Real estate-related lending in particular has continued to grow at a faster pace than overall lending, reflecting the sustained robust funding demand from the real estate industry (left panel of Chart I-4). Banks appear to be meeting the firm demand from the real estate industry while remaining prudent in their credit management. It should be noted, however, that in recent years, the share of real estate-related lending in total lending has been on an uptrend, and that, within this loan segment, there is a gradual shift in lending to real estate businesses (excluding house and room leasing by households) and to real estate funds (right panel of Chart I-4). Banks need to manage credit risks taking into account the risk profiles of borrowers and changes in their composition, and also paying due attention to the risk of fluctuations in real estate prices and to the possibility that the transmission channels of stress may differ from those in the past.

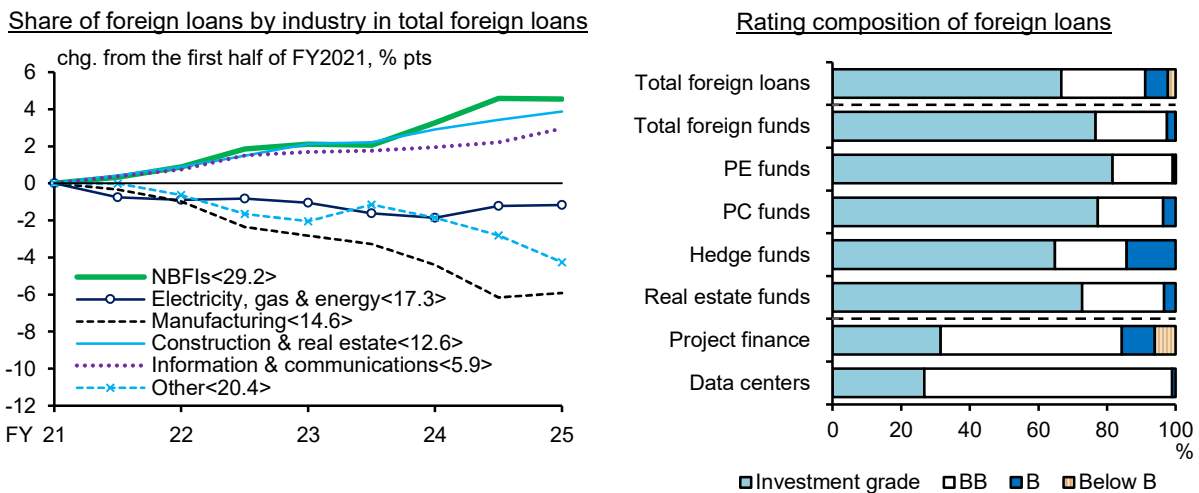
Chart I-4: Real estate-related loans



Note: In the right-hand chart, figures in brackets indicate the share of real estate-related loans to total loans as of end-September 2025. See Charts V-1-7 and V-1-9.

In banks' overseas lending, the share of loans to the NBFIs sector, construction and real estate, and the information and communications sector has increased recently (left panel of Chart I-5). The share of loans to foreign investment funds and loans to data centers in their total overseas lending is not large, and banks at present rarely classify these loans as "below B" (right panel of Chart I-5). However, creditworthiness could change significantly as a result of changes in the business environment, such as technological innovations and shifts in valuations of the underlying assets that form the source of repayment for such loans. In addition, a wide range of loans to the above sectors could potentially be affected simultaneously through similarities in the underlying assets. With regard to activities related to private credit (PC), recent cases of investor redemptions, particularly by retail investors, from certain PC funds have attracted attention, and future developments warrant careful attention. Banks should continue to pay close attention to the quality management of their portfolios when undertaking credit activities in such areas of focus in lending activities.

Chart I-5: Foreign loans



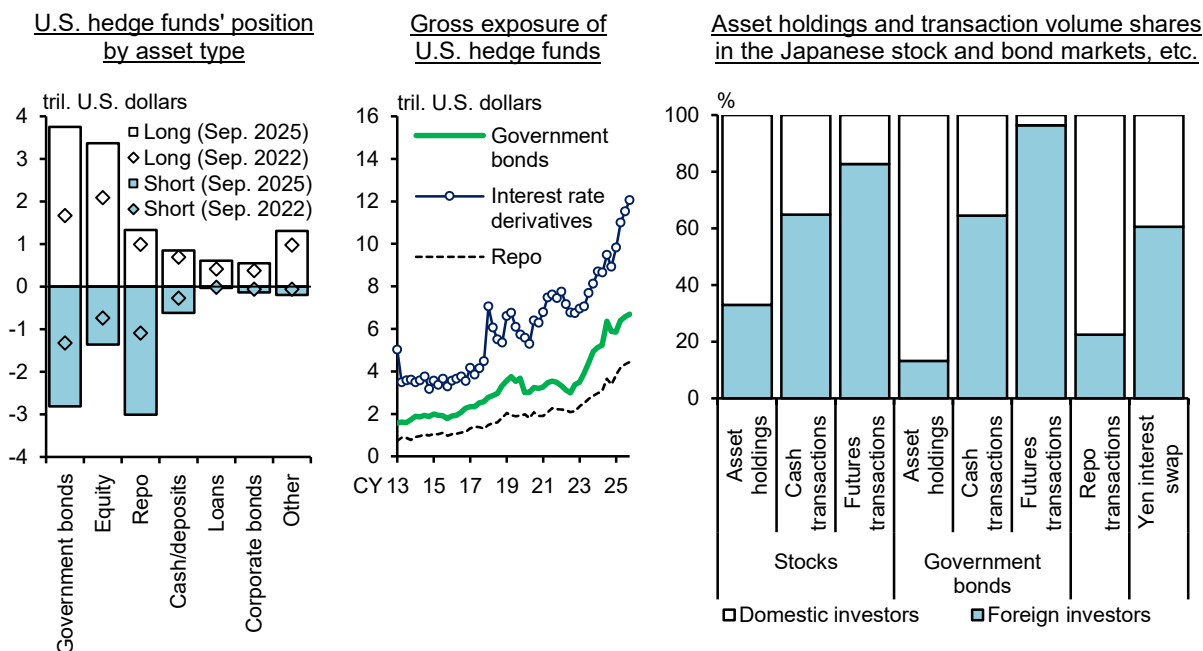
Note: In the left-hand chart, figures in brackets indicate the share of respective sectors to total foreign loans as of end-September 2025. See Charts IV-1-13 and IV-1-17.

Global investment activities of the foreign NBFIs sector → Chapters II, III-B, IV-B, V-B and Box 1

Amid the growing interconnectedness of Japan's financial system with the foreign NBFIs sector, it is necessary that banks manage their risks associated with securities holdings while paying attention to the possibility of investment activities by the foreign NBFIs sector causing stress in domestic financial markets.

Developments in hedge funds operating in the United States reveal a continued expansion of both long and short positions in bond markets, particularly in sovereign bonds of major countries, indicating that the presence of such funds has further increased globally (left and middle panels of Chart I-6). Foreign hedge funds have been trading JGBs combined with repos and derivatives such as interest rate swaps, resulting in increased leverage, and as such they have been increasing their presence in Japan's bond market (right panel of Chart I-6). Close attention is needed to the possibility that, if foreign hedge funds were to unwind positions globally in an event of stress, the impact could spread to Japan's bond market through, for instance, a decline in market liquidity.

Chart I-6: Developments in hedge funds

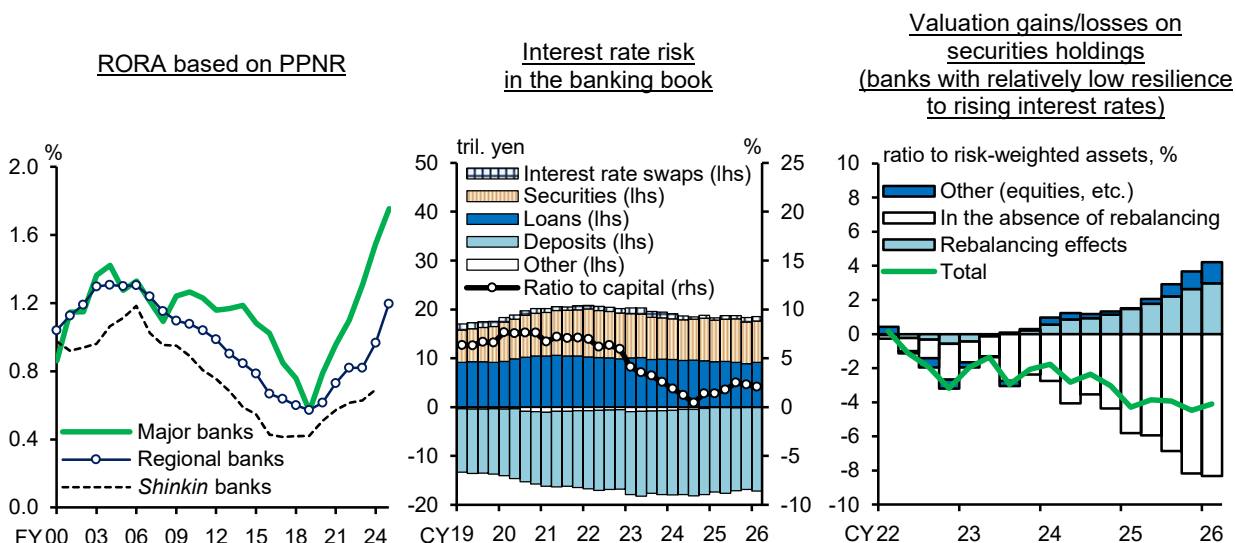


Note: See Charts V-2-6 and V-2-12.

Banks' profits and loss-absorbing capacity amid rising interest rates → Chapters IV-B, IV-C, and VI

Banks' pre-provision net revenue (PPNR), which shows banks' core profitability, has continued to improve owing to limited losses on credit costs, etc., with the Japanese economy exhibiting ongoing moderate recovery, past improvement in overhead ratios, and rising yen interest rates (left panel of Chart I-7). That said, increases in non-personnel expenses and in personnel expenses have continued, and downward pressure remains on banks' profitability from structural factors such as a decline in domestic loan demand due to the shrinking population and the falling number of domestic firms. These developments warrant careful attention.

Chart I-7: Banks' core profitability and resilience to rising interest rates



Note: The middle chart shows yen interest rate risk in terms of the 100 BPV. In the right-hand chart, "Banks with relatively low resilience to rising interest rates" is classified based on "the level of long-term interest rates at which the required capital adequacy ratios are maintained when valuation gains/losses on all investment securities are taken into account" as of end-March 2022. See Charts IV-2-3, VI-1-2 and VI-1-9.

Turning to banks' resilience to rising interest rates, yen interest rate risk in the banking book (IRRBB), measured as the 100 BPV relative to banks' capital, has remained low (middle panel of Chart I-7). Overall, banks have sufficient loss-absorbing capacity. Although valuation losses on securities holdings, particularly yen-denominated bonds, have worsened due to the recent rise in interest rates, net valuation losses on securities holdings of banks even with relatively low resilience to interest rate rises have still remained at around the same level as in March 2025, as banks have continued to decrease their outstanding amount of yen-denominated bondholdings and to shorten their durations (right panel of Chart I-7). Banks need to continue managing their portfolios appropriately by taking into account various scenarios regarding market fluctuations and the impact of future changes in the composition of their balance sheets.

The Bank will promote financial institutions' initiatives to address these potential vulnerabilities through on-site examinations and off-site monitoring. From a macroprudential perspective, it will continue to closely monitor the impact on the financial system of various risk-taking activities by financial institutions.

II. Risks observed in financial and capital markets

- With regard to developments in global financial markets during the second half of fiscal 2025, stock prices increased and credit spreads on corporate bonds remained at low levels through February as market sentiment improved, reflecting reduced uncertainties regarding trade policies. Thereafter, however, prices of risky assets declined as market sentiment deteriorated significantly in the wake of increased tension over the situation in the Middle East.¹
- In Japanese financial markets, stock prices increased significantly on the back of solid business performance and expectations for the government's economic measures, but subsequently declined in the wake of increased tension over the situation in the Middle East. Long-term interest rates rose substantially, reflecting market participants' views on fiscal and monetary policies. In FX markets, the yen depreciated against the dollar over the second half of fiscal 2025, mainly due to speculation over fiscal and monetary policies in each jurisdiction.
- Uncertainty in financial markets remains high. Specifically, attention is focusing on uncertainties regarding the future course of the situation in the Middle East and its effects on economic activity and prices at home and abroad. Market participants have also been paying attention to the impact of trade policies in each jurisdiction, developments in major foreign high-tech stocks, and the course of fiscal policy in each jurisdiction. In this situation, it remains necessary to continue paying close attention to the possibility that global financial conditions could tighten through such factors as a sharp repricing of risky assets and a deterioration in the dollar funding environment.

A. Global financial markets during the second half of fiscal 2025

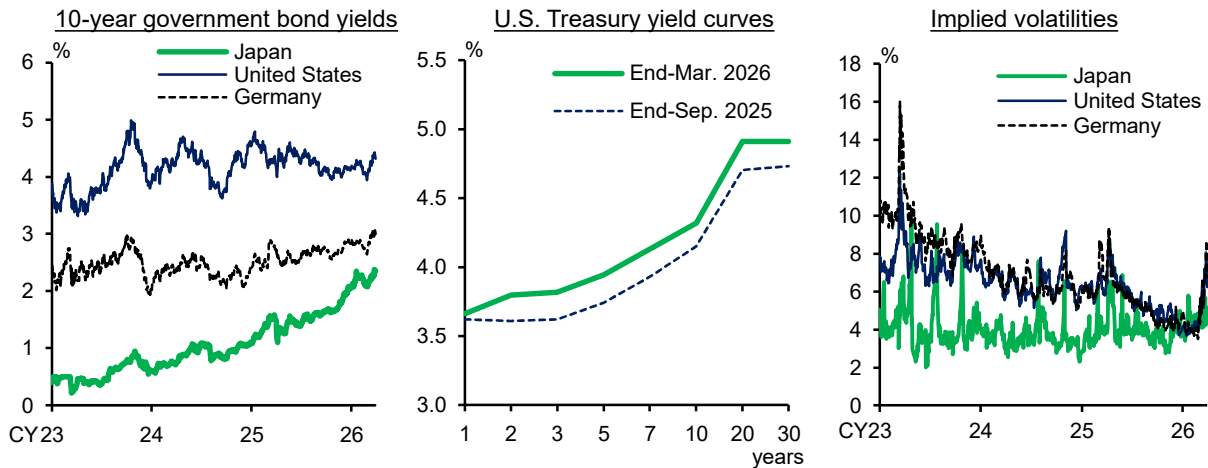
With regard to developments in global financial markets during the second half of fiscal 2025, stock prices increased and credit spreads on corporate bonds remained at low levels through February as market sentiment improved, reflecting reduced uncertainties regarding trade policies. Thereafter, however, prices of risky assets declined as market sentiment deteriorated significantly in the wake of increased tension over the situation in the Middle East.

U.S. and European bond markets

U.S. long-term interest rates increased as expectations of policy interest rate cuts by the Federal Reserve receded, reflecting higher commodity prices after the start of March (Chart II-1-1). The yield curve for U.S. Treasuries also rose across a wide range of maturities. European long-term interest rates increased, driven by continued attention to an easing of supply and demand conditions for government bonds. Additionally, some market participants expected that the European Central Bank would begin policy interest rate hikes in response to higher commodity prices after the start of March. Implied volatilities of government bond futures for the United States and Germany declined as a trend, with market sentiment improving owing to reduced uncertainties regarding trade policies, but thereafter rose significantly in the wake of increased tension over the situation in the Middle East.

¹ In Japan, the fiscal year starts in April and ends in March of the following year.

Chart II-1-1: Bond markets

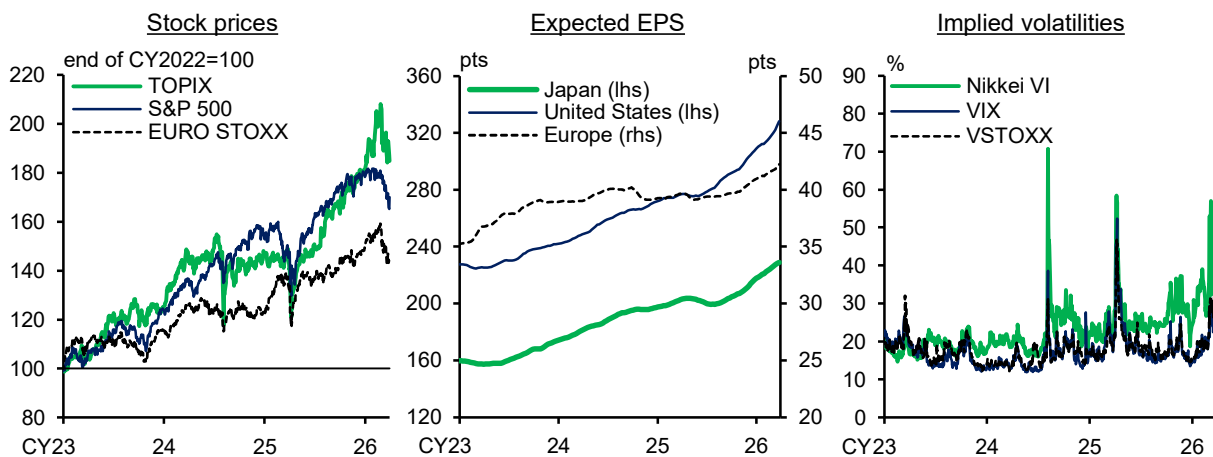


Note: In the right-hand chart, implied volatilities are calculated from options on government bond futures. Latest data for the left- and right-hand charts are as of end-March 2026.
Source: Bloomberg.

U.S. and European stock markets

U.S. stock prices increased through January, as market sentiment continued to improve and expected earnings per share (EPS) rose in response to solid corporate results in a wide range of sectors (Chart II-1-2). Thereafter, however, they declined because of concerns related to AI, such as the profitability of substantial business fixed investment by AI-related firms and the future prospects of existing software firms offering services that AI could replace. This decline was also attributable to a rise in risk aversion, in the wake of increased tension over the situation in the Middle East. European stock prices decreased as well, reflecting the increased tension, after rising partly owing to expectations of improvement in the growth outlook for the euro area. Implied volatilities of U.S. and European stock prices were generally below 20, a level regarded as a critical mark, and subsequently rose significantly reflecting heightened uncertainty due to the increased tension.

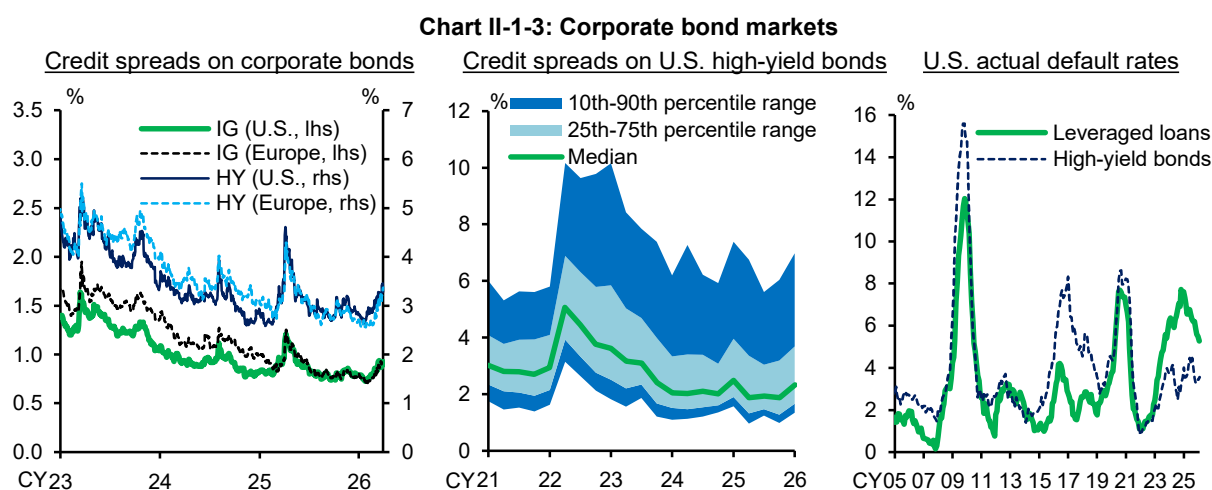
Chart II-1-2: Stock markets



Note: 1. In the middle chart, the data for Japan, the United States, and Europe indicate expected EPS for the next 12 months of the TOPIX, the S&P 500, and the EURO STOXX, respectively. 4-week backward moving averages.
2. Latest data as of end-March 2026.
Source: Bloomberg; LSEG.

U.S. and European credit markets

In U.S. and European credit markets, credit spreads on both investment-grade bonds and high-yield bonds remained at low levels through January, but subsequently widened somewhat, mainly due to vigilance regarding private markets and increased tension over the situation in the Middle East (left panel of Chart II-1-3). Looking at the distribution of credit spreads on U.S. high-yield bonds, the overall level of spreads remained low, although spreads on some of these bonds remained wide due to the cumulative effects of the high interest rate environment (middle panel of Chart II-1-3). In the meantime, while the default rates of both high-yield bonds and leveraged loans declined slightly, those of leveraged loans remained at relatively high levels due to factors such as the cumulative effects of the high interest rate environment (right panel of Chart II-1-3).



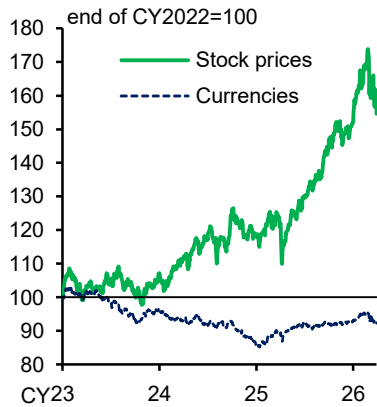
Note: 1. In the left-hand chart, "IG" and "HY" indicate investment-grade bonds and high-yield bonds, respectively. Latest data as of end-March 2026.
2. The middle chart is based on data by issue. Latest data as of end-March 2026.
3. The right-hand chart indicates trailing 12-month default rates. The default rates of leveraged loans include distressed exchanges. Latest data as of February 2026.
Source: ICE Data Indices, LLC; Moody's.

Emerging markets and international commodity markets

In emerging markets, stock prices rose substantially through February, partly due to a surge in prices of some semiconductor products and a rise in commodity prices, such as those of gold and copper, but thereafter declined, reflecting increased tension over the situation in the Middle East (Chart II-1-4). Meanwhile, currencies in emerging markets were more or less flat over the second half of fiscal 2025.

In international commodity markets, prices of crude oil surged after the start of March, mainly due to supply concerns caused by increased tension over the situation in the Middle East. Over the second half of fiscal 2025, they rose significantly (left panel of Chart II-1-5). In the meantime, through the end of February, gold prices increased significantly, reflecting growing demand for diversified investment and other factors, while copper prices rose substantially due to the effects of supply constraints in major production areas amid strong AI-related demand; these prices accordingly hit record highs but declined after the start of March, reflecting increased tension over the situation in the Middle East (right panel of Chart II-1-5).

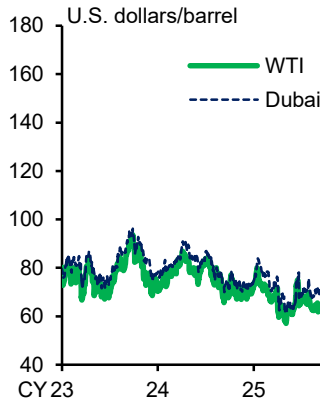
Chart II-1-4: Emerging markets



Note: "Stock prices" and "Currencies" indicate the MSCI EM Local Index and the J.P. Morgan EMCI Index, respectively. Latest data as of end-March 2026.
Source: Bloomberg.

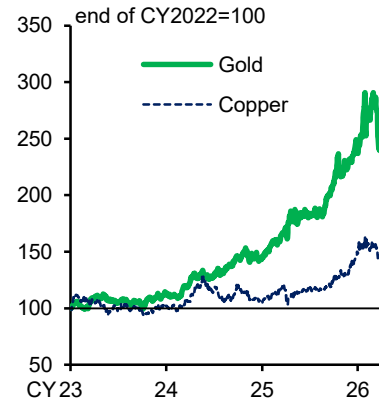
Chart II-1-5: Commodity prices

Crude oil prices



Note: In the left-hand chart, "WTI" and "Dubai" are futures and spot prices, respectively. Latest data as of end-March 2026.
Source: Bloomberg; Nikkei Inc.

Gold and copper prices



B. Japanese financial markets during the second half of fiscal 2025

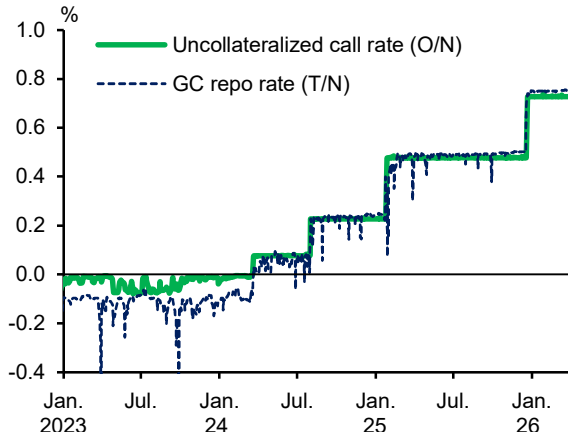
In Japanese financial markets, stock prices increased significantly on the back of solid business performance and expectations for the government's economic measures, but subsequently declined in the wake of increased tension over the situation in the Middle East. Long-term interest rates rose substantially, reflecting market participants' views on fiscal and monetary policies. In FX markets, the yen depreciated against the dollar over the second half of fiscal 2025, mainly due to speculation over fiscal and monetary policies in each jurisdiction.

Short-term money markets

Regarding overnight interest rates, the uncollateralized call rate (O/N) had been at around 0.5 percent and was at around 0.75 percent following the change in the guideline for money market operations in December 2025 (left panel of Chart II-2-1). The GC repo rate (T/N) moved in tandem with the uncollateralized call rate.

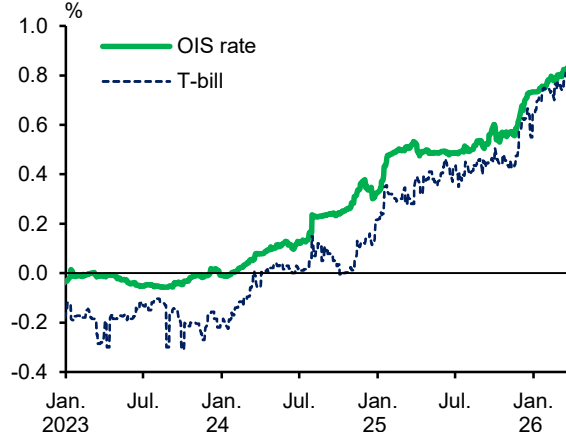
Chart II-2-1: Short-term interest rates

Overnight rates



Note: Latest data as of end-March 2026.
Source: Bloomberg; Japan Bond Trading; JSDA; BOJ.

3-month rates

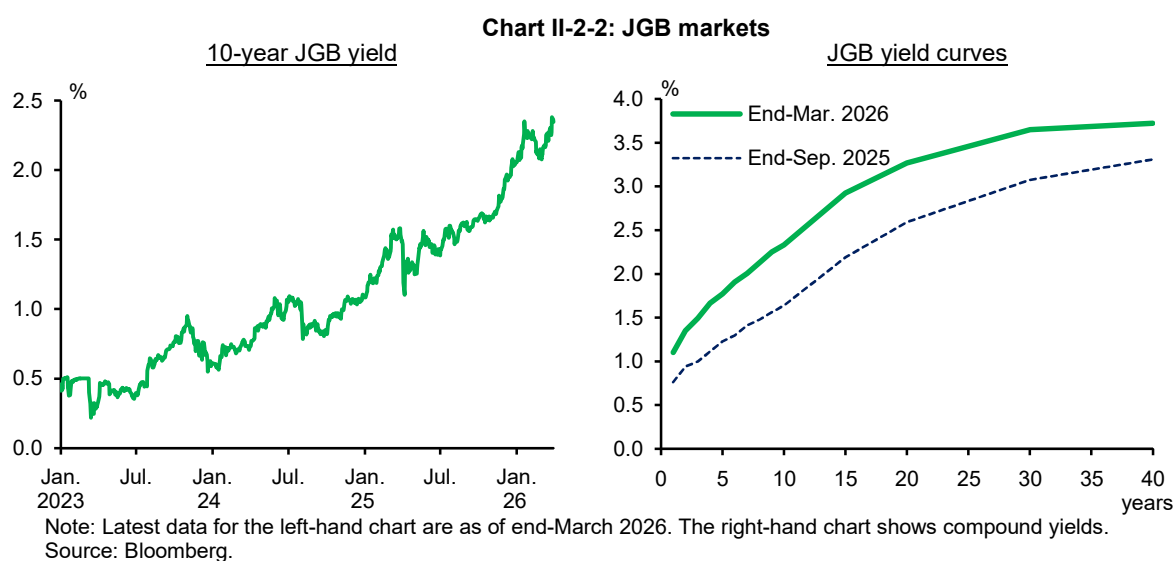


II. Risks observed in financial and capital markets
B. Japanese financial markets during the second half of fiscal 2025

With regard to term interest rates, both the 3-month overnight index swap (OIS) rate and yields on 3-month T-bills increased, reflecting growing expectations of a policy interest rate hike by the Bank of Japan (right panel of Chart II-2-1).

Japanese government bond (JGB) markets

Long-term interest rates rose substantially, reflecting market participants' views on fiscal and monetary policies (Chart II-2-2). The yield curve for JGBs shifted upward, driven by a widening of term premiums and growing expectations of a policy interest rate hike by the Bank. The implied volatility of JGB futures was at a somewhat high level due to uncertainty regarding the outlook for interest rates and the rise in risk aversion following the increased tension over the situation in the Middle East since the start of March (Chart II-1-1).

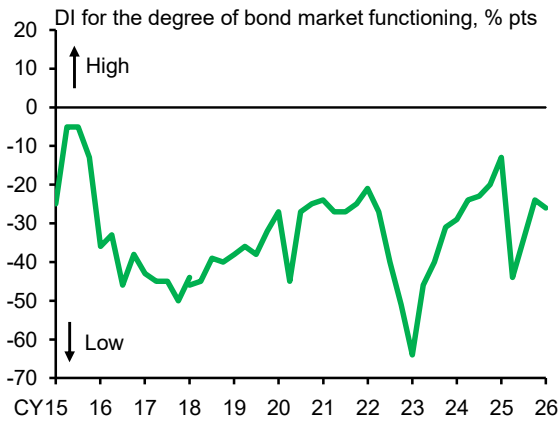


Liquidity and functioning of JGB markets

The liquidity and functioning of JGB markets continued to improve.² Specifically, the diffusion index for the degree of bond market functioning in the Bank's *Bond Market Survey*, despite remaining negative, showed an improvement over the second half of fiscal 2025 (Chart II-2-3). Looking at liquidity indicators in the JGB cash market, the transaction volume followed an increasing trend, with the Bank making headway in reducing its JGB purchase amount (Chart II-2-4). Market depth in the JGB futures market was more or less unchanged (Chart II-2-5).

² See "Liquidity Indicators in the JGB Markets" on the Bank's website. The Financial Markets Department of the Bank generally updates and releases liquidity indicators of the JGB markets on a quarterly basis.

Chart II-2-3: Bond market survey

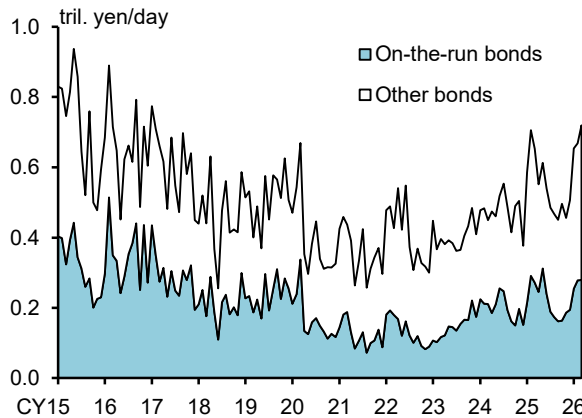


Note: 1. Based on the proportion of responding institutions selecting a given choice, the DI is calculated as follows: DI for the degree of current bond market functioning = "high" - "low."
 2. The data from February 2018 onward cover major institutional investors. Latest data are based on the February 2026 survey.

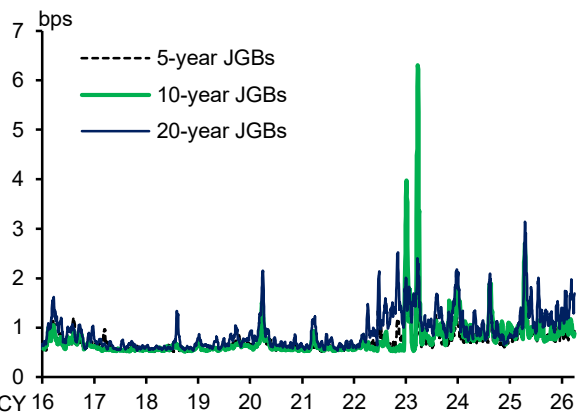
Source: BOJ.

Chart II-2-4: Liquidity indicators in JGB cash market

Transaction volume



Bid-ask spreads of on-the-run bonds

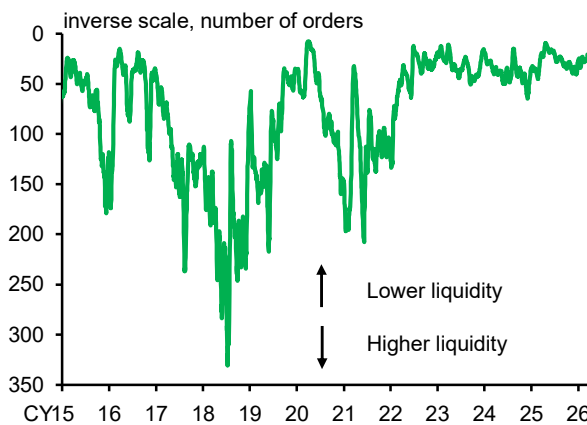


Note: 1. The left-hand chart indicates inter-dealer transaction volume for cash JGBs (2-, 5-, 10-, 20-, 30-, and 40-year JGBs) via Japan Bond Trading. Latest data as of March 2026.
 2. The right-hand chart indicates the average of bid-ask spreads of inter-dealer transactions with a 1-second frequency. Bid-ask spreads are calculated only for time periods in which both best-bid and best-ask prices were submitted. 10-day backward moving averages. Latest data as of end-March 2026.

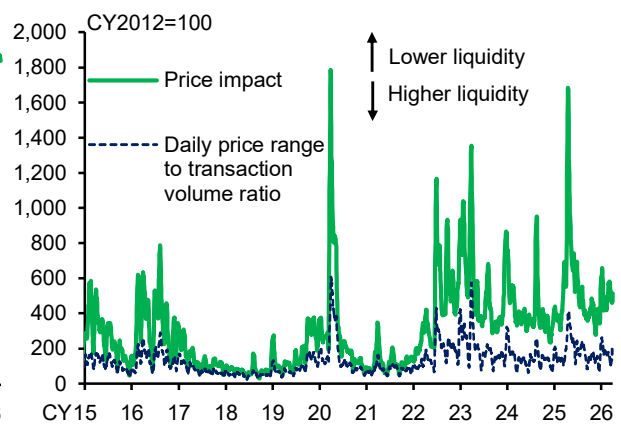
Source: Japan Bond Trading; QUICK.

Chart II-2-5: Liquidity indicators in JGB futures market

Market depth



Resiliency



Note: 1. The left-hand chart indicates the number of orders for JGB futures at the best-ask price with a 1-minute frequency (median for each business day). 10-day backward moving averages. Latest data as of end-March 2026.
 2. In the right-hand chart, "Price impact" is the average price impact with a 5-minute frequency. "Daily price range to transaction volume ratio" is a daily price range (difference between the highest and the lowest prices) divided by transaction volume. 10-day backward moving averages. Latest data as of end-March 2026.

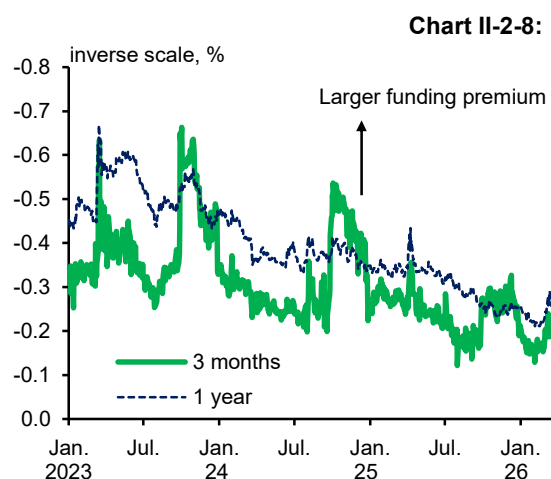
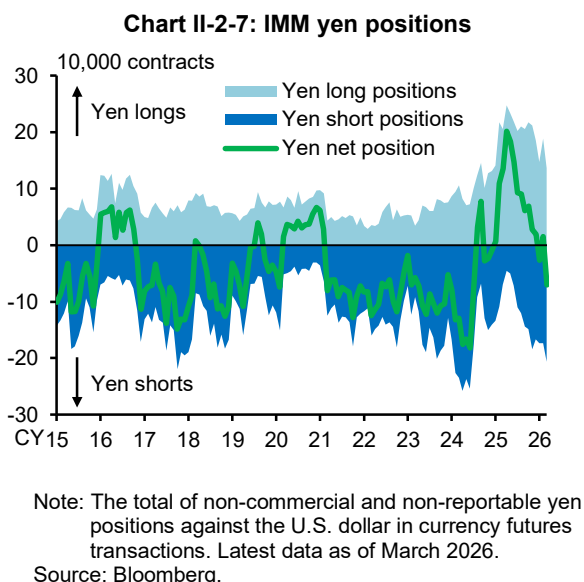
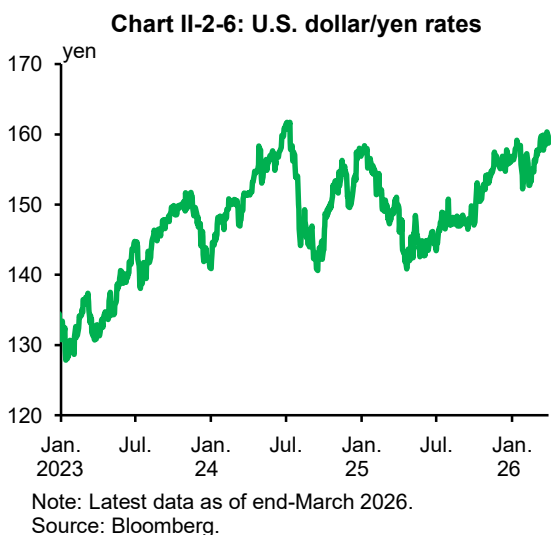
Source: Nikkei Inc., "NIKKEI NEEDS"; Osaka Exchange; QUICK.

II. Risks observed in financial and capital markets
 B. Japanese financial markets during the second half of fiscal 2025

That said, assessing liquidity indicators is not straightforward in the short term, as they have experienced temporary volatility. For instance, looking at bid-ask spreads of newly issued bonds and market resiliency in the JGB futures market, liquidity deteriorated temporarily in line with heightened volatility, due to uncertainty regarding the outlook for interest rates (Charts II-2-4 and II-2-5). Bearing this in mind, it is necessary to continue to monitor the functioning of JGB markets from various aspects.

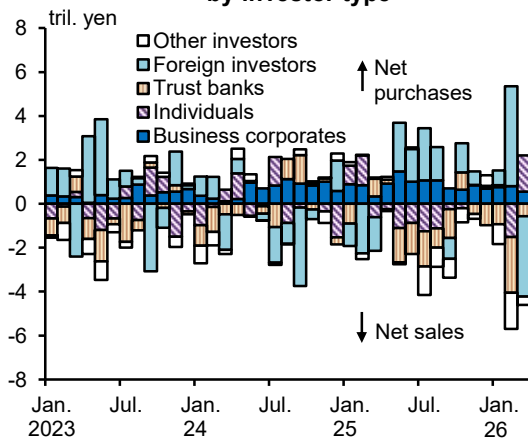
FX, stock, and credit markets

In FX markets, the yen depreciated against the dollar over the second half of fiscal 2025, mainly due to speculation over fiscal and monetary policies in each jurisdiction (Chart II-2-6). Under these circumstances, yen futures positions on the International Money Market (IMM) shifted to net short (Chart II-2-7). Meanwhile, dollar funding premiums in the FX swap market were generally at low levels, although they widened temporarily due to seasonal transactions conducted in view of the year-end and the effects of increased tension over the situation in the Middle East (Chart II-2-8).



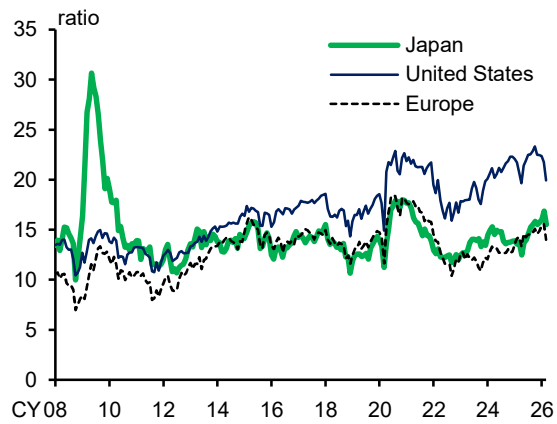
Japanese stock prices increased significantly through February on the back of solid business performance and expectations for the government's economic measures; the Nikkei 225 Stock Average and the Tokyo Stock Price Index (TOPIX) accordingly hit record highs (Chart II-1-2). That said, stock prices declined after the start of March due to the rise in risk aversion in the wake of increased tension over the situation in the Middle East. As for domestic investors, business corporates that continued stock buybacks were net purchasers, while trust banks tended to be net sellers, reflecting pension funds' selling to rebalance their portfolios in response to higher stock prices. Foreign investors were net purchasers through February as they viewed Japanese stocks as relatively undervalued, but subsequently became net sellers reflecting a deterioration in market sentiment (Chart II-2-9). Price-earnings (P/E) ratios were generally at the historical average level (Chart II-2-10).

Chart II-2-9: Japanese stock investments by investor type



Note: The sum of net investments in cash and futures stock markets. Excludes securities companies. Latest data as of March 2026.
Source: Osaka Exchange; Tokyo Stock Exchange.

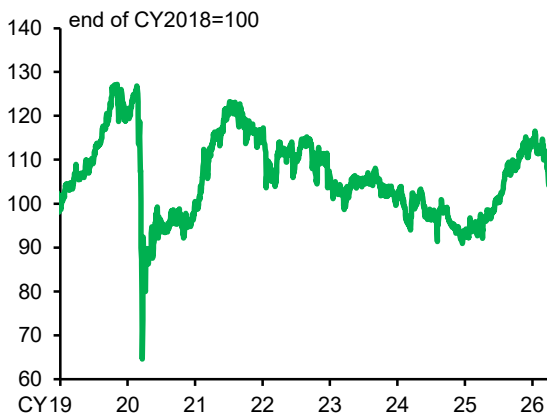
Chart II-2-10: P/E ratios



Note: The data for Japan, the United States, and Europe are calculated using expected EPS for the next 12 months of the TOPIX, the S&P 500, and the EURO STOXX, respectively. Latest data as of end-March 2026.
Source: LSEG.

Prices of Japan real estate investment trusts (J-REITs) increased slightly, mainly due to continued improvement in the office market, but they subsequently declined, reflecting rising interest rates and a deterioration in market sentiment (Chart II-2-11).

Chart II-2-11: Tokyo Stock Exchange REIT Index



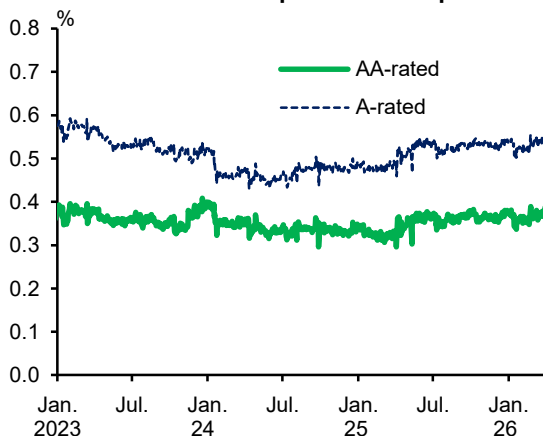
Note: Latest data as of end-March 2026.
Source: Bloomberg.

Credit spreads on corporate bonds remained more or less flat (Chart II-2-12). Meanwhile, issuance rates for CP increased, in tandem with the rise in short-term interest rates (Chart II-2-13).

II. Risks observed in financial and capital markets

C. Risks to financial markets

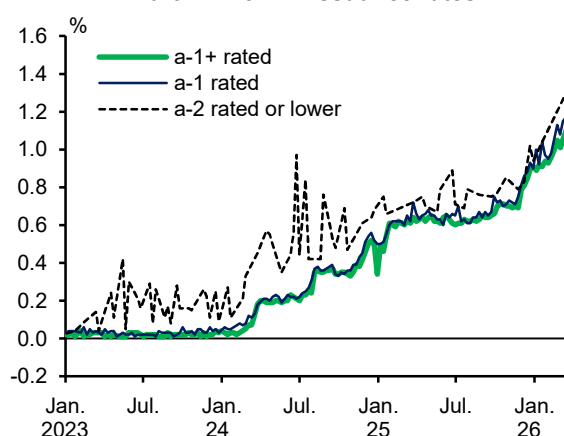
Chart II-2-12: Credit spreads on corporate bonds



Note: Yield spreads of corporate bonds with remaining maturity of 3-7 years over government bonds.
Latest data as of end-March 2026.

Source: Bloomberg; JSDA; QUICK.

Chart II-2-13: CP issuance rates



Note: Average rates of issuance for CP issued by business corporates with maturity of 3 months.
Latest data as of end-March 2026.

Source: JASDEC.

C. Risks to financial markets

Uncertainty in financial markets remains high. Specifically, attention is focusing on uncertainties regarding the future course of the situation in the Middle East and its effects on economic activity and prices at home and abroad. Market participants have also been paying attention to the impact of trade policies in each jurisdiction, developments in major foreign high-tech stocks, and the course of fiscal policy in each jurisdiction.

In stock markets, attention is needed to the risk that, depending on the future course of the situation in the Middle East, heightened concerns over a global economic slowdown and over inflationary pressure will cause a further deterioration in market sentiment. Attention also continues to be warranted regarding the possibility that the trade policies announced so far in each jurisdiction could push down the global economy. In addition, regarding AI, amid concerns about uncertainty over whether profits will expand in line with strong business fixed investment, there also remains high vigilance against the risk of price adjustments for major foreign high-tech stocks. In bond markets, market participants have focused their attention on the future conduct of monetary policy and developments in fiscal policy in each jurisdiction, in addition to the effects of increased tension over the situation in the Middle East. In credit markets, attention continues to focus on the cumulative effects of the high interest rate environment in the United States and Europe on financial conditions of firms with low credit ratings and those with high leverage ratios. In this situation, if concerns over private funds grow, there is a risk that credit spreads will widen through a decline in market participants' risk tolerance (see Box 1 on developments in private funds).

In emerging markets, there have been concerns over the risk that capital outflows could occur from countries with fiscal and financial vulnerabilities, with attention being paid to the possibility that the future course of the situation in the Middle East and the trade policies announced so far in each jurisdiction will put downward pressure on the economy. In international commodity markets, attention is warranted regarding the risk that the surge in commodity prices -- such as those of crude oil -- will be prolonged reflecting the situation in the Middle East, as well as uncertainty over developments in the Chinese economy, which have a significant impact on commodity and grain prices.

Attention should continue to be paid to the possibility that the materialization of these risks could lead to a tightening in global financial conditions through such factors as a sharp repricing of risky assets and a deterioration in the dollar funding environment.

III. Financial intermediation

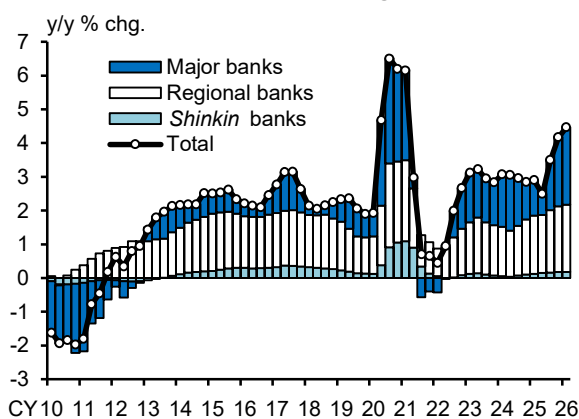
- Financial intermediation has continued to function smoothly in Japan. Firms' demand for loans has continued to rise mainly on the back of economic recovery and developments in mergers and acquisition (M&A) deals. Banks' lending stance has also been active. Foreign lending by major banks has been increasing moderately on the whole with foreign economies showing moderate growth overall. Meanwhile, banks have been cautious about making securities investment amid concerns over the risk of higher interest rates in Japan.
- Assets under management held by non-bank financial intermediaries (NBFIs) in Japan have continued to increase. Investment funds' assets under management have continued to increase on the back of inflows of funds from households. An increase in financial dealers and brokers' short-term repo transactions has continued on both the asset and liability sides. Life insurance companies have continued to take a cautious stance toward increasing their holdings of super-long-term Japanese government bonds (JGBs), as they have largely completed making adjustments to comply with new regulations.

A. Financial intermediation by the banking sector

1. Loans

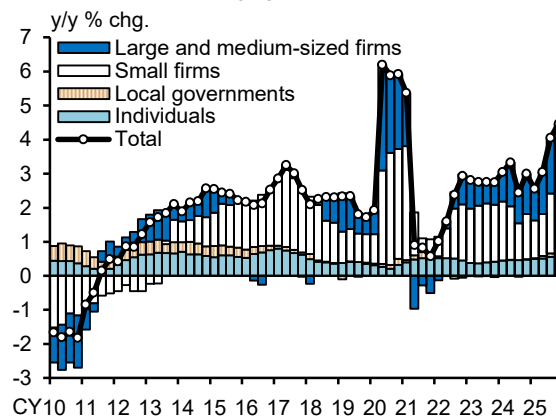
The annual growth rate of domestic loans by privately-owned banks has been at around 4.5 percent (Chart III-1-1). In addition to strong loan demand reflecting M&A deals, demand for real estate-related loans and demand for working capital amid the recovery in economic activity have been rising. Loans to both large and medium-sized firms and small firms have continued to increase (Chart III-1-2).

Chart III-1-1: Banks' domestic loans outstanding



Note: Latest data as of 2026/Q1 (January-February).
Source: BOJ.

Chart III-1-2: Banks' loans outstanding by type of borrower



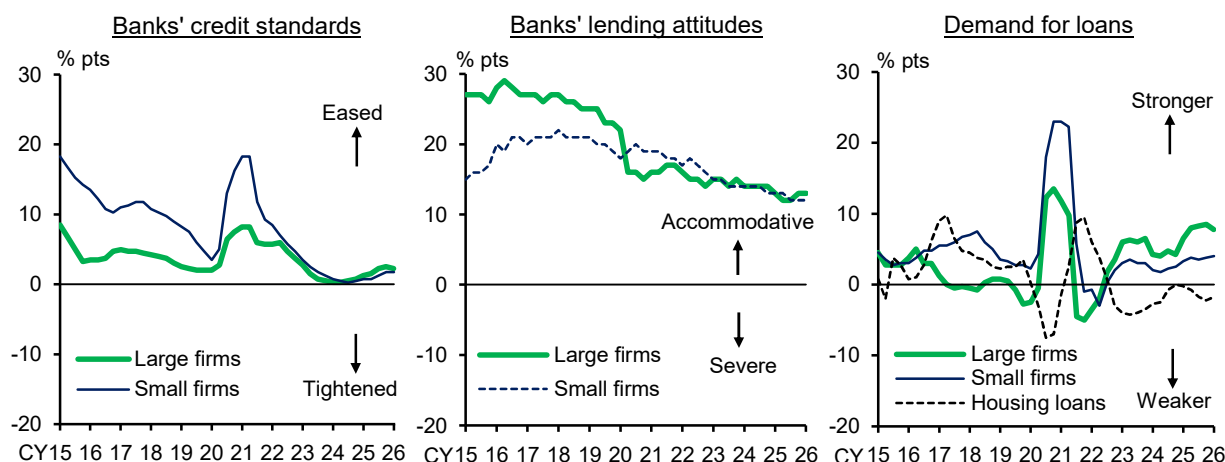
Note: Loans to banks and insurance companies are excluded. Latest data as of 2025/Q4.
Source: BOJ.

Banks' lending stance continues to be active (left panel of Chart III-1-3). Banks' lending attitudes as perceived by both large and small firms have been accommodative (middle panel of Chart III-1-3). Firms' demand for loans as perceived by banks has also continued to rise (right panel of Chart III-1-3).

III. Financial intermediation

A. Financial intermediation by the banking sector

Chart III-1-3: Loan-related Dis

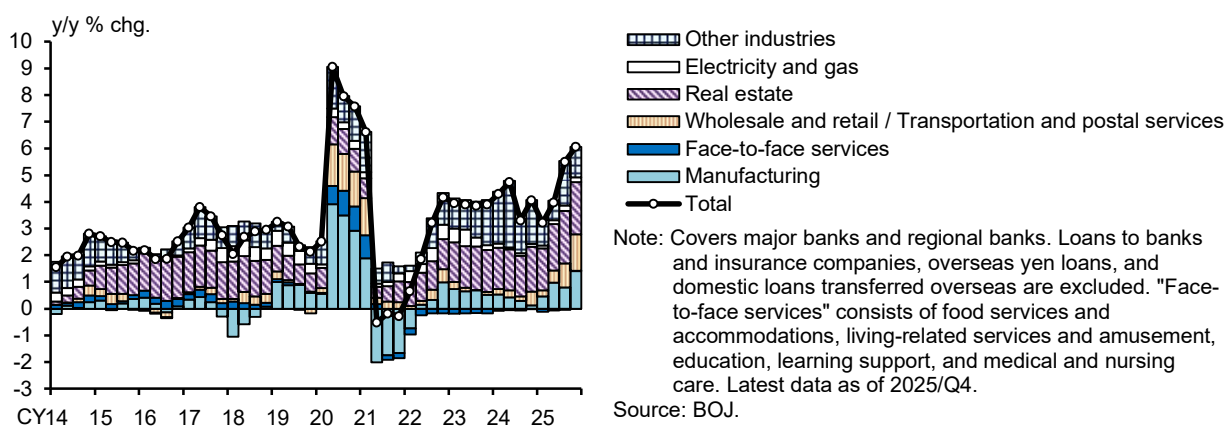


Note: 1. The left- and right-hand charts show 4-quarter backward moving averages. Latest data as of 2026/Q1 (January survey).
 2. Latest data for the middle chart are as of 2026/Q1 (March survey).
 Source: BOJ.

Loans by type of borrower

Loans to real estate businesses have continued to increase and loans to a wide range of other sectors, such as manufacturing, wholesale and retail and transportation and postal services, goods rental and leasing, and information and communications, have increased (Chart III-1-4; goods rental and leasing and information and communications are included in "other industries"). For loans to businesses other than real estate, funding demand reflecting corporate actions such as M&As, including leveraged buyout (LBO) finance, has been strong on the back of the need for firms to restructure reflecting changes in the business environment.

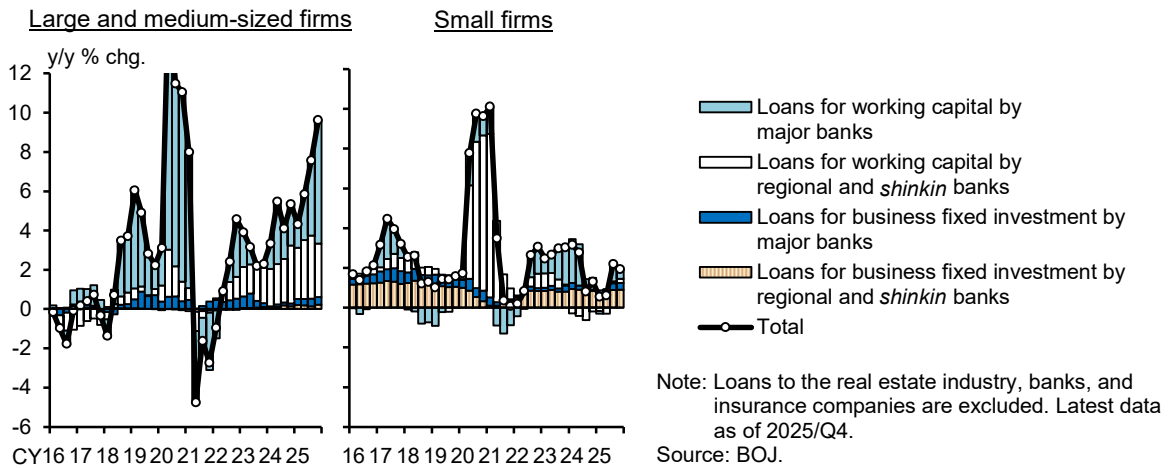
Chart III-1-4: Corporate loans outstanding by industry



Note: Covers major banks and regional banks. Loans to banks and insurance companies, overseas yen loans, and domestic loans transferred overseas are excluded. "Face-to-face services" consists of food services and accommodations, living-related services and amusement, education, learning support, and medical and nursing care. Latest data as of 2025/Q4.
 Source: BOJ.

Loans for working capital to large and medium-sized firms have shown an increase in growth (Chart III-1-5). Rising funding demand related to corporate actions such as M&A deals and going private has continued to contribute significantly to the increase in loans. Loans for business fixed investment have continued to increase, especially for small firms. In addition to renewal investment amid the economic recovery, labor-saving investment to address labor shortages and fixed investment for decarbonization have contributed to this increase.

Chart III-1-5: Corporate loans outstanding by type of loan



Real estate-related loans

Loans to real estate businesses have continued to grow at a relatively high rate for all types of banks (Chart III-1-6). At major banks, loans have continued to increase, mainly those to real estate investment funds with relatively high lending margins ("SPCs" in Chart III-1-7) and to small firms, including real estate investment trusts (REITs) (Chart III-1-7). Major banks have met solid demand for funds while managing credit exposures cautiously, based on current real estate market conditions and past periods of market stress, and paying attention to developments in interest rates and foreign exchange rates.

Chart III-1-6: Banks' real estate loans outstanding

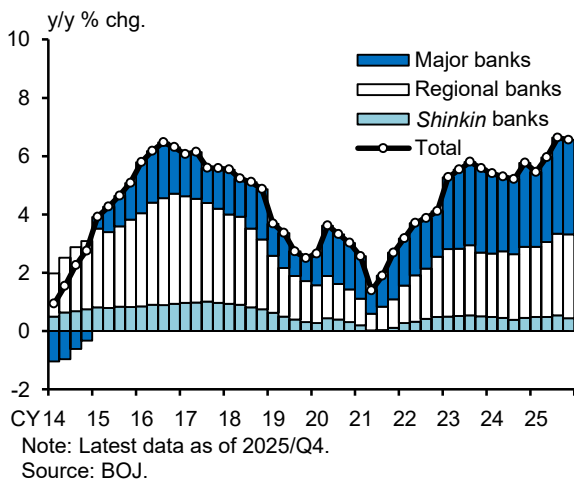
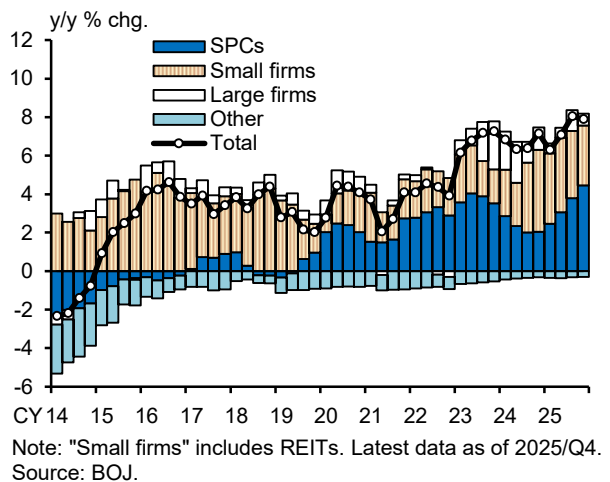


Chart III-1-7: Real estate loans by major banks



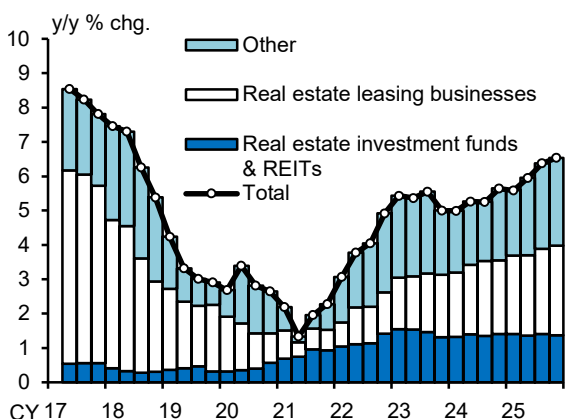
At regional banks, loans to real estate investment funds and non-residential real estate leasing businesses (included in "other" in Chart III-1-8) have risen, reflecting an increase in financing demand due to the construction of new leasing properties such as office buildings (Chart III-1-8). In addition, at regional and shinkin banks, loans to residential real estate leasing businesses have increased, reflecting a rise in demand for rental housing and an increase in material costs. Regional and shinkin banks have been meeting such demand for funds while being selective in providing loans.

III. Financial intermediation

A. Financial intermediation by the banking sector

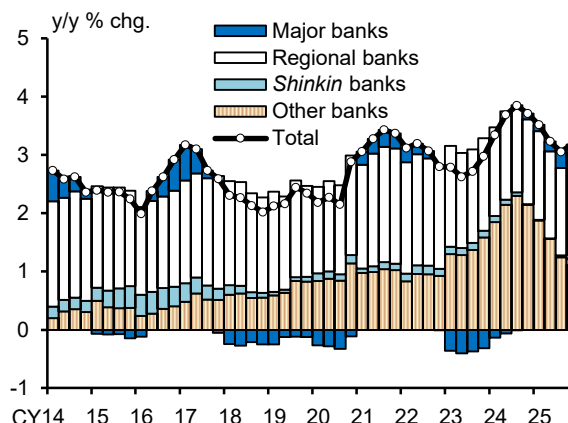
Housing loans, which account for a large share of loans to individuals, have continued to rise at a rate in the range of 3.0-3.5 percent (Chart III-1-9). On the demand side, the outstanding amount of housing loans has been pushed up since the amount per loan has continued to increase reflecting the rise in property prices. On the supply side, the growth in housing loans by internet-only banks (included in "other banks" in the chart), which had led the increase in the outstanding amount of housing loans, has slowed. On the other hand, at major banks and regional banks, the growth in the outstanding amount of such loans has accelerated somewhat.

Chart III-1-8: Real estate loans by regional banks



Note: Covers 84 regional banks, for which a breakdown of real estate loans is available. "Real estate leasing businesses" is for residential use. Latest data as of 2025/Q4.
Source: BOJ.

Chart III-1-9: Banks' housing loans outstanding

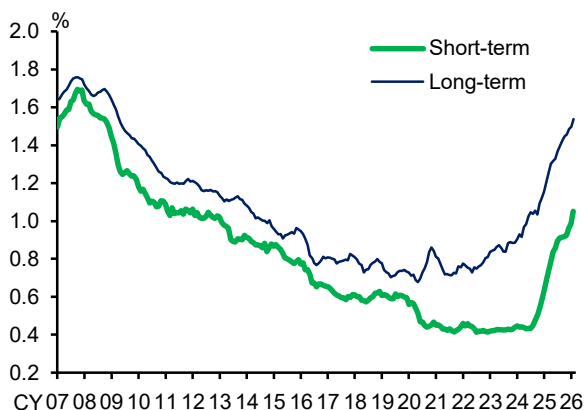


Note: "Other banks" covers domestically licensed banks but excludes major banks and regional banks. Latest data as of 2025/Q4.
Source: BOJ.

Lending rates

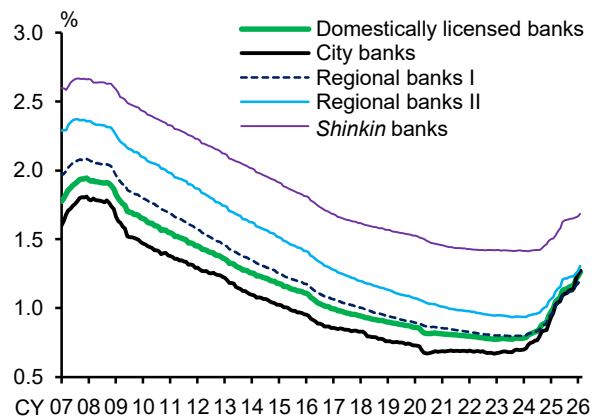
Banks' average contract interest rates on new loans and discounts have been rising for both long-term and short-term ones, due to rises in market interest rates and short-term prime rates, both of which serve as base rates (Chart III-1-10). The size of the increase in interest rates on loans outstanding has risen for all types of banks, and that for major banks, among which market rate-linked loans account for a large share of their lending, has been relatively substantial (Charts III-1-11 and III-1-12). Meanwhile, interest rates on floating-rate housing loans, which account for the majority of new housing loans, have been rising in tandem with reference rates such as the short-term prime rates. In addition, interest rates on new fixed-rate housing loans have been rising, reflecting developments in long-term interest rates (Chart III-1-13).

Chart III-1-10: Average contract interest rates on new loans and discounts



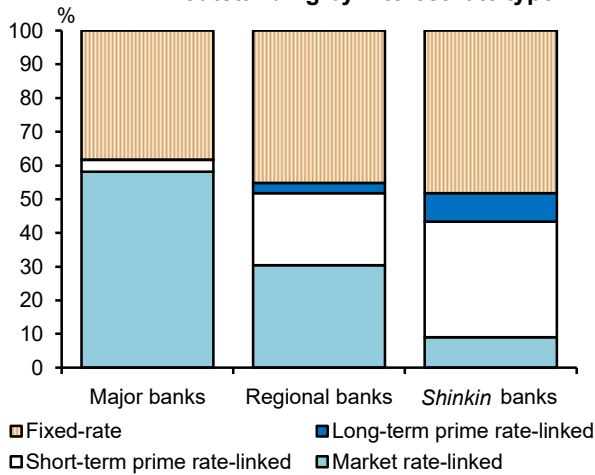
Note: Covers domestically licensed banks. 6-month backward moving averages. Latest data as of February 2026.
Source: BOJ.

Chart III-1-11: Average contract interest rates on outstanding loans and bills discounted



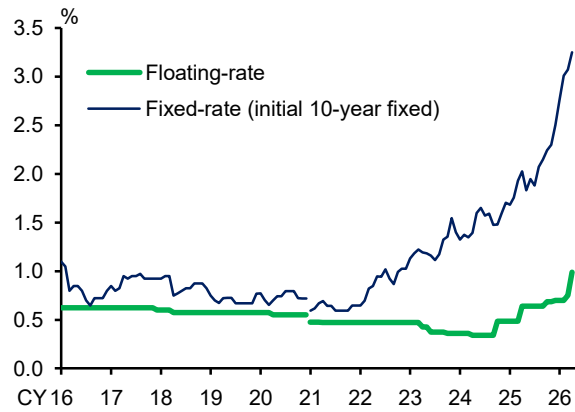
Note: Latest data as of February 2026.
Source: BOJ.

Chart III-1-12: Composition of corporate loans outstanding by interest rate type



Note: Data as of end-September 2025.
Source: BOJ.

Chart III-1-13: Interest rates on housing loans

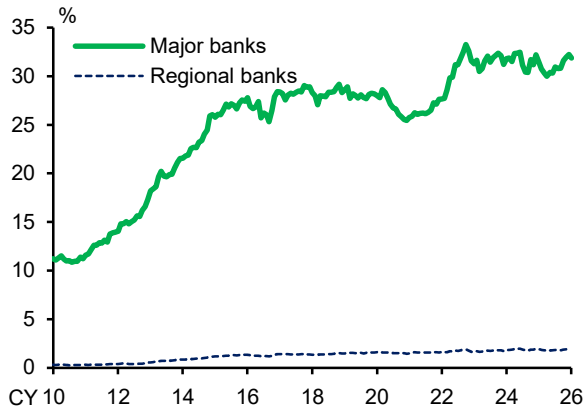


Note: Shows medians of some major banks (preferential rates are taken into account). Covers loans with administrative fees from 2021 and those with guarantee fees up to 2020. Latest data as of April 2026.
Source: Published accounts of individual banks.

Foreign loans

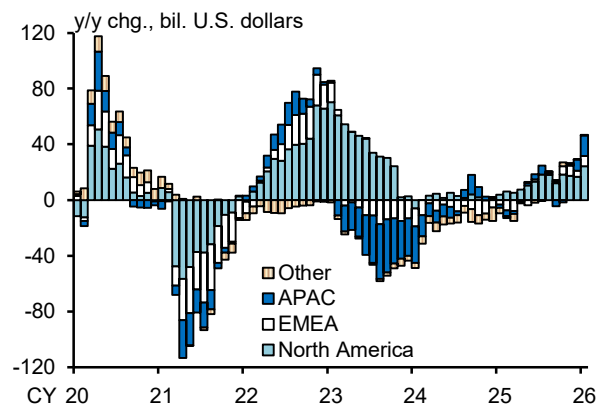
With foreign loans accounting for over 30 percent of their loan portfolios, major banks are susceptible to foreign financial and economic conditions (Chart III-1-14). With foreign economies showing moderate growth overall, demand for foreign loans has been increasing moderately on the whole, while it is also supported by growing demand for fund finance and for data center financing. Even against this background, major banks have been selective in their foreign lending (Chart III-1-15).

Chart III-1-14: Share of foreign loans in total loans



Note: On a non-consolidated basis. Latest data as of end-January 2026.
Source: BOJ.

Chart III-1-15: Foreign loans outstanding of the three major banks by region



Note: Latest data as of end-January 2026.
Source: BOJ.

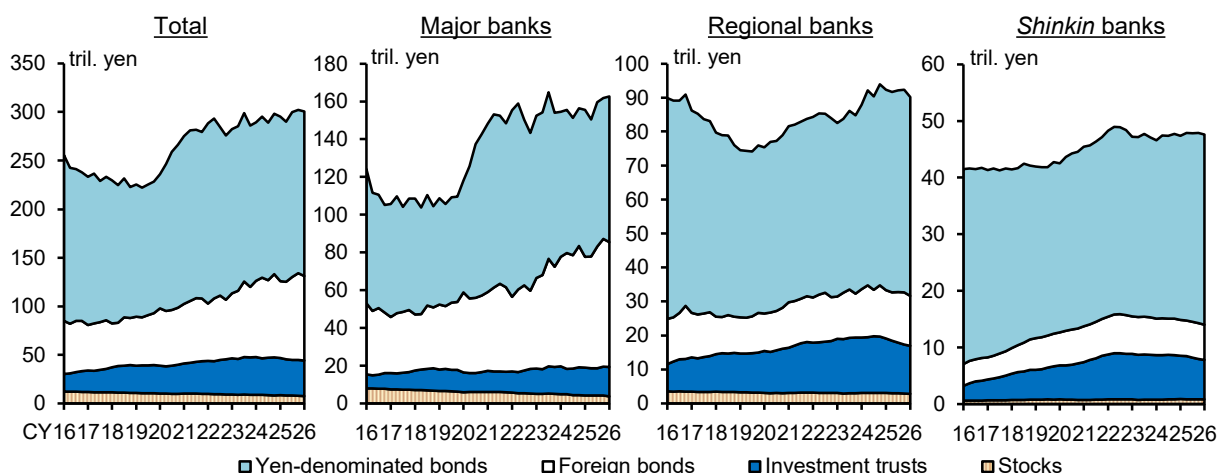
2. Securities investment

Banks have continued to make domestic securities investments in a risk-conservative manner amid concerns over the risk of higher interest rates (Chart III-1-16). As for foreign securities investment, some banks have been increasing their holdings with an eye on a continuation of rate cuts in the United States. However, banks' investment stance has been cautious compared to a while ago amid concerns over uncertainties regarding economic and price developments.

III. Financial intermediation

A. Financial intermediation by the banking sector

Chart III-1-16: Outstanding amount of securities among banks



Note: 1. "Investment trusts" includes domestic and foreign investment, and some securities other than investment trusts.
 2. "Stocks" is based on the outstanding amount on a book value basis and excludes foreign stocks.
 3. The data are the sum of figures for domestic and foreign branches, with the exception of those for major banks' "Stocks," which are figures for domestic branches. Latest data as of end-February 2026.

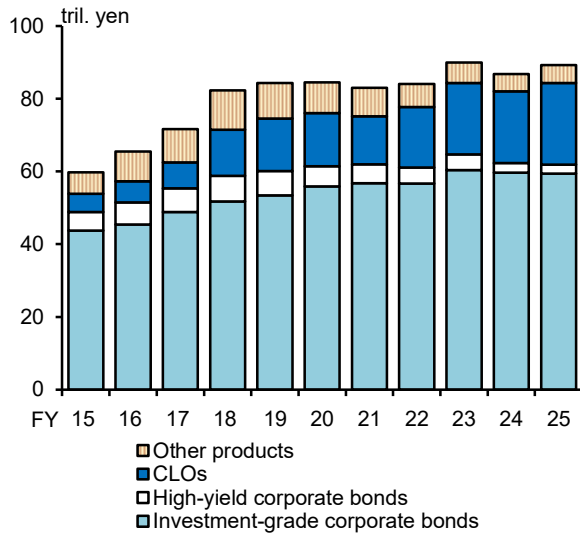
Source: BOJ.

With regard to holdings of yen-denominated bonds, including JGBs, municipal bonds, and corporate bonds, major banks have moderately increased their holdings of medium- to long-term JGBs, with the aim of securing carry income. However, their overall stance on such investments has been cautious amid perceived risk of higher interest rates and heightened volatility. They have continued with interest rate hedging by using interest rate swaps and purchasing inverse mutual funds. Some major banks have been increasing their holdings of foreign securities, particularly in the short- to medium-term zone, with an eye on a continuation of rate cuts in the United States. However, major banks as a whole have maintained a more cautious stance toward investing in foreign bonds than a while ago, due to concerns over uncertainties regarding economic and price developments. Strategic stockholdings, i.e., stockholdings for the purpose of maintaining business ties with firms, have continued to fall, partly as a response to growing social awareness regarding corporate governance.

Regional and *shinkin* banks have continued to be cautious toward increasing their holdings of yen-denominated bonds, led by regional banks, amid perceived risk of higher interest rates. Both regional and *shinkin* banks have shortened the duration of their yen-denominated bondholdings. Some of them have continued to sell their securities with low investment yields. Meanwhile, regional and *shinkin* banks' foreign bond holdings have remained more or less unchanged. Regarding investment trusts, including domestic real estate funds with elevated holdings relative to past levels, there have been moves toward realizing gains through sales.

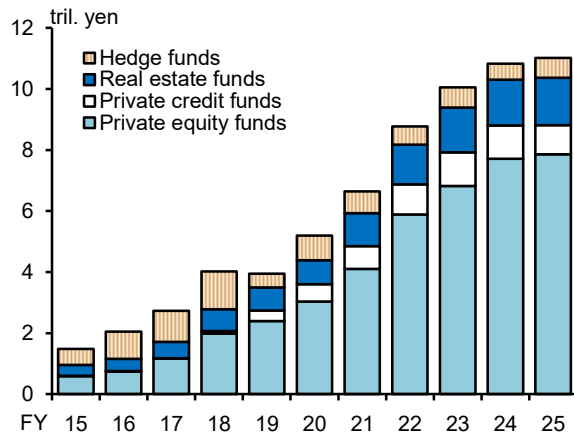
Banks have also been cautious about taking risks in foreign credit products. The outstanding amount of collateralized loan obligations (CLOs) has increased due to investments made by some banks to secure carry income and to prepare for an increase in early redemptions. However, the outstanding amounts of investment-grade and high-yield bonds have declined due to a decrease in their investment attractiveness reflecting a narrowing of spreads, as well as efforts to curb market credit risk (Chart III-1-17). Meanwhile, large financial institutions have increased their alternative investment holdings, such as private equity holdings, in order to improve their investment yields and diversify risk (Chart III-1-18).

Chart III-1-17: Foreign credit product investment



Note: Covers major banks, regional banks, *shinkin* banks, Japan Post Bank, and a central organization of financial cooperatives. Latest data as of end-September 2025.
Source: BOJ.

Chart III-1-18: Foreign alternative investment

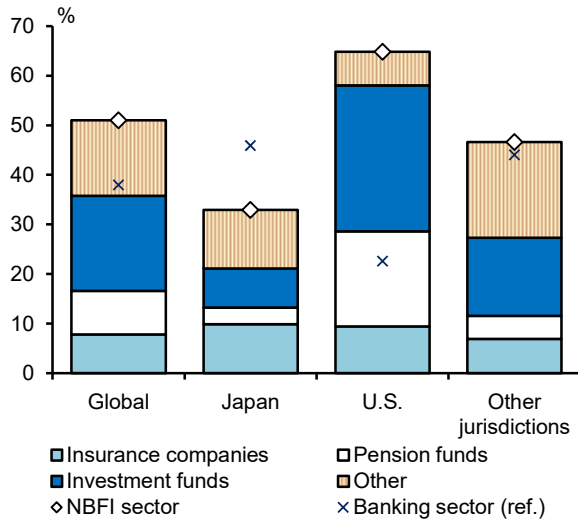


Note: 1. Covers major banks, Japan Post Bank, and a central organization of financial cooperatives.
2. "Real estate funds" excludes publicly traded REITs.
3. "Private credit funds" indicates direct lending funds.
Latest data as of end-September 2025.
Source: BOJ.

B. Financial intermediation by the NBFI sector

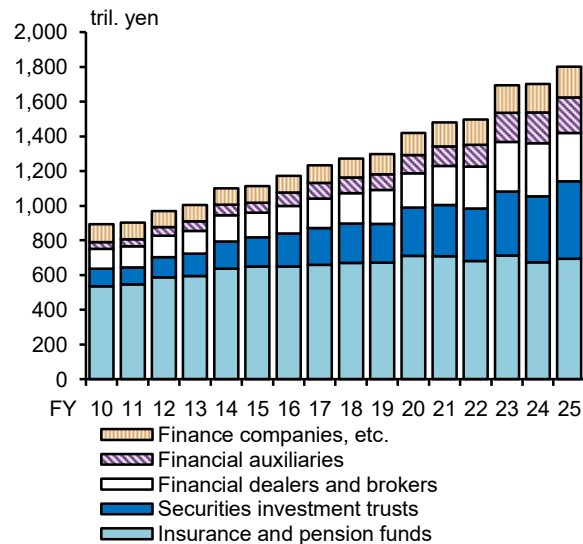
In Japan, where depository financial institutions are still dominant in financial intermediation, the share of financial assets held by NBFIs has remained at around 30 percent, lower than the global average of around 50 percent. However, an uptrend in assets under management held by NBFIs, especially those held by investment funds (i.e., securities investment trusts), has gained momentum (Charts III-2-1 and III-2-2; for risks surrounding the foreign NBFI sector, see Section B of Chapter V).

Chart III-2-1: Share of the NBFI sector in each jurisdiction



Note: Shows the shares of financial assets held by financial sectors in each jurisdiction. "Other" includes financial dealers and brokers and finance companies, etc. Data are as of 2024.
Source: FRB; FSB; BOJ.

Chart III-2-2: Investment assets outstanding of Japan's NBFIs

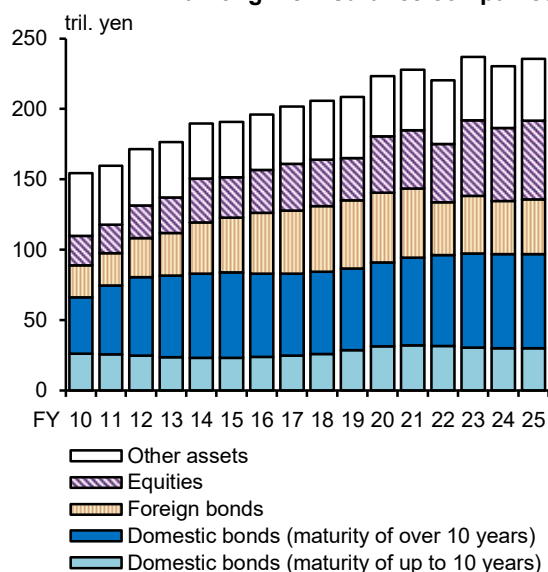


Note: "Financial auxiliaries" includes financial holding companies, stock exchanges, and financial instruments exchanges. "Finance companies, etc." includes finance companies, securities finance companies, and the Resolution and Collection Corporation. Latest data as of end-December 2025.
Source: BOJ.

Insurance companies and pension funds

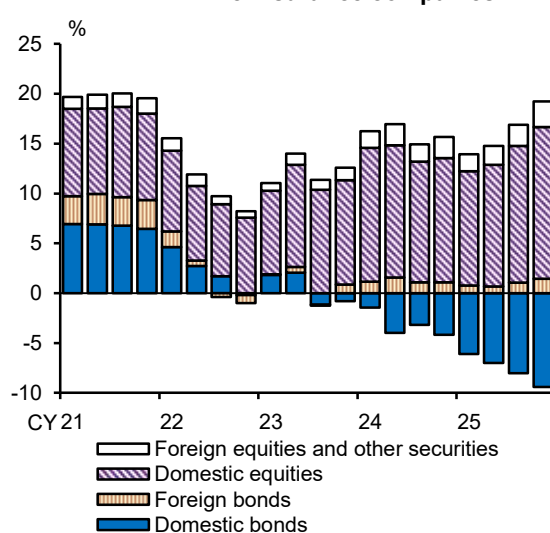
Life insurance companies' outstanding amount of investment assets has been more or less unchanged. While their initiatives to eliminate the duration gap between assets and liabilities to comply with the adoption of economic value-based solvency margin ratio (ESR) regulations have run their course, life insurance companies have continued to take a cautious stance toward increasing their holdings of super-long-term JGBs, partly reflecting the heightened volatility in the super-long-term zone (Chart III-2-3). Meanwhile, their average ESR has been above 200 percent.

Chart III-2-3: Investment assets outstanding among life insurance companies



Note: Covers nine major life insurance companies.
 Based on general accounts. Latest data as of end-September 2025.
 Source: Published accounts of individual companies.

Chart III-2-4: Valuation gains/losses among life insurance companies



Note: Shows the ratio of valuation gains/losses on securities holdings, which excludes trading securities. Covers four major life insurance companies. Latest data as of end-December 2025.
 Source: Published accounts of individual companies.

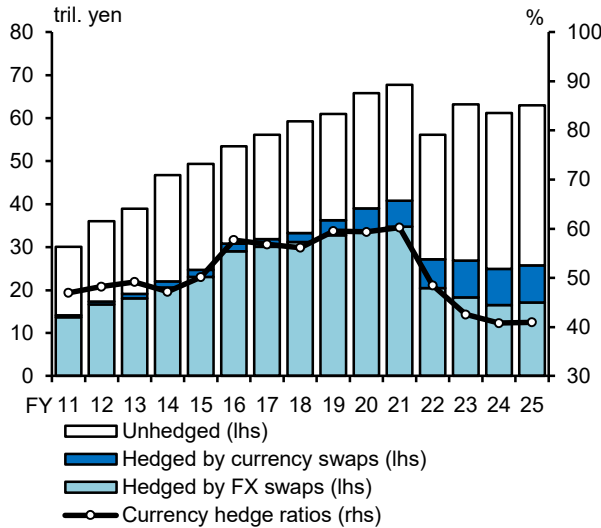
With regard to life insurance companies' valuation gains/losses on securities investment as of the end of December 2025, their securities holdings overall have continued to register substantial net valuation gains (Chart III-2-4). Although life insurance companies' valuation losses on yen-denominated bondholdings continued to increase, reflecting the continued rise in domestic interest rates, particularly in the super-long-term zone, their valuation gains on stockholdings remained at high levels on the back of rising stock prices.³ They have also been able to make valuation gains on foreign bondholdings on a yen basis. As for foreign bond positions, life insurance companies maintained a cautious stance with regard to accumulating unhedged foreign bonds amid concerns over uncertainties surrounding future developments in foreign exchange rates, and the outstanding amount of foreign bondholdings was more or less unchanged (Chart III-2-5).

The Government Pension Investment Fund (GPIF), which is responsible for managing the assets of public pension funds such as employees' pension funds and the national pension fund, has been

³ Under the current accounting system in Japan, insurance companies' bondholdings that are aimed to match the mark-to-market valuation of their assets and that of liabilities caused by interest rate fluctuations are classified as policy-reserve-matching bonds and are allowed to be excluded from mark-to-market valuation.

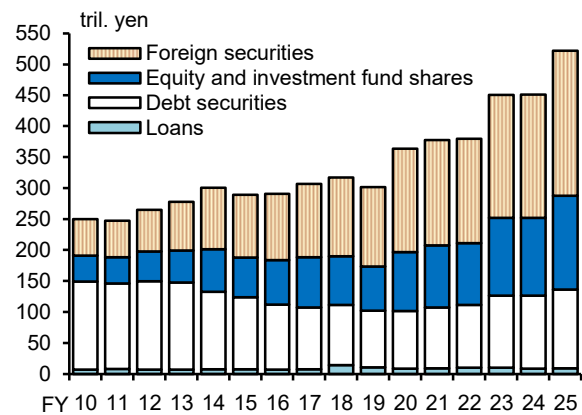
rebalancing its portfolio (Chart III-2-6).^{4,5} This is in line with the basic portfolio allocation, which determines the fund's portfolio share of each asset class from the perspective of safe and efficient asset management over a long-term investment horizon. Corporate pension funds have maintained their cautious investment stance without depending on leverage, with many of them having secured net assets in excess of policy reserves.

Chart III-2-5: Currency hedge ratios among life insurance companies



Note: Covers nine major life insurance companies. Estimated based on general accounts. "Unhedged" includes foreign bonds earmarked for foreign currency-denominated insurance. Latest data as of end-September 2025. Source: Published accounts of individual companies.

Chart III-2-6: Investment assets outstanding among public pension funds and corporate pension funds



Note: Covers pension funds (corporate pensions etc.) and public pensions. Latest data as of end-December 2025. Source: BOJ.

Investment funds

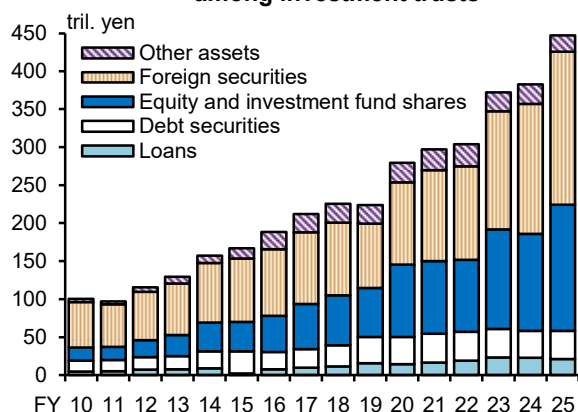
Investment trusts' assets under management, especially in stocks and foreign securities, have continued to increase in a situation where inflows of funds from households have been seen (Chart III-2-7). With the introduction of the new Nippon Individual Savings Account (NISA) program in 2024, inflows of funds into eligible financial products have continued. In addition, the assets under management of private equity funds and real estate funds have been on an increasing trend (Chart III-2-8).

⁴ The increase in the balance of foreign securities on a yen-denominated basis is due to factors such as the rise in mark-to-market valuation of stocks.

⁵ Japan's pension funds primarily follow simple investment strategies consistent with the policy asset mix or the basic portfolio allocation, instead of strategies that make use of leverage, such as liability-driven investment strategies. For details, see Ito, Y., Kasai, Y., Todoroki, R., Toyoda, A., and Horie, R., "Corporate Pension Funds' Investment Strategies and Financial Stability: Lessons from the Turmoil in the UK Gilt Market," *Bank of Japan Review Series*, no. 2023-E-3, March 2023.

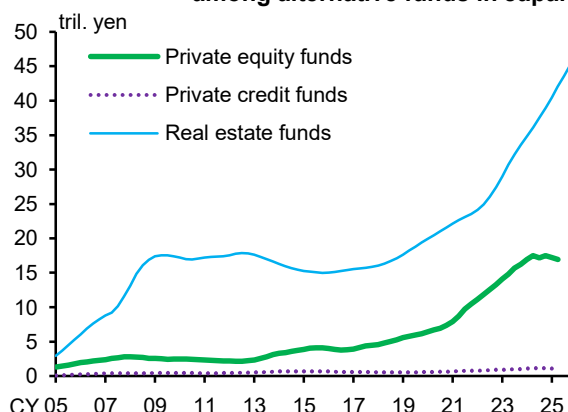
III. Financial intermediation
 B. Financial intermediation by the NBFIs sector

Chart III-2-7: Investment assets outstanding among investment trusts



Note: Latest data as of end-December 2025.
 Source: BOJ.

Chart III-2-8: Investment assets outstanding among alternative funds in Japan



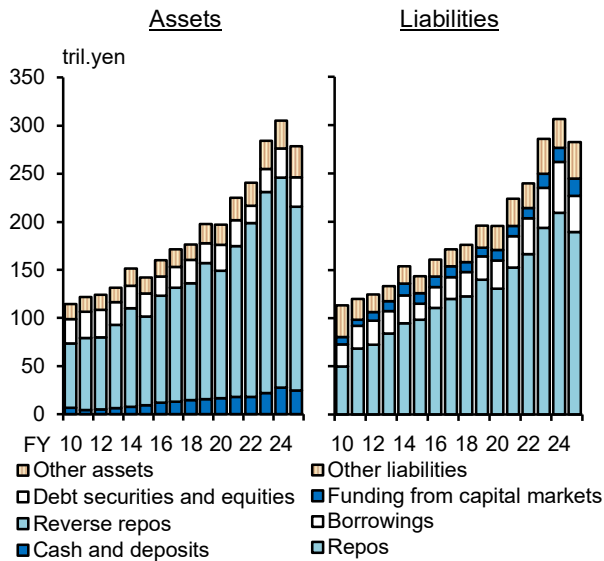
Note: "Private equity funds" and "Private credit funds" are based on Preqin's research (AUM-based). 4-quarter backward moving averages. The latest data for "Real estate funds" are as of end-December 2025 and those for the rest are as of end-June 2025.
 Source: Preqin; Sumitomo Mitsui Trust Research Institute.

Financial dealers and brokers

Although the increasing trend in financial dealers and brokers' positions has stalled, short-term repo transactions on both the asset and liability sides have continued to be active (Chart III-2-9). This is because, with a rise in transaction activity in bonds continuing following the increase in interest rate fluctuations, securities companies have raised funds by carrying out repo transactions for inventory financing, while bonds to cover short positions have likewise been procured through repo transactions.⁶ Foreign securities companies in Japan, in particular, have continued to be active in repo transactions to broker JGB transactions for foreign investors' investment in yen-denominated bonds and for meeting their headquarters' demand for JGBs as collateral. However, they have been managing their positions more carefully due to concerns over uncertainties regarding future developments in interest rates. Although the size of the balance sheets of financial dealers and brokers has continued to grow as a result of these transactions, the duration mismatch between their assets and liabilities has remained limited.

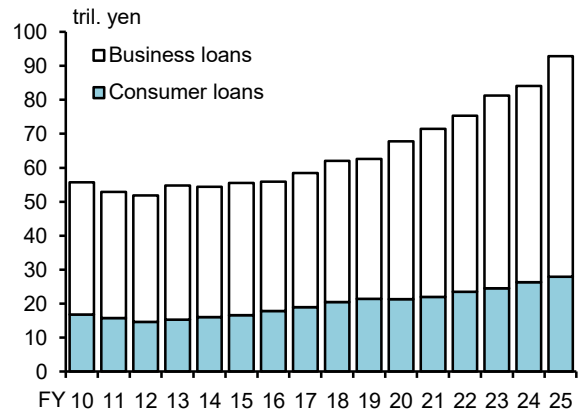
⁶ For details of developments in repo transactions by securities companies, see, Asamatsu, H. and Asada, T., "Trends in Japan's repo market and recent features -- based on long-term data from surveys and individual data from Statistics on Securities Financing Transactions," *Bank of Japan Review Series*, no. 2025-J-7, August 2025 (available in Japanese).

Chart III-2-9: Balance sheets of financial dealers and brokers



Note: "Equities" includes investment fund shares.
 Latest data as of end-December 2025.
 Source: BOJ.

Chart III-2-10: Loans outstanding among finance companies



Note: "Business loans" is loans to firms and governments.
 Latest data as of end-December 2025.
 Source: BOJ.

Finance companies

Loans outstanding of finance companies such as money lenders has been on an uptrend (Chart III-2-10). By type of loans, business loans by finance companies, just like those by banks, have increased on the back of the recovery in economic activity. As for consumer loans, the use of credit cards in online shopping and small loans via smartphones have increased. Despite the rise in these loans, finance companies' credit costs have been contained.

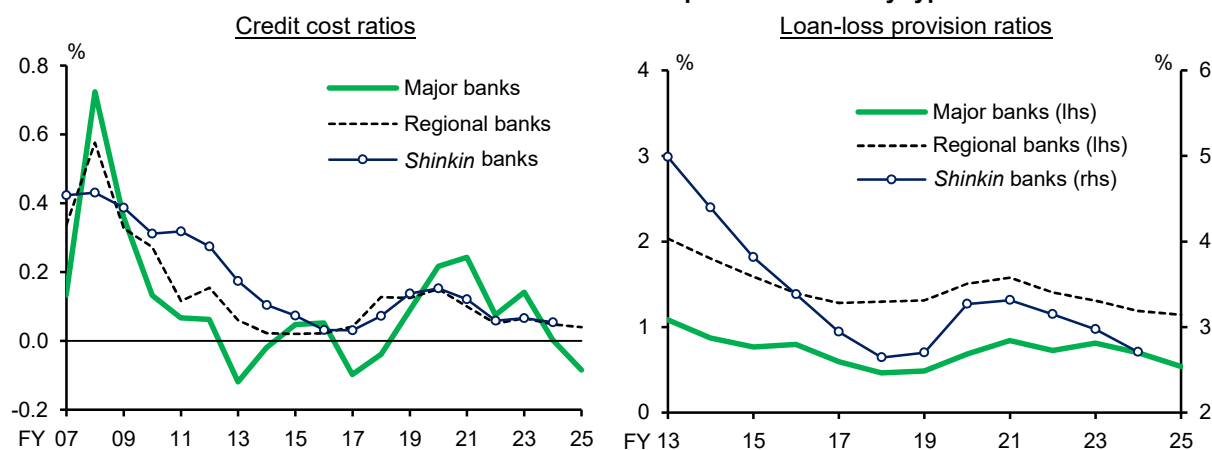
IV. Risks faced by financial institutions

- The quality of banks' domestic and foreign loan portfolios has been maintained. Credit costs have been limited. Depending on the future course of the situation in the Middle East, there is a risk that firms' commodity procurement costs could be elevated, and effects through supply chains could emerge. Under these circumstances, it remains necessary to pay close attention to the possibility that this could have an impact on firms' financial positions and their cash flow management.
- Banks have maintained a cautious stance on securities investment, particularly toward investment in yen-denominated bonds, and their securities portfolios show that overall interest rate risk has generally been unchanged for major banks, while it has been on a slight downtrend for regional and *shinkin* banks. Given that banks carry various risk factors, they need to continue to adequately manage market risks.
- Banks have sufficient yen funding liquidity, which mainly consists of small retail deposits. As for foreign currency, they have maintained stable funding by using a combination of medium- and long-term market funding and the acquisition of sticky corporate deposits. Banks need to continue to work toward maintaining stable funding bases, taking into account changes in the business environment, such as demographic trends and changes in households' asset allocation behavior.

A. Credit risk

Banks' credit cost ratios have remained low (Chart IV-1-1). Examining loans by borrower classification, the shares of "normal" loans have stayed high, and the shares of borrowers classified as "in danger of bankruptcy" and below have remained at historically low levels (Chart IV-1-2). The quality of banks' domestic and foreign loan portfolios has been maintained.

Chart IV-1-1: Credit cost ratios and loan-loss provision ratios by type of bank

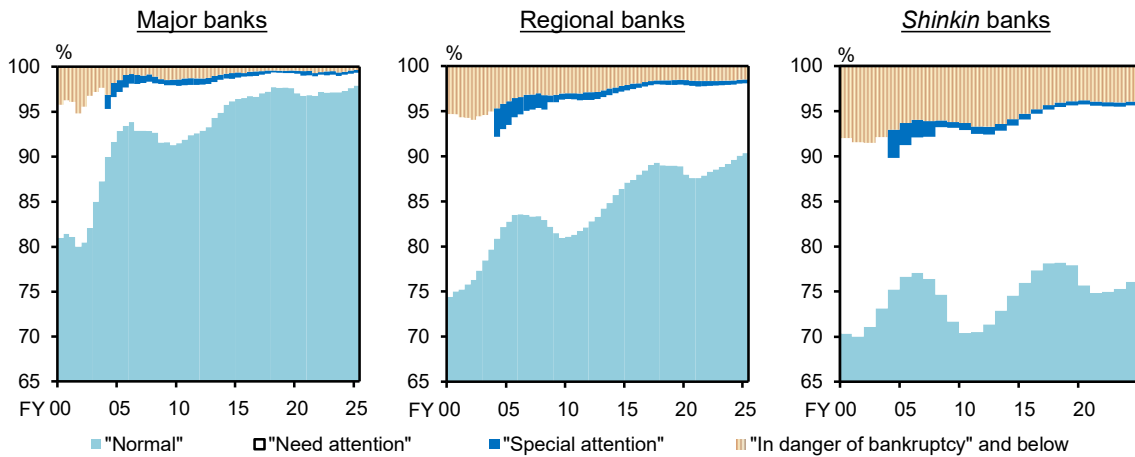


Note: 1. The latest data for major and regional banks are as of the first half of fiscal 2025, and those for *shinkin* banks are as of fiscal 2024.

2. The left-hand chart covers domestic and foreign loans. The right-hand chart shows loan-loss provision ratios for unsecured loans.

Source: BOJ.

Chart IV-1-2: Composition of loans by borrower classification



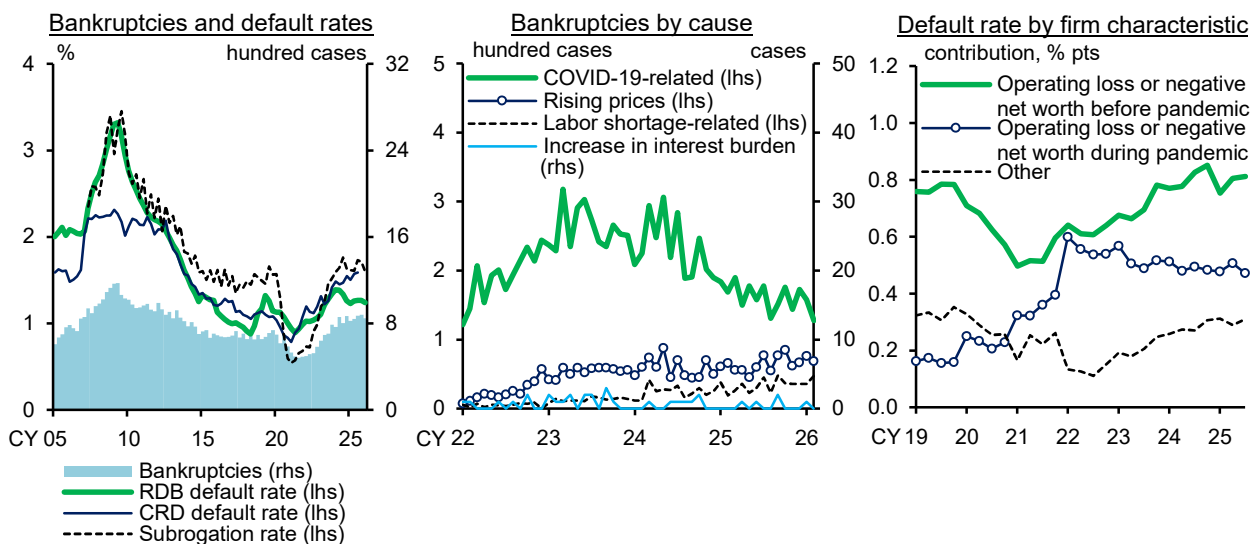
Note: "Need attention" indicates "Need attention excluding special attention" from fiscal 2004. The latest data for major and regional banks are as of the first half of fiscal 2025, and those for *shinkin* banks are as of fiscal 2024. Source: BOJ.

1. Domestic credit risk

Developments in corporate bankruptcies and defaults

Although above pre-pandemic levels, corporate bankruptcies have been more or less unchanged (left panel of Chart IV-1-3). Moreover, although default rates are also above pre-pandemic levels, the pace of increase in defaults has slowed recently. Corporate profits have been improving on the whole amid the continuing moderate economic recovery, and the share of financially vulnerable firms -- such as those making operating losses with negative net worth or those making operating losses -- has been falling. These circumstances have likely contributed to containing the rise in corporate bankruptcies and defaults.

Chart IV-1-3: Developments in corporate bankruptcies and defaults



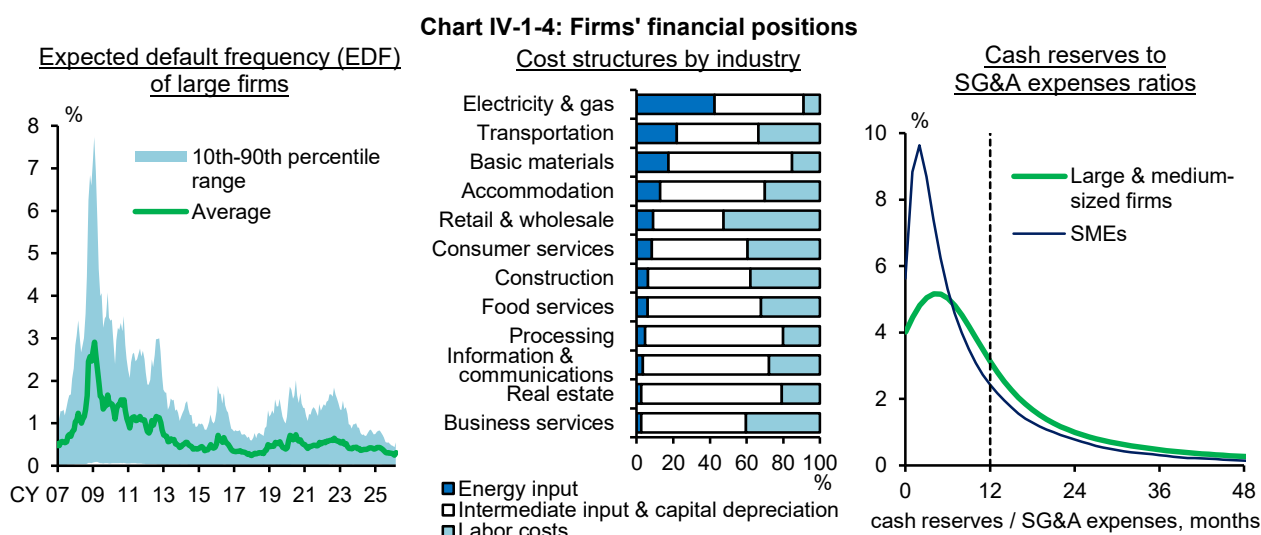
Note: 1. The latest data for "Bankruptcies" are as of February 2026 in the middle chart and as of 2026/Q1 (January-February average) in the left-hand chart, those for "RDB default rate" are as of 2026/Q1 (January), those for "CRD default rate" are as of 2025/Q3, and those for "Subrogation rate" are as of 2026/Q1 (January-February average). RDB default rate is based on the classification "in danger of bankruptcy." CRD default rate is based on the number of defaults (downgrades to "special attention" and below, etc.) in the past twelve months and covers firms with capital of 100 million yen or less. The data for subrogation rate are based on staff calculations and are annualized values. In the middle chart, multiple choices were allowed regarding the causes of bankruptcy.

2. The right-hand chart shows the contribution to "CRD default rate." Firms are classified into the following categories: those with operating loss or negative net worth in fiscal 2017 are referred to as "Operating loss or negative net worth before pandemic"; among the remaining firms, those with operating loss or negative net worth in fiscal 2021 are classified as "Operating loss or negative net worth during pandemic"; and all other firms are classified as "Other."

Source: CRD Association; Japan Federation of Credit Guarantee Corporations; Teikoku Databank; The Risk Data Bank of Japan; Tokyo Shoko Research.

IV. Risks faced by financial institutions
A. Credit risk

However, examining developments in defaults by firms' financial position reveals that defaults among firms that either made operating losses or had negative net worth before the pandemic remain taking a large share in overall defaults (right panel of Chart IV-1-3). In addition, although declining moderately, defaults have remained at elevated levels among firms which fell into the status of making operating losses or negative net worth during the pandemic. This suggests that rising labor costs and past increases in raw material prices may have imposed an additional burden, particularly on financially vulnerable firms. Moreover, although the expected default frequencies (EDFs) of firms, an indicator of market participants' view on firms' default risk, have not exhibited significant fluctuations since the tension over the situation in the Middle East increased at the end of February, depending on the future course of the situation, firms' commodity procurement costs could remain elevated, and there is a risk that production activities face downward pressure through the effects on supply chains (Chart IV-1-4). Under these circumstances, it remains necessary to pay close attention to the possibility that this could have an impact on firms' financial positions and their cash flow management.⁷



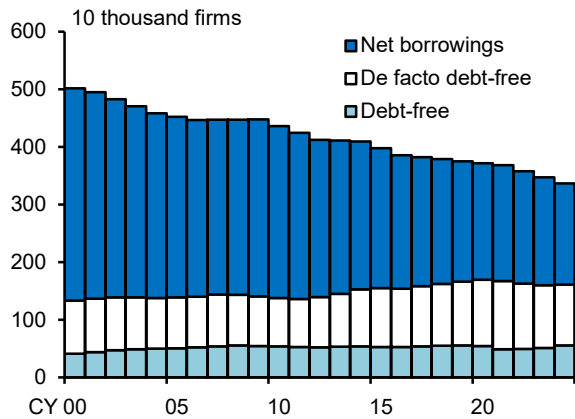
Note: 1. Latest data for the left-hand chart are as of end-March 2026. Shows the aggregated values of 1-year EDFs of large firms defined by Moody's.
2. Figures in the middle chart are as of 2020. "Energy input" in the middle chart refers to intermediate inputs related to crude oil, natural gas and coal, petroleum and coal products, electricity and gas, and transportation services.
3. In the right-hand chart, cash reserves (cash and deposits and securities as current assets) at the end of the latest fiscal year / Selling, General and Administrative (SG&A) expenses during the fiscal year is calculated for borrowers of regional banks I with fiscal year-ends on or after March 2025. Large and medium-sized firms are firms with capital of 100 million yen or more, while SMEs are those with capital of less than 100 million yen.
Source: Ministry of Internal Affairs and Communications; Moody's; BOJ.

Firms' resilience to rising interest rates

Regarding Japan's corporate sector as a whole, the share of de facto debt-free firms is on an increasing trend, while the share of firms whose borrowings exceed their cash and deposit holdings is decreasing (Chart IV-1-5). In addition, even among firms whose borrowings exceed their cash and deposit holdings, interest coverage ratios (ICRs), which represent borrowers' interest payment capacity, have risen and debt ratios have declined, indicating that, overall, firms' resilience to interest rate rises has improved (Chart IV-1-6). The number of bankruptcies directly attributed to interest rate increases remains minimal and has stayed more or less unchanged since the start of rate hikes in 2024 (middle panel of Chart IV-1-3).

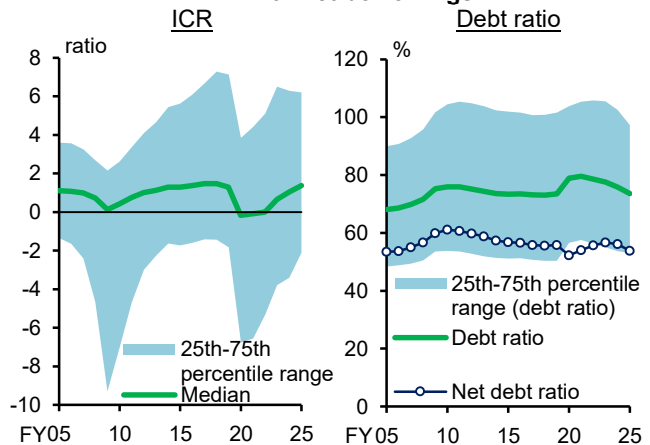
⁷ With regard to the effects of rising energy prices on default rates, see analysis provided in Section B of Chapter IV in the April 2022 issue of the *Report* and Section A of Chapter IV in the October 2022 issue of the *Report*.

Chart IV-1-5: Number of firms by borrowing status



Note: Shows the number of privately owned enterprises (single unit establishments and head offices) from the Economic Census for Business Frame/Business Activity. The number of individual proprietorships with no employees, which is not directly surveyed in 2024, is estimated based on its historical trends. Decomposed using the shares for each year based on data from the Teikoku Databank. "De facto debt-free" indicates firms with cash and deposits equal to or more than their interest-bearing debt.
 Source: Ministry of Internal Affairs and Communications; Teikoku Databank.

Chart IV-1-6: Financial positions of firms with net borrowings



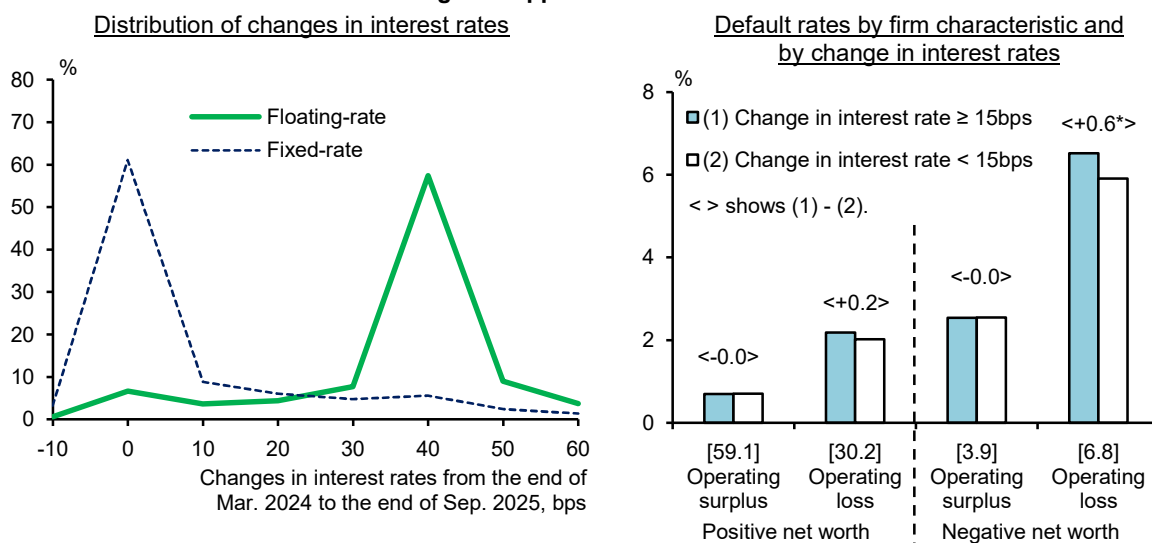
Note: 1. Covers firms with capital of 100 million yen or less with net borrowings (i.e., interest-bearing debt exceeding cash and deposit holdings).
 2. "ICR" is calculated as (operating profits + interest income) / interest payments. "Debt ratio" is calculated as total borrowings / total assets. "Net debt ratio" is calculated as (total borrowings - on-hand liquidity) / total assets.
 3. Latest data as of fiscal 2025 (April-September).
 Source: CRD Association.

The impact of rising interest rates on default rates may vary by borrower firm, depending on factors such as differences in the pace of recovery in profits and the type of lending rate -- i.e., fixed or floating. An analysis of the distribution of changes in applied lending rates following policy rate changes for borrowers of regional banks -- specifically, those of member banks of the Regional Banks Association of Japan (regional banks I) using loan-by-loan data from the common data platform -- shows that for floating-rate loans, the majority saw an increase of approximately 40 basis points (left panel of Chart IV-1-7). On the other hand, the applied lending rates for fixed-rate loans remained largely unchanged, as only a small proportion of such loans have been subject to interest rate renewal so far.⁸

⁸ For details about loan-by-loan data from the common data platform and their use cases and points to note, see Oishi, H., Makabe, Y., and Osada, M., "Recent Use Cases of Supervisory Granular Data for Financial Stability Analysis," *Bank of Japan Review Series*, no. 2026-E-2, March 2026.

IV. Risks faced by financial institutions
A. Credit risk

Chart IV-1-7: Changes in applied interest rates for loans to SMEs



Note: 1. Covers SMEs borrowing from regional banks I (firms with capital of less than 100 million yen and at least half of whose borrowing is from regional banks I).
2. Figures in the left-hand chart are based on the firm-level weighted average interest rates for both floating-rate and fixed-rate loans, respectively.
3. The right-hand chart shows the annualized average default rates from the end of March 2024 to the end of September 2025. Default is defined as downgraded to "special attention" and below. Classification of firm characteristic is based on data as of end-March 2024. Figures in square brackets indicate the shares of each firm characteristic. * indicates statistical significance at the 10 percent level.

Source: BOJ.

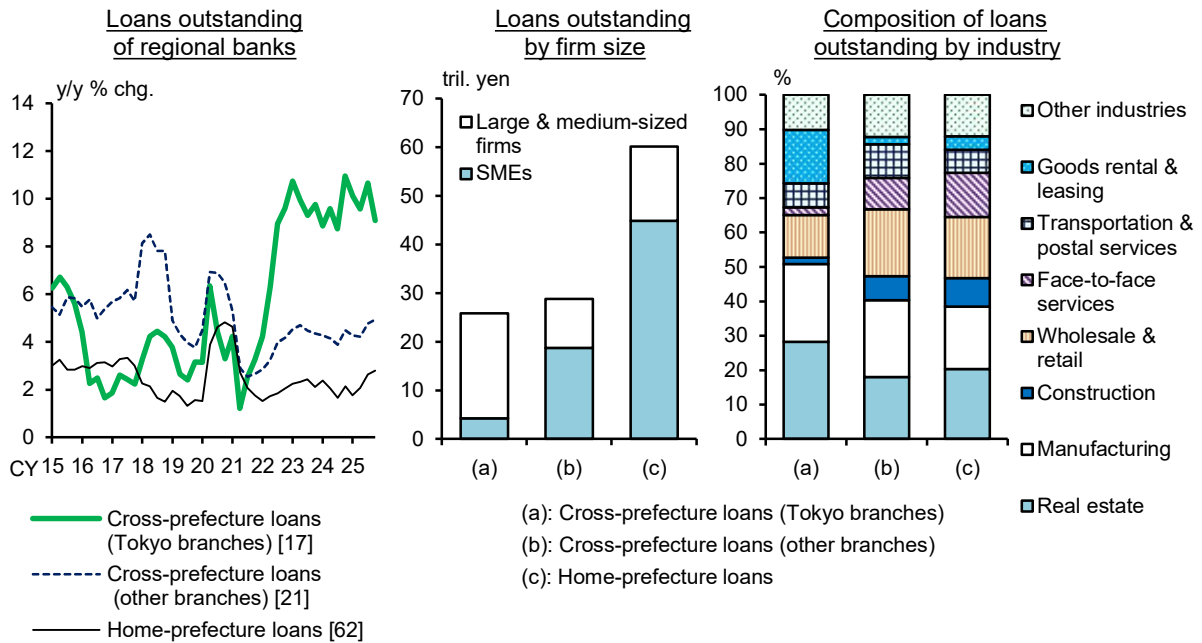
Dividing borrower firms into two groups based on whether their lending rates changed or remained unchanged by using a threshold of 15 basis points, and comparing their default rates shows that, for the majority of firms -- those with positive net worth or operating surplus -- default rates are broadly similar, regardless of the extent of the interest rate increase, and there is no clear evidence that interest rate changes have made a major contribution to defaults (right panel of Chart IV-1-7). However, among firms that are making operating losses with negative net worth, those experiencing interest rate increases of 15 basis points or more exhibit relatively higher default rates. It remains necessary to pay particularly close attention to the credit risk management of firms with financial vulnerabilities (for developments in the interest payment burden on housing loans, see Box 2 in this Report).

Issues regarding cross-prefecture lending

Regional banks have recently seen the outstanding balance of "cross-prefecture" lending -- that is, loans to prefectures other than their head office locations -- increase at a faster pace than "home-prefecture" or local lending -- loans to the same prefecture as their head office locations (Chart IV-1-8).⁹ An analysis of cross-prefecture lending by regional banks I using data from the common data platform shows that, among cross-prefecture lending, loans made by Tokyo branches are weighted toward large and medium-sized firms in terms of firm size, and the real estate industry in terms of industry. Similar to local lending, cross-prefecture lending originating in branches located other than in Tokyo is largely directed toward small and medium-sized enterprises (SMEs).

⁹ Regarding the status and background of cross-prefecture lending before the pandemic, see, for example, Ozaki, M., Konno, Y., Hiroshima, H., and Tsuchiya, S., "Developments in Cross-Prefecture Lending by Regional Banks," *Bank of Japan Review Series*, no. 2019-J-4, May 2019 (available in Japanese).

Chart IV-1-8: Characteristics of cross-prefecture loans



Note: 1. The left-hand chart covers regional banks. The latest data for the left-hand chart are as of end-December 2025. Figures in brackets indicate the share of outstanding amounts as of end-December 2025.
 2. The middle and right-hand charts cover regional banks I as of end-June 2025. Large and medium-sized firms are firms with capital of 100 million yen or more, while SMEs are those with capital of less than 100 million yen.
 3. "Home-prefecture loans" refers to loans from branches located in the same prefecture as the head offices, and "Cross-prefecture loans" refers to loans from branches located in prefectures different from the head offices (the same definitions apply to the charts below).

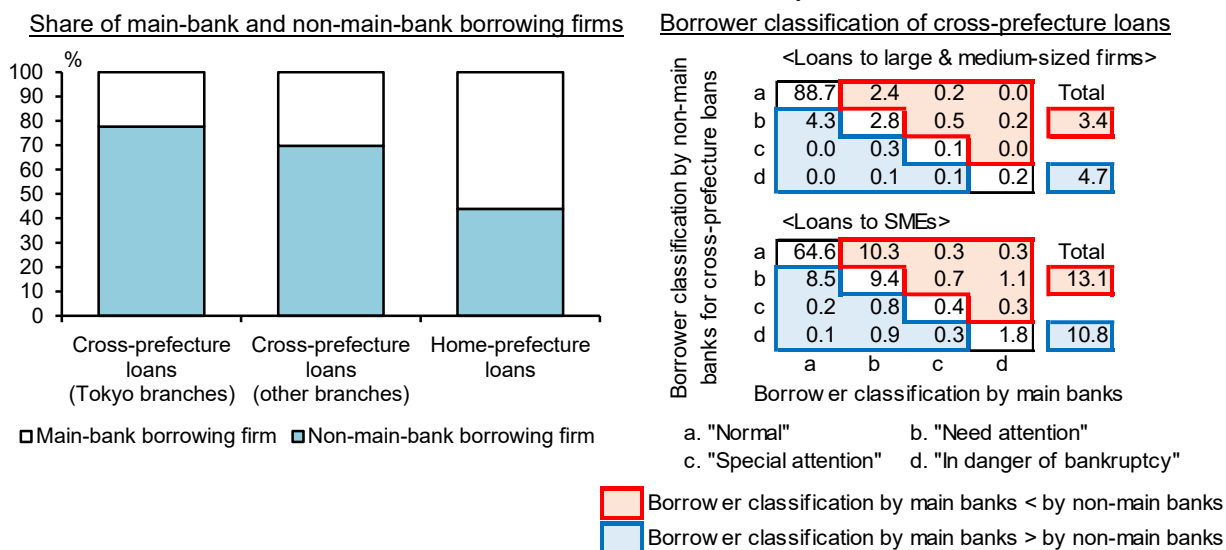
Source: BOJ.

A higher share of cross-prefecture lending than of local lending is to "non-main-bank borrowing firms," that is, to firms for which the lending bank is not the main bank (left panel of Chart IV-1-9). Generally, in the case of non-main-bank borrowing firms, it is more difficult for lenders to obtain information needed for interim monitoring than in the case of main-bank borrowing firms. Given this, there is a possibility that debt governance is less effective in cross-prefecture lending than in local lending. In fact, for borrowers who receive loans from multiple banks, a comparison between the borrower classifications assigned by non-main banks on their cross-prefecture loans and those assigned by main banks shows that, for SMEs, borrower classifications (i.e., credit ratings) by non-main banks tend to be relatively higher than those assigned by main banks (right panel of Chart IV-1-9).¹⁰ While differences in borrower classification for the same borrower can arise in general because classifications are determined by taking into account various aspects of the borrowers, including not only financial information but also factors such as the support provided by banks, these differences may also reflect information gaps between main and non-main banks.

¹⁰ Regarding borrower classifications concerning common exposures -- borrowers who receive loans from multiple banks -- see Section A of Chapter IV in the April 2024 *Report* and the Financial Services Agency, "Analysis of Borrower Classifications Assigned to Shared Borrowers," FSA Analytical Notes (2025.1) Vol.2, January 2025.

IV. Risks faced by financial institutions
A. Credit risk

Chart IV-1-9: Borrower classification of cross-prefecture loans

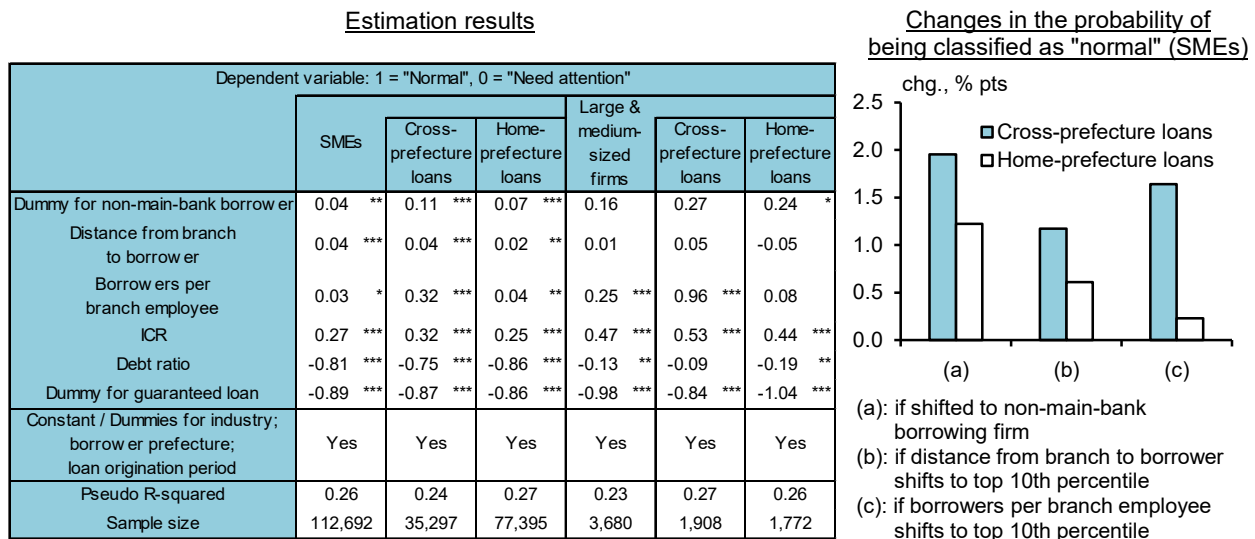


Note: 1. The left-hand chart covers regional banks I. Data as of end-June 2025. Figures are based on the number of loans.
2. The right-hand chart covers loans identified as cross-prefecture loans by non-main bank among loans by regional banks I during 2024. Figures are based on the proportion of the number of loans for each category to the total number of loans. Large and medium-sized firms are firms with capital of 100 million yen or more, while SMEs are firms with capital of less than 100 million yen.
Source: BOJ.

The high monitoring costs associated with interim credit management are also considered a factor contributing to information gaps regarding borrowers. For example, when the lending branch is distant from borrowers or experiences staff shortages, the lending bank may not be able to collect sufficient financial and non-financial information about the borrowers through on-site inspections or interviews. Furthermore, such circumstances may slow the accumulation of information on the business environment in the borrowers' operating region. In this regard, Chart IV-1-10 shows the results of an empirical analysis of how the relationship between banks and borrowers affects the probability that borrowers are classified as "normal" as opposed to "need attention." The results suggest that, particularly for SMEs, non-main-bank borrowing firms exhibit a statistically significantly higher probability of being classified as "normal," even when their financial positions - - such as debt ratios or ICRs -- are similar to main-bank borrowers. In addition, when the distance between lending branches and borrowers is large, or when the number of borrowers per branch employee is large, there is likewise a tendency for the probability of being classified as "normal" to be higher.¹¹ This tendency is considerably more pronounced in cross-prefecture lending than in local lending, suggesting that the high monitoring costs associated with cross-prefecture lending play a significant role (see Box 3 for the characteristics of bank branches engaging in cross-prefecture lending).

¹¹ For lending to large and medium-sized firms, neither being a non-main-bank borrowing firm nor the distance from the borrower is statistically significant. The results are likely to be influenced by the greater availability of information for such firms compared with SMEs. By contrast, an increase in the number of borrowers per employee significantly raises the probability that a borrower is classified as "normal," suggesting that, when faced with staff shortages, available information may not be reflected appropriately in the classification.

Chart IV-1-10: Estimation results on borrower classification: probability of being classified as "normal"



Note: 1. Covers firms classified as lower-rated "normal" or "need attention" among borrowers from regional banks I as of end-June 2025. The distance from branch to borrower and the borrowers per branch employee in the left-hand chart are logarithmic values. ***, **, and * indicate statistical significance at the 1 percent, 5 percent, and 10 percent levels, respectively.
 2. The right-hand chart shows the average changes in the probability of each borrower being classified as "normal." Figures for (b) the distance from branch to borrower and (c) the number of borrowers per branch employee show the changes from the median to the top 10th percentile. For (b), the top 10th percentile values are 20 km for cross-prefecture loans and 12 km for home-prefecture loans, while for (c), the values are 20 borrowers for cross-prefecture loans and 15 borrowers for home-prefecture loans.

Source: Ministry of Land, Infrastructure, Transport and Tourism; The Japan Financial News; BOJ.

Regional banks and *shinkin* banks are expected to establish appropriate risk management frameworks that take into account the characteristics of such lending, with a clear awareness of potential information gaps. While balancing constraints on business resources, they are also expected to further advance multifaceted initiatives, such as employing digital transformation (DX) and allocating staff appropriately, to ensure the collection of necessary information on borrowers.

2. Foreign credit risk

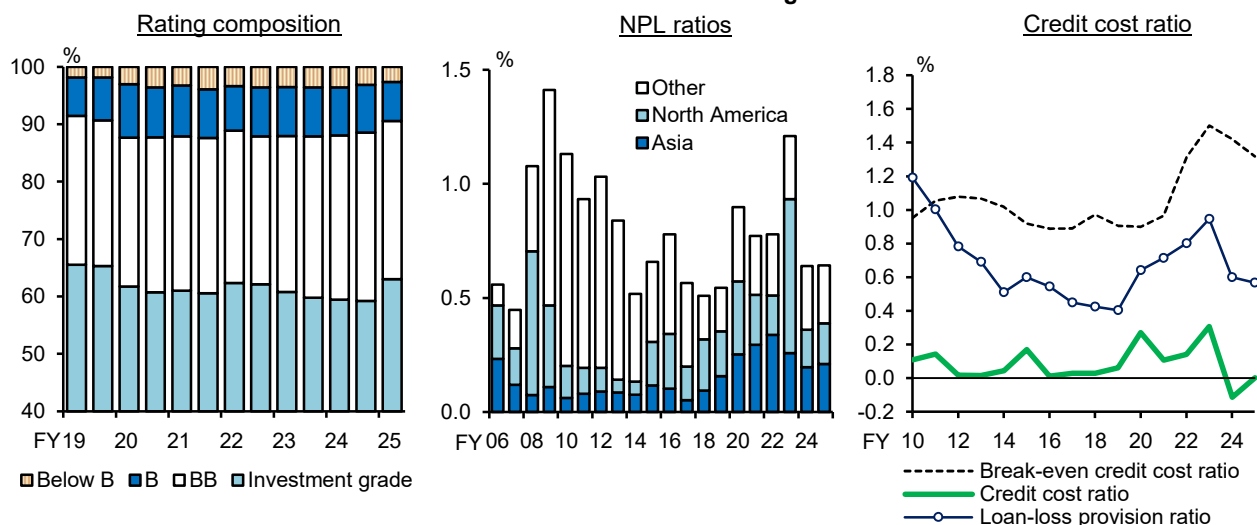
Japanese banks' foreign credit risk has remained low (Chart IV-1-11).¹² Non-performing loan (NPL) ratios, credit cost ratios, and loan-loss provision ratios have been more or less unchanged. The break-even credit cost ratio of banks' international business (net interest income on foreign loans/foreign loans outstanding) remains relatively high, and even if considerable credit costs were to be incurred, they could be absorbed by net interest income.

The composition of foreign loans' credit ratings by type of product shows that the quality of banks' foreign loan portfolios has been maintained (Chart IV-1-12). Investment grade loans have continued to account for almost 70 percent of corporate loans overall. The rating composition of leveraged loans, which entail relatively high risk, has improved slightly due to a leveling-off in downgrades reflecting the effects of past interest rate increases. The rating composition of project finance loans has remained broadly unchanged.

¹² The figures for the rating composition at the first half of fiscal 2025 in Chart IV-1-11 exhibit a discontinuity compared with previous figures due to revisions of credit rating system by a bank. Similarly, the rating composition of foreign lending by product in Chart IV-1-12 shows a discontinuity in the figures for September 2025 for the same reason.

IV. Risks faced by financial institutions
A. Credit risk

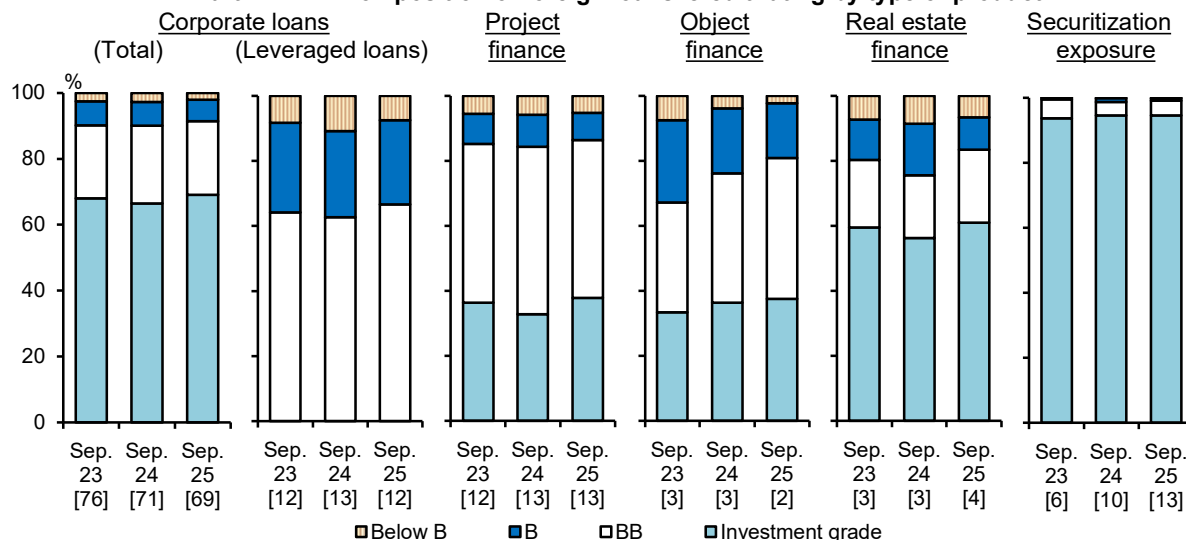
Chart IV-1-11: Credit costs of foreign loans



Note: 1. Covers the three major banks. The left-hand chart is based on internal ratings of each bank. The right-hand chart covers the international business of each bank.
2. "Break-even credit cost ratio" is the ratio at which credit costs equal net interest income on loans.
3. Latest data as of the first half of fiscal 2025. In the left-hand chart, there is a discontinuity due to a bank's change of the credit rating system in fiscal 2025.

Source: Published accounts of individual banks; BOJ.

Chart IV-1-12: Composition of foreign loans' credit rating by type of product



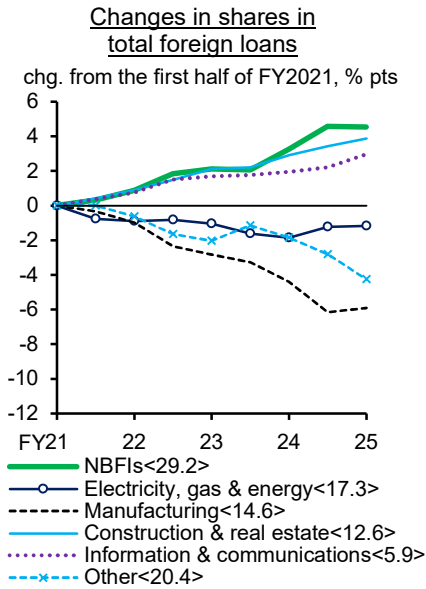
Note: Rating composition of foreign currency-denominated loans. Figures in brackets indicate the share of the respective product types. The charts cover major banks, Japan Post Bank, and a central organization of financial cooperatives. There is a discontinuity between the data for September 2025 and the previous data due to a bank's change of the credit rating system in fiscal 2025.

Source: BOJ.

Major banks' overseas lending has recently seen an increase in its share in loans to the non-bank financial intermediary (NBFI) sector, construction and real estate, and the information and communications sector (Chart IV-1-13). Lending to the NBFI sector and real estate appears to be driven by funding demand from foreign funds, while lending to the information and communications sector is thought to be supported by demand for business fixed investment in data centers. Loans to foreign funds and to data centers that are identifiable from loan-by-loan data for major banks from the common data platform show that the former type of loans accounts for approximately 9 percent of total overseas lending, with a substantial share directed to private equity (PE) and private credit (PC) funds and relatively little to hedge funds (Chart IV-1-14; for details about recent

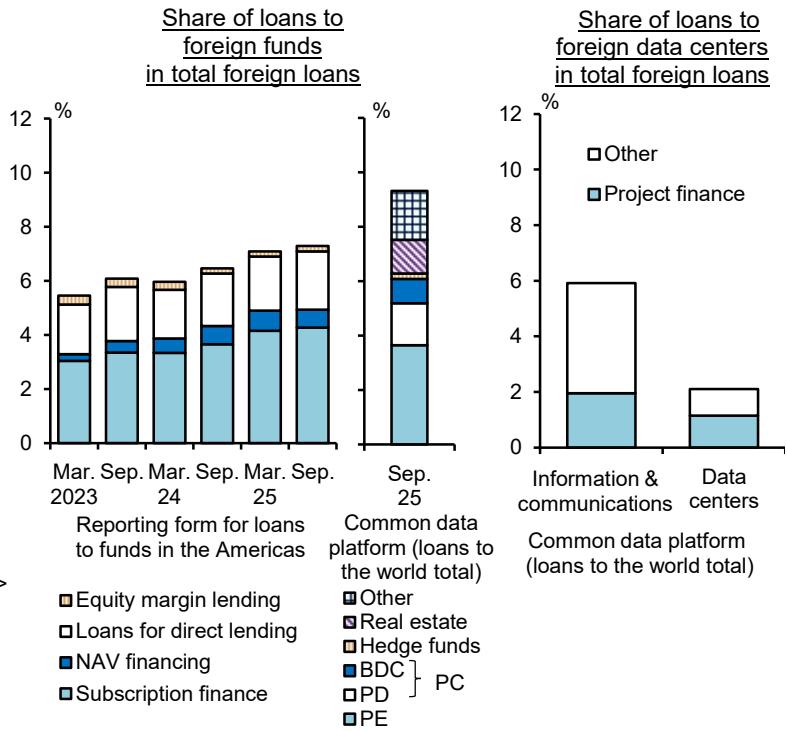
developments in private funds see Box 1).¹³ While loans to data centers account for about 2 percent of total overseas lending, they are often extended in the form of project finance, making up about 10 percent of loans in that category. Although the share of loans to foreign funds and loans to data centers in total overseas lending remains small, these areas have become focus segments for major banks, reflecting factors such as high interest rate spreads, and their share in total outstanding overseas lending has been on an increasing trend (left panel of Chart IV-1-15).

Chart IV-1-13: Foreign loans by industry



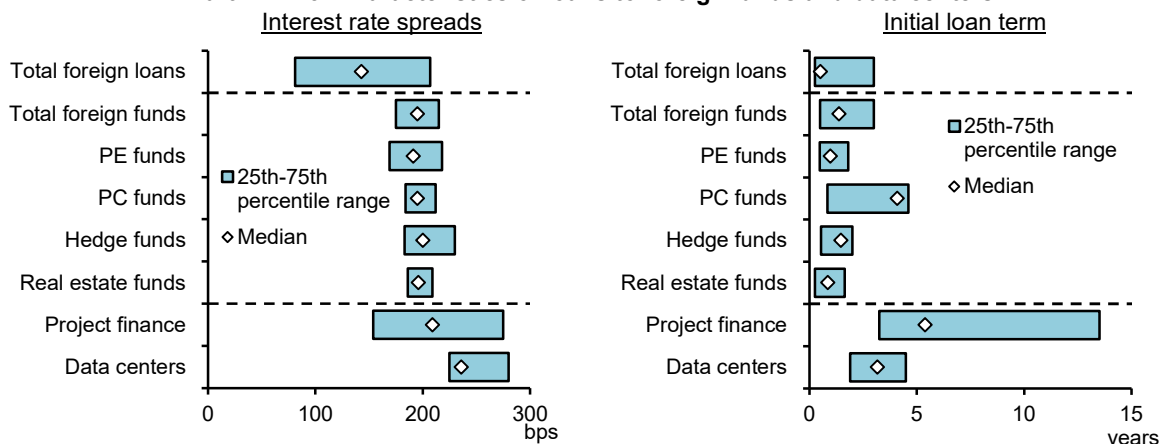
Note: Covers the three major banks. The latest data are as of the first half of fiscal 2025. Figures in brackets indicate the share of respective sectors as of end-September 2025.
Source: BOJ.

Chart IV-1-14: Loans to foreign funds and data centers



Note: Covers the three major banks' loans outstanding excluding committed credit. "Other" for common data platform includes uncategorized loans. The right-hand chart shows data as of end-September 2025.
Source: LSEG Workspace; Preqin; BOJ.

Chart IV-1-15: Characteristics of loans to foreign funds and data centers



Note: Covers the three major banks (end-September 2025).
Source: LSEG Workspace; Preqin; BOJ.

¹³ Loans to foreign funds in the common data platform are identified by extracting claims on the NBFIs sector in loan-by-loan data -- excluding those to insurance companies and consumer finance companies -- and using a list of fund names created from external data on investment and credit funds. In addition, loans to data centers are identified using external data on lists of major data center providers and project finance. The results of this matching process are validated through manual checks of individual results and comparisons with separately obtained aggregate data. However, it is necessary to note that the results may vary depending on the data processing methods used.

IV. Risks faced by financial institutions

A. Credit risk

For loans to foreign funds and data centers, it is important to note that their risk profiles differ from those of other corporate loans (Chart IV-1-16). Specifically, because the repayment sources for loans to foreign funds and data centers rely on the cash flows generated by the underlying assets and their collateral value, changes in the environment, such as shifts in market valuations of those assets or technological innovations, may have a significant impact on repayment capacity. Regarding the current status of credit ratings, the share of investment grade loans has been high for loans to foreign funds, as they are often extended in the form of subscription finance secured by the commitments of limited partner (LP) investors with high creditworthiness (Chart IV-1-17). However, banks need to pay sufficient attention to the fact that it is not necessarily easy to keep track in a timely manner of how foreign funds actually manage their portfolio and their value. As for data center-related project finance, although the share of investment grade loans is somewhat lower than for project finance as a whole, the share of loans rated below the BB grade remains limited, given the robustness of rental income and the fact that tenant users are often hyperscalers with solid financial positions. Nevertheless, because this is an area in which the environment changes rapidly, due attention must be paid to the potential impact on the credit ratings of related loans of significant changes in the operating environment.

Chart IV-1-16: Scheme of loans to foreign funds and data centers

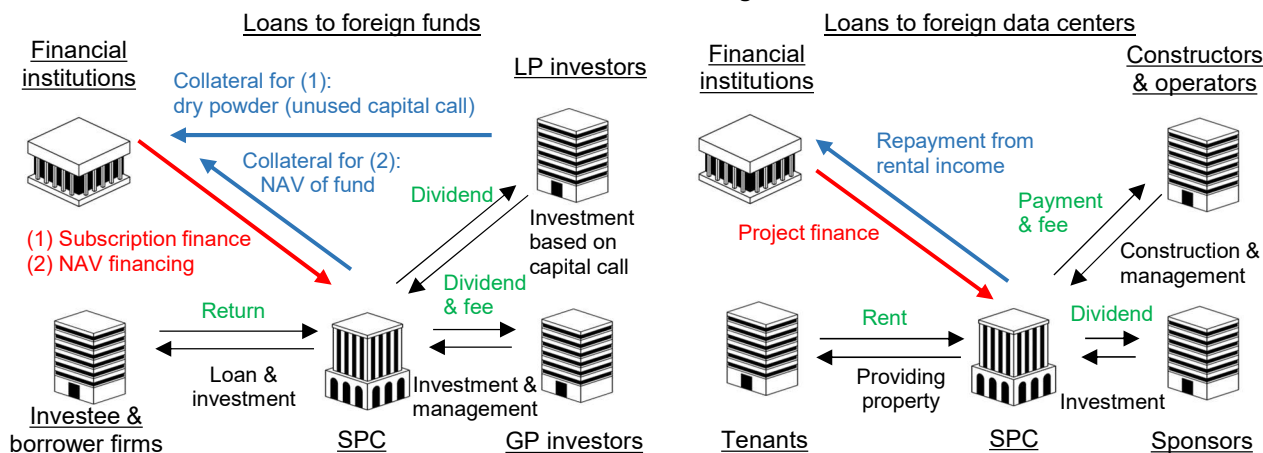
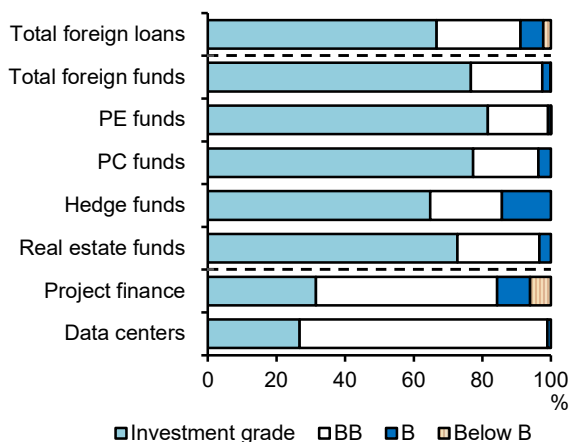
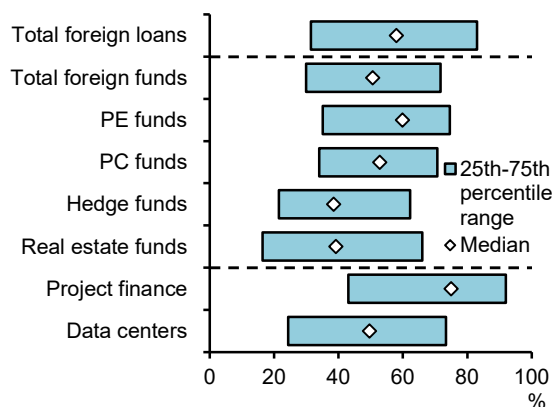


Chart IV-1-17: Rating composition of foreign loans



Note: Shares in foreign loan outstanding amount. Covers the three major banks (end-September 2025). Based on internal ratings of each bank.
Source: LSEG Workspace; Preqin; BOJ.

Chart IV-1-18: Utilization rate of foreign committed credit



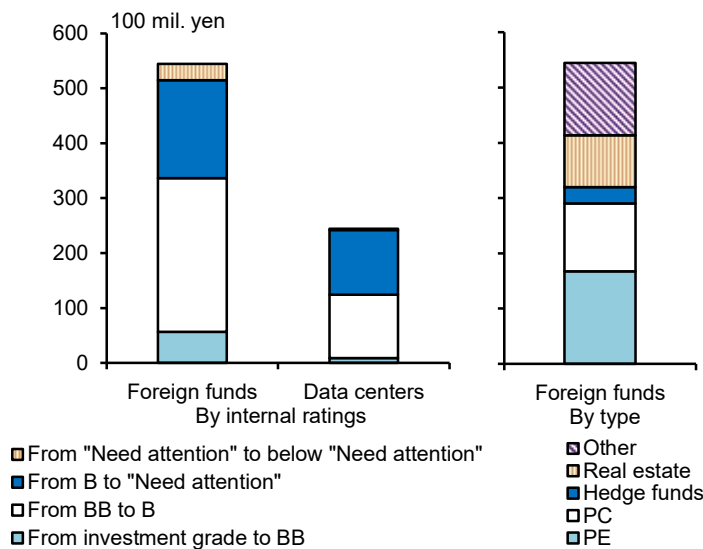
Note: Covers borrowers of the three major banks that have unused committed credit (end-September 2025).
Source: LSEG Workspace; Preqin; BOJ.

Regarding such lending to foreign funds or data centers, it is necessary to consider the possibility of correlation in terms of borrowers' debt repayment capacity, even when the direct credit counterparties differ, due to overlapping stakeholders or common drivers of asset income. In addition, the average loan amount per borrower tends to be large, and multiple banks are often found to lend to the same borrower, which implies that stress at a particular borrower can potentially spread widely across banks.

Moreover, these loans are often executed with committed credit, and their utilization rates, particularly for loans to foreign funds and data centers, are relatively low (Chart IV-1-18). Regarding loans to investment funds, it has been pointed out that, in the event of a large-scale shock, drawdowns on the committed credit could increase the amount of loans disbursed, potentially raising subsequent credit costs and exerting liquidity stress on banks.¹⁴ For loans to data centers, the loan terms tend to be relatively short among project financing, and there is a possibility that utilization rates will increase as project progresses (right panel of Chart IV-1-15).

A simulation is conducted of credit costs under stress cases for lending to foreign funds and data centers, taking these points into account and assuming that (1) first all borrowers fully draw down unused committed credit and (2) then the credit ratings of all borrowers uniformly are downgraded by one notch (Chart IV-1-19). The result shows the following: while credit costs are significantly affected by exposures rated BB or lower due to the non-linear increase in loan-loss provision rates upon downgrades, the impact remains within the range that can be sufficiently covered by the profitability of each bank. Nevertheless, substantial rating downgrades due to rapid changes in the operating environment could occur. Banks must continue to take into account these aspects, and enhance proactive monitoring systems and set credit limits commensurate with the value of the underlying assets when undertaking credit activities for such borrowers.

Chart IV-1-19: Estimates of credit costs



Note: 1. Covers the three major banks (end-September 2025). "Other" in the right-hand chart includes uncategorized funds.
 2. The changes in credit costs are estimated based on the following assumptions: (i) the full drawdown of unused committed credit, and (ii) a one-notch downgrade in their internal credit ratings, categorized into five levels: investment grade, BB, B, "need attention," and below "need attention." The estimation takes into account the unsecured ratios and loan-loss provision ratios for each rating category.

Source: LSEG Workspace; Preqin; BOJ.

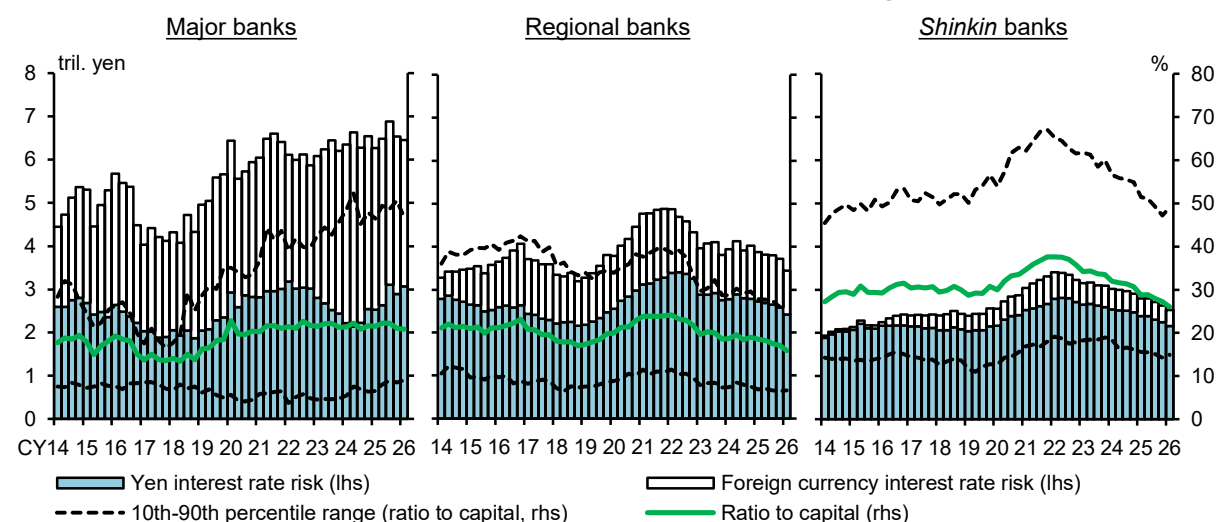
¹⁴ Real estate investment trusts (REITs) and investment funds have been pointed out to have a tendency to draw lines of credit in the event of stress. Based on this recognition, the Federal Reserve and the International Monetary Fund (IMF) have estimated the impact of credit line drawdown scenarios on banks. For details, see Box 2 of the 2025 Federal Reserve Stress Test Results released by the Board of Governors of the Federal Reserve System in June 2025, and the Chapter 1 of October 2025 issue of Global Financial Stability Report released by the IMF.

B. Market risk associated with securities investment

Interest rate risk

With regard to securities investment, the interest rate risk-to-capital ratio -- which is calculated by adding the interest rate risk associated with yen-denominated bonds and that associated with foreign bonds -- has generally been unchanged for major banks, while it has been on a somewhat declining trend for regional and *shinkin* banks (Chart IV-2-1 and left and middle panels of Chart IV-2-2). Interest rate risk on yen-denominated bonds has increased slightly for major banks, primarily due to their accumulation of medium- to long-term Japanese government bonds (JGBs) since summer 2025, aimed at earning carry income. Nonetheless, major banks have maintained a cautious investment stance. For regional and *shinkin* banks, the amount of interest rate risk has continued to be on a declining trend, reflecting a reduction in holdings of longer-term bonds due to the ongoing rebalancing across maturities. The amount of interest rate risk associated with foreign bonds has been more or less flat for all types of banks.

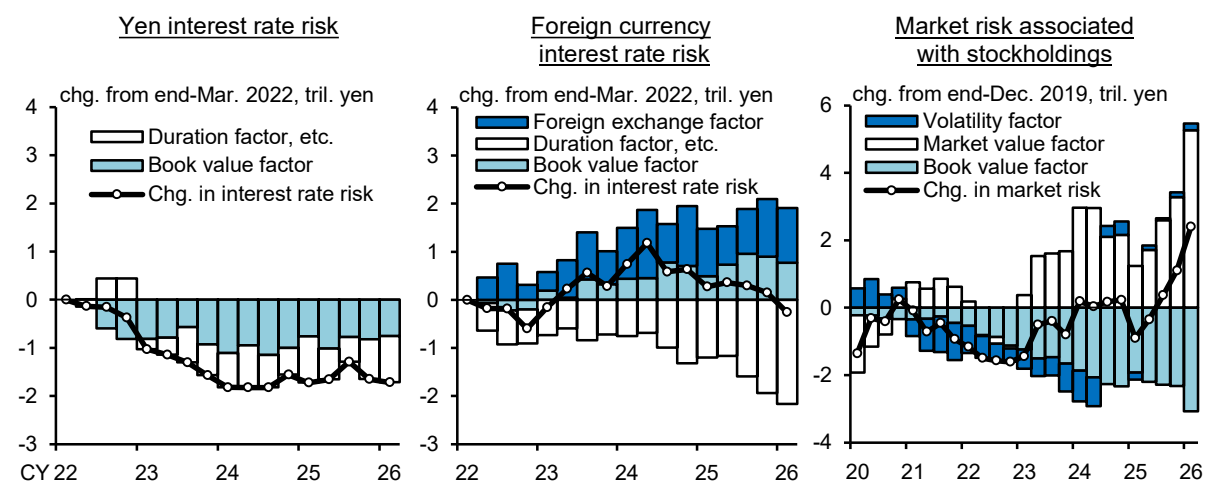
Chart IV-2-1: Interest rate risk of securities holdings



Note: "Yen interest rate risk" is a 100 BPV, and "Foreign currency interest rate risk" is a 200 BPV. Off-balance-sheet transactions and investment trusts outstanding are taken into account (for major banks, only off-balance-sheet transactions in foreign currencies are taken into account). Latest data as of 2026/Q1 (end-February).

Source: BOJ.

Chart IV-2-2: Factors affecting changes in risks associated with securities holdings

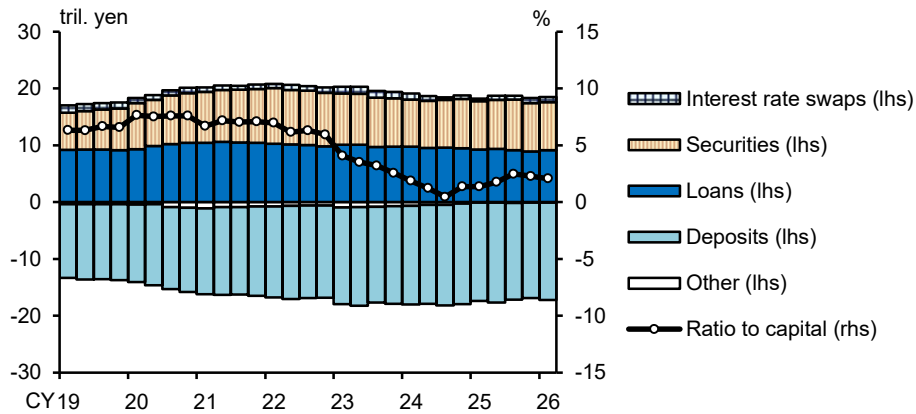


Note: Covers major, regional, and *shinkin* banks. See Charts IV-2-1 and IV-2-4 for details of each risk. "Duration factor, etc." includes the contribution of off-balance-sheet transactions and investment trusts outstanding. Latest data as of 2026/Q1 (end-February).

Source: BOJ.

Meanwhile, yen interest rate risk in the banking book (IRRBB, in terms of the 100 BPV) relative to banks' capital has remained low. The amount of yen interest rate risk on the asset side (loans and securities) and the liability side (deposits) is more or less in balance (Chart IV-2-3). Recently, a shift from demand deposits to time deposits and an increase in yen-denominated bond holdings by major banks, reflecting the recent rise in interest rates, have exerted somewhat upward pressure on interest rate risk. Banks need to continue managing interest rate risk appropriately by taking into account various scenarios regarding market fluctuations and the impact of future changes in the composition of their balance sheets.

Chart IV-2-3: Interest rate risk in the banking book

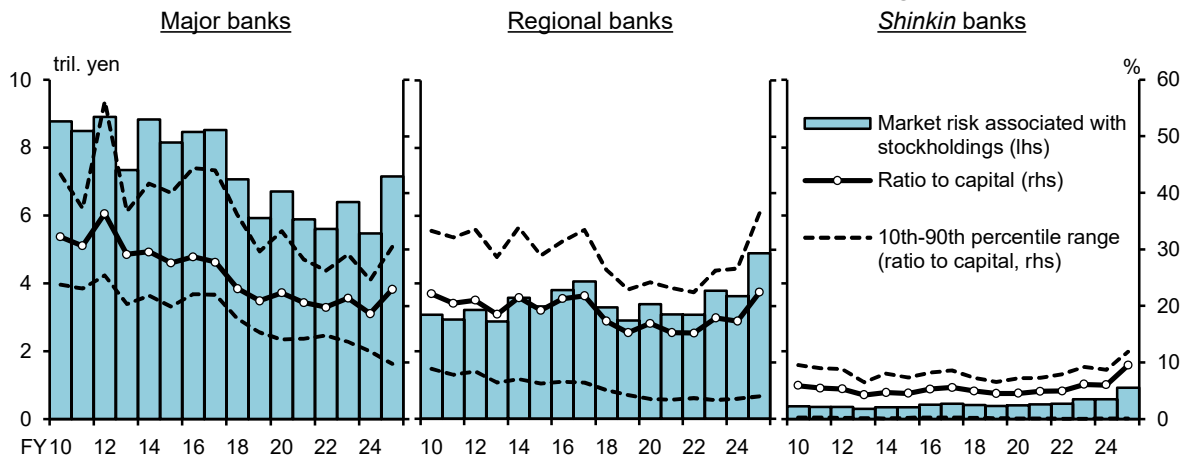


Note: Shows yen interest rate risk in terms of the 100 BPV at the end of each quarter. Latest data as of 2026/Q1 (end-February). For 2026/Q1, "Securities" is estimated based on monthly data of the amount of interest rate risk, and "Loans" and "Deposits" are estimated based on monthly data of the outstanding amounts.
Source: BOJ.

Market risk associated with stockholdings

Market risk associated with stockholdings-to-capital ratio has increased somewhat (Chart IV-2-4).

Chart IV-2-4: Market risk associated with stockholdings



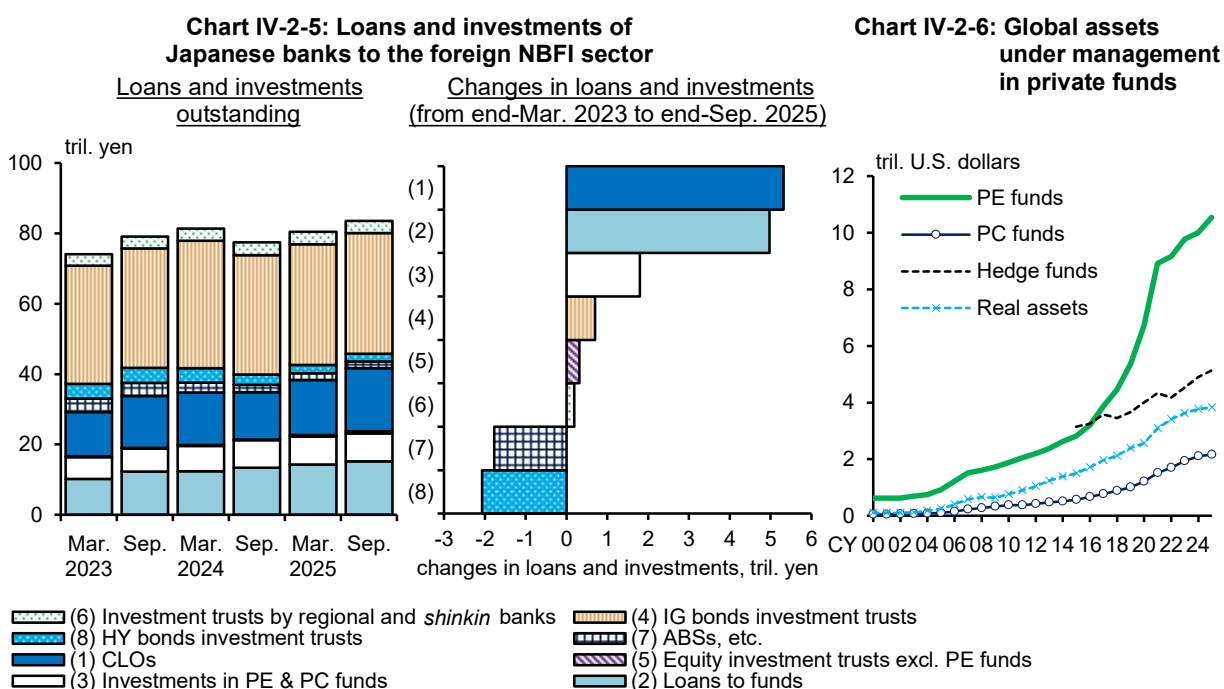
Note: 1. "Market risk associated with stockholdings" is VaR with a 99 percent confidence level, a 5-year observation period, and a 1-year holding period, and excludes risk associated with foreign currency-denominated stockholdings. Latest data as of fiscal 2025 (end-February 2026).
2. "Ratio to capital" is calculated using CET1 capital for internationally active banks from fiscal 2012 onward, core capital for domestic banks from fiscal 2013 onward, and Tier 1 capital for all others (excl. the transitional arrangements).
Source: BOJ.

IV. Risks faced by financial institutions
 B. Market risk associated with securities investment

Recent developments show that while the decline in strategic stockholdings has been containing market risk associated with stockholdings, the rise in stock prices has worked in the direction of increasing market risk (right panel of Chart IV-2-2). While the rise in stock prices since 2023 has led to a rise in banks' room for realizing gains, developments in stock prices are highly volatile and could potentially have a non-negligible impact on their balance sheets and profits. Banks therefore need to make an objective assessment of the costs and benefits of stockholdings from various perspectives, such as the risk and return associated with their stockholdings, corporate governance, and regulatory compliance. Furthermore, they need to keep the market risk associated with stockholdings within an appropriate range, in line with their loss-absorbing capacity.

Risks related to alternative investments and other factors

In recent years, banks have increased their alternative investments with the aim of improving returns and diversifying risk. In particular, major banks and others have increased holdings of foreign credit products such as collateralized loan obligations (CLOs) as well as investment in and lending to foreign private funds, primarily those focused on PE and PC, all of which tend to offer relatively wider spreads (Charts IV-2-5 and IV-2-6). While defaults among firms receiving credit from these funds remain limited, banks need to strengthen their risk management, including understanding the actual condition of firms receiving investments and loans from foreign private funds (for details on recent developments in private funds, see Box 1).¹⁵



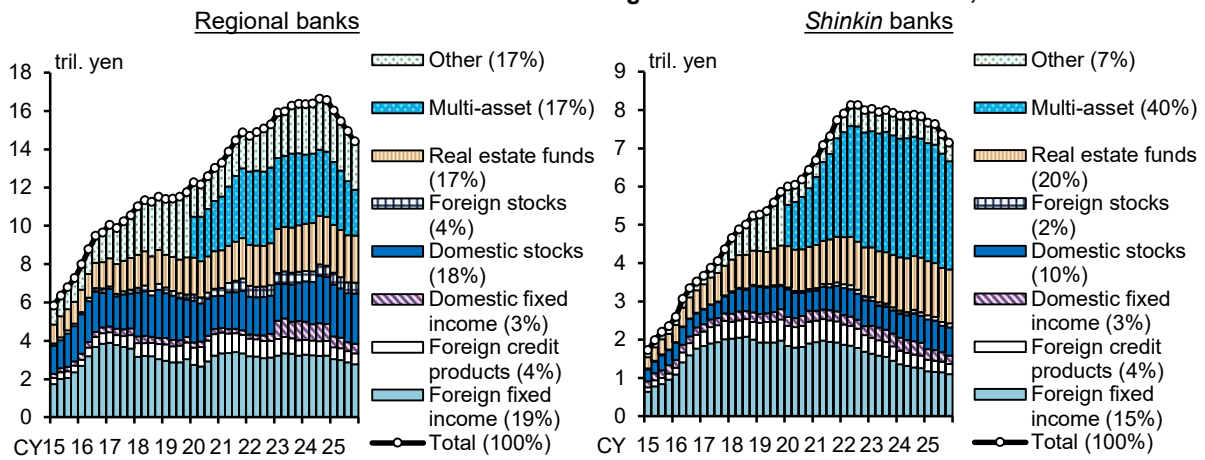
Note: Covers loans and investments to the foreign NBF sector by major banks and others, excluding trust banks, and foreign investment trusts by regional and *shinkin* banks. "Loans to funds" is loan exposures (including credit lines) to private funds in the Americas. "ABSs, etc." includes securitized products excluding CLOs and MBSs, and investments in bank loan funds.
 Source: BOJ.

Note: Latest data as of June 2025. "PC funds" represents the sum of BDCs and PD funds. "Real assets" includes real estate, infrastructure, and natural resources.
 Source: Preqin; S&P Global Market Intelligence.

¹⁵ Regional and *shinkin* banks have been increasing their investment in PE funds, mainly in business restructuring and succession funds that invest in unlisted regional firms. PE funds are characterized by long-term investments that are difficult to terminate early or sell in the secondary market; however, there is considerable heterogeneity in the investment strategies of PE funds and the life stages of firms that they invest in, and therefore, it is difficult to accurately grasp the mark-to-market value in a timely manner. Banks that intend to make greater investments in PE funds need to put in place risk management structures that take such characteristics into account.

The outstanding amount of investment trusts held by regional and *shinkin* banks has continued to decline, reflecting trends such as the realization of gains through the sale of stock investment trusts in conjunction with the sale of yen-denominated bonds. Overall, their investment management has remained restrained (Chart IV-2-7). Banks need to appropriately manage risk not only with regard to stocks and bonds independently but also with regard to the risk associated with their overall holdings of securities, including investment trusts, in relation to their loss-absorbing capacity. The portfolio diversification effect of regional and *shinkin* banks' securities holdings has continued to help reduce overall risk, mainly due to the negative correlation between JGB and stock prices (Chart IV-2-8). However, given that correlations among risk factors can change over time, banks need to strengthen their monitoring systems in normal times and discuss action plans on an organization-wide basis so that investment positions can be adjusted swiftly when such situations arise.

Chart IV-2-7: Breakdown of outstanding amount of investment trusts, etc.

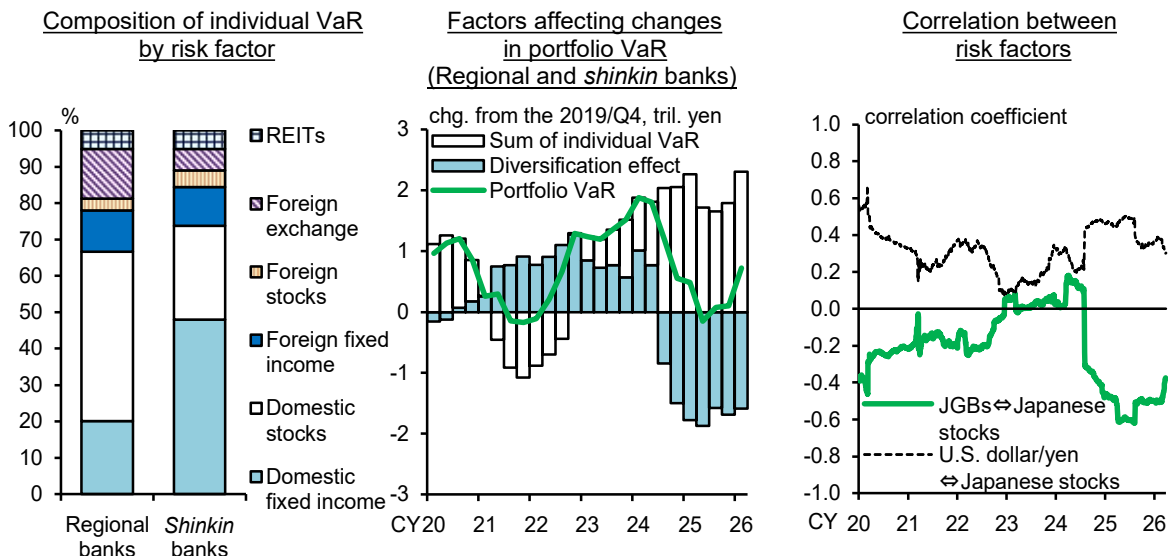


Note: 1. Based on book values. The figures in parentheses indicate the share of the respective product types in the latest period. Latest data as of 2025/Q4.

2. Up to 2019/Q4, "Other" includes "Multi-asset."

Source: BOJ.

Chart IV-2-8: Portfolio value-at-risk (VaR) of securities



Note: 1. The individual VaR for each product is calculated based on sensitivity (reported values) by risk factor and VaR (observation period: 5 years; holding period: 1 year; confidence level: 99%). "Diversification effect" is calculated as the difference between the total risk amount considering correlations between risk factors (portfolio VaR) and the sum of individual VaRs. Data for the left-hand chart and latest data for the middle chart are as of end-March 2026.

2. Correlation coefficients in the right-hand chart are calculated using a 1-year rolling window. Latest data as of March 31, 2026.

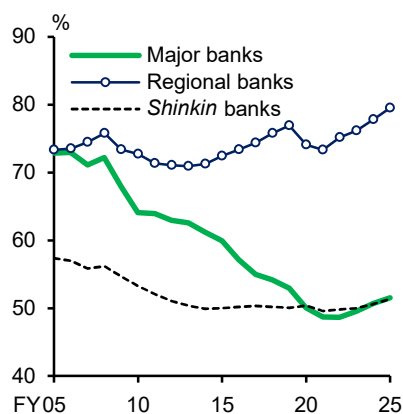
Source: Bloomberg; BOJ.

C. Funding liquidity risk

Yen funding liquidity risk

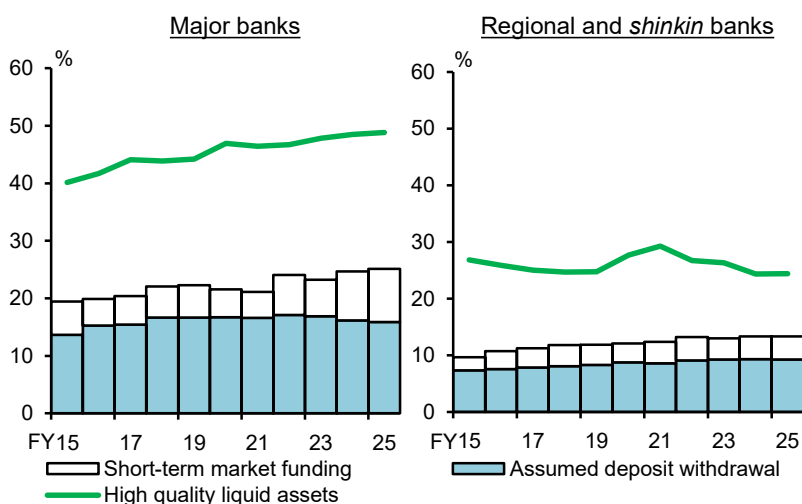
In terms of their yen funding, banks have stable funding bases, mainly backed by small, sticky retail deposits, and have ample liquidity (Charts IV-3-1 and IV-3-2). In addition, their deposits outstanding far exceed loans outstanding on the whole, although the loan-to-deposit ratio has recently been on a slight uptrend, particularly among regional banks. Moreover, whereas a large portion of the loan-to-deposit gap is composed of highly liquid assets such as JGBs and deposits with the Bank, short-term market funding that matures within one month has been limited relative to the amount of total assets.¹⁶ Banks have secured liquid assets that greatly exceed the amount of fund outflows expected in the event of stress, and on the whole are sufficiently resilient to short-term liquidity stress.

Chart IV-3-1: Loan-to-deposit ratio



Note: Data based on domestic branches. Figures are as of the end of each fiscal year. Latest data for fiscal 2025 are as of February 2026 (seasonally adjusted to the fiscal year-end value).
 Source: BOJ.

Chart IV-3-2: HQLA coverage



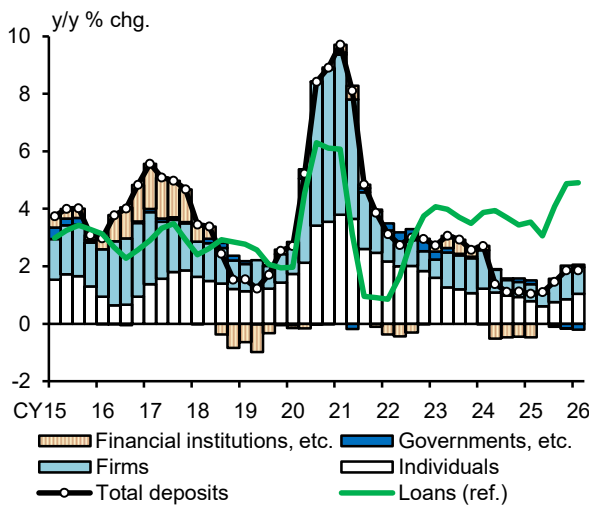
Note: Shows ratios to total assets of domestic business. Data on "High quality liquid assets" for internationally active banks and "Short-term market funding" for major banks are reported by banks. Other data are estimated using outstanding amounts of financial assets and liabilities by product, etc. "Assumed deposit withdrawal" is calculated as the sum of 5 percent of retail demand deposits (up to 10 million yen), 10 percent of retail demand deposits (above 10 million yen), 20 percent of corporate demand deposits (up to 10 million yen), 40 percent of corporate demand deposits (above 10 million yen), and 100 percent of financial institutions' demand deposits. "Short-term market funding" includes short-term large time deposits and excludes other time deposits. Latest data as of the first half of fiscal 2025 (some data for shinkin banks are assumed to stay at the same level as of fiscal 2024).
 Source: BOJ.

The year-on-year changes in deposits show that, although the rate of growth is slower than a while ago, growth has picked up somewhat recently (Chart IV-3-3). Corporate deposits have shown stronger growth, partly due to an increase in sales accompanying moderate growth in economic activity, despite being weighed down by higher corporate tax payments. Retail deposits, meanwhile, have continued to grow at a slower pace: rising wages have supported an increase in deposits, but this has been offset in part by increased investments, including in stocks and stock investment trusts. With regard to developments in deposits from a somewhat longer-term perspective, the share of major banks and new types of banks in total deposits has been increasing, while that of regional and shinkin banks has remained on a declining trend (Chart IV-3-4). Given the significant

¹⁶ Part of this loan-to-deposit gap, particularly at major banks, is also being used as a funding source for foreign currency-denominated overseas loans, such as FX and currency swaps.

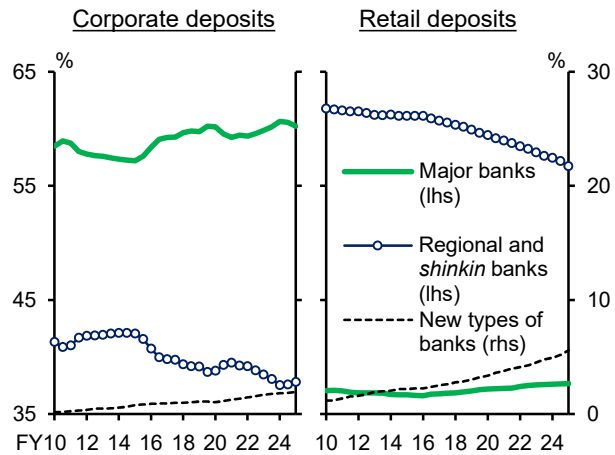
regional disparities in aging and population decline, the transfer of inherited deposits is likely contributing to the decline in regional and *shinkin* banks' deposit share. In fact, when examining the growth rates of retail deposits by prefecture, growth rates tend to be higher in regions where the share of individuals aged 75 and over is relatively small (Chart IV-3-5). In addition, changes in the competitive environment, such as variations in how banks set deposit rates, are also likely contributing to these developments. Although the deposit rates offered by internet-only banks vary, they tend to be relatively high, and the interest rates actually applied often exceed the interest rates posted at these banks (Chart IV-3-6). Banks need to continue to be mindful that changes in their business environment may have implications for the stability of their deposit bases.

Chart IV-3-3: Deposit growth by type of depositor



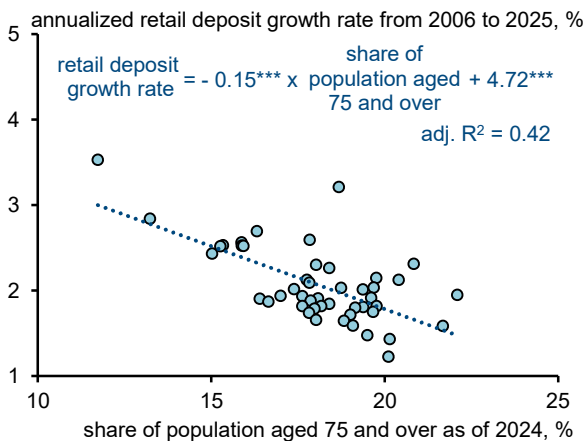
Note: Covers domestically licensed banks and *shinkin* banks. Latest data as of 2026/Q1 (January-February). Source: BOJ.

Chart IV-3-4: Share of deposits by type of bank



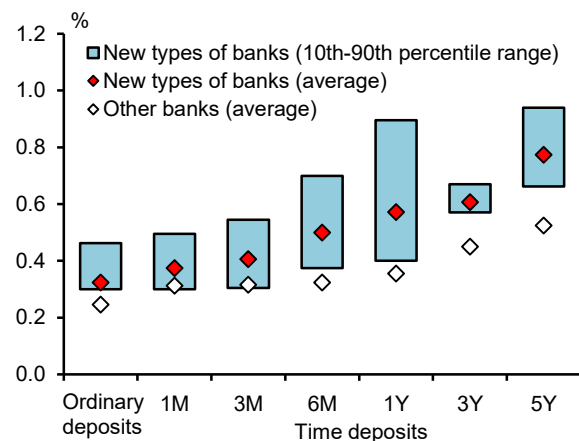
Note: Latest data as of the first half of fiscal 2025. Source: BOJ.

Chart IV-3-5: Retail deposit growth rate by prefecture



Note: *** indicates statistical significance at the 1 percent level. Source: Ministry of Internal Affairs and Communications; BOJ.

Chart IV-3-6: Deposit rates at new types of banks



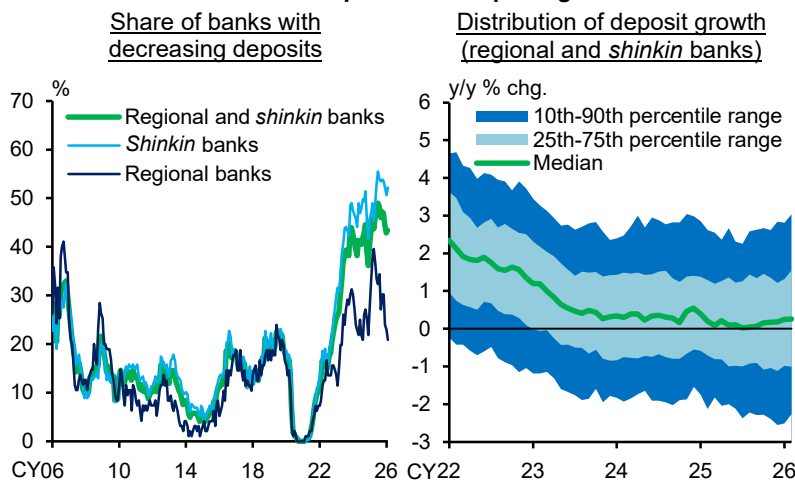
Note: Indicates the interest rates posted at banks. Data as of March 2026. Source: BOJ.

With regard to deposits at regional and *shinkin* banks, the number of banks experiencing a negative growth began increasing around 2022, when the government started to withdraw various support measures and subsidies introduced during the pandemic. Recently, roughly 30 percent of regional banks and around half of *shinkin* banks have marked a negative year-on-year growth in their deposits (Chart IV-3-7). Categorizing regional banks and *shinkin* banks into those with increasing

IV. Risks faced by financial institutions
 C. Funding liquidity risk

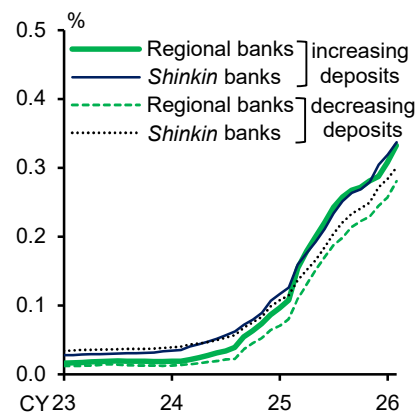
deposits and those with declining deposits, based on actual figures for the first half of 2025, their respective developments can be analyzed as follows. First, among banks with increasing deposits, deposits have been growing due primarily to large time deposits that are highly sensitive to interest rates, given the relatively high rates at which time deposits are priced (Charts IV-3-8 and IV-3-9). For banks with increasing deposits, the year-on-year growth rate in time deposits by maturity indicates that the growth has been driven primarily by relatively short-term deposits with maturities of less than one year. Since the latter half of 2025, there has also been a noticeable increase in deposits with maturities of more than one year (Chart IV-3-10).

Chart IV-3-7: Dispersion in deposit growth



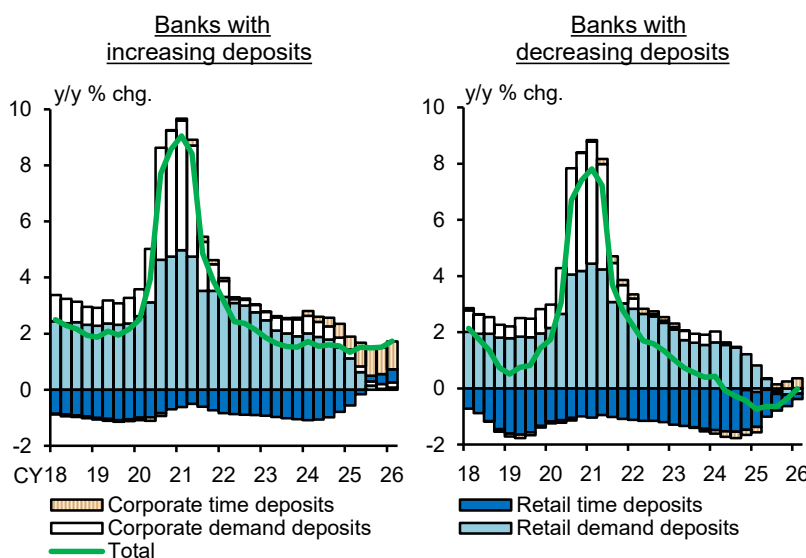
Note: Latest data as of February 2026.
 Source: BOJ.

Chart IV-3-8: Time deposit rates by banks' deposit characteristic



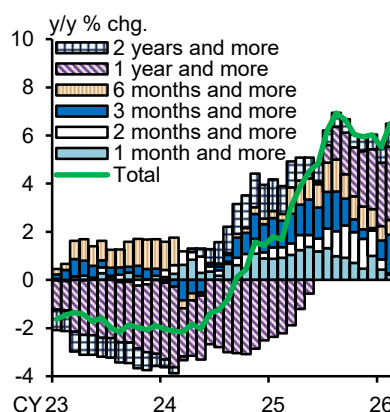
Note: Classifies "increasing deposits" and "decreasing deposits" based on the year-on-year change in deposits during the period from January to June 2025 (hereinafter the same). Latest data as of February 2026.
 Source: BOJ.

Chart IV-3-9: Deposit growth by banks' deposit characteristic



Note: Covers regional and shinkin banks. See Chart IV-3-8 for details on "Banks with increasing deposits" and "Banks with decreasing deposits." Latest data as of 2026/Q1 (January-February).
 Source: BOJ.

Chart IV-3-10: Time deposit growth of banks with increasing deposits

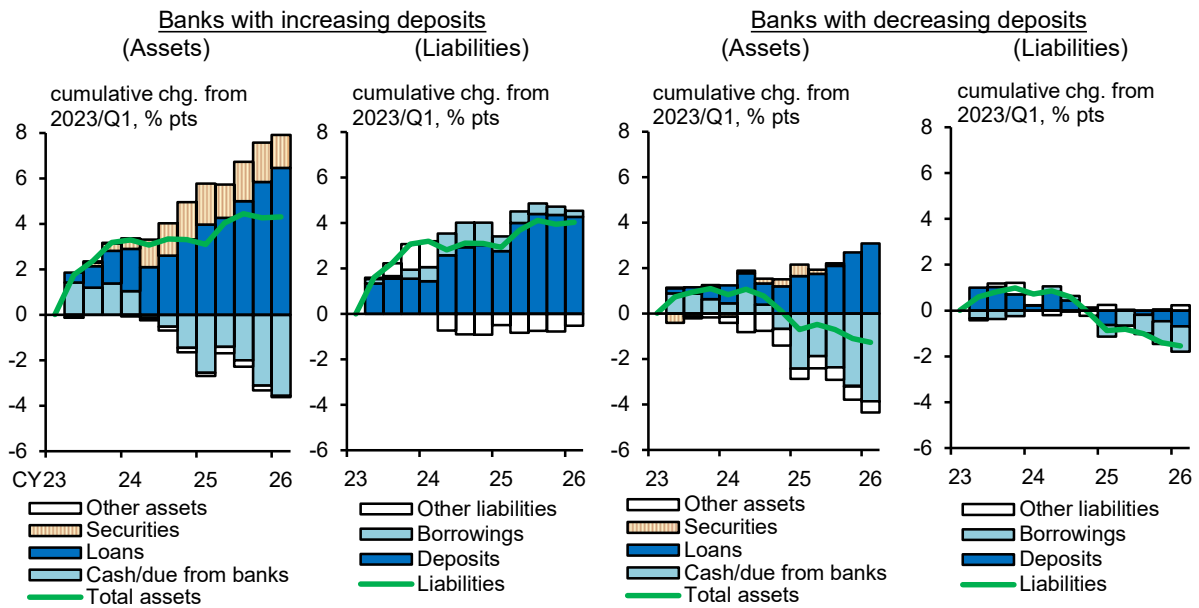


Note: Data based on the contracted term at deposit. Covers regional and shinkin banks. See Chart IV-3-8 for details on "banks with increasing deposits." Latest data as of February 2026.
 Source: BOJ.

Turning to asset developments during this period, banks with increasing deposits have recorded larger increases in loans and securities than the increase in their deposits, resulting in an expansion

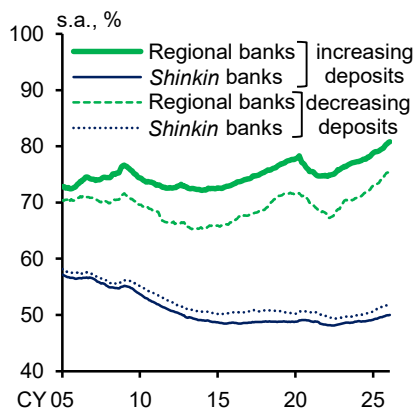
of their balance sheets with decreases in "due from banks" (left panel of Chart IV-3-11). This suggests that meeting regional funding demand is one factor behind the active efforts of banks with increasing deposits to attract deposits. On the other hand, turning to banks with decreasing deposits, even as their lending has increased, their balance sheets have been contracting as their deposits have decreased, balanced by an even greater decrease in "due from banks," etc. (right panel of Chart IV-3-11). As a result, loan-to-deposit ratios have been rising somewhat for both banks with increasing deposits and those with decreasing deposits (Chart IV-3-12).

Chart IV-3-11: Factors affecting changes in balance sheets by banks' deposit characteristic



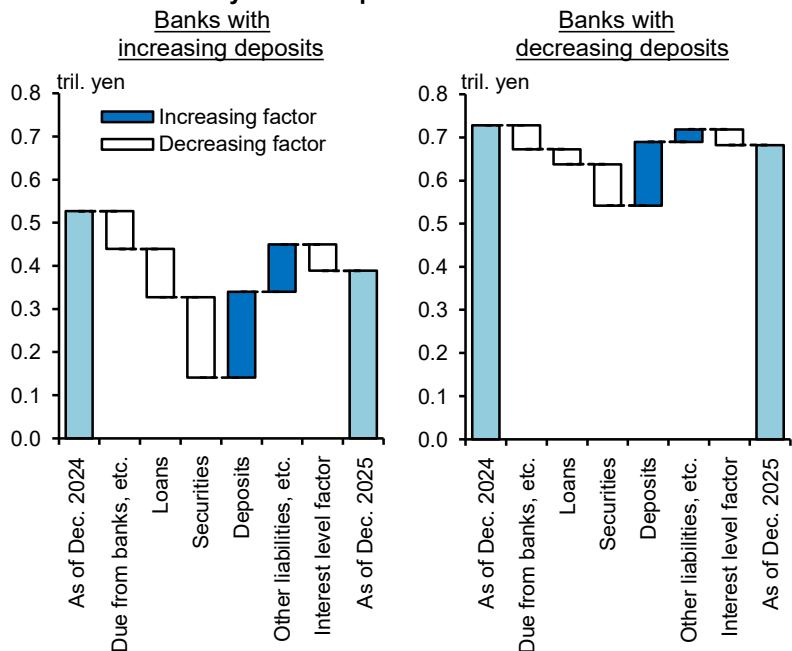
Note: Shows ratios to total assets. Covers regional and *shinkin* banks. See Chart IV-3-8 for details on "Banks with increasing deposits" and "Banks with decreasing deposits." Latest data as of 2026/Q1 (January-February). Source: BOJ.

Chart IV-3-12: Loan-to-deposit ratio by banks' deposit characteristic



Note: See Chart IV-3-8 for details on "Banks with increasing deposits" and "Banks with decreasing deposits." Latest data as of February 2026. Source: BOJ.

Chart IV-3-13: Factors affecting changes in interest rate risk by banks' deposit characteristic



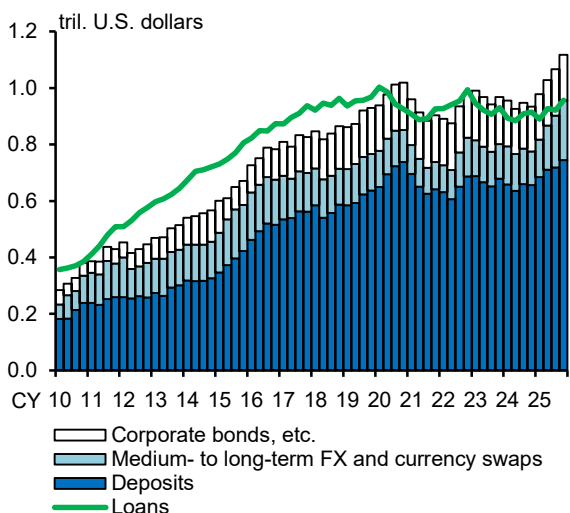
Note: Shows the decomposition of change in yen interest rate risk in terms of the 100 BPV from December 2024 to December 2025. Covers regional and *shinkin* banks. See Chart IV-3-8 for details on "Banks with increasing deposits" and "Banks with decreasing deposits." "Interest level factor," *ceteris paribus*, represents the change in interest rate risk caused by changes in interest rate levels. Source: BOJ.

Large deposits acquired based on high deposit rates may exhibit high sensitivity to interest rates and economic developments and consequently could be less sticky. However, thus far, the interest rate risk of loans and securities at banks with increasing deposits has shown a decline due to factors such as a shortening of durations, even as their loans and securities outstanding has risen (Chart IV-3-13).¹⁷ Similarly, the interest rate risk of loans and securities at banks with decreasing deposits has also declined, owing to a shortening of durations. That said, as changes in the balance between loans and deposits could occur over time, due to factors such as demographic changes, banks need to pay even greater attention to their asset and liability management (ALM) from a medium- to long-term perspective.

Foreign currency funding liquidity risk

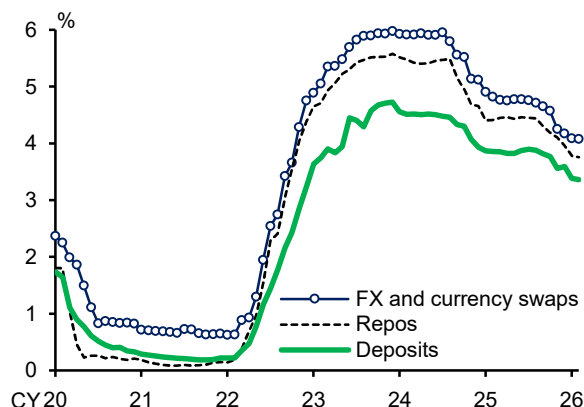
Banks have maintained stable foreign currency funding in view of uncertainty over future financial and economic conditions. The loan-to-funding gap of major banks -- the difference between the outstanding amount of loans and the outstanding amount of long-term funding, such as through the issuance of corporate bonds, and deposits -- shows that relatively stable funding exceeds their loans (Chart IV-3-14). Meanwhile, dollar funding costs have declined due to U.S. interest rate cuts, and dollar funding premiums have also generally remained stable (Charts II-2-8 and IV-3-15).

Chart IV-3-14: Loan-to-funding gap among major banks



Note: 1. "Corporate bonds, etc." and "Medium- to long-term FX and currency swaps" indicate funding maturing in over 1 year from end-June 2012 onward, with funding maturing in over 3 months prior to that time.
 2. Covers internationally active banks. Latest data as of 2025/Q4.
 Source: BOJ.

Chart IV-3-15: Dollar funding cost



Note: Shows the median values. Covers major banks.
 Latest data as of February 2026.
 Source: BOJ.

¹⁷ Some regional and *shinkin* banks have shifted their fixed-rate loans to market rate-linked loans upon maturity, thereby shortening the loan durations.

V. The financial cycle and challenges following changes in the business environment

- 12 out of the 14 Financial Activity Indexes (FAIXs) in the heat map are in a range that does not significantly deviate from their trends, and the financial gap, which captures the financial cycle, has narrowed compared to a while ago. No major financial imbalances have been seen in current financial activities. That said, developments in asset prices, such as real estate prices and stock prices, continue to warrant careful attention. Going forward, it will also be necessary to closely monitor whether developments in financial activity deviate significantly from developments in real economic activity.
- In recent years, banks' real estate-related investments and loans have been increasing as a trend, and in such an environment, lending with risk characteristics different from those of conventional corporate loans, such as non-recourse loans to real estate funds, has also been growing. Banks need to manage risks carefully, paying due attention to real estate price fluctuation risk and to the possibility that the transmission channels of stress may differ from those in the past.
- Against the background of the growing interconnectedness of the non-bank financial intermediary (NBFi) sector with financial markets and the banking sector globally, it has been pointed out that activities of the NBFi sector, such as portfolio adjustments, could amplify the negative impact arising from a shock in a specific market. This, in turn, could lead to financial market turmoil and significant adjustments in the real economy across countries and regions. Japan's financial system may also have become more susceptible to fluctuations in global financial markets and developments in foreign investment funds, as the interconnectedness with the foreign NBFi sector has been strengthening.
- Banks need to continue to manage effectively risks regarding digital technologies and those related to climate change.

A. Domestic financial cycle

Heat map and financial gap

A heat map and the financial gap are used to assess Japan's financial cycle. The heat map is designed for the early detection of overheating in financial activity at the macro level, most notably that observed during the bubble period in the late 1980s. In constructing the heat map, 14 indicators that were sending signals of overheating during the bubble period are selected as FAIXs, and their deviations from trend are indicated by three different colors (Chart V-1-1).¹⁸ As of the end of March 2026, 12 out of the 14 FAIXs are "green," indicating a "state where there are no significant

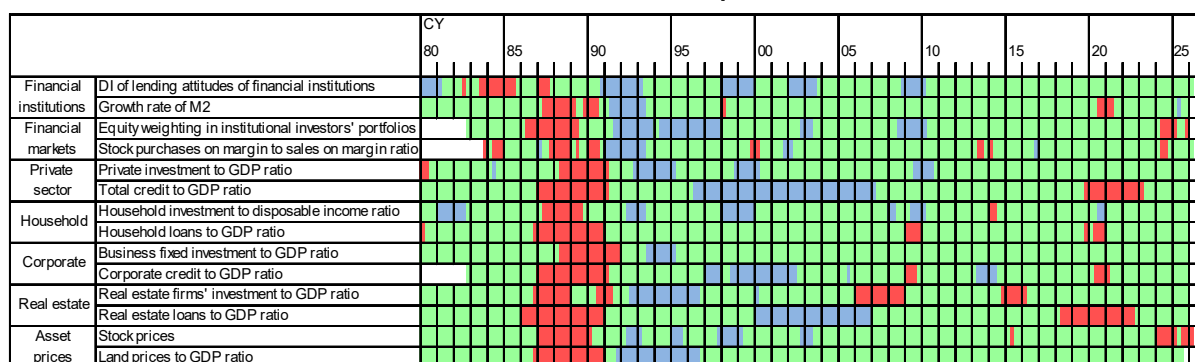
¹⁸ Specifically, the colors represent a mechanical assessment based on the indicator's position relative to its thresholds: (1) red indicates that the indicator is above its upper threshold; (2) blue indicates that the indicator is below its lower threshold; (3) green indicates no signs of either extreme; and (4) white indicates that no data for that period are available. Central banks and international organizations also monitor similar indicators, on the recognition that overheating in financial activities on a macro level, such as was observed prior to the global financial crisis in the 2000s, tends to be followed by financial crises or prolonged economic stagnation. It should be noted that individual indicators are selected as early warning indicators for overheating in financial activities on a macro level and do not necessarily indicate overheating in specific markets. For details of the FAIXs, see Ito, Y., Kitamura, T., Nakamura, K., and Nakazawa, T., "New Financial Activity Indexes: Early Warning System for Financial Imbalances in Japan," Bank of Japan Working Paper Series, no. 14-E-7, April 2014.

V. The financial cycle and challenges following changes in the business environment

A. Domestic financial cycle

deviations from the trend." This suggests that the current situation is different from the bubble period, when many indicators were "red."¹⁹ The financial gap -- a summary measure of the 14 FAIXs that is calculated as the weighted average of the deviations of the 14 FAIXs from their trends -- shows that the gap has remained positive but has become narrower than a while ago (Chart V-1-2).²⁰ A breakdown of the financial gap shows that, while the positive contribution of "price factors," which includes asset prices such as stock prices, has been high, the contribution of the "debt factor" has been on a declining trend; this is because, while credit extended by banks, which is the numerator, has continued to increase, nominal GDP, which is the denominator that shows the level of economic activity, has grown at a faster pace. The contribution of the "debt factor" has been low compared to around 2019, before the pandemic. The contribution of real investment (included in "asset factor" in the chart) has remained limited.

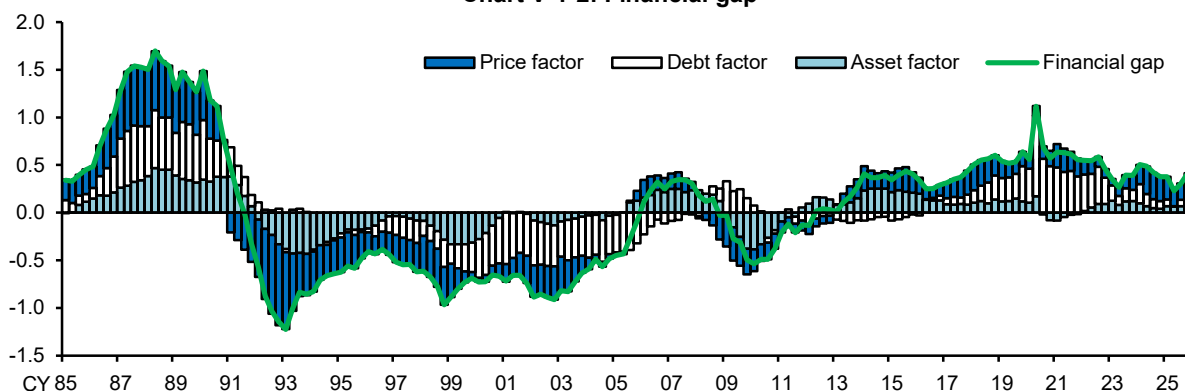
Chart V-1-1: Heat map



Note: The latest data for "DI of lending attitudes of financial institutions", "Stock purchases on margin to sales on margin ratio" and "Stock prices" are as of 2026/Q1, "Land prices to GDP ratio" are as of 2025/Q3. The other indexes are as of 2025/Q4.

Source: Bloomberg; Cabinet Office; Japan Real Estate Institute; Ministry of Finance; Tokyo Stock Exchange; BOJ.

Chart V-1-2: Financial gap



Note: "Asset factor" consists of indexes of fixed investment by the private sector, households, firms, and real estate businesses. "Debt factor" consists of indexes of their debt financing. "Price factor" consists of the remaining indexes. Latest data as of 2025/Q4 (the land prices to GDP ratio is imputed by the 2025/Q3 value).

Source: BOJ.

¹⁹ Compared with the previous *Report*, *stock prices* has continued to be "red," and the *equity weighting in institutional investors' portfolios* has again turned "red." An analysis using data from 17 countries, including the G7 countries, on the degree to which an index in a heat map turning "red" predicts a future banking crisis showed that while stock prices on their own did not have high predictive power, their predictive power tended to rise when they signaled "red" at the same time as the *total credit to GDP ratio*. For details, see Box 1 in the April 2021 issue of the *Report*.

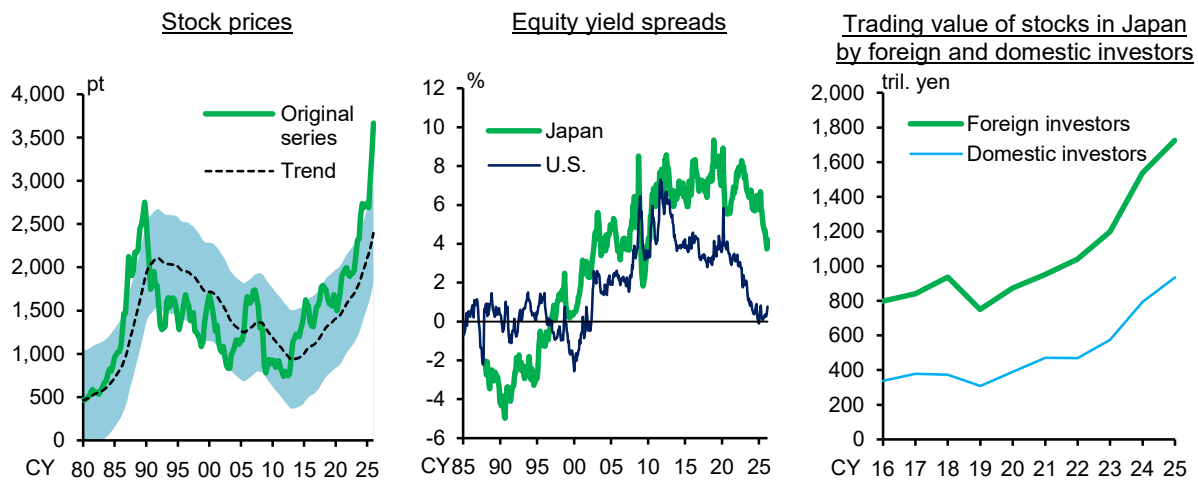
²⁰ In Chart V-1-2, which shows the financial gap, larger weights are assigned to indexes that have a higher correlation with other indexes in calculating the weighted average of individual FAIXs. The weights vary based on changes in the degree of correlation over time.

While no major financial imbalances have been seen in current financial activities on a macro level, developments in asset prices, such as real estate prices and stock prices, continue to warrant careful attention. Going forward, it will also be necessary to closely monitor whether financial activity diverges significantly from real economic activity.²¹ The following sections examine recent characteristics of asset price developments and banks' credit activities.

Developments in asset prices

In the stock market, *stock prices* has deviated upward from their trend, as indicated by "red" in the heat map (Chart V-1-1 and left panel of Chart V-1-3).

Chart V-1-3: Stock market-related indicators



Note: 1. In the left-hand chart, "Trend" is calculated using the one-sided HP filter. The shaded area indicates 1.5 times the root mean square of the deviation from the trend. In the middle chart, yield spreads are calculated as expected returns - 10-year government bond yields. Expected returns for Japan and the U.S. are based on expected EPS for the next 12 months of the TOPIX and the S&P 500, respectively. The right-hand chart shows the gross spot trading value (purchases + sales) of at Tokyo Stock Exchange and Nagoya Stock Exchange.

2. Latest data for the left-hand are as of 2026/Q1, middle and right-hand charts are as of the end of March 2026, and 2025, respectively.

Source: Bloomberg; Haver Analytics; LSEG; Ministry of Finance; Tokyo Stock Exchange.

Regarding stock valuation indicators, price-earnings (P/E) ratios have remained broadly around their average levels since 2008, reflecting an increase in expected earnings per share (EPS), which is the denominator (middle panel of Chart II-1-2 and Chart II-2-10). Equity yield spreads, i.e., the difference between expected equity yields and 10-year Japanese government bond (JGB) yields, which likely mirror equity risk premiums, have declined somewhat amid rising interest rates but have remained at relatively elevated levels from a somewhat longer-term perspective (middle panel of Chart V-1-3). Stock prices increased through February, reflecting growth expectations, particularly for foreign high-tech stocks. However, if changes in market participants' sentiment or a revision of views regarding the outlook were to trigger a significant adjustment, Japanese stock prices could also be significantly affected.²² In addition, given the notably high presence of foreign

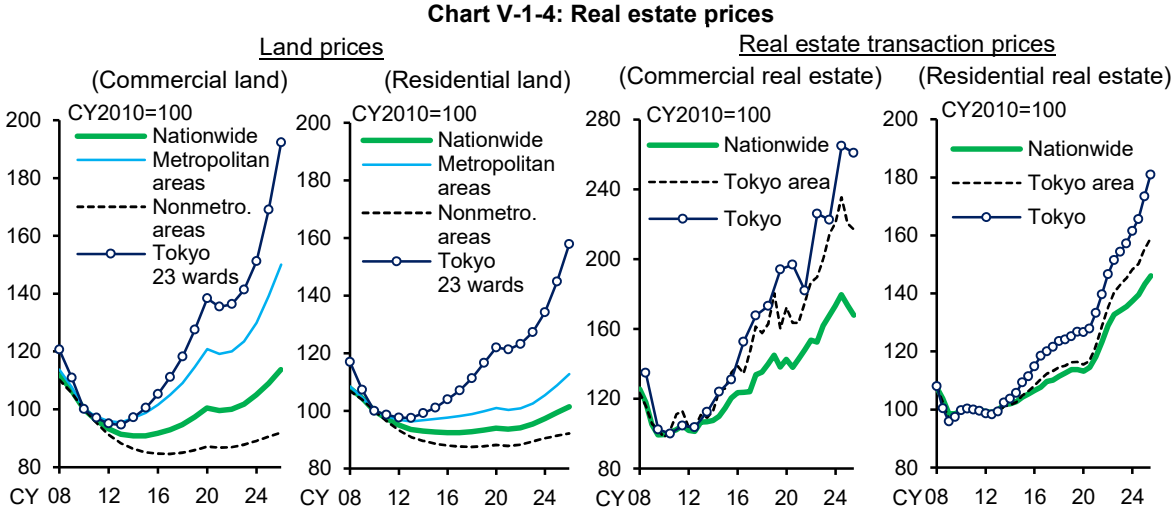
²¹ If the financial gap continues to expand, it could lead to an increase in the downside tail risks of economic conditions in the future through balance sheet adjustment pressures (this is considered to be a manifestation of financial stability risks). In this regard, assessments based on "GDP-at-risk" (GaR) using quantile regression are useful. For recent results, see Section A of Chapter V in the October 2025 Report.

²² If risk premiums in global financial markets had declined prior to an adjustment phase, changes in market sentiment and a major correction in market participants' views regarding future developments would more likely result in large declines in asset prices, and spillovers into Japan's financial markets would likely be more pronounced. For details, see section A of Chapter V in the October 2025 Report for analysis on price fluctuation risk in stock prices.

V. The financial cycle and challenges following changes in the business environment
 A. Domestic financial cycle

investors in Japan's financial markets, it is necessary to continue monitoring developments in the price of risky assets both at home and abroad as there is a possibility that shocks originating overseas spread to domestic markets (right panel of Chart V-1-3; see Section B of this Chapter for investment activities by the foreign NBF sector in Japan's financial markets).

Real estate prices have been rising, particularly in major metropolitan areas. Land prices, for both commercial and residential uses, have been increasing against the backdrop of continued improvements in economic activity, and the pace of increase in the three major metropolitan areas has been accelerating (left panel of Chart V-1-4).

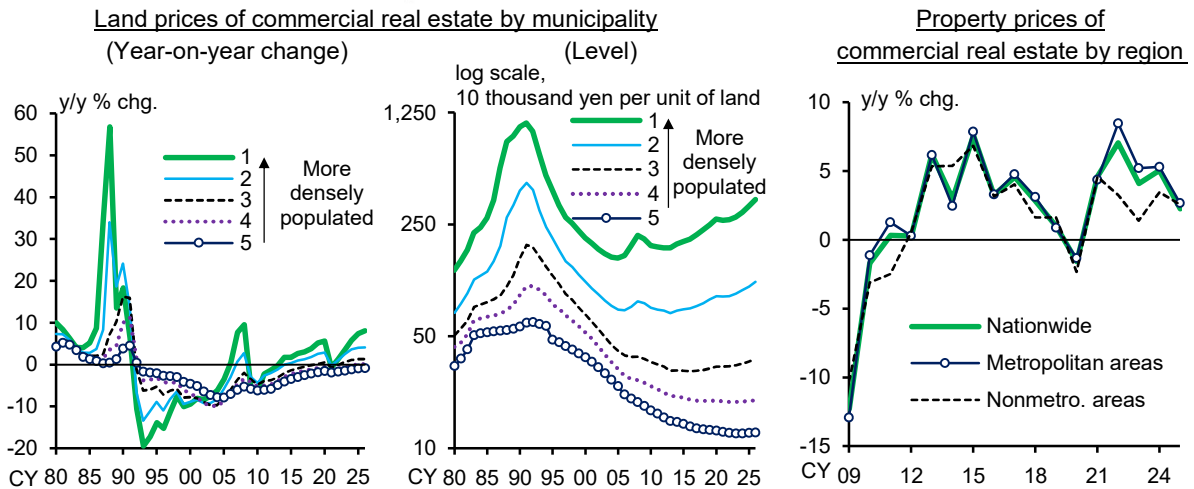


Note: Data for land prices are based on "Land Market Value Publication" as of January 1 of each year. Transaction prices are based on "Japan Property Price Index." The office index is used for commercial real estate and the residential property index is used for residential real estate. Latest data for land prices are as of 2026. Latest data for transaction prices other than for commercial real estate in Tokyo are as of the second half of CY2025, and those for commercial real estate in Tokyo are as of CY2025.

Source: Ministry of Land, Infrastructure, Transport and Tourism.

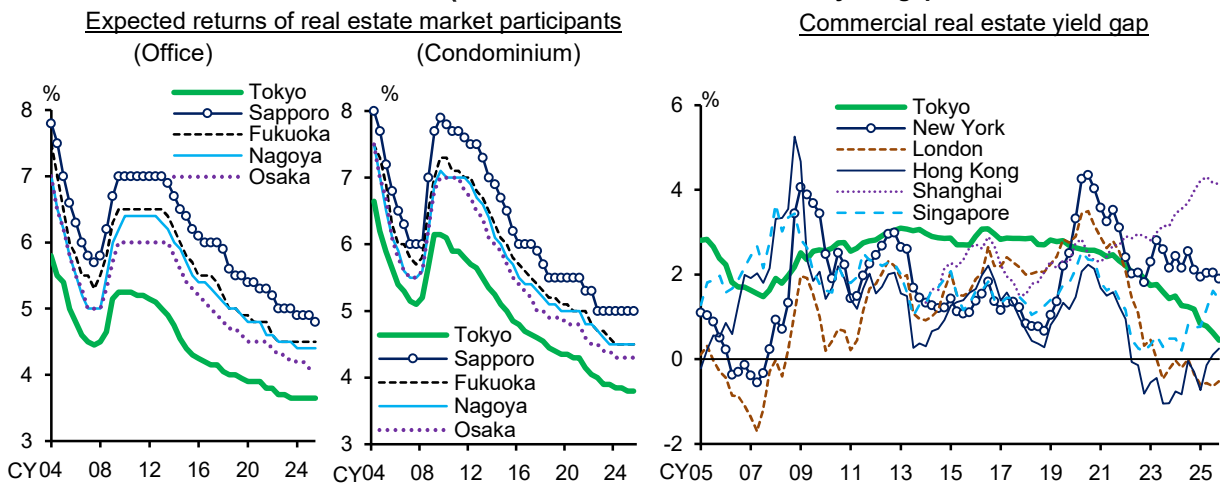
Examining year-on-year changes in commercial land prices by municipality shows that, while they are positive in metropolitan areas with high population density and negative in regions with low population density, the rate of increase has accelerated nationwide in recent years amid the economic recovery (left panel of Chart V-1-5). However, in terms of land price levels, while municipalities in metropolitan areas have continued to see rising prices, regions facing long-term population decline have experienced ongoing price drops, resulting in a widening disparity since the "mini-bubble" period in the mid-2000s (middle panel of Chart V-1-5). Turning to transaction prices of real estate that includes structures, these have risen at a relatively rapid pace in the three major metropolitan areas. At the same time, because the period of price decline following the mini-bubble was shorter than that for land prices and the recent rise in construction material costs and labor shortages has spilled over to nonmetropolitan areas, real estate transaction prices have also risen markedly in nonmetropolitan areas (right panel of Chart V-1-4 and right panel of Chart V-1-5). In addition to higher construction costs and supply constraints, factors contributing to the recent rise in real estate prices, particularly in the Tokyo area, include robust property demand amid the moderate economic recovery, and demand for investments, including condominium transactions and commercial real estate purchases by foreign investors. Given that this upward trend in real estate prices, driven by both demand- and supply-side factors, is expected to continue, the expected return by real estate investors and the yield gap, which indicates risk premiums, continue to decline as a trend. It is necessary to continue to closely monitor developments in the real estate market (Chart V-1-6; for recent developments in the real estate market, see Box 4).

Chart V-1-5: Regional distribution of real estate price increases



Note: 1. The left-hand and middle charts aggregate official land prices of municipalities based on quintiles of population density from the 2020 Census. Latest data are as of CY2026.
 2. The right-hand chart is based on "Japan Property Price Index." The commercial real estate property price index (land with structure) is used. Latest data are as of CY2025.
 Source: Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Internal Affairs and Communications.

Chart V-1-6: Expected returns on real estate and yield gap



Note: 1. The left-hand chart shows the expected returns of real estate market participants for A-class office building and rental housing properties (studio apartments, entire buildings) in each region (surveyed by Japan Real Estate Institute). Latest data are as of the October 2025 survey.
 2. In the right-hand chart, yield gaps are calculated as cap rates of Grade-A office buildings in each city (surveyed by JLL) - 10-year government bond yields for the corresponding country or region. Latest data as of 2025/Q4.
 Source: Haver Analytics; Japan Real Estate Institute; JLL; Ministry of Finance.

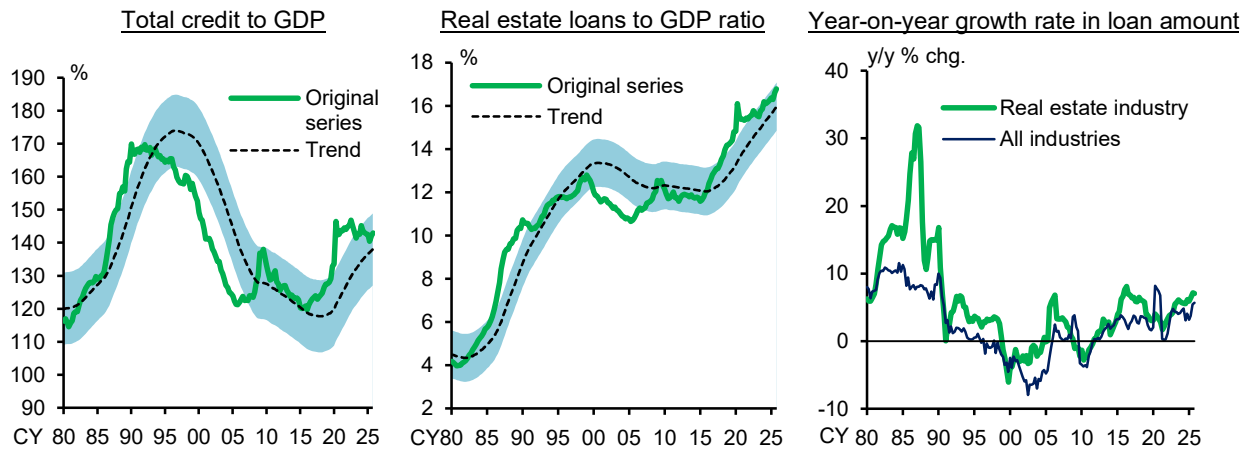
Developments in banks' lending

Looking at the lending-related indicators in the heatmap, while the *total credit to GDP ratio* has remained in line with the trend, the *real estate loans to GDP ratio* has continued to rise and is close to levels corresponding to "red" (Chart V-1-7). Although the pace of expansion in such lending activity is moderate compared with the bubble period in the late 1980s, these developments warrant close monitoring.

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Chart V-1-7: Credit-related indicators



Note: 1. Latest data for the left-hand and middle charts are as of 2025/Q4. "Trend" is calculated using the one-sided HP filter. The shaded area indicates the root mean square of the deviation from the trend.

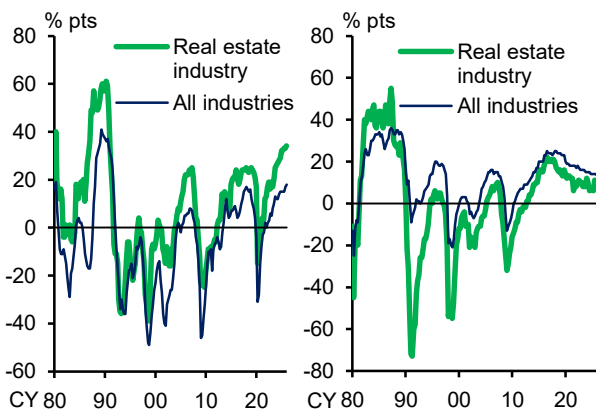
2. Latest data for the right-hand charts are as of 2025/Q4. Covers domestically licensed banks and *shinkin* banks.

Source: Cabinet Office; BOJ.

Financial conditions in the real estate industry have recently improved further, compared with the pre-pandemic period, in a situation where a moderate economic recovery continued amid accommodative financial conditions (Chart V-1-8). Lending attitudes have become somewhat more cautious than they were before the pandemic, although they remain accommodative. While banks appear to be meeting selectively the firm demand from the real estate industry under prudent credit management, it should be noted that, in recent years, the share of banks' real estate-related lending in total lending has been on an uptrend, accompanied by a gradual shift in the composition of lending toward real estate businesses (excluding house and room leasing by households) and toward real estate funds (Chart V-1-9).

Chart V-1-8: Business conditions and borrowing environment for real estate industry

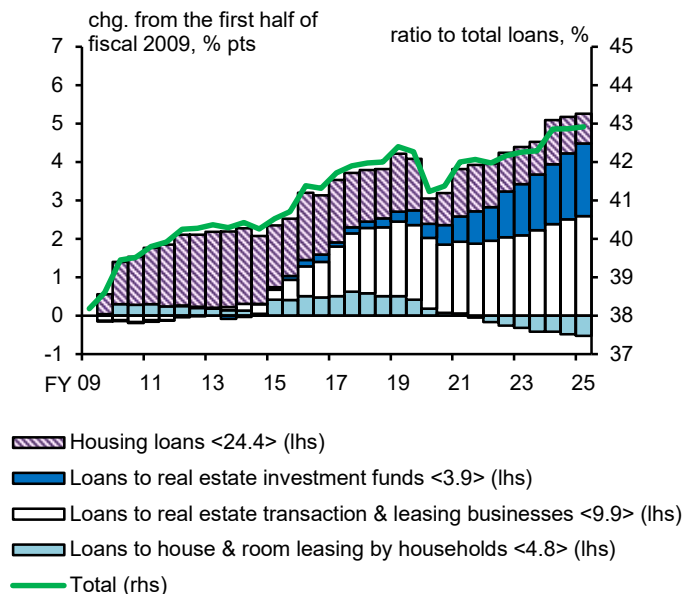
DI of business conditions DI of lending attitudes of financial institutions



Note: Latest data as of 2026/Q1.

Source: BOJ.

Chart V-1-9: Share of real estate-related loans in total domestic loans

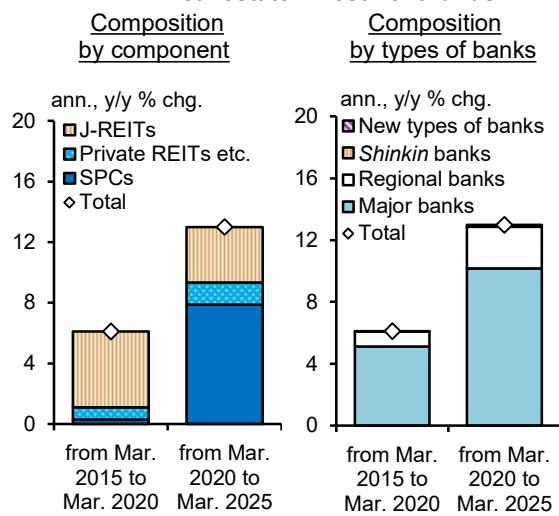


Note: Latest data as of the first half of fiscal 2025. Covers major, regional, *shinkin* and new types of banks. "Loans to real estate transaction and leasing businesses" excludes "Loans to house and room leasing by households (loans for construction or purchase of rental housing for individuals, such as apartment loans etc.)" and "Loans to real estate investment funds" from "Real estate sector" in Loans and Bills Discounted by Sector. Figures in brackets indicate the share of real estate-related loans to total loans as of end-September 2025.

Source: BOJ.

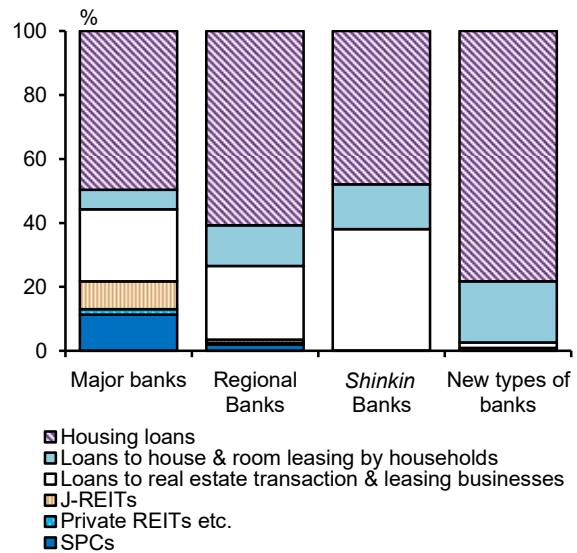
A breakdown of lending to real estate funds indicates that, in recent years, this growth has been driven by lending to real estate special purpose companies (SPCs), excluding Japan real estate investment trusts (J-REITs) and private real estate investment trusts (private REITs) (Charts V-1-10 and V-1-11). As for loans to real estate funds that can be identified from the loan-by-loan data from the common data platform, the majority of these loans are to entities located in Tokyo, and the real estate under management by these funds appears to be mostly located in major metropolitan areas. Moreover, many loans to private REITs and real estate SPCs are relatively short-term, with initial loan periods of less than six years (Chart V-1-12).²³ Furthermore, ranking loan amounts per individual loans for each bank in descending order and examining the shares in total lending by loan size bucket shows that loans to real estate SPCs are disproportionately made to large-scale borrowers (Chart V-1-13).

Chart V-1-10: The rate of change in loans to real estate investment funds



Source: BOJ.

Chart V-1-11: Breakdown of real estate-related loans



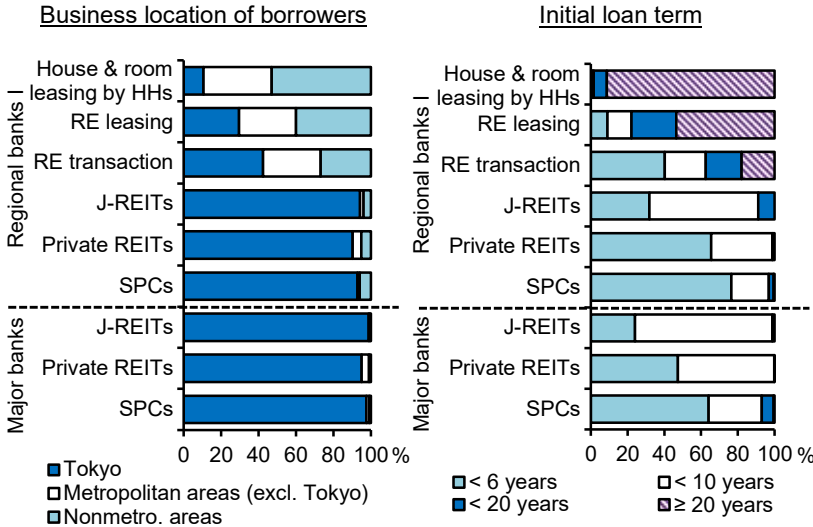
Note: Data as of end-September 2025.
Source: BOJ.

²³ Loans to real estate SPCs in the common data platform are defined as loans categorized under the "real estate SPC" industry code. For banks where this method is not applicable, loans classified under the "real estate" industry are deemed as loans to real estate SPCs if they meet any of the following criteria: (1) the name of the borrower includes the term "special purpose company," (2) the borrower's address includes the term "accounting firm" or "tax accountant office," or (3) the name of the borrower includes "limited liability company," and the annual average principal repayment amount is 50 million yen or more (i.e., loans not considered small business-related). In addition, loans to J-REITs and private REITs are identified using their respective lists of REIT names.

V. The financial cycle and challenges following changes in the business environment

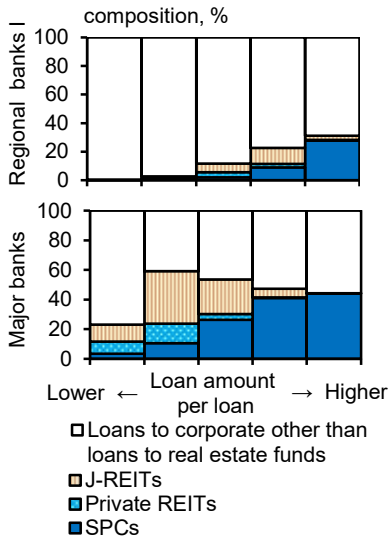
A. Domestic financial cycle

Chart V-1-12: Characteristics of real estate-related loans



Note: Composition of loans outstanding. Data as of end-September 2025. Covers major banks and regional banks I. Major banks shows only the breakdown of loans to real estate investment funds due to data limitation.
Source: BOJ.

Chart V-1-13: Composition of loans by size of loan amount

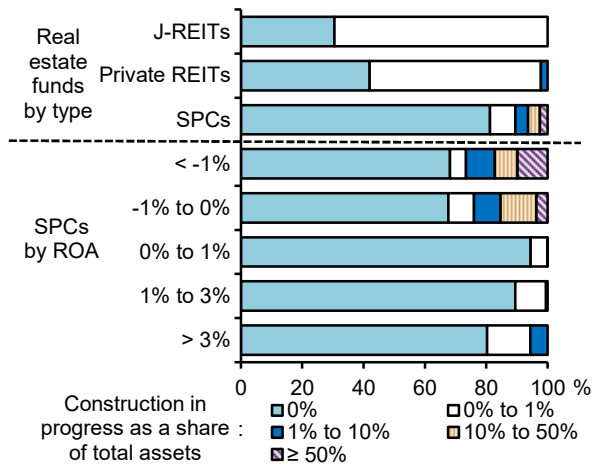


Note: Data as of end-September 2025. Covers major banks and regional banks I. Loans are ranked in descending order of the amount per loan and grouped into segments by the quantiles of the cumulative lending amount.
Source: BOJ.

Unlike loans to ordinary real estate transaction businesses and real estate leasing businesses, non-recourse loans, which are extended mainly to real estate funds, have their source of repayment limited to the cash flows generated by the underlying real estate and its sale value, and such loans are therefore likely to be directly affected by changes in real estate prices and rents.²⁴ In addition, real estate SPCs that finance development projects are likely to be more susceptible to changes in construction costs and economic conditions until the completion of the projects (Chart V-1-14). Lending to real estate SPCs, due to their risk characteristics, are often set with relatively short loan terms of around five years, compared to other real estate-related loans, and it should be noted that substantial changes to loan conditions and other terms might occur at the time of refinancing, depending on the business and financial environment at the time (Chart V-1-12). Currently, with real estate prices continuing to rise, borrower classifications remain favorable, particularly for loans to real estate funds, and default rates in the real estate industry also remain low. However, ongoing attention is warranted regarding changes in real estate market conditions (Chart V-1-15).

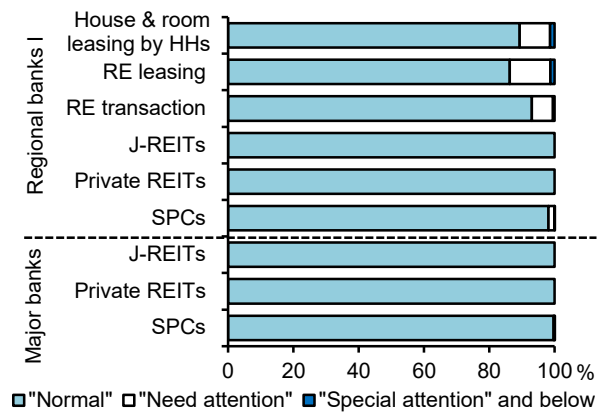
²⁴ For details of banks' efforts and risk management strategies regarding non-recourse loans that are extended mainly to real estate funds, see, for example, Box 2 of the April 2023 issue of the Report.

Chart V-1-14: Proportion of development-type SPCs (whose assets consist of a high proportion of construction in progress)



Note: Data as of end-September 2025. Covers borrowers from regional banks I with construction in progress reported as an asset.
Source: BOJ.

Chart V-1-15: Real estate-related loans by borrower classification



Note: Composition of loans outstanding. Data as of end-September 2025. Covers major banks and regional banks I. Major banks shows only the breakdown of loans to real estate investment funds due to data limitation.
Source: BOJ.

While taking into account the risk profiles of borrowers and changes in their composition, banks need to manage risks by also paying due attention to the risk of fluctuations in real estate prices and to the possibility that the transmission channels of stress may differ from those in the past (see Box 5 for a stress test scenario assuming a significant deterioration in real estate market conditions).

B. Global financial stability

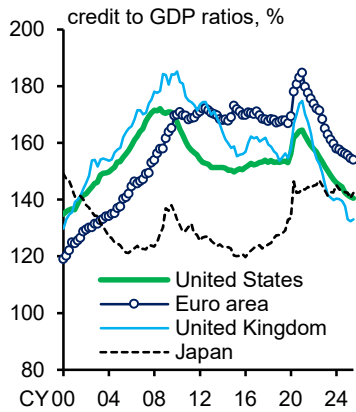
Developments in borrowing from banks by the household and corporate sectors in major countries show that the ratio of total credit to GDP, which temporarily rose during the pandemic, has since been on a downward trend and has recently fallen below the levels observed during the global financial crisis of the late 2000s (Chart V-2-1). Over this period, the banking sector has improved its resilience against the backdrop of making progress in complying with new regulations, suggesting that, globally, the risk of large economic fluctuations induced by an expansion of credit to the private sector and subsequent balance sheet adjustments -- as seen during the global financial crisis -- has moderated. On the other hand, in recent years, potential risks associated with the NBFIs sector have attracted growing attention.²⁵ Financial assets held by the NBFIs sector have surpassed those held by the banking sector in terms of scale and have been growing at a faster pace. Meanwhile financial leverage of hedge funds has risen (Charts V-2-2 and V-2-3).

²⁵ For an overview of the growing presence of the NBFIs sector and its interconnectedness with the banking sector at the global level, see the following reports: Oishi, H., Kobayashi, E., and Sugihara, Y., "Recent Developments in Non-Bank Financial Intermediation and Initiatives to Enhance Its Resilience," *Bank of Japan Review Series*, no. 2025-E-6, May 2025, and Eguchi, M., Okubo, T., Yamamoto, K., and Washimi, K., "Changing Landscape of NBFIs in Financial Systems -- A Comparative Analysis of Japan, the U.S., and Germany --," *Bank of Japan Review Series*, no. 2025-E-7, June 2025.

V. The financial cycle and challenges following changes in the business environment

B. Global financial stability

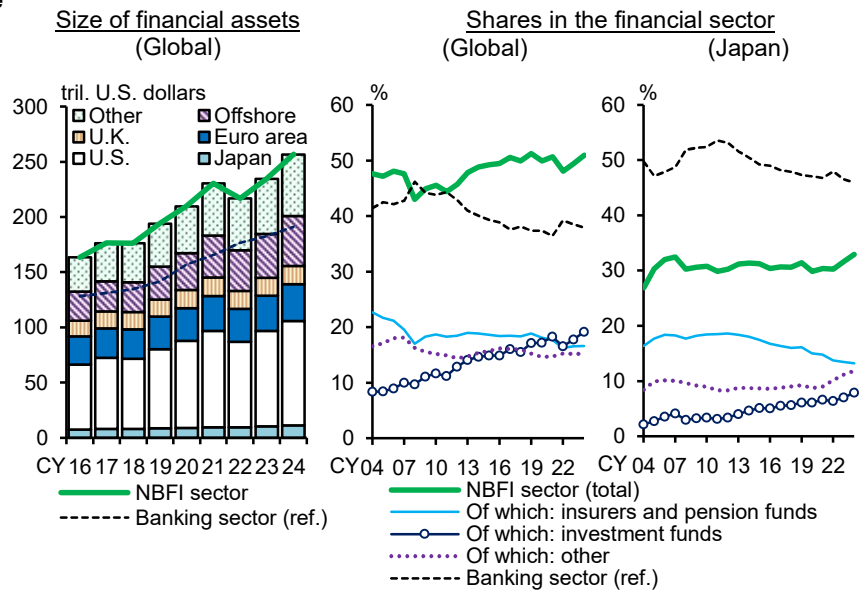
Chart V-2-1: Borrowings outstanding by the private non-financial sector



Note: Latest data as of 2025/Q3. "United States," "Euro area," and "United Kingdom" are based on figures published by the BIS. "Japan" is based on Chart V-1-7.

Source: BIS; Cabinet Office; BOJ.

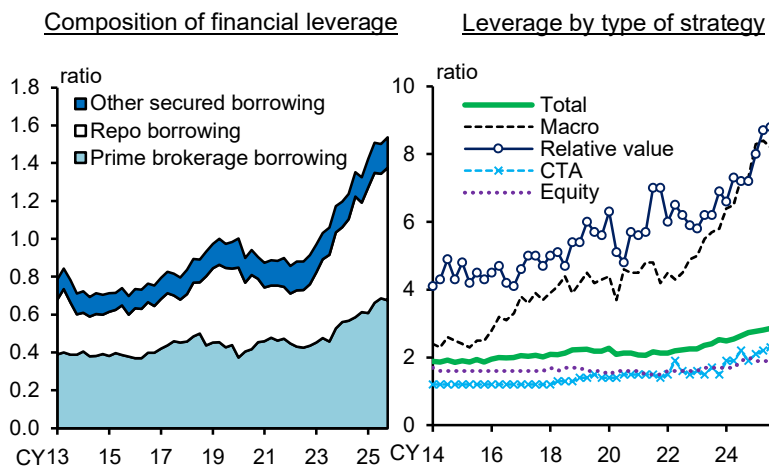
Chart V-2-2: Global financial assets of the NBFIs sector



Note: In the left-hand chart, the Cayman Islands, Luxembourg, and Ireland are classified as "Offshore." In the middle and the right-hand charts, "other" includes dealer-brokers, finance companies, etc.

Source: FSB; BOJ.

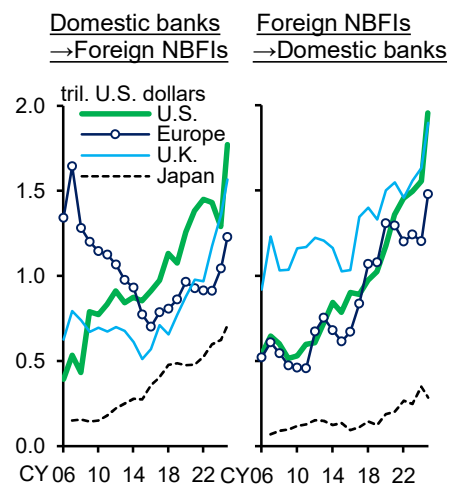
Chart V-2-3: Leverage of U.S. hedge funds



Note: Financial leverage in the left-hand chart is defined as borrowings / net asset values. Leverage in the right-hand chart is calculated as gross asset values / net asset values. Latest data for the left-hand chart are as of 2025/Q4, and for the right-hand chart are as of 2025/Q3.

Source: OFR; SEC.

Chart V-2-4: Cross-border lending and borrowing by domestic banking sector in each jurisdiction



Note: "Europe" refers to the sum of Germany, France, and Switzerland. Latest data as of 2025/Q3.

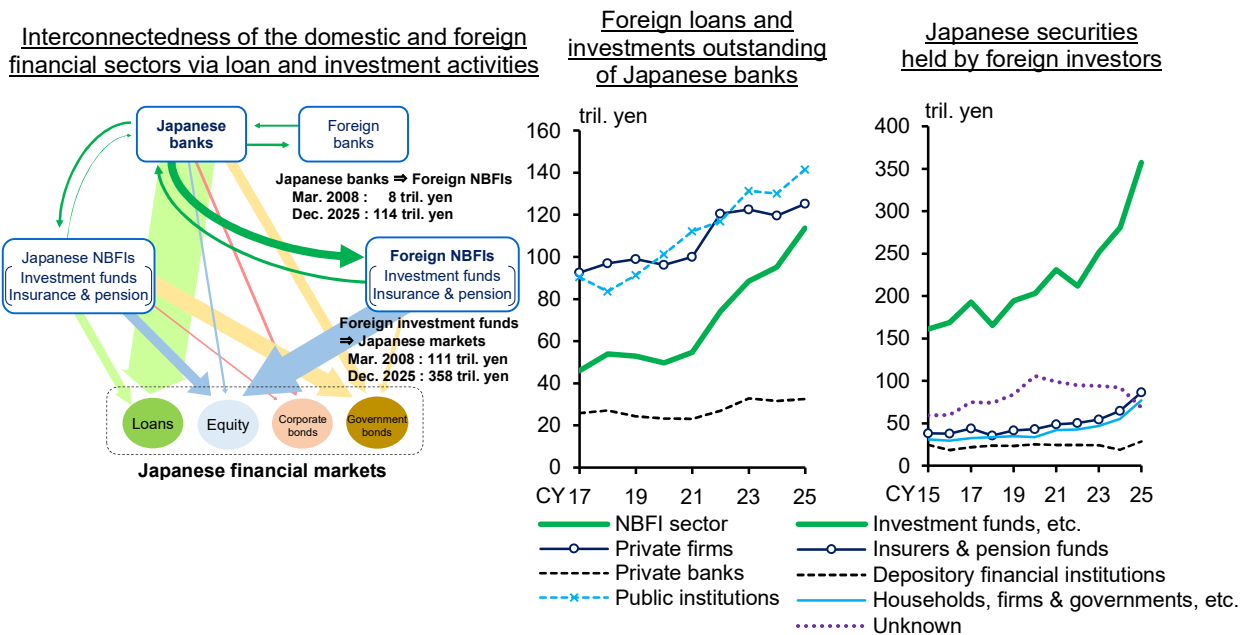
Source: BIS; BOJ.

Against this backdrop, in the event of financial market stress, adjustments in the portfolios of the NBFIs sector could amplify and propagate the stress, potentially exerting significant negative effects on the price formation of financial assets. For instance, an examination of funding and credit links between the banking sectors of major countries and regions and foreign NBFIs sectors reveals a sustained expansion in financial flows in both directions, mainly in the United States and the United Kingdom (Chart V-2-4). It has been pointed out that the recent expansion is driven by factors such as the expansion of repo transactions between the banking sectors -- mainly consisting of large banks in the United States, the United Kingdom, and Europe -- and offshore hedge funds. Increasing interconnectedness between sectors and jurisdictions suggests that stress affecting the

NBFI sector in terms of credit or liquidity could more easily spill over to banking sectors across multiple jurisdictions.

In Japan, the domestic NBFI sector accounts for around 30 percent of total financial assets held by the domestic financial sector, a relatively low share compared with other countries (Chart III-2-1). Nonetheless, there has been a steady increase in investments and loans by domestic banks to the foreign NBFI sector, as well as in investments in Japanese stocks and bonds by the foreign NBFI sector, particularly those related to foreign funds (Chart V-2-5; see Sections A and B of Chapter IV for developments in Japanese banks' investment in foreign NBFIs). Japan's financial system may have become more susceptible to fluctuations in global financial markets and developments in foreign investment funds, as the interconnectedness with the foreign NBFI sector has been strengthening.²⁶

Chart V-2-5: Linkages between the Japanese financial sector and the foreign NBFI sector



Note: Direction and width of arrows in the left-hand chart indicate the outstanding amount of loans and investments between the sectors and to the respective markets (as of December 2025). Some data are omitted due to data limitations. The middle chart is based on BIS International Consolidated Banking Statistics (CBS); excludes trust banks. MBS investments by major banks and others are excluded from "NBFI sector" and included in "Public institutions." In the right-hand chart, the outstanding amounts of Japanese securities held by each foreign sector are estimated using the sectoral outward securities investment data for each country and region compiled by the IMF. "Investment funds, etc." includes financial dealers and brokers and finance companies, etc.

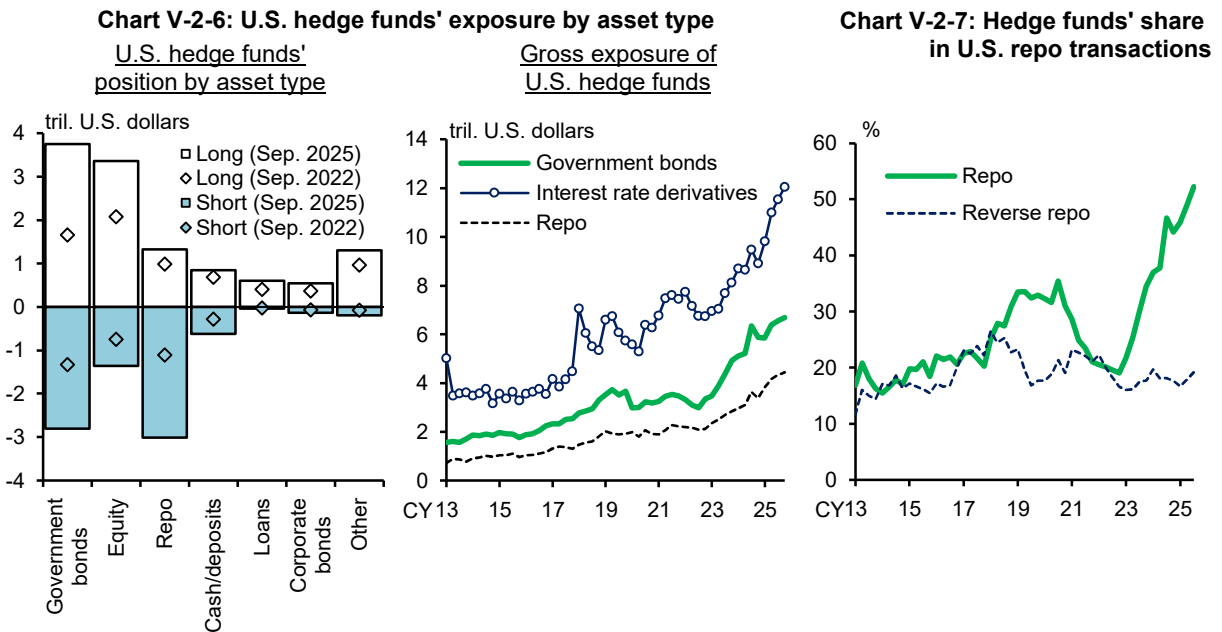
Source: BIS; IMF; U.S. Department of the Treasury; BOJ.

Global investment activities of the NBFI sector with a focus on hedge funds

An examination of the exposure of hedge funds operating in the United States reveals a continued expansion of both long and short positions in bond markets, particularly in sovereign bonds of major countries. This indicates that the presence of arbitrage funds -- funds that employ strategies that capitalize price differences and engage in arbitrage trading -- has further increased (left panel of Chart V-2-6). These hedge funds have been increasing their assets under management by

²⁶ With regard to the domestic NBFI sector, there is no significant increase in interconnectedness in terms of lending to domestic economic entities or borrowing from domestic banks, suggesting that the transmission of risks from the domestic NBFI sector to domestic banks remains relatively limited. For interconnections among various entities, including domestic and foreign NBFI sectors, and the implications for financial stability, see section B of Chapter V in the April 2025 issue of the *Report*.

expanding leverage through bank borrowings, repo transactions, and derivatives such as interest rate swaps (right panel of Chart V-2-6 and Chart V-2-7). It should be noted that bank borrowings and repo transactions by hedge funds active in the United States frequently involve large U.S. and European banks as counterparties, raising concerns about the potential transmission of stress between major hedge funds and the large banks.



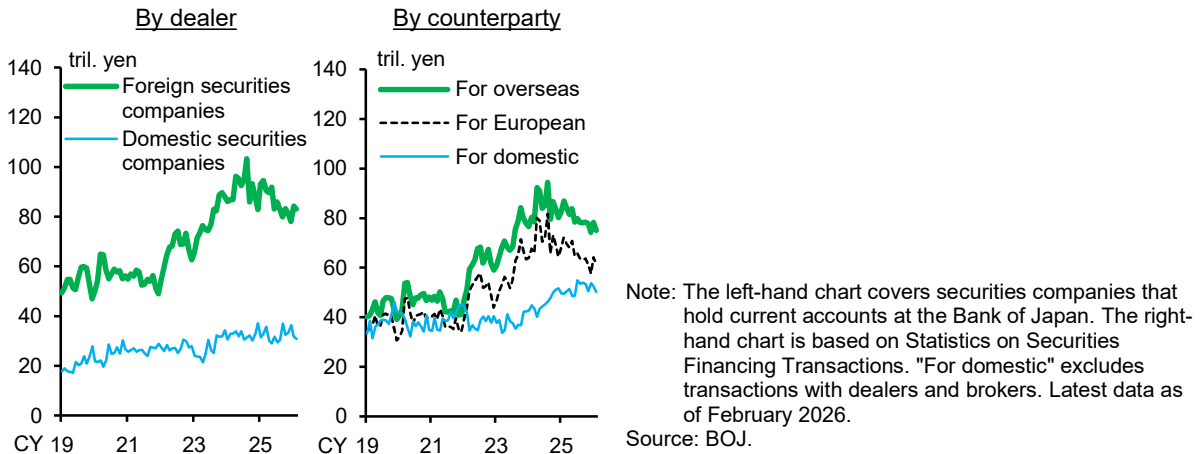
Note: "Government bonds," "Equity," and "Corporate bonds" include futures.
 In the right-hand chart, "Interest rate derivatives" represents notional exposure. Latest data for the right-hand chart are as of 2025/Q4.
 Source: OFR; SEC.

Note: Latest data as of 2025/Q3 (as a share of repo outstanding).
 Source: FRB.

The presence of foreign hedge funds in Japan's bond market has also been increasing, as they obtain funding through repo transactions and procure cash JGBs using reverse repos. However, the counterparties in these repo transactions by foreign hedge funds are in many cases likely U.S. and European financial institutions operating in Japan rather than domestic banks or securities firms, and transactions with hedge funds are often conducted through overseas subsidiaries or branches -- such as those based in London (Chart V-2-8).²⁷ In fact, Japan's cross-border repo transactions generally move in line with developments in repo transactions conducted by foreign securities firms. While the direct impact on Japanese financial institutions' positions may be limited if foreign hedge funds unwind positions globally in the event of stress, attention should be paid to the possibility that the effects could transmit to Japan's financial sector via reduced liquidity in bond markets, among other channels.

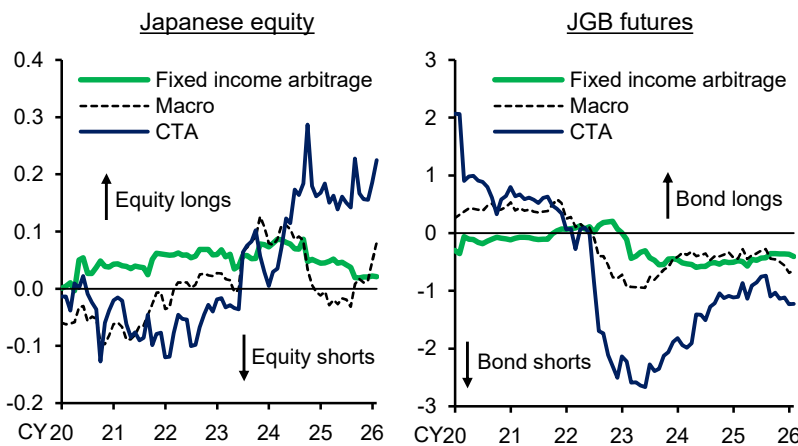
²⁷ For details, see, Asamatsu, H. and Asada, T., "Trends in Japan's repo market and recent features -- based on long-term data from surveys and individual data from Statistics on Securities Financing Transactions," *Bank of Japan Review Series*, no. 2025-J-7, August 2025 (available in Japanese).

Chart V-2-8: Developments in repo transactions in Japan



Given the risks of a potential adjustment in prices of risky assets, particularly AI-related stocks, and further escalation of tensions in the Middle East, it is also necessary to pay close attention to developments in directional hedge funds. Estimating the sensitivity of hedge fund performance to returns on various financial assets suggests that, in particular, trend-following commodity trading advisors (CTAs) have built up long positions in Japanese stocks since 2024 (Chart V-2-9). These hedge funds also have considerably high leverage, including that arising from off-balance-sheet transactions, so that, in the event of stress, unwinding of positions triggered by additional margin requirements could amplify market volatility. In addition, many multi-strategy or macro-strategy hedge funds have increased leverage through repo financing or equity margin loans from prime-brokers, while simultaneously engaging in both equity investment and bond market transactions (Chart V-2-10). Some have voiced concern that, if a significant adjustment were to occur in the prices of risky assets, including AI-related stocks, stress could spread to the bond markets through the violation of these hedge funds' internal risk management rules.

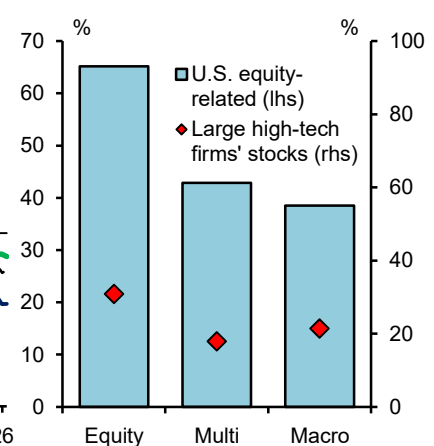
Chart V-2-9: Correlation of hedge funds' returns by strategy with each asset price



Note: Shows the estimation results of rolling regressions with a 36-month window. The dependent variable is the Hedge Fund Performance Index (investment returns net of fees) by strategy, compiled by BarclayHedge. Independent variables are the JPX JGB Futures Index, the S&P 500, the Nikkei 225 Stock Average, the Shanghai Composite Index, the carry trade return index (estimated returns from U.S. dollar long and yen short positions when using currency futures). All variables are month-on-month rates of change. Latest data as of February 2026.

Source: BarclayHedge; Bloomberg; BOJ.

Chart V-2-10: Equity investment weight of hedge funds by strategy



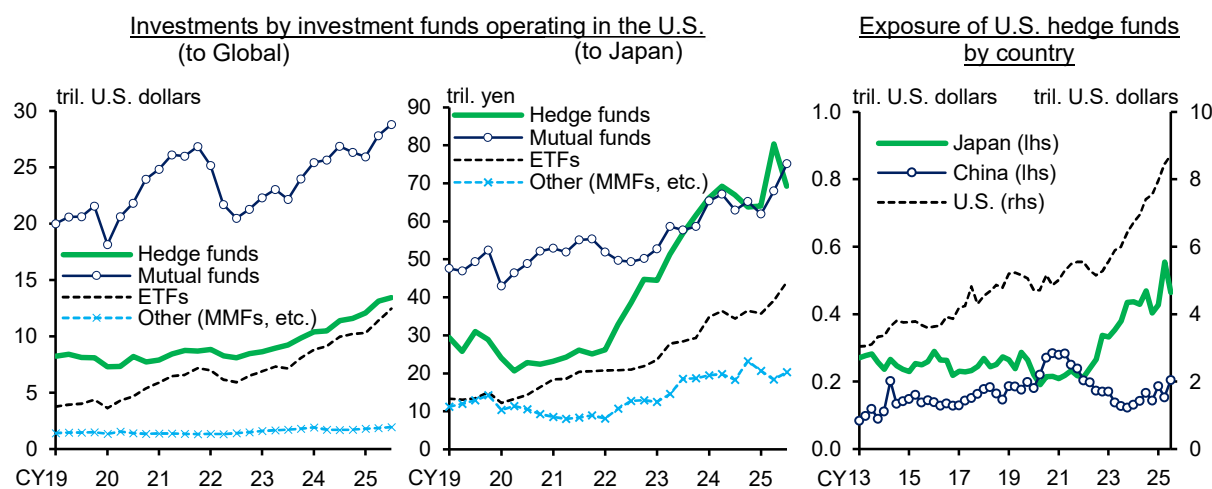
Note: Covers the top 15 funds by assets under management (AUM) in each strategy. Shows the ratios of U.S. equity-related investments to total assets and the ratios of holdings in seven major U.S. high-tech firms' stocks (the "Magnificent Seven") to the total value of individual stock holdings (average values. Excludes derivatives). Data as of 2025/Q4.

Source: SEC.

Investment activities by the foreign NBFI sector in Japan's financial markets

Regarding the investment activity of the foreign NBFI sector in Japan's financial markets, the amount of investment in Japan by investment funds operating in the United States has been on an increasing trend, mainly driven by open-end funds -- such as investment trusts and exchange traded funds (ETFs) -- and hedge funds (Chart V-2-11). Moreover, foreign investors account for a large share of trading volumes in both the Japanese stock and JGB markets -- around 60 percent in the spot markets and 80 percent or more in the futures markets -- significantly higher than their share of holdings (Chart V-2-12). In recent years, while the trading volume share of foreign investors in the spot equity market has remained broadly flat, their share in the spot JGB market has shown a notable increase.

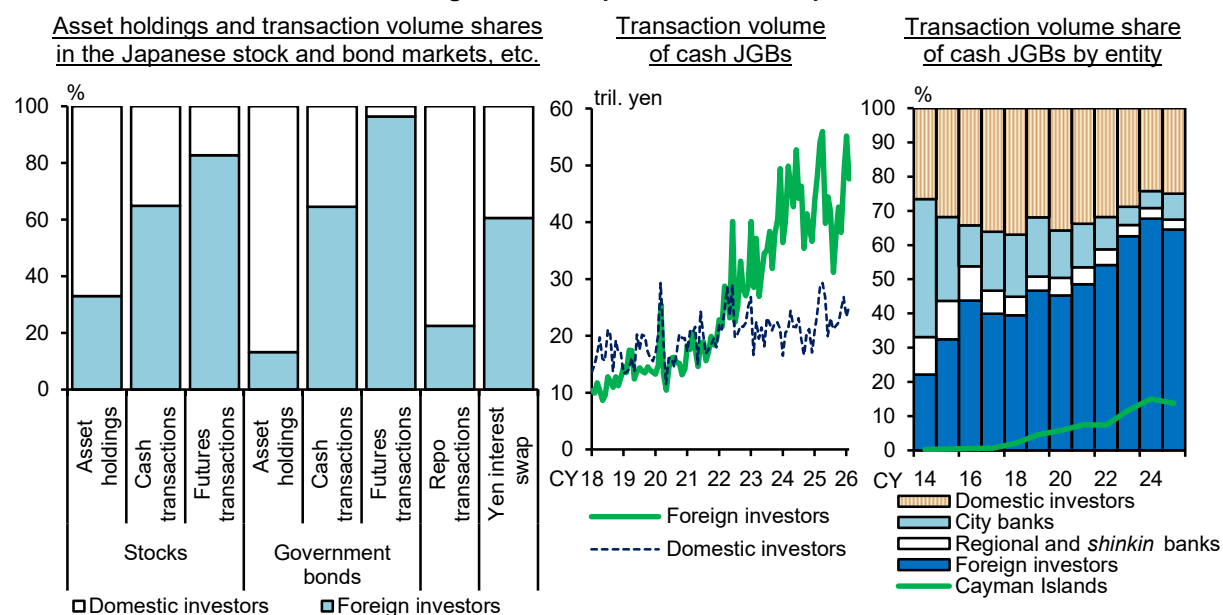
Chart V-2-11: Investments to Japan by U.S. investment funds



Note: Data for "Hedge funds" are gross market exposure including derivative positions. In the right-hand chart, the data for "China" include Hong Kong. Latest data as of 2025/Q3.

Source: FRB; SEC; BOJ.

Chart V-2-12: Foreign investors' presence in the Japanese markets

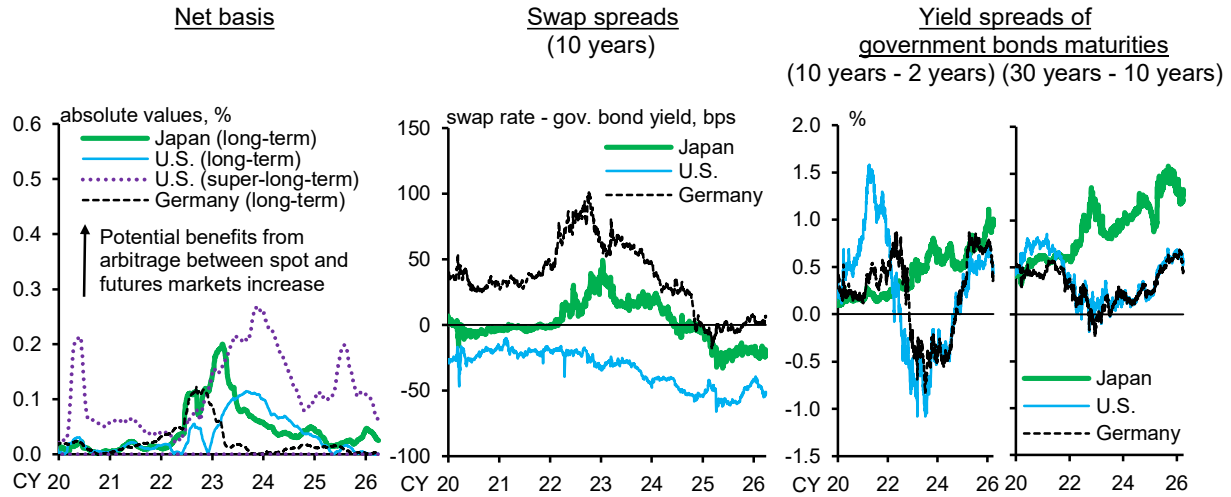


Note: 1. Data for the left-hand chart are as of 2025 (figures for "Repo transactions" are as of the end of 2025 and figures for "Yen interest swap" are as of April 2025). Latest data for the middle chart are as of February 2026.
 2. Data for asset holdings of government bonds exclude those held by BOJ and exclude treasury discount bills. "Cash transactions" refers to dealer-to-client cash JGB transactions, including both purchases and sales. Excludes treasury discount bills. "Futures transactions" covers those of brokerage. Data for stock holdings are for listed shares based on Flow of Funds.
 3. "Domestic investors" in the right-hand chart excludes city banks and regional and *shinkin* banks. "Cayman Islands" is estimated using transaction volume share of bonds by country.

Source: JSDA; Osaka Exchange; Tokyo Stock Exchange; BOJ.

In the JGB market, arbitrage trading -- primarily by foreign hedge funds, as in major markets -- appears to have expanded.²⁸ Specific examples include transactions focusing on spot and futures prices (basis trading), differences between swap rates and JGB yields, and transactions across maturities and specific issues of JGBs that seek to exploit the shape of the yield curve (Chart V-2-13).

Chart V-2-13: Relative price indicators of bond transactions



Note: Latest data as of March 31, 2026. The net basis shown in the left-hand chart refers to the price difference between the spot price (net of carry) and the futures delivery price (90-day moving average). Shows ratios to the futures prices.

Source: Bloomberg; Ministry of Finance.

These transactions are conducted by combining JGB transactions with repo and yen interest rate swap transactions, and the growing share of foreign investors in the spot JGB market appears to reflect the expansion of such trading. In addition, both the trading volume of yen interest rate swaps and the number of clearing customers involving foreign investors, particularly foreign hedge funds, have increased significantly (Charts V-2-14 and V-2-15).²⁹ The increase in arbitrage trading by foreign investors can, on the one hand, contribute to enhancing the price discovery function by helping to absorb shocks in the domestic market; on the other hand, however, given that a considerable portion of such trades by foreign entities likely involves high leverage through repo transactions, there is also a possibility that shocks in foreign markets may more easily affect Japanese financial markets, for example when such shocks trigger the unwinding of foreign investors' positions due to breaches of internal risk limits or margin calls. Net purchases and sales of cash JGBs by foreign investors indicate that they generally tend to be net buyers during normal times, but switch to net sellers in periods of heightened volatility (Chart V-2-16).

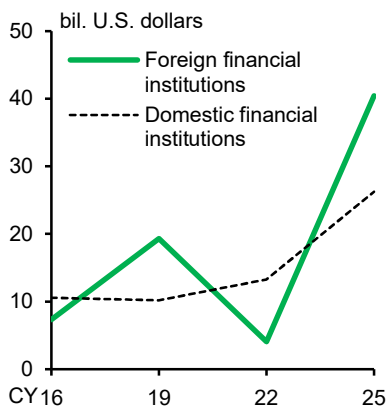
²⁸ Another common bond investment strategy employed by hedge funds is to take a directional approach, in which positions are tilted one way based on an assumed market outlook. However, as noted earlier, in recent years positions that combine both long and short sides have become more prevalent, and arbitrage-type trades appear to have expanded. For developments in market activity by investment strategy in Japan's financial markets, see, for example, Box 4 in the April 2025 Report and Box 2 in the October 2025 Report.

²⁹ In September 2025, the Commodity Futures Trading Commission (CFTC) in the United States approved the clearing of yen interest rate swaps for U.S. customers at the Japan Securities Clearing Corporation (JSCC), the central counterparty in Japan. Following this approval, the number of clearing customers by major U.S. hedge funds has increased since December 2025. Trading volume in yen interest rate swaps at the London Clearing House (LCH), the central counterparty in the United Kingdom, has also increased significantly in recent years.

V. The financial cycle and challenges following changes in the business environment

B. Global financial stability

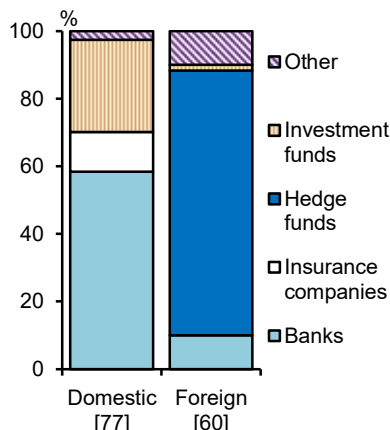
Chart V-2-14: Trading volume of yen interest rate swaps (excl. inter-dealer transactions)



Note: Based on the Japanese aggregates of the BIS Triennial Survey (daily average turnover). The survey reference period is April of each respective year.

Source: BOJ.

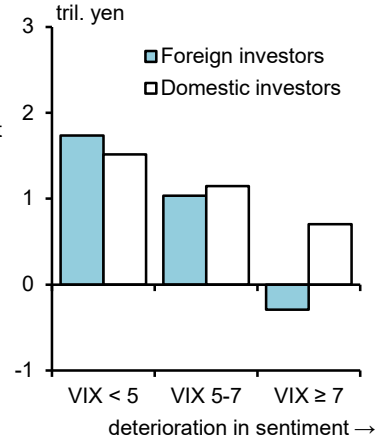
Chart V-2-15: Number of clearing customers at domestic central counterparty



Note: The customer attributes for yen interest rate swaps cleared at JSCC are based on the number of clearing customers registered as of the end of December 2025. Figures in brackets indicate the number of registered customers.

Source: JSCC.

Chart V-2-16: Net trading volume of cash JGBs by market phase



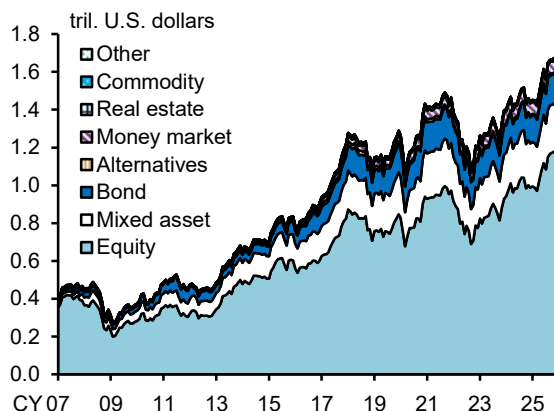
Note: Data are from January 2016 to February 2026, converted to a monthly basis. "VIX" refers to the S&P JPX JGB VIX.

Source: JPX Market Innovation & Research, Inc.; JSDA; S&P Dow Jones Indices LLC.

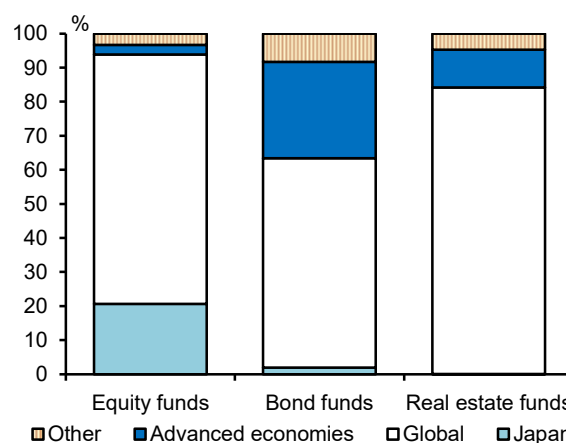
In the stock market, the share of holdings by foreign investors, particularly U.S. open-end funds such as mutual funds and ETFs, has been increasing moderately. While foreign open-end funds investing in Japan have been expanding their assets under management, especially in stocks, their target regions often include multiple areas, in addition to Japan. Therefore, even in the absence of stress originating from the Japanese markets, attention should be paid to the possibility that global financial and economic developments could trigger redemptions, prompting the sale of assets across global markets, including Japan's financial markets (Chart V-2-17).³⁰

Chart V-2-17: Investment assets and regions of foreign open-end funds

Japanese assets outstanding held by foreign open-end funds



Investment regions of foreign open-end funds



Note: Latest data for the left-hand chart and data for the right-hand chart are as of December 2025. The right-hand chart shows the composition of foreign open-end funds by main investment region (share among Japanese assets held by these funds). "Global" and "Advanced economies" are on a reported basis. "Japan" refers to funds that invest 50% or more of their net asset values in Japan.

Source: LSEG Lipper.

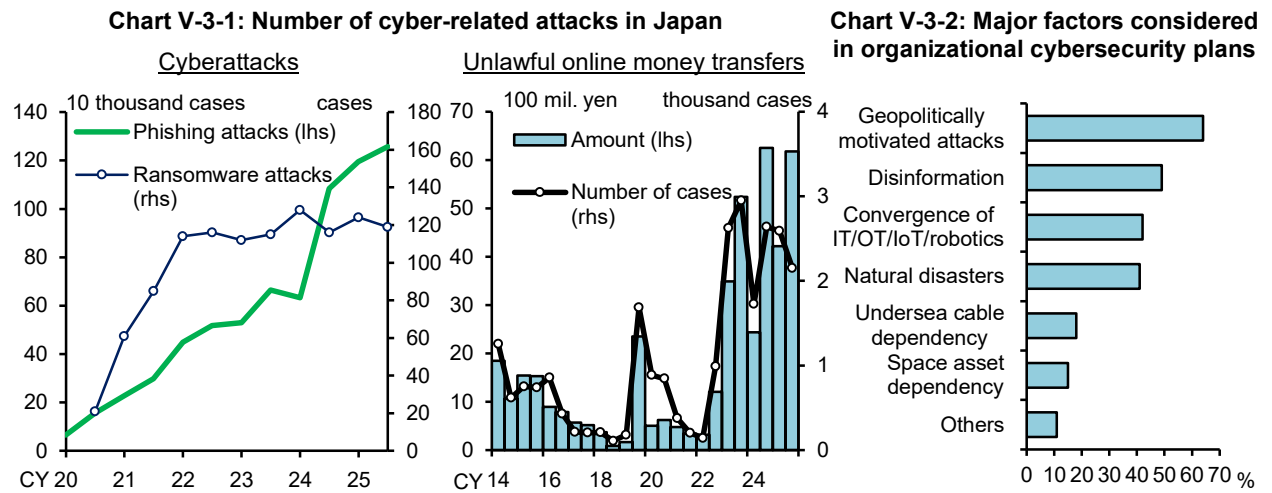
³⁰ For details on fund flows of open-end funds investing in Japan and their sales and purchases of assets, see Yamamoto, K., Okubo, T., Abe, N., and Minoura, Y., "The Presence of Foreign Open-End Funds in Japan's Financial Markets," Bank of Japan Working Paper Series, no. 25-E-8, August 2025.

C. Opportunities and risks posed by changes in the business environment

1. Adaption to changes in digital technologies

Cybersecurity measures and enhancing resilience

The number of ransomware attacks in Japan has been at a high level and the amount of damage caused by unlawful money transfers through online banking amid rising phishing attacks has been increasing significantly in recent years. The threat of cyberattacks in Japan has remained significant (Chart V-3-1).



Note: Latest data as of the second half of 2025. The data for "Ransomware attacks" start from the second half of 2020. The data after the first half of 2023 include cases of extortion-only attacks.
Source: Council of Anti-Phishing Japan; National Police Agency.

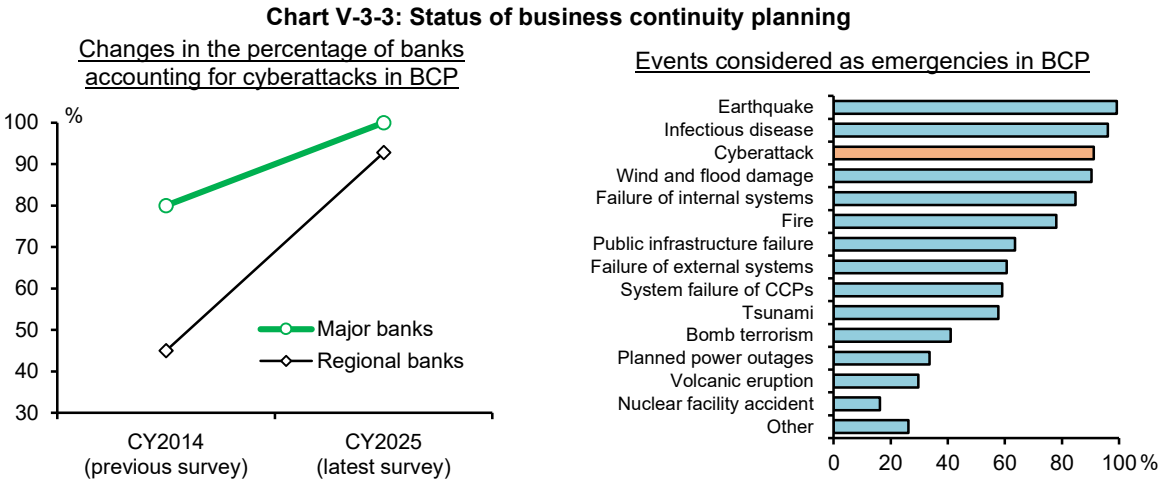
Note: Based on Global Cybersecurity Outlook 2026 survey by World Economic Forum (conducted Aug-Oct 2025, aggregated responses from 804 experts from 92 countries, multiple answers allowed). "Undersea cable dependency" includes communication line dependency. "Space asset dependency" refers to dependency on satellite, etc.
Source: World Economic Forum.

Amid growing cases of cyberattacks globally, attacks exploiting generative AI and automated tools have become increasingly prominent. Attackers are now able to easily conduct sophisticated and large-scale cyberattacks using AI-generated ransomware, phishing emails, and deepfakes.³¹ Recent cyberattacks have reportedly included, in some cases, operations in which state-sponsored actors carry out meticulously planned attacks. It is also noted that there are cases in which cyberattacks have surged in the wake of disruptions caused by natural disasters or geopolitical events (Chart V-3-2).³²

³¹ These attacks have sometimes resulted in cases involving the leakage of customer information, loss of backup data, large-scale unauthorized money transfers, or prolonged system downtime. On the other hand, it has also been pointed out that utilizing generative AI on the defensive side could significantly reduce the number of days required to contain security breaches. For example, see Section 3.3 of the "Global Cybersecurity Outlook 2026" released by the World Economic Forum in January 2026; a report on threats in cyberspace during the first half of 2025 released by the National Police Agency, and a white paper on information security for 2025 released by the Information-technology Promotion Agency (the latter two are available in Japanese).

³² For example, the Global Financial Stability Report released by the International Monetary Fund (IMF) in April 2024 points out that geopolitical tensions can contribute to an increase in cyberattacks, citing the surge in cyberattacks after the Russia's invasion of Ukraine in February 2022 as an example.

Cyberattack countermeasures are also a critical issue for financial institutions as they are fundamental to business continuity and maintaining customer trust. According to a survey conducted by the Bank of Japan on its counterparty financial institutions, more than 90 percent of institutions now identify cyberattacks as emergency situations for business continuity. This represents a sharp increase from the survey results around 10 years ago, with cyberattacks now recognized as a risk comparable to natural disasters and infectious diseases (Chart V-3-3).³³ The Financial Services Agency (FSA) has likewise been working to further strengthen the response capabilities of both individual financial institutions and the financial industry as a whole through initiatives such as revising supervisory guidelines and conducting cross-industry exercises.³⁴



Note: Based on the results of the Bank of Japan's survey on business continuity arrangements conducted among 381 financial institutions (conducted in April-May 2025).
 Source: BOJ.

Cyber incidents not only pose a risk to individual banks and their customers, but are also a material risk from a macroprudential perspective, given that their impact can potentially spread to other financial institutions. Based on this recognition, the G7 Cyber Experts Group (CEG) has released "G7 Fundamental Elements of Collective Cyber Incident Response and Recovery in the Financial Sector." The CEG emphasizes that cooperation, both domestic and cross-border, among financial authorities, financial institutions, and their third-party service providers is critical for effective responses to cyber incidents, which are increasingly global in nature.³⁵ Taking into account domestic and international developments, financial institutions need to enhance their IT resilience by reinforcing their governance and organizational structures, investing in necessary resources, and continuing efforts in human resource development -- with the involvement of top management -- based on the recognition that incidents can occur even when cyberattack countermeasures are in place.

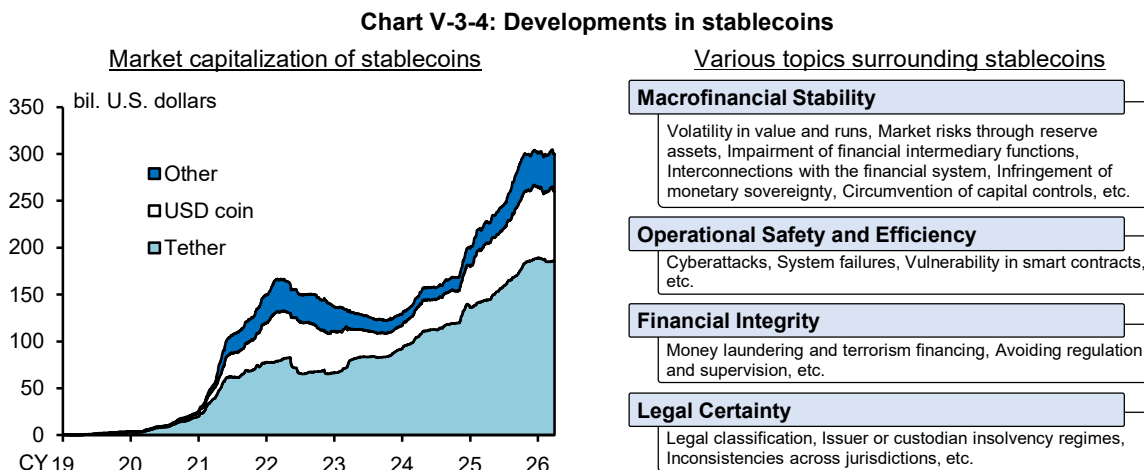
³³ The Bank of Japan conducted the survey from April to May 2025, targeting 381 financial institutions. Specifically, 10 major banks, 97 regional banks, 247 *shinkin* banks, and 27 other financial institutions participated. For details, see "Developments in Business Continuity Frameworks -- Based on the Results of FY2025 Survey," Financial System Report Annex Series, Financial System and Bank Examination Department, Bank of Japan, January 2026 (available in Japanese).

³⁴ In December 2025, the FSA released a draft amendment to the comprehensive supervisory guidelines for major banks (available in Japanese). In addition, in October 2025, the FSA conducted the "Financial Industry-Wide Cybersecurity Exercise" (Delta Wall 2025), aimed at further enhancing the financial industry's overall incident response capabilities against cyberattacks. This was the 10th exercise, with a record-high 177 participants.

³⁵ For details, see the "G7 Fundamental Elements of Collective Cyber Incident Response and Recovery in the Financial Sector," released by the G7 CEG in December 2025.

Adaptation to new technologies

In recent years, global activity surrounding stablecoins has been gaining momentum. Stablecoins are crypto-assets designed to maintain a stable value by being linked to the value of fiat currencies or other assets, and they are viewed as having the potential to deliver considerable merits in faster fund transfers and cost reduction by the use of distributed ledger technology. Reflecting the attention on their convenience, the scope of use is steadily broadening, including as payment for crypto-asset transactions, funds on hold for these transactions, for cross-border remittances, and for the settlement of digital securities. Although the use of stablecoins remains limited at present, the market size may increase going forward as major jurisdictions advance the development of legislation, regulations, and supervisory frameworks for stablecoins (left panel of Chart V-3-4).³⁶



Note: 1. Latest data for the left-hand chart are as of March 31, 2026.
 2. The right-hand chart is based on sources including reports by IMF staff.
 Source: Adrian et al. (2025); RWA.xyz.

Given that the expanding use of stablecoins may have various implications for the financial system, discussions are under way regarding risks to financial stability and the appropriate regulation and supervision frameworks (right panel of Chart V-3-4).³⁷ From a macrofinancial stability perspective, stablecoins backed by fiat-currency-denominated assets are considered more stable in value than other crypto-assets, since they are backed by highly liquid assets.³⁸ However, it has also been pointed out that their asset-liability structure is similar to that of money market funds (MMFs) and some investment funds, and in the event of a surge in redemption requests, the resulting large-

³⁶ The GENIUS Act enacted in July 2025 in the United States and the Markets in Crypto-Assets (MiCA) Regulation that took effect in the European Union require that stablecoins be backed by safe assets such as government bonds and deposits so that they function as more stable means of payment. In Japan as well, amendments to the Payment Services Act have introduced safeguarding regulations that require stablecoin issuers to hold highly liquid assets, including demand deposits and, up to a specified proportion, government bonds as backing assets.

³⁷ For example, see Bank for International Settlements, "The Next-generation Monetary and Financial System," Annual Economic Report 2025, Chapter III, June 2025, and Adrian, T., Bains, P., Bechara, M., Cerutti, E., Forte, S., Grinberg, F., Gullo, A., Hengge, M., Kao, K., Mancini-Griffoli, T., Peria, S. M., Miccoli, M., Reuter, M., and Sugimoto, N., "Understanding Stablecoins," IMF Departmental Paper No. 2025/009, December 2025.

³⁸ Stablecoins come in several forms, including fiat-currency-denominated asset-backed (hereafter "fiat-backed"), crypto-backed, and algorithmically-backed stablecoins. For details, see for example Aquilina, M., Cornelli, G., Frost, J., and Gambacorta, L., "Cryptocurrencies and Decentralised Finance: Functions and Financial Stability Implications," BIS Papers No.156, April 2025. In recent years, fiat-backed stablecoins have accounted for the bulk of total market capitalization. For instance, as shown in the left panel of Chart V-3-4, the reserve assets backing USD coin consist entirely of deposits or money market funds investing in short-term government securities. Moreover, although Tether holds a portion of its reserves in crypto-assets, it is classified as a fiat-backed stablecoin because it is mainly backed by government bonds and other fiat-denominated instruments.

scale sell-off of backing assets could have spillover effects on financial markets more broadly. Moreover, as with other crypto-assets, attention needs to be paid to operational risks such as hacking and unauthorized outflows involving asset managers and crypto exchanges. In addition, there is concern that stablecoins issued abroad, particularly in emerging economies, could serve as substitutes for local currency payments, providing a means to bypass capital controls and potentially increasing, for example, the volatility of capital flows. Furthermore, where regulatory and supervisory frameworks for stablecoins differ across jurisdictions, the expanding issuance and circulation of the same stablecoin across multiple jurisdictions, if it occurred, could create opportunities for regulatory arbitrage and make supervision and monitoring more complex.³⁹ Therefore, it remains essential to continue paying attention to international discussions on stablecoins, their potential impact on financial markets and the financial system, and the transmission channels through which such risks could propagate should they materialize.⁴⁰

In addition, the transition to post-quantum cryptography (PQC) has become a key consideration that government agencies and firms must address, given that the advent of quantum computers threatens to compromise the security of the public-key cryptography currently in wide use. Japanese government agencies and related bodies aim, in principle, to complete the transition to PQC by 2035, and, under the coordination of the relevant ministries and agencies, efforts are under way to ensure a smooth transition that also covers the private sector.⁴¹ Financial institutions are likewise expected to promptly initiate preparations for the transition to PQC, with the active involvement of senior management.⁴²

2. Climate-related financial risks

Climate change can threaten the stability of the financial system through climate-related financial risks -- i.e., physical and transition risks. Financial institutions have been enhancing their ability to grasp the impact of climate-related financial risks in a forward-looking manner and have continued their efforts to support decarbonization of the economy from the financial side. Against this backdrop, despite a moderation in transaction volumes compared to earlier highs, climate-related loans and investments in Japan have maintained a solid and steady trajectory (Chart V-3-5).

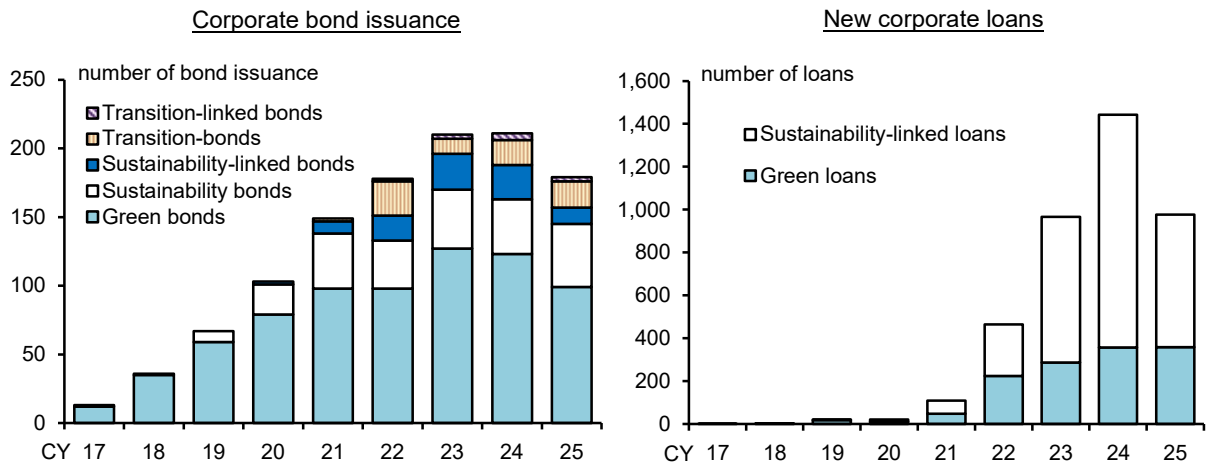
³⁹ For recent discussions on this point, see, for example, European Systemic Risk Board, "Crypto-assets and decentralized finance," Chapter 1, Annex 1, October 2025.

⁴⁰ Close attention should be paid to crypto-assets other than stablecoins, given the rise in ETFs incorporating such crypto-assets in assets under management and the increasing number of hedge funds engaged in crypto-asset trading. While crypto-asset-related exposures in the traditional financial system remain very limited at present, future developments remain highly uncertain. Consequently, it is necessary to take into account the possibility that these assets could affect the stability of financial markets and the financial system through transactions in the NBFIs sector.

⁴¹ For details, see the cybersecurity strategy approved by the cabinet of Japan in December 2025 (available in Japanese). This strategy stipulates accelerating efforts toward the implementation across society of quantum key distribution (QKD) -- a technology that uses the principles of quantum mechanics to physically secure the sharing of encryption keys -- by around 2030.

⁴² In January 2026, the G7 CEG issued a statement titled "Advancing a Coordinated Roadmap for the Transition to Post-Quantum Cryptography in the Financial Sector," which sets out an approach to facilitating a timely transition to PQC across the financial sector by synthesizing information on the transition and key considerations. Similarly, Financials ISAC Japan has developed a PQC transition guide for Japanese financial institutions, which urges steady preparations, including establishing governance frameworks, prioritizing systems for transition, and compiling cryptographic inventories.

Chart V-3-5: Climate-related loans and investments



Source: JPX Market Innovation & Research, Inc., "ESG Bond Information Platform"; Ministry of the Environment.

The Bank will conduct research and analysis, as well as continue its dialogue with banks regarding the identification and management of climate-related financial risks and their engagement with corporate customers in pursuit of decarbonization, taking into account international discussions on regulations, supervision, and risk management related to climate-related financial risks.

VI. Resilience of the financial system

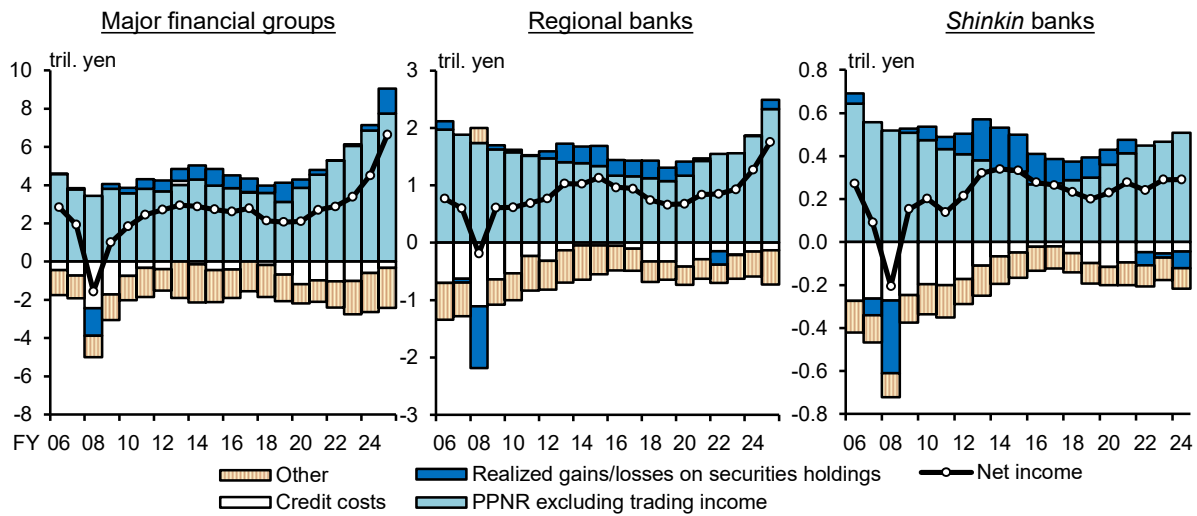
- Banks' loss-absorbing capacity shows that banks' capital well exceeds regulatory requirements. Their profitability as a whole has continued to improve over the past few years. It should be noted, however, that structural factors such as a decline in domestic loan demand have continued to exert downward pressure on banks' profitability.
- The macro stress testing in this chapter examines the resilience of the financial system under two downside scenarios: a "financial stress scenario," which assumes stress equivalent to the global financial crisis, and a "rises in foreign interest rates scenario plus," which assumes a rise in crude oil prices and an elevated level of foreign interest rates that persists over a long period as geopolitical risks materialize. The "rises in foreign interest rates scenario plus" in this *Report* takes into account additional stress, such as a greater increase in crude oil prices, shrinking expectations about profitability of AI-related investment, and a more cautious investment stance in the non-bank financial intermediary (NBFi) sector. Based on the results, it can be judged that the stability of Japan's financial system is maintained even under these stress events.
- Geopolitical risks, particularly in the Middle East, and trends in global financial markets require careful attention, including the course of future developments and their impact. Banks need to remain alert that a range of risks may materialize and put in place frameworks to appropriately manage such risks.

A. Banks' financial bases and capacity to absorb losses

1. Banks' profitability

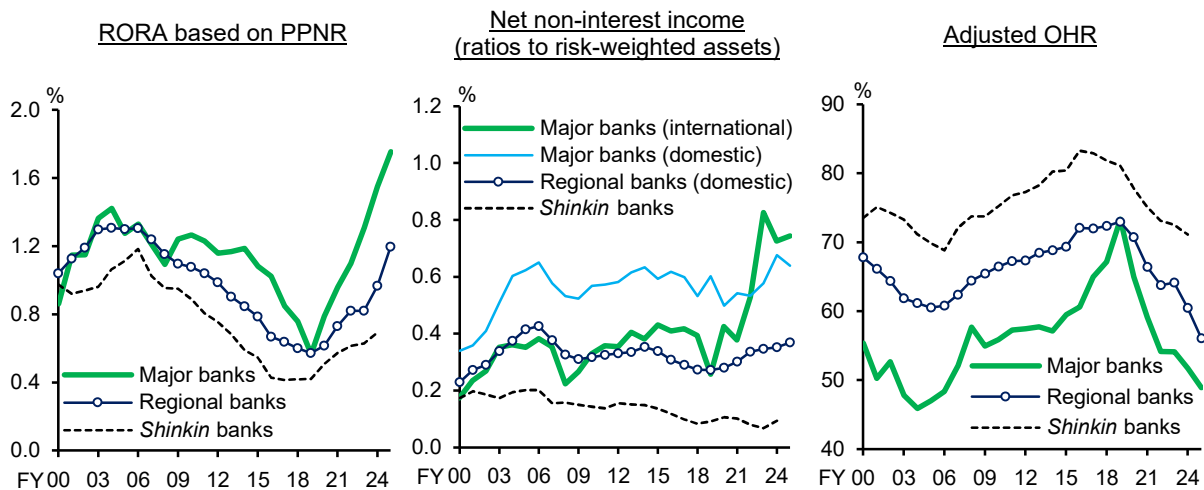
Banks' net income has continued to increase (Chart VI-1-1). Losses such as credit costs have been limited, and pre-provision net revenue (PPNR), which shows banks' core profitability, has continued to improve. As for banks' operating profits from core business (i.e., PPNR), their return on risk-weighted assets (RORA; operating profits from core business/risk-weighted assets), which shows their investment efficiency, had been on a downward trend for a long period due to structural factors such as a decline in domestic loan demand and the prolonged low interest rate environment, but has started to increase in recent years, due to the effects of rising yen interest rates and other factors (left panel of Chart VI-1-2). As for non-interest income, major banks' net fees and commissions accrued from international business have helped to increase their profits, owing to, for example, higher loan arrangement fees stemming from increased engagement in project finance. In major and regional banks' domestic business, non-interest income has likewise improved somewhat as economic activity has expanded (middle panel of Chart VI-1-2). In addition, in the past few years, banks' adjusted overhead ratios (Adjusted OHRs) (=overhead costs/gross operating profits from core business excluding trading income), which represent operating efficiency, have been on an improving trend as a whole, albeit with differences between banks, and this has contributed to the upward pressure on banks' profitability (right panel of Chart VI-1-2).

Chart VI-1-1: Net income



Note: 1. From fiscal 2012, profits and losses from investment trusts due to cancellations are excluded from "PPNR excluding trading income" and included in "Realized gains/losses on securities holdings."
 2. "Major financial groups" covers Mizuho Financial Group, Mitsubishi UFJ Financial Group, Sumitomo Mitsui Financial Group, Resona Holdings, Sumitomo Mitsui Trust Group, SBI Shinsei Bank, and Aozora Bank.
 3. The latest data for major financial groups and regional banks are annualized values for the first half of fiscal 2025, and those for *shinkin* banks are as of fiscal 2024.
 Source: Published accounts of individual banks; BOJ.

Chart VI-1-2: Banks' ratios of profits and overhead costs

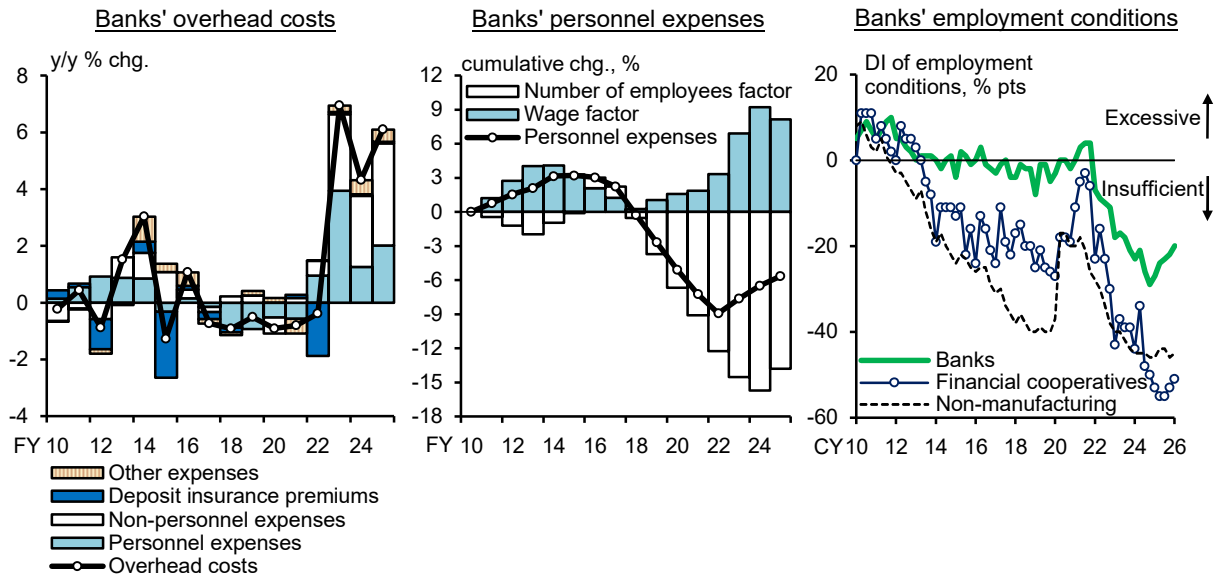


Note: From fiscal 2012, profits and losses from investment trusts due to cancellations are excluded from "PPNR excluding trading income" and "gross operating profits from core business." Latest data for major banks and regional banks are as of the first half of fiscal 2025, and those for *shinkin* banks are as of fiscal 2024.
 Source: BOJ.

Recently, overhead costs have been pushed up by increases in non-personnel expenses, including costs related to investment in computer systems, as well as continued increases in personnel expenses (Charts VI-1-3). In addition to securing and retaining personnel, banks need to continue to make efforts to increase productivity -- for example by upgrading their capital equipment through investment in digital resources -- and to improve their core profitability by making effective use of limited business resources.

VI. Resilience of the financial system
A. Banks' financial bases and capacity to absorb losses

Chart VI-1-3: Banks' overhead costs and employment conditions



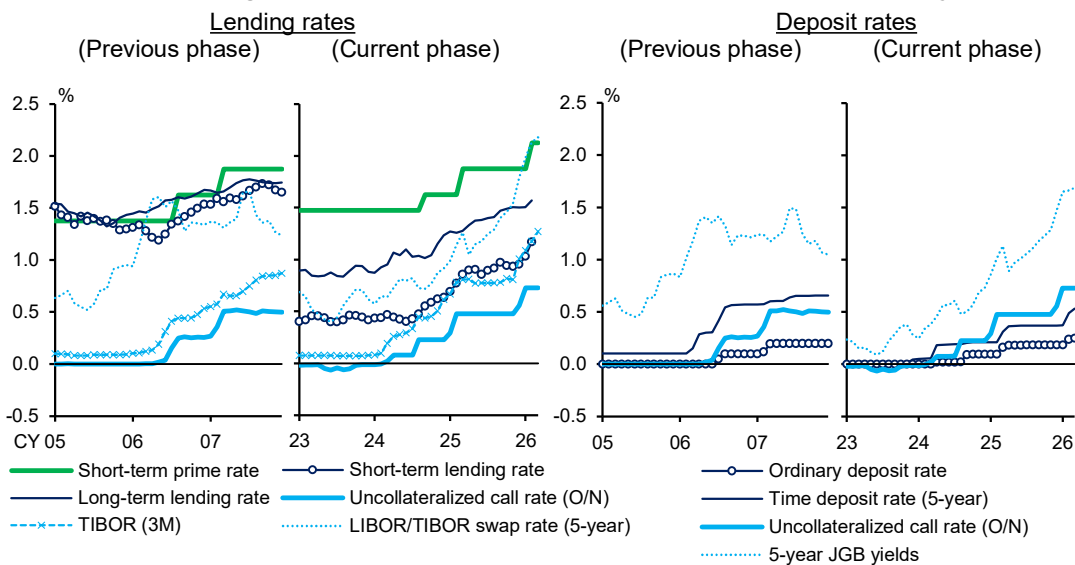
Note: 1. The left-hand and middle charts cover major and regional banks. The left-hand chart is based on domestic and foreign branches. The middle chart is based on domestic branches (the data for regional banks are based on domestic and foreign branches).
2. "Non-personnel expenses" in the left-hand chart excludes deposit insurance premiums. "Wage factor" in the middle chart is calculated as "Personnel expenses" / the number of employees. The data for "Non-manufacturing" in the right-hand chart are for all enterprises.
3. The latest data for the left-hand and middle charts are as of the first half of fiscal 2025, and the latest data for the right-hand chart are as of March 2026.

Source: BOJ.

2. Rising interest rates and banks' core profitability

As discussed in Section A of Chapter III, lending rates have risen moderately since the last *Report* in October 2025 (Charts III-1-10 and VI-1-4). In the deposit market, many banks have raised their interest rates on ordinary deposits to around 0.3 percent, in response to the policy rate hike in December 2025. Interest rates on time deposits have seen moderate increases as well.

Chart VI-1-4: Lending and deposit rates (compared to the previous phase of policy rate hikes)

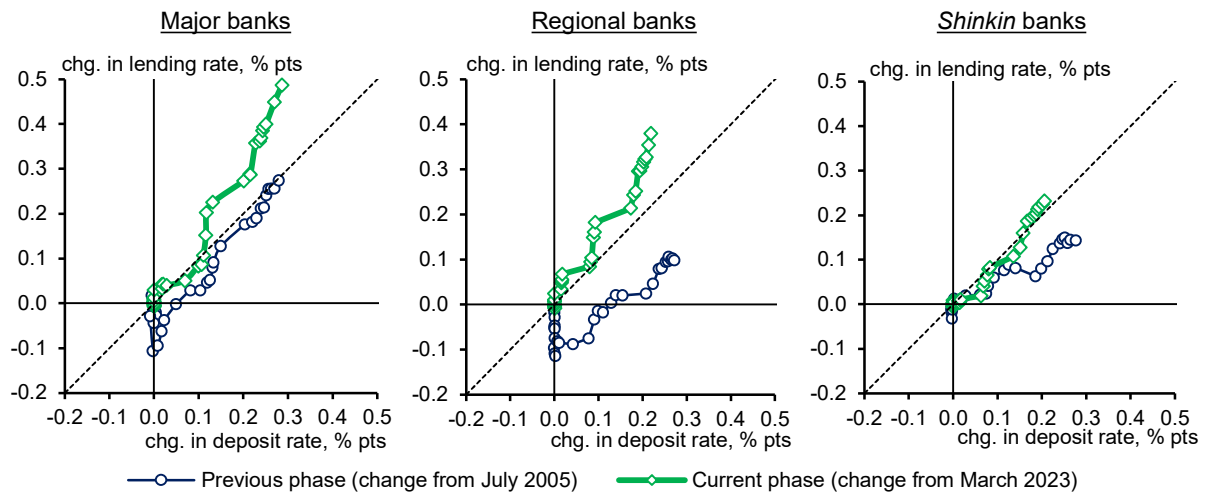


Note: 1. Lending rates indicate average contract interest rates on new loans and discounts (3-month backward moving averages). Deposit rates indicate the typical rates posted at banks. "LIBOR/TIBOR swap rate" indicates the LIBOR swap rate for the previous phase and the TIBOR swap rate for the current phase.
2. The latest data for market rates, short-term prime rates, and deposit rates are as of March 2026. Those for lending rates are as of February 2026.

Source: Bloomberg; Haver Analytics; Ministry of Finance; BOJ.

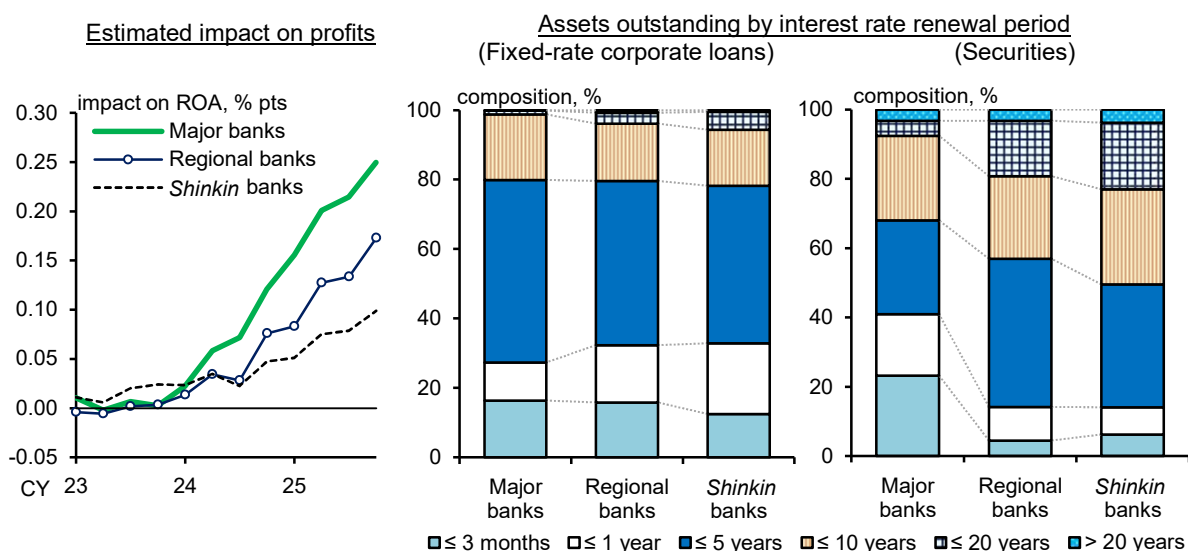
Comparing developments in lending rates and deposit rates with those in the previous phase of rises in interest rates, the rises in deposit rates, particularly time deposit rates, have been relatively subdued at regional and *shinkin* banks. On the other hand, lending rates seem to be rising more substantially than during the previous phase (Chart VI-1-5). The impact of rises in yen interest rates, which includes the impact arising from securities investments, appears to be contributing to the improvement in banks' profits as interest rates on assets held by banks are being renewed and interest margins of loans and securities are improving (Chart VI-1-6). However, it should be noted that lending margins during the current phase of rising interest rates are substantially lower than in the previous phase, due to downward pressure on banks' profitability from structural factors such as a decline in domestic loan demand, and continuing improvement in borrower firms' creditworthiness (Chart VI-1-4).

Chart VI-1-5: Increase in lending rates and deposit rates



Note: The lending rates are the average contract interest rates. The deposit rates are the weighted averages of the ordinary deposit rates posted at banks and the time deposit rates by maturity. Rates for both are calculated on a stock basis. Both the previous phase and the current phase represent cumulative changes from one year prior to the initial policy rate hike (median values by type of bank). The endpoints of the previous phase are December 2007 and the latest data for the current phase are as of January 2026.
Source: BOJ.

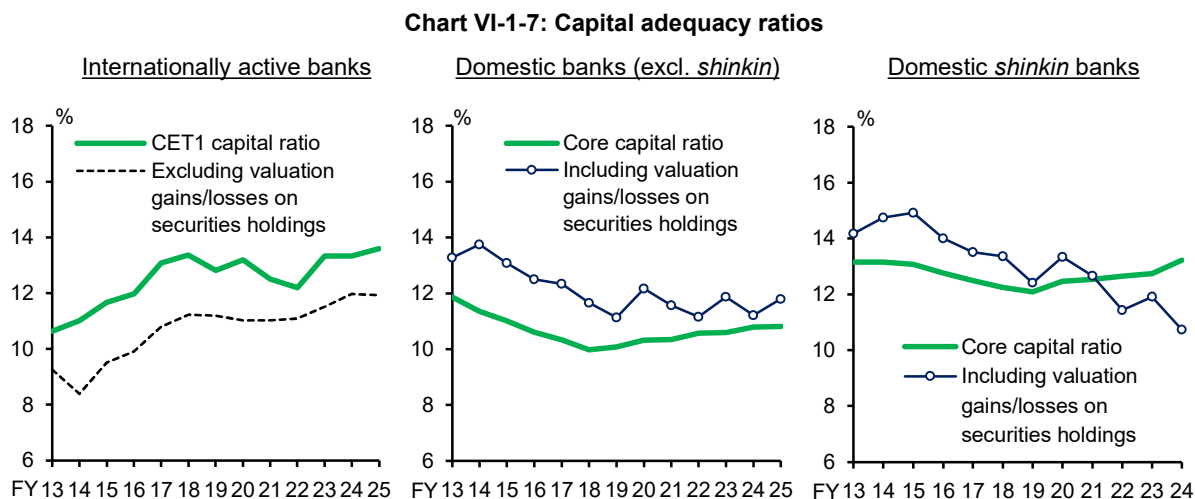
Chart VI-1-6: Impact of rising domestic interest rates on banks' profits



Note: 1. The left-hand chart presents an estimate of the impact of changes in yields from 2022/Q4 on ROA based on PPNR excluding trading income, using data on balances and yields of yen interest rate assets and liabilities (by instrument) at the end of each quarter. Latest data as of 2025/Q4.
2. Data for the right-hand chart are as of end-December 2025.
Source: BOJ.

3. Capital adequacy and loss-absorbing capacity

Banks have maintained sufficient capital. In the first half of fiscal 2025, both the common equity Tier 1 (CET1) capital ratio of internationally active banks and the core capital ratio of domestic banks substantially exceeded the regulatory requirements (Chart VI-1-7).

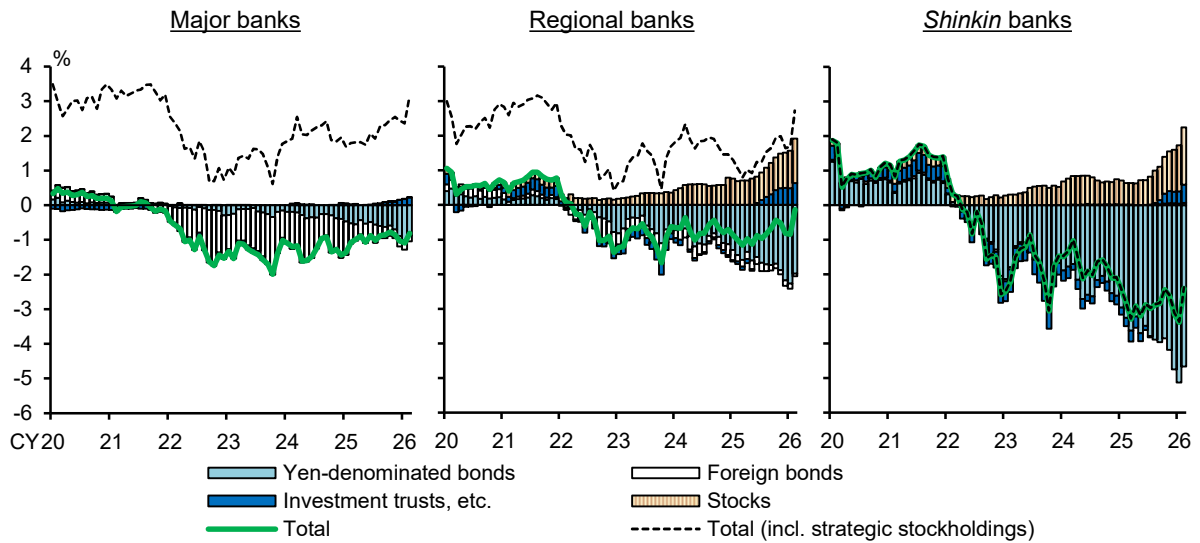


Note: The latest data for internationally active banks and domestic banks (excl. *shinkin*) are the first half of fiscal 2025, and those for *shinkin* banks are as of fiscal 2024.
Source: Published accounts of individual banks; BOJ.

Valuation gains/losses on securities holdings, which are not included in the regulatory capital for domestic banks, can function as a capital buffer when taking valuation gains/losses on all investment securities into account. In recent years, many banks have registered growing valuation gains on their stockholdings and rising valuation losses on their bondholdings. Against this background, *shinkin* banks, for which stocks account for a small share of assets and yen-denominated bonds for a large share, have seen relatively large valuation losses on their securities holdings (Chart VI-1-8). However, banks, especially those with relatively low resilience to rising interest rates, have tended to continue to decrease their outstanding amount of yen-denominated bondholdings and to shorten their duration. As a result, although super-long-term interest rates, in particular, rose significantly from the end of 2025 to the beginning of 2026, valuation losses on securities holdings of banks with relatively low resilience have recently remained at around the same level as in March 2025 (Chart VI-1-9). Bond prices are, in general, expected to rise over time due to the roll-down effect. Banks' core profitability measured by PPNR has recently improved and this is even true for regional and *shinkin* banks with relatively low resilience to rising interest rates. This is expected to help enhance their loss absorbing capacity through future capital accumulation.⁴³ While banks as a whole have sufficient capital bases, they need to manage their balance sheets carefully, taking uncertainties into account.

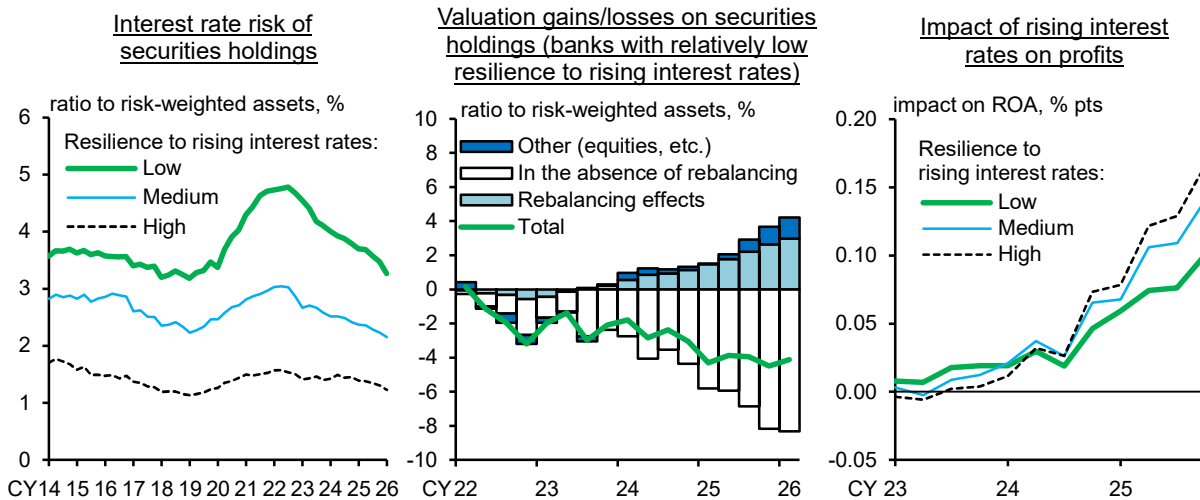
⁴³ Among banks with relatively low resilience to rising interest rates, some have seen a significant decline in their capital when valuation losses on securities are taken into account. However, even at these banks, regulatory capital adequacy ratios remain above required levels. In addition, frameworks to support individual banks in improving their profitability and maintaining their soundness have been established in the industry, and efforts are being made to maintain and improve their creditworthiness overall.

Chart VI-1-8: Valuation gains/losses on securities holdings



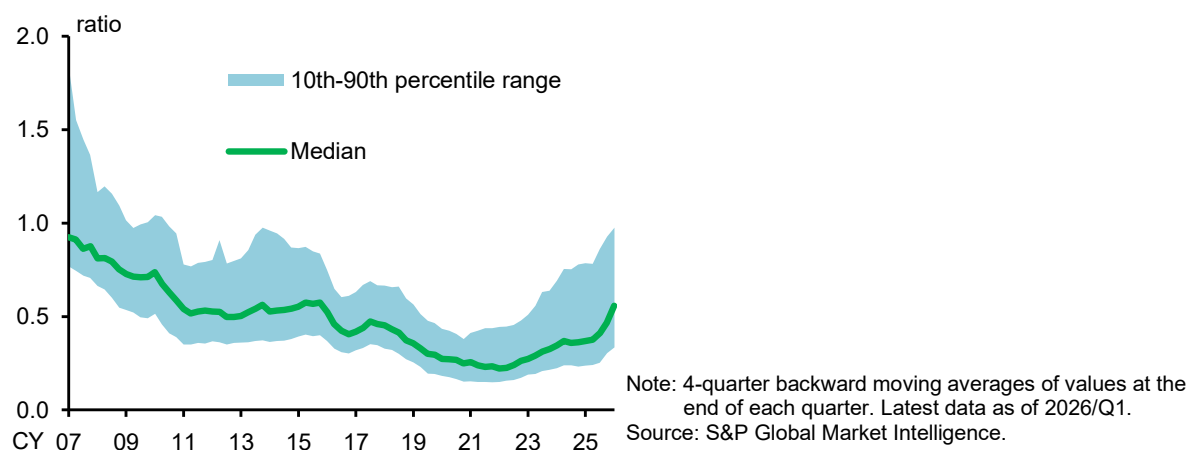
Note: Shows ratios to risk-weighted assets. The contribution of "Stocks" excludes strategic stockholdings. Latest data as of end-February 2026.
Source: BOJ.

Chart VI-1-9: Interest rate risk and profits by resilience to rising interest rates



Note: 1. Covers regional and *shinkin* banks. "Resilience to rising interest rates" classifies banks into three groups based on "the level of long-term interest rates at which the required capital adequacy ratios are maintained when valuation gains/losses on all investment securities are taken into account" as of end-March 2022 (see the October 2024 issue of the *Report* for details of the estimation method).
2. Yen interest rate risk in the left-hand chart is a 100 BPV. "Rebalancing effects" in the middle chart represents the difference between the valuation gains and losses on yen-denominated bonds assuming the portfolio composition of such bonds as of 2021/Q4 had been maintained ("In the absence of rebalancing") and the actual valuation gains and losses on yen-denominated bonds. "Total" and "Other (equities, etc.)" include strategic stockholdings. The right-hand chart is estimated using the same methodology as the left-hand chart in Chart VI-1-6.
3. Latest data for the left-hand and middle charts are as of 2026/Q1 (end-February). Latest data for the right-hand chart as of 2025/Q4.
Source: BOJ.

Chart VI-1-10: P/B ratios of listed banks



Listed banks' price-to-book (P/B) ratios, which are considered to reflect market participants' somewhat longer-term perspective on banks' profitability, have generally been rising recently due to the higher interest rates (Chart VI-1-10). However, among regional and *shinkin* banks, the P/B ratio for many banks has remained below 0.5. Thus, there is a high possibility that downward pressure on profitability arising from structural changes, such as the shrinking population and declining loan demand in the region, could continue, and this warrants attention. Under these circumstances, it is desirable for banks to formulate their capital policies, including policies on profit distribution, taking into account the balance between profitability and loss-absorbing capacity over a somewhat longer time horizon.

B. Macro stress testing

This section examines comprehensively whether banks have sufficient loss-absorbing capacity, using macro stress testing assuming stress events.^{44,45}

The stress testing assumes two downside scenarios: a "financial stress scenario" and a "rises in foreign interest rates scenario plus."⁴⁶ The financial stress scenario assumes stress of the same magnitude as was observed during the global financial crisis, and is used in the *Report* on a regular basis. The rises in foreign interest rates scenario plus assumes a slowdown in foreign economies and rises in foreign interest rates reflecting a global surge in prices triggered by the materialization of geopolitical risks and other factors. The rises in foreign interest rates scenario plus in this *Report* takes into account additional stress when examining the resilience of banks' financial bases, such as a surge in crude oil prices, shrinking expectations about profitability of AI-related investment, and a more cautious investment stance toward long-term government bonds in the NBF1 sector. These factors are considered in addition to the substantial fall in global trade volume assumed in the previous *Report*.

⁴⁴ The simulation utilizes the Financial Macro-econometric Model (FMM) developed by the Financial System and Bank Examination Department of the Bank. For the basic structure of the model, see Abe, N., Chikamatsu, K., Kanai, K., Kawasumi, Y., Munakata, K., Nakayama, K., Okuda, T., and Takano, Y., "The Financial Macro-econometric Model (FMM, 2022 Version)," *BOJ Reports & Research Papers*, March 2023.

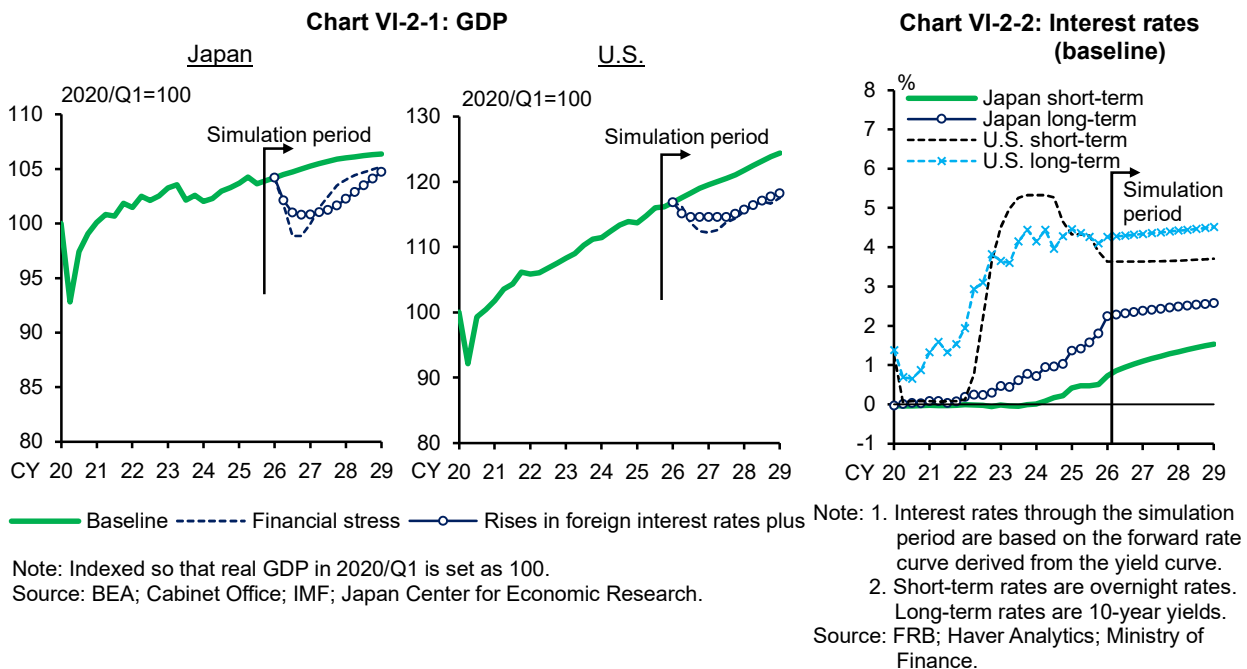
⁴⁵ The stress testing targets 106 banks and 247 *shinkin* banks. The simulation period is from the October-December quarter of 2025 through the January-March quarter of 2029. For the main economic and financial variables of the assumed scenarios, refer to the "Scenario Tables" on the Bank's website.

⁴⁶ In addition to these scenarios, a stress test was conducted using the real estate stress scenario. For details, see Box 5 in this *Report*.

The downside scenarios are hypothetical and designed to examine effectively the resilience of the financial system. They represent neither the Bank of Japan's outlook for the future economic and financial environment, asset prices, and policy conduct, nor the likelihood of the outcome.

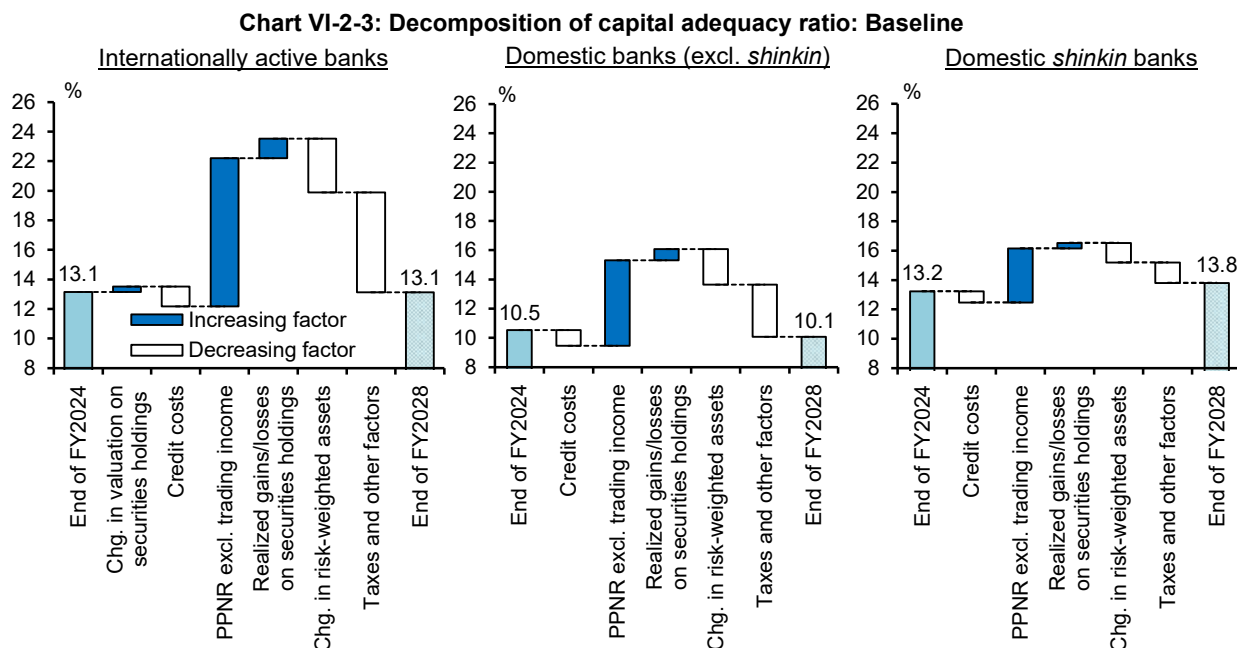
1. Baseline scenario

The baseline scenario assumes that Japan's economy continues to grow moderately, with foreign economies returning to a growth path, based on the average of forecasts by several research institutions and market expectations as of January 2026 (Chart VI-2-1). As for financial variables, it is assumed that all of the available information on the outlook for the domestic and foreign economies is appropriately priced in by financial markets. The baseline scenario assumes that market interest rates move in line with the forward rate curve as of late January 2026, and short-term yen interest rates are assumed to reach around 1.5 percent at the end of the simulation period (Chart VI-2-2). It is assumed that other financial variables (stock prices, crude oil prices, exchange rates, and various credit spreads) are unchanged from their levels in late January 2026.



The simulation results indicate that the PPNR for all types of banks increases due to the moderate growth in domestic and foreign economies and improved interest margins reflecting rising interest rates (Chart VI-2-3). In particular, for internationally active banks, the high share of market interest rate-linked loans on the asset side results in a more pronounced expansion of domestic loan interest margins driven by rising yen interest rates. This, in turn, contributes more to the increase in the PPNR than at other types of banks. In addition, credit costs for all types of banks increase due to factors such as the growth in loan balances, but they remain limited compared to their PPNR.

Capital adequacy ratios at the end of the simulation period (as of end-fiscal 2028) are overall sufficiently above regulatory requirements for all types of banks.⁴⁷



Note: Indicates the contribution of each factor to the difference between the capital adequacy ratios at end-fiscal 2024 and the end of the simulation period (as of end-fiscal 2028) under the baseline scenario.

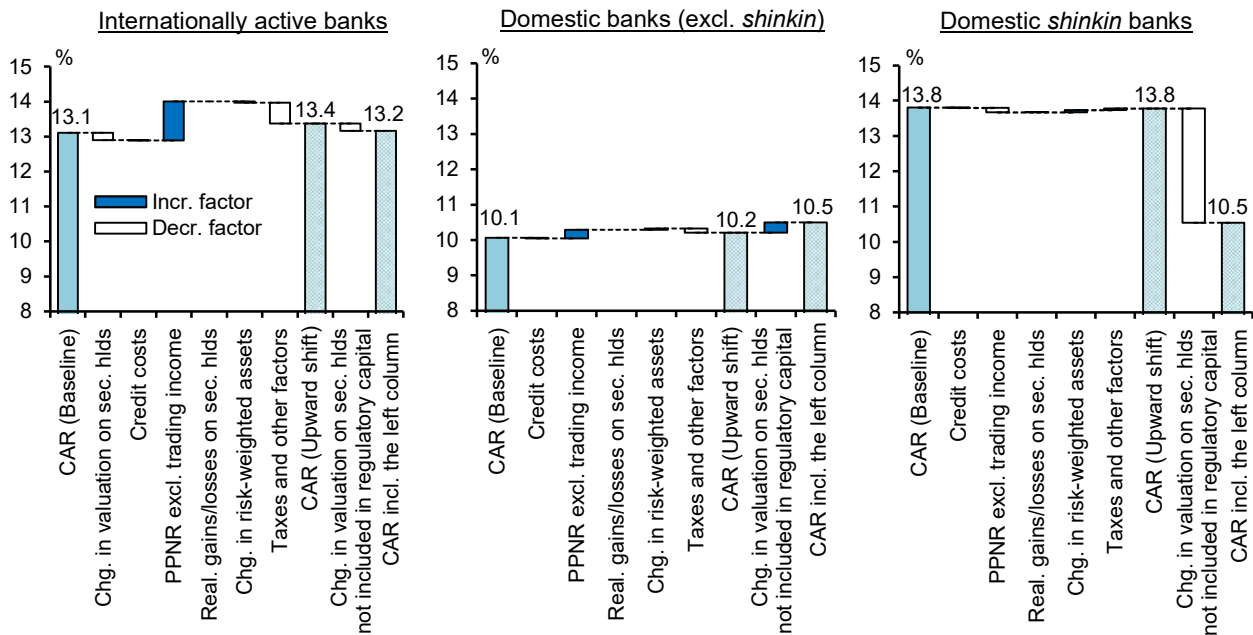
Next, as in the previous issue of the *Report*, a sensitivity analysis is conducted assuming that there is a parallel upward shift of 1 percentage point in yen interest rates only, compared to the baseline scenario. The result indicates that for all types of banks the average capital adequacy ratios are almost identical to those in the baseline scenario and remain sufficiently above regulatory levels (Chart VI-2-4).⁴⁸ Although the impact of the upward shift in yen interest rates differs by type of bank, the impact of the increase in credit costs is small. Examining changes in capital adequacy ratios that take into account valuation gains/losses on all investment securities shows that, in response to the upward shift in yen interest rates, these capital adequacy ratios, just like the capital adequacy ratios on a regulatory capital basis, remain sufficiently above regulatory levels on average for all types of banks.⁴⁹

⁴⁷ The capital floor was introduced at the end of March 2024 as part of the finalization of Basel III, and the percentage for the floor for banks using the internal ratings-based approach will be gradually raised by the end of fiscal 2028. As a result, risk-weighted assets will gradually increase toward the latter half of the simulation period, and the floor will effectively lower the capital adequacy ratios of internationally active banks and domestic banks (excluding *shinkin* banks). The simulations here do not take into account management actions by banks in response to the increase in risk-weighted assets.

⁴⁸ It is assumed that in the April-June quarter of 2026, there is a 1 percentage point parallel upward shift in short- and long-term interest rates from the baseline scenario, and interest rates remain 1 percentage point above the baseline scenario until the end of the simulation period. Meanwhile, economic variables regarding the domestic and foreign economies and financial variables other than yen interest rates are the same as in the baseline scenario. In addition, management actions by banks in response to a rise in interest rates are not taken into account.

⁴⁹ All securities are evaluated on a mark-to-market basis, regardless of whether they are held to maturity or whether they are included in regulatory capital.

**Chart VI-2-4: Decomposition of capital adequacy ratio:
Sensitivity analysis, upward shift in yen interest rates**

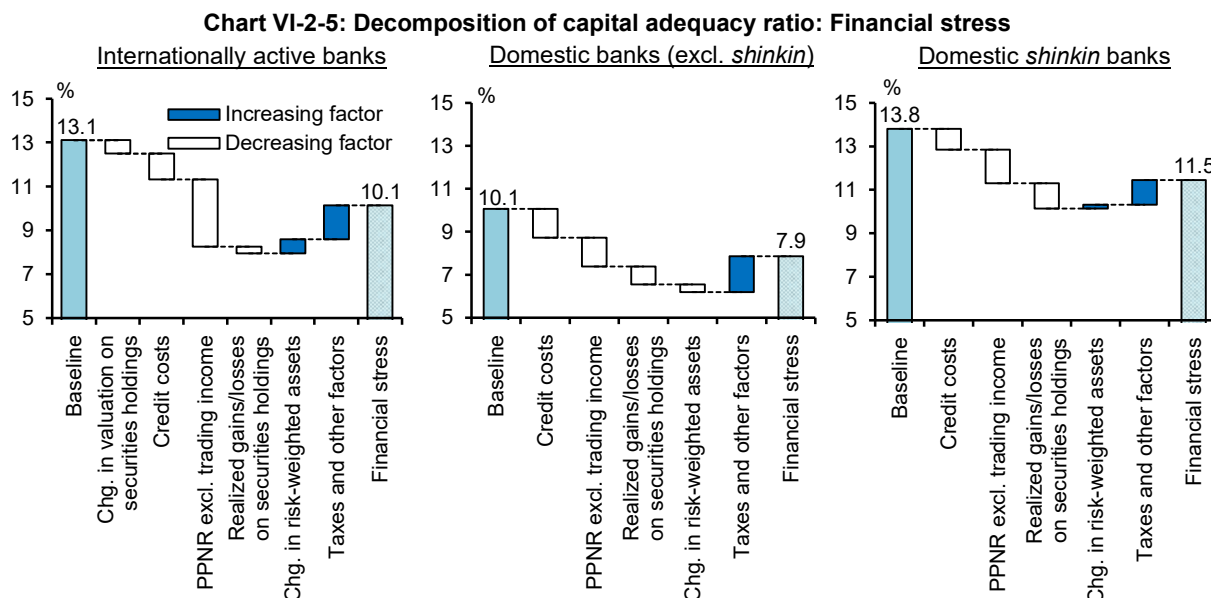


Note: 1. Indicates the contribution of each factor to the difference, at the end of the simulation period (as of end-fiscal 2028), between the capital adequacy ratios (CAR) under the baseline scenario and the scenario of the upward shift in yen interest rates.
 2. "CAR (Baseline)" and "CAR (Upward shift)" are the capital adequacy ratios for regulatory capital. "CAR incl. the left column" is the ratio for capital taking valuation gains/losses on all investment securities into account under the scenario of the upward shift in yen interest rates.

2. Financial stress scenario

The financial stress scenario assumes that global financial markets experience a negative shock in the April-June quarter of 2026, comparable to that during the global financial crisis. Regarding financial variables, it is assumed that, with prices of risky assets plummeting and domestic and foreign interest rates declining to record low levels, the yen appreciates in foreign exchange markets. In addition, Japan's economy decelerates, reflecting the substantial repricing in financial markets and a slowdown in foreign economies equivalent to that seen during the global financial crisis.

The simulation results indicate that capital adequacy ratios at the end of fiscal 2028 are substantially lower than in the baseline scenario (Chart VI-2-5). The decrease in capital adequacy ratios reflects a decline in interest margins due to the fall in interest rates (a decline in PPNR), an increase in credit costs resulting from the deterioration in the economic environment, and a decline in the prices of risky assets (a deterioration in both valuation and realized gains/losses on securities holdings). In particular, the decline in capital adequacy ratios is high for internationally active banks, which are significantly affected by a decline in lending margins due to the fall in interest rates. Nevertheless, capital adequacy ratios remain above regulatory levels on average for all types of banks. It can therefore be assessed that banks have sufficient capital to withstand such substantial and acute stress.



Note: Indicates the contribution of each factor to the difference between the capital adequacy ratios at the end of the simulation period (as of end-fiscal 2028) under the baseline scenario and the financial stress scenario.

However, given the steady rise in the presence of NBFIs, it is possible that stress in financial markets could be amplified through portfolio adjustments by domestic and foreign investment funds if such stress were to occur. On this point, the results of an exploratory analysis in the April 2025 issue of the *Report*, which explicitly takes into account the amplification of stress through investment funds, show that the capital adequacy ratios of internationally active banks, the impact on which would be relatively significant, would be pushed down by about an additional 1 percentage point compared with the regular financial stress scenario, owing to the deterioration in valuation gains/losses on securities holdings as a result of a fall in asset prices and increased credit costs due to an additional slowdown in the domestic and foreign economies.⁵⁰ Even in this case, banks as a whole can be judged to have financial bases sufficient to provide stable financial intermediation. However, it is important to remain mindful that the amplification of shocks via the NBFIs sector could affect banks' financial bases through a variety of channels.

3. Rises in foreign interest rates scenario plus

The rises in foreign interest rates scenario plus assumes both a slowdown in foreign economies and a rise in foreign interest rates reflecting a global surge in prices triggered by the materialization of geopolitical risks and other factors. This *Report* assumes more severe stress by incorporating a substantially larger increase in crude oil prices, shrinking expectations about profitability of AI-related investment, and a more cautious investment stance toward long-term government bonds in the NBFIs sector. These factors are considered in addition to the fall in global trade volume assumed in the previous *Report* (Chart VI-2-6).

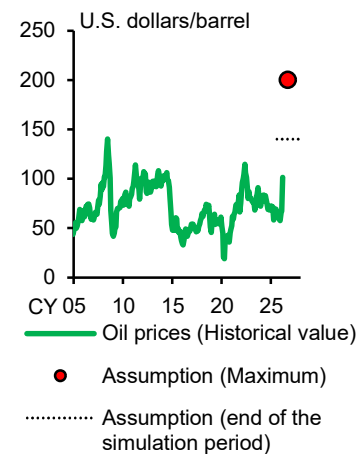
⁵⁰ For a detailed explanation of the scenario and the results of this analysis, see Section B of Chapter VI in the April 2025 issue of the *Report* and the following paper: Konaka, Y., Maruyama, T., and Nakamura, F., "Exploratory Scenario Analysis Considering the Growing Presence of Domestic and Foreign Investment Funds," Bank of Japan Working Paper Series, no. 25-E-11, October 2025.

Chart VI-2-6: Assumptions in the rises in foreign interest rates scenario plus

Assumption on main variables

Main variables		Estimation methods	Maximum deviation rate
Financial variables	U.S. and Japanese long-term interest rates	Assuming an additional 0.5%pt widening relative to the rises in foreign interest rates scenario plus in the October 2025 issue	+1.5%pts
	U.S. stock prices	AI-related shocks assumed to decline sharply in line with the dot-com bubble collapse, with others based on the real GDP	About -50%
	Japanese stock prices		About -40%
	Fund prices	Based on the asset price related to each fund price	About -30%
Real economic variables	U.S. real GDP	VAR model for the U.S. and value-added, and FMM for Japan	About -5%
	Japanese real GDP		About -4%
	Value-added by industry		About -15%
Foreign loans	Loans to data centers	Based on the default rates of high-yield bonds during the dot-com bubble collapse	About -10%pts
	Loans to PC funds	Based on the PC funds' investment share to information technology firms, and the default rates of high-yield bonds during the dot-com bubble collapse	About -2%pts

Assumption on oil prices



- Note: 1. "Maximum deviation rate" for each variable represents the maximum difference between the values under the baseline scenario and the rises in foreign interest rates scenario plus in each quarter. For the interest rates, "maximum deviation rate" indicates the maximum difference in the value of the long-term interest rates. For value-added by industry, "maximum deviation rate" is the average rate of the maximum deviation across industries and firm sizes. For foreign loans, "maximum deviation rate" indicates the maximum difference in the credit cost ratio.
2. "AI-related stocks" are defined as stocks classified in the "Information Technology" sector of the S&P 500 in the U.S., and in the "Electric Appliances," "Information & Communication," "Machinery," or "Precision Instruments" sectors of the TOPIX in Japan.
3. The oil prices in the right-hand chart show WTI crude oil futures. Latest data for the "Historical value" is as of end-March 2026.
- Source: Haver Analytics.

Specifically, it is assumed that global inflationary pressures will lead the U.S. federal funds rate to be raised by 2 percentage points compared with the baseline scenario after the April-June quarter of 2026, remain at that high level for one year, and then decrease moderately toward the latter half of the simulation period. U.S. long-term interest rates are assumed to rise by a somewhat large margin of 1.5 percentage points above the baseline scenario due to these developments in interest rates and prices, as well as a more cautious investment stance of various entities, including the NBFIs, toward holding long-term government bonds. These rates are assumed to remain elevated throughout the simulation period.⁵¹ Meanwhile, in response to the rise in U.S. long-term interest rates, long-term interest rates in Japan are also assumed to increase by 1.5 percentage points and remain at the elevated level.⁵² Prices of risky assets, such as stock prices, are assumed to decline significantly both at home and abroad, partly due to shrinking expectations about profitability of AI-related investment. Meanwhile, WTI crude oil futures are assumed to rise temporarily to 200 U.S. dollars/barrel and remain at the record high level (as of end of June 2008: 140 U.S. dollars/barrel).

The shrinking expectations about profitability of AI-related investment incorporated in this scenario are assumed to weigh on the corporate profits of Japan's manufacturing sector, including

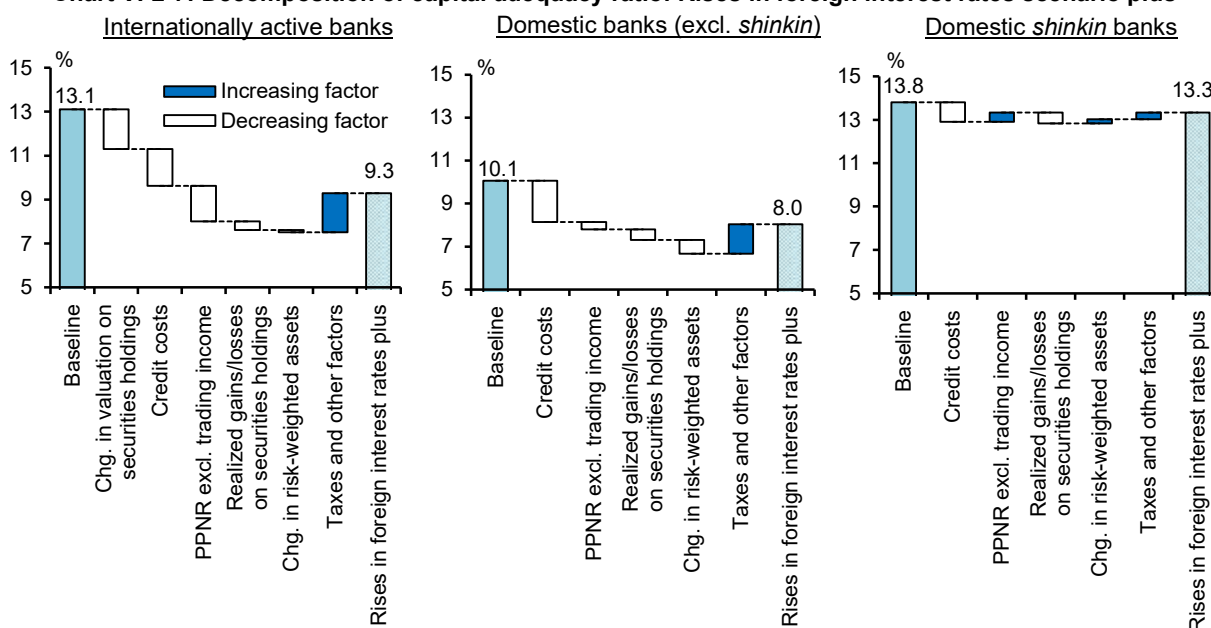
⁵¹ Leverage among hedge funds has been increasing, and rapid position adjustments in the government bond market in the event of stress could contribute to a rise in long-term interest rates. For an analysis of the impact of hedge funds breaching risk limits on the government bond market, see Kruttli, M., Monin, P., Petrasek, L., and Watugala, S., "LTCM Redux? Hedge Fund Treasury Trading, Funding Fragility, and Risk Constraints," *Journal of Financial Economics*, Vol. 169, 104017, July 2025. An exploratory estimation that takes into account the rate at which positions are reduced upon the breaching of risk limits documented in that paper, together with hedge funds' holdings of U.S. Treasury securities and the price change rate per unit of transaction volume, suggests that the impact on interest rates would be around 50 basis points.

⁵² Note that short-term yen interest rates in Japan are assumed to be the same as in the baseline scenario.

semiconductor-related industries, through a reduction in IT-related business fixed investment overseas. While the impact may differ across banks, those banks with significant loan exposure to the manufacturing sector, where the deterioration in corporate profits is expected to be pronounced, are likely to experience a greater increase in credit costs. Furthermore, as discussed in Section A of Chapter IV, internationally active banks have been providing loans to foreign PC funds that have increased investment in and lending to information technology-related firms, as well as to projects developing data centers. The scenario in this *Report* explicitly assumes that these banks will incur impairment losses through such lending.

The simulation results show that the capital adequacy ratios of all types of banks as of the end of fiscal 2028 are lower than in the baseline scenario (Chart VI-2-7).

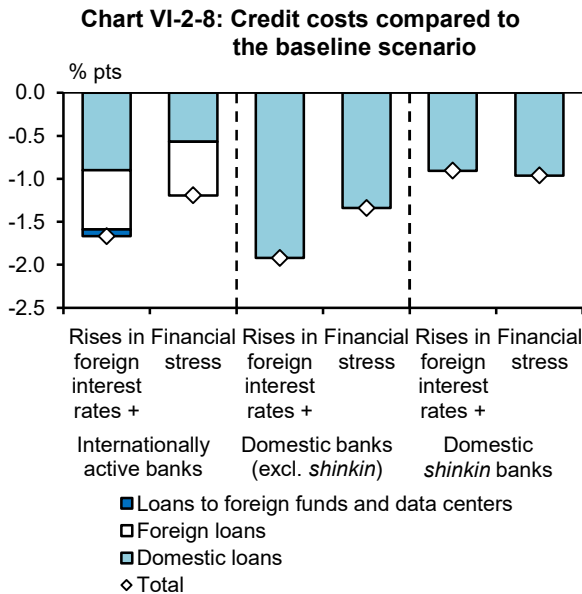
Chart VI-2-7: Decomposition of capital adequacy ratio: Rises in foreign interest rates scenario plus



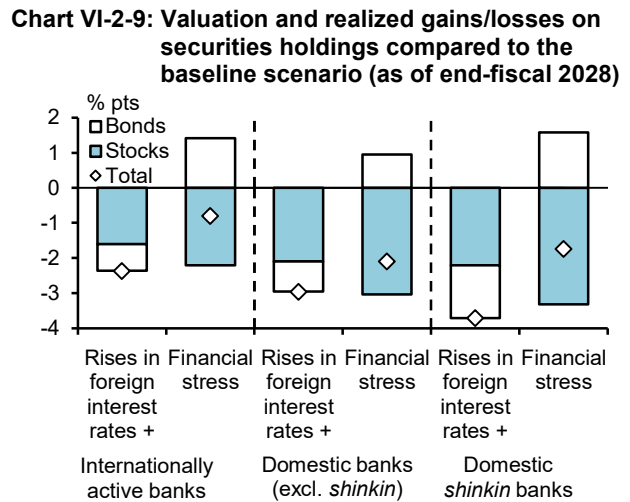
Note: Indicates the contribution of each factor to the difference between the capital adequacy ratios at the end of the simulation period (as of end-fiscal 2028) under the baseline scenario and the rises in foreign interest rates scenario plus.

For internationally active banks with high foreign exposure ratios, a decrease in foreign net interest income (a decline in PPNR) due to rising foreign currency funding costs, and credit costs arising from impairments through foreign lending, including loans to foreign PC funds and data centers, will cause a relatively large decline in capital adequacy ratios. In addition, compared with the financial stress scenario, domestic credit costs exert larger downward pressure on capital adequacy ratios at internationally active banks and domestic banks (excluding *shinkin* banks) in the rises in foreign interest rates scenario plus. While the initial deterioration in the domestic economy immediately after the shock is assumed to be relatively limited compared with the financial stress scenario, there is an absence of mitigating effect from lower interest rates on debt repayment burdens in this scenario. Under these circumstances, credit costs increase for financially vulnerable small and medium-sized enterprises that are likely to be affected by rising crude oil prices, as well as for sectors that are heavily affected by a fall in AI-related investment (Chart VI-2-8). Regarding the impact on valuation gains/losses on securities, the decline in the price of risky assets exerts considerable downward pressure across all types of banks. Furthermore, for domestic *shinkin* banks, whose yen-denominated bondholdings have longer durations than those held by other types of banks, the rise in long-term yen interest rates leads to a relatively large deterioration in such valuation gains/losses. Compared with the financial stress scenario, in which bond prices rise due to interest rate declines, valuation and realized losses on securities deteriorate more across all

types of banks (Chart VI-2-9). In particular, for internationally active banks, since valuation gains/losses on securities are included in regulatory capital, stresses such as simultaneous declines in stock and bond prices significantly depress their capital adequacy ratios.



Note: Shows the contribution to the difference between the credit costs during the simulation period under the baseline scenario and each downside scenario. Shows ratios to risk-weighted assets.



Note: 1. Shows the contribution to the difference between the gains/losses as of end-fiscal 2028 under the baseline scenario and each downside scenario. Shows ratios to risk-weighted assets.
 2. "Bonds" includes held-to-maturity bonds, and "Stocks" includes investment funds.

Nevertheless, capital adequacy ratios overall remain above regulatory requirements throughout the simulation period; similarly, capital adequacy ratios taking into account valuation losses on all investment securities remain above regulatory levels on average. Therefore, it can be judged that the stability of the financial system as a whole is maintained even when foreign interest rates remain elevated for an extended period and when stress on domestic and foreign financial markets and real economies becomes substantial due to factors such as shrinking expectations about profitability of AI-related investment.

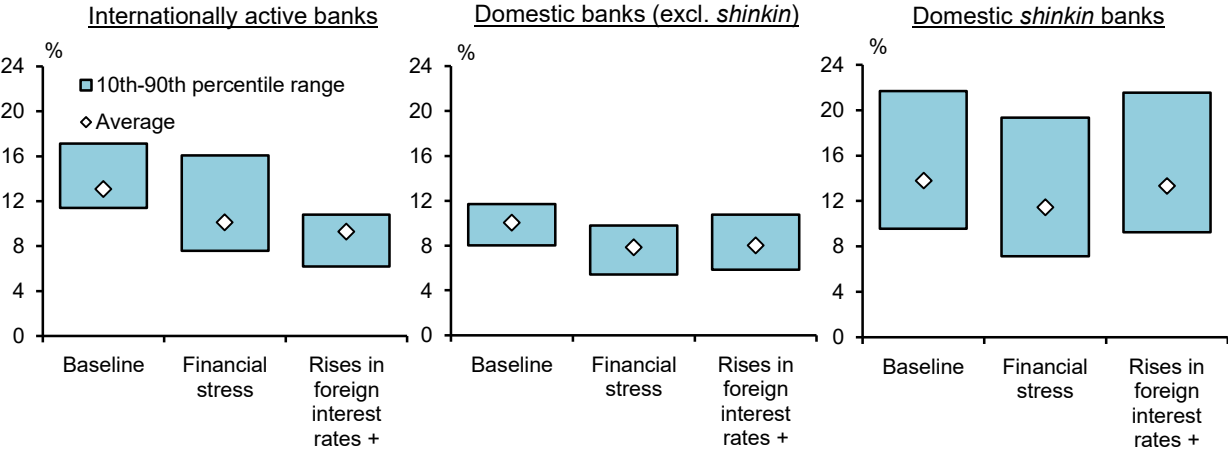
4. Evaluation of the resilience of the financial system

The results of the macro stress testing indicate that Japanese banks on the whole are resilient to potential stress such as a situation equivalent to the global financial crisis with substantial and rapid adjustments in financial markets and a deterioration in foreign economies occurring at the same time, or to compound stresses in which, amid the materialization of geopolitical risks and a surge in crude oil prices, a more cautious investment stance toward long-term government bonds in the NBF sector and shrinking expectations about profitability of AI-related investment lead to simultaneous increases in domestic and foreign interest rates, declines in risky asset prices, and a deterioration in the real economy (Chart VI-2-10).⁵³ These results reflect the fact that banks have increased their resilience by increasing their capital since the global financial crisis, and borrower firms overall have maintained robust financial bases even after the pandemic.

⁵³ Internationally active banks and domestic banks are required to maintain a CET1 capital ratio of 4.5 percent and a core capital ratio of 4 percent, respectively. Internationally active banks are also required to meet capital buffer regulations, including the requirement of a capital conservation buffer of 2.5 percent. Systemically important banks are required to maintain additional capital buffers, which are 1.0 to 1.5 percent in the case of global systemically important banks, and 0.5 percent for domestic systemically important banks.

VI. Resilience of the financial system
 B. Macro stress testing

Chart VI-2-10: Distribution of capital adequacy ratios



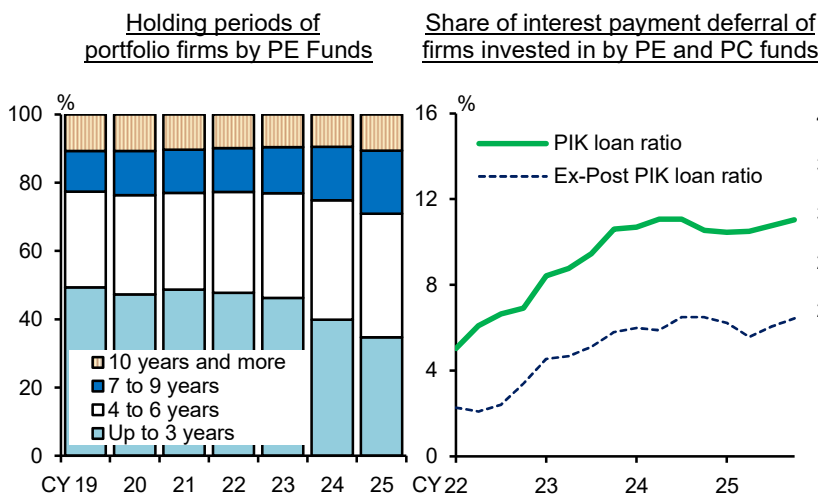
Note: The markers and bands indicate the averages and the 10th-90th percentile ranges respectively of capital adequacy ratios at the end of the simulation period (as of end-fiscal 2028).

Geopolitical risks, particularly in the Middle East, and trends in global financial markets require careful attention, including the course of future developments and their impact. Banks need to remain alert that a range of risks may materialize and put in place frameworks to appropriately manage such risks.

Box 1: Developments in private funds

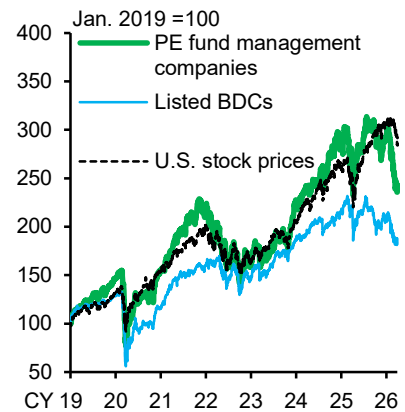
Assets under management of private funds, primarily in private equity (PE) and private credit (PC), have continued to increase, particularly in the U.S. and European markets, although their growth has slowed compared with a while ago (Chart IV-2-6).⁵⁴ In PE funds, there has been a persistent challenging situation regarding the exits of firms under investment through routes such as mergers and acquisitions (M&As) and initial public offerings (IPOs), reflecting the lingering impact of past increases in foreign interest rates. Additionally, in the case of PC funds, it has been pointed out that there has been an increase in interest payment deferrals among some borrowers, potentially postponing the materialization of defaults (Chart B1-1).⁵⁵ Amid concerns about uncertainties regarding investment operations and performance, the stock prices of major alternative asset managers and listed BDCs have been sluggish (Chart B1-2).

Chart B1-1: Developments in PE and PC funds



Note: The left-hand chart covers U.S. PE funds. Data has not been reviewed by PitchBook analysts. The right-hand chart is based on data aggregated by Lincoln International regarding loans from PC funds to firms invested in by PE funds (on a count basis). "PIK loan ratio" represents the share of Payment-in-Kind loans, where borrowers defer interest payments and repay both the interest and principal as a lump sum at maturity. "Ex-Post PIK loan ratio" indicates the share of loans where PIK clauses have been newly incorporated or implemented following loan execution (so-called "Bad PIK"). Latest data as of 2025/Q4.
Source: Lincoln International; PitchBook Data, Inc.

Chart B1-2: Stock prices related to PE and PC funds



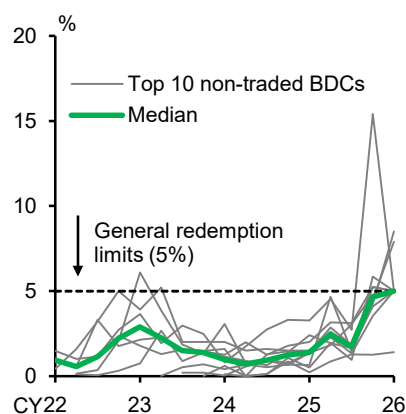
Note: Figures are total returns including dividends. "PE fund management companies" refers to the S&P Listed Private Equity Index, "Listed BDCs" refers to the S&P BDC Total Return Index, and "U.S. stock prices" refers to the S&P 500. Latest data as of March 31, 2026.
Source: S&P Dow Jones Indices LLC.

⁵⁴ The size of the PC market in the United States has expanded to a scale comparable to that of the leveraged loan and high-yield (HY) bond markets. Borrowers are primarily medium-sized firms and small firms, with a certain degree of overlap with borrowers of leveraged loans, and it has been noted that the number of borrowers of PC funds whose size is comparable to HY bond issuers is now increasing. PC funds that serve as lenders can be broadly categorized into business development companies (BDCs) -- available as both public (listed and non-traded) and private BDCs -- and private debt (PD) funds. BDCs are investment companies in the United States that obtain tax benefits by focusing primarily on lending to medium-sized firms and small firms. Compared with PD funds, BDCs are designed to ensure a certain degree of higher transparency and risk mitigation for investors through mandatory quarterly disclosures and limits on leverage ratios, among other measures. While most PC funds engage in direct lending through senior loans to medium-sized and small firms, some also extend mezzanine or distressed lending, or provide loans secured by certain assets. For details, see Okubo, T., Kaido, Y., Yamamoto, K., and Washimi, K., "Evolving Trends in Business Development Companies (BDCs) in the U.S. Direct Lending Market," *Bank of Japan Review Series*, no. 2026-E-1, April 2026.

⁵⁵ For recent developments in private funds, see Takemura, K., Iwamura, Y., and Kutsunugi, M., "Recent Developments in Private Funds -- Increasing Presence of PE and PD Funds and Their Recent Traits," *Bank of Japan Review Series*, no. 2026-E-3, April 2026.

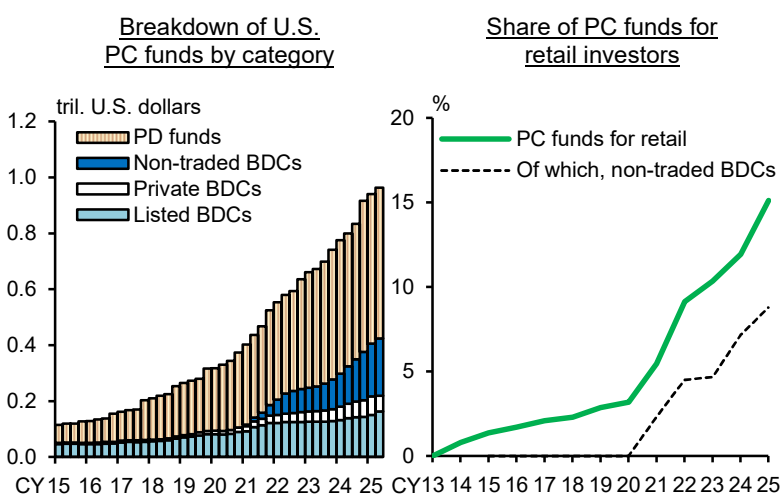
Under these conditions, recent cases of investor redemptions from certain U.S. PC funds have attracted attention in the market (Chart B1-3). Originally, PC funds were structured to use funds raised from institutional investors, which tend to have a high tolerance for risks associated with long-term asset management, to extend loans to illiquid, unlisted firms, and such funds have typically taken the form of closed-end funds that do not allow early redemptions. Recently, however, there has been an increase in funds such as listed BDCs, whose shares can be sold in the market, and public semiliquid funds that accept redemption requests up to a certain amount in each period, such as non-traded BDCs. These funds have attracted capital primarily from retail investors (Chart B1-4). At present, there are signs that part of this trend is reversing, leading to some capital outflows. As for redemption requests to semiliquid funds, their structure allows fund managers to control the scale of redemptions, and so far there have been no signs of forced sales of illiquid assets. Nevertheless, future developments warrant attention.

Chart B1-3: Redemption rates of non-traded BDCs



Note: Shows ratios of actual redemptions to the previous net asset values. Covers the top 10 non-traded BDCs by AUM as of 2025/Q4. Data for 2026/Q1 are based on the published accounts of individual companies, etc.
Source: SEC; published accounts of individual companies, etc.

Chart B1-4: Changes in the composition of PC funds



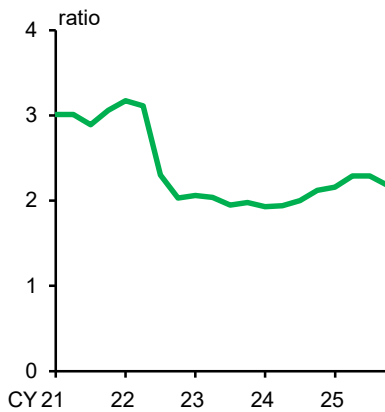
Note: 1. The left-hand chart covers direct lending funds in the North American region (compiled using data from Preqin and S&P Global Market Intelligence). The right-hand chart covers global PC funds (with total amounts compiled by PitchBook). The latest data for the left- and right-hand charts are as of 2025/Q2 and 2025, respectively.
2. "Non-traded BDCs" represents BDCs whose assets under management can be tracked using the data from S&P Global Market Intelligence. Excludes private BDCs (those do not file Form N-2) sold primarily to institutional investors.
3. "PC funds for retail" in the right-hand chart represents the sum of non-traded BDCs, interval funds, and tender offer funds (which are semi-liquid and publicly offered). Data has not been reviewed by PitchBook analysts.
Source: PitchBook Data, Inc.; Preqin; S&P Global Market Intelligence.

While there are major data limitations regarding the performance and creditworthiness of firms receiving investments and loans from private funds, available information suggests that the interest coverage ratio (ICR) of recipient firms is around 2, indicating that, while affected by past interest rate hikes, they have remained at a reasonable level; in addition, some estimates suggest that default rates have remained low (Charts B1-5 and B1-6). Default rates for leveraged loans and HY bonds -- issuers/borrowers of which to some extent overlap with firms receiving investments and loans from private funds -- have also remained largely unchanged, and expected default frequencies for the funds themselves have not risen significantly compared with past stress episodes (Chart B1-7). Moreover, although Japanese banks have exposures to PE and PC funds,

these account for only around 2 percent of their total lending (see also Chart IV-1-14 and Section A of Chapter IV for an overview of loans to foreign funds).⁵⁶

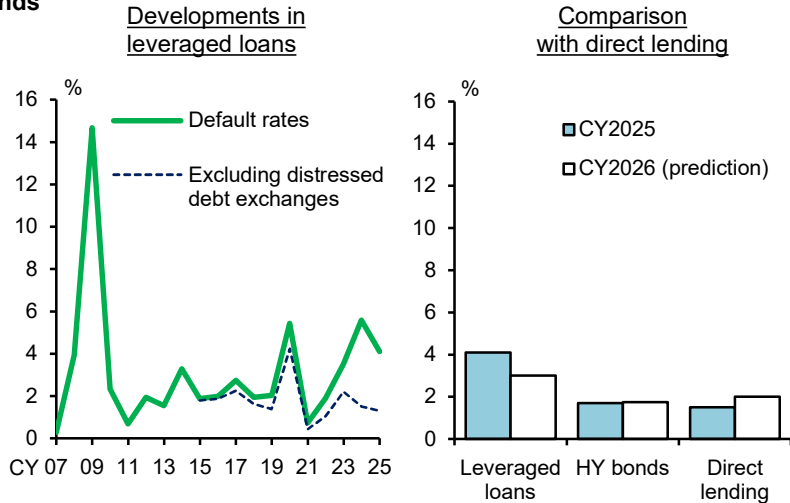
That said, considerable uncertainty remains regarding whether the creditworthiness of recipient firms can continue to be maintained, given possible effects from changes in the Middle East situation and developments in AI-related sectors that have seen increasing investment from PC funds (Chart B1-8). It will therefore remain important to continue closely monitoring actual investment practices without preconceptions.

Chart B1-5: Interest coverage ratio of firms borrowing from PC funds



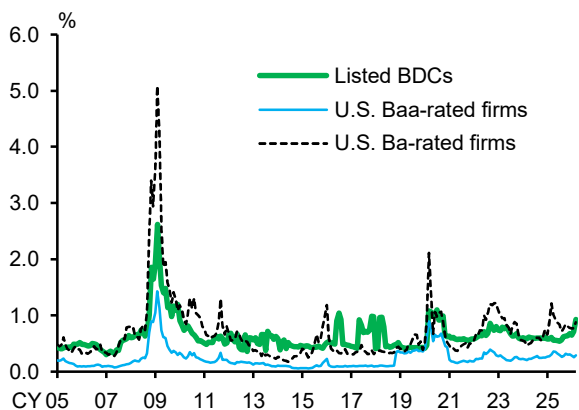
Note: Shows the ICR for newly issued direct lending sponsored loans. The data is aggregated by KBRA. Source: KBRA DLD.

Chart B1-6: U.S. default rates by type of borrowing



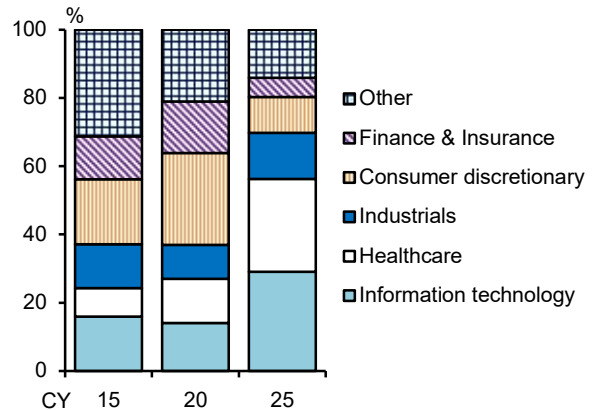
Note: By volume. Latest data for the left-hand chart are as of 2025. "CY2026 (prediction)" in the right-hand chart is an estimate by KBRA as of March 2026. Source: KBRA DLD.

Chart B1-7: EDF for listed BDCs



Note: Shows the average of 1-year EDF for each group. "U.S. Baa (Ba)-rated firms" is defined by Moody's. Latest data as of March 31, 2026. Source: Moody's.

Chart B1-8: Industry composition of firms borrowing from PC funds



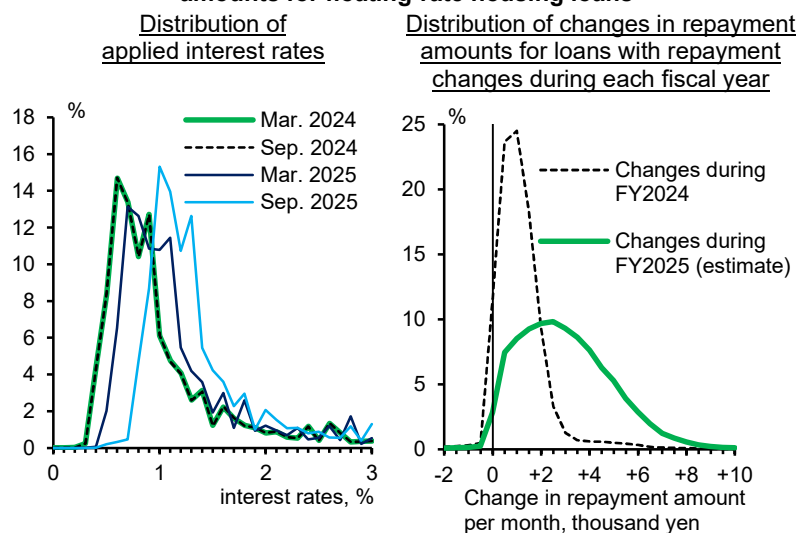
Note: On a deal basis. Includes direct lending, mezzanine, distressed debt, etc. Source: Preqin.

⁵⁶ For investments by Japanese institutional investors in foreign private funds, see, for example, Box 3 in the April 2025 issue of the *Report*.

Box 2: Developments in interest payments for housing loans

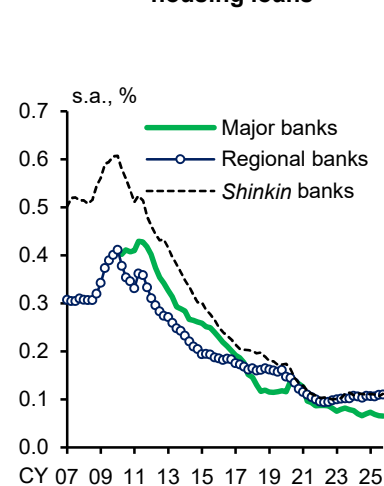
Following the policy rate hike in July 2024, the applied interest rates on floating-rate housing loans, which account for a majority of housing loans, rose by 0.15 percentage points for many loans in the period through December 2024, and, following the hike in January 2025, by another 0.25 percentage points in the period through June 2025 (left panel of Chart B2-1). Rates are expected to rise further going forward as a result of the policy rate hike in December 2025. Data from the common data platform on housing loans at member banks of the Regional Banks Association of Japan (regional banks I) show that, in fiscal 2024, the increase in monthly repayments of many floating rate housing loans that experienced revisions in repayment amounts was generally about 1,000 to 3,000 yen. In fiscal 2025, however, there appears to have been a noticeable increase in loans for which monthly repayments increased by around 4,000 to 6,000 yen amid applied interest rates for many floating-rate housing loans now exceeding 1 percent (right panel of Chart B2-1).⁵⁷ Although repayment amounts are expected to continue increasing with some lag in response to hikes in applied interest rates, the increase in repayment burden is expected to be mitigated if wage growth and increases in household financial assets continue. Delinquency rates on housing loans have been flat at a low level so far; however, careful examination continues to be warranted (Chart B2-2).

Chart B2-1: Applied interest rates and changes in repayment amounts for floating-rate housing loans



Note: The data cover floating-rate housing loans issued by regional banks I that remained on the books of the sample banks from March 2024 to September 2025. The figures for "Changes during 2024" aggregate loans where the repayment amounts differ between March 2024 and March 2025. The figures for "Changes during 2025 (estimate)" are estimates based on data as of the end of September 2025, assuming that the "5-year rule" is applied to all loans. Source: BOJ.

Chart B2-2: Delinquency rates of housing loans

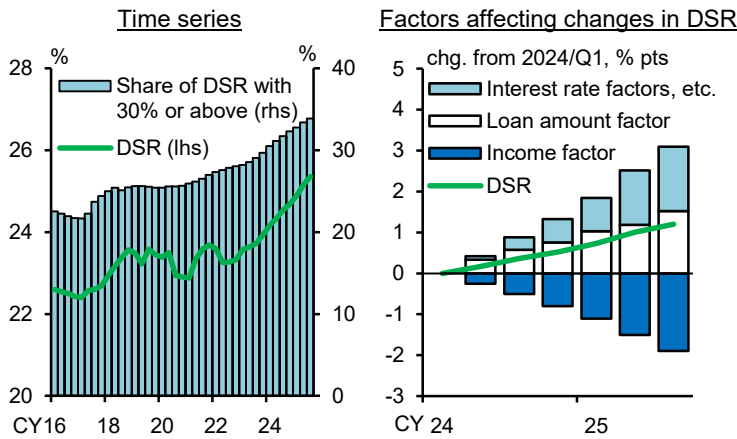


Note: Delinquency rates are calculated as follows: loans overdue by three months or more / loans outstanding. Latest data as of December 2025. Source: BOJ.

⁵⁷ Given that many loans are subject to the "5-year rule" (under which the monthly repayment amount is fixed for every five years from the loan date) at the time of contracting, the percentage of loans that actually experience an increase in repayment amounts remains at around 20 percent per year. Even when repayment amounts are adjusted after the five-year fixed period ends, there considered to be time lag of several months before the actual payment changes. This is because adjustments are typically based on an October reference date and reflected in payment starting from December (the estimated changes for fiscal 2025 in the right panel of Chart B2-1 are based on data as of September). While short-term increases in the repayment burden are expected to be mitigated, it is necessary to keep in mind that, when repayment amounts are revised, the magnitude of the changes reflects the cumulative effects of changes in applied interest rates over the past five years. For details, see Box 1 in the October 2025 issue of the *Report*.

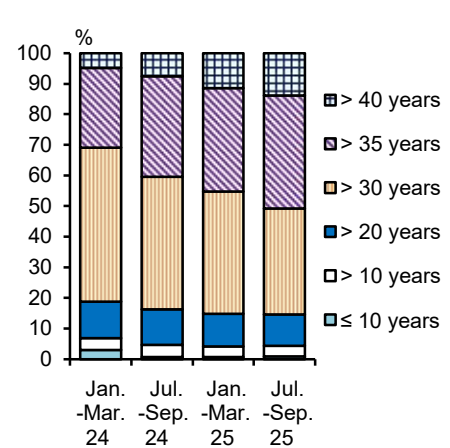
The debt servicing ratio (DSR) -- the ratio of annual repayment amounts to annual income -- for new borrowers of housing loans at the time of origination has been on an upward trend in recent years (left panel of Chart B2-3).⁵⁸ Identifying the factors behind the changes shows that, while the increase in the repayment burden due to rising borrowing interest rates has been mostly offset by growth in household income, the increase in borrowing amounts during this period seems to have added upward pressure (right panel of Chart B2-3). Moreover, repayment periods for new housing loans have lengthened further: with an increasing number of banks offering super-long-term housing loans with maturities spanning 40 to 50 years, housing loans with maturity at origination exceeding 35 years now account for more than 50 percent of loan amount, and housing loans exceeding 40 years account for more than 10 percent at regional banks I (Chart B2-4). While housing loans with longer repayment periods tend to involve larger borrowing amounts, the difference in monthly repayments due to the length of the repayment period is not significant for loans exceeding 30 years. This suggests that super-long-term loans are being used to keep monthly repayments within a certain range (Chart B2-5).

Chart B2-3: DSR at the time of housing loan origination



Note: Covers major, regional and *shinkin* banks. 4-period backward moving averages. Latest data are as of 2025/Q3. The right-hand chart decomposes the DSR into average annual repayment amount per loan, average loan amount per loan, and average income per loan.
Source: BOJ.

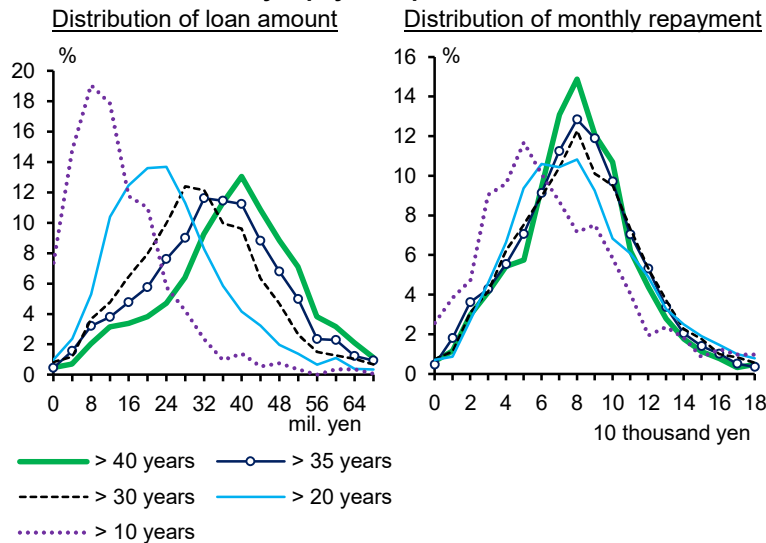
Chart B2-4: Repayment periods of new housing loans



Note: Share of loan amount. Covers floating-rate housing loans issued by regional banks I that were newly originated during each quarter.
Source: BOJ.

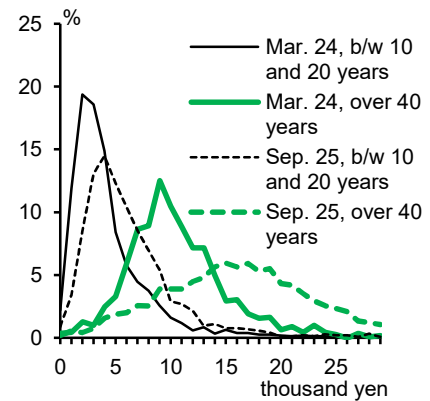
⁵⁸ The DSR shown in the left panel of Chart B2-3 represents the weighted average of the DSRs at each bank. It should be noted that some banks calculate the DSR based on the interest rate applied during the credit screening of borrowers, rather than the actual rate at the time of origination. As a result, the DSR in the panel might differ from the actual DSR level of borrowers.

Chart B2-5: Loan amounts and monthly repayments by repayment period



Note: Covers floating-rate housing loans issued by regional banks I that were newly originated between July and September of 2025.
Source: BOJ.

Chart B2-6: Distribution of interest burden of monthly repayment by repayment period



Note: The interest burden is calculated as: monthly repayment - loan amount / (repayment period x 12).
Source: BOJ.

While housing loans with longer repayment periods have the advantage that they help to keep the monthly repayment burden contained, it is particularly important to note that the larger the loan principal, the more sensitive the interest payment component of the repayment amount becomes to interest rate increases (Chart B2-6). From a somewhat longer-term perspective, households' repayment burden is likely to gradually decline if their income continues increasing as their salaries climb along the wage curve. In addition, in the near term, the existence of rules to prevent drastic changes in floating-rate housing loan payments, such as the "5-year rule" and the "125 percent rule," is expected to mitigate increases in the repayment burden.⁵⁹ That said, attention must be paid to the fact that the uncertainty regarding individual borrowers' future income and household circumstances becomes greater as the repayment period becomes longer.

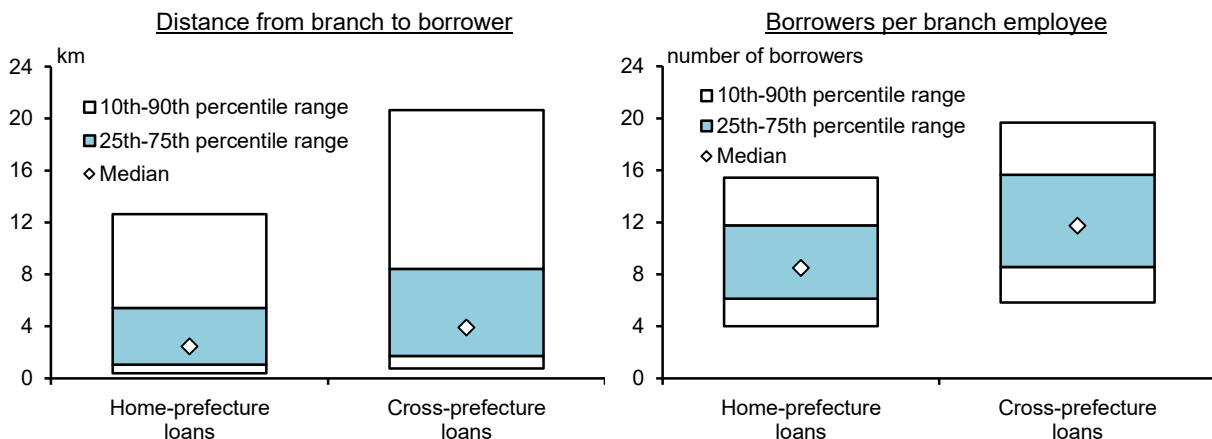
⁵⁹ Along with the "5-year" rule, the "125 percent rule," which stipulates that if repayments are revised, principal and interest payments in the following five years may not exceed 125 percent of the previous payment amount, is often applied at the time of contract. For interest rate hikes up until fiscal 2025, the rate of increase in repayment amount for most loans remains below 8 percent (right panel of Chart B2-1).

Box 3: Characteristics of bank branches engaging in cross-prefecture lending and interest rate setting that takes monitoring costs into account

As shown in section A of Chapter IV, in the case of loans to small and medium-sized enterprises (SMEs), credit ratings assigned by non-main banks for "cross-prefecture" loans tend to be relatively higher than those assigned by main banks for the same borrowers (right panel of Chart IV-1-9 and Chart IV-1-10). This tendency may reflect the difficulty of filling information gaps arising from high monitoring costs caused by factors such as the greater distance between lending branches and borrowers, as well as the higher number of borrowers per branch employee, coupled with other factors such as the relative difficulty non-main banks face in obtaining information on daily cash flow and other operations.

In fact, in cross-prefecture lending, the share of borrowing firms for which the lender bank is not the main bank ("non-main-bank borrowing firms") is higher than in local lending (left panel of Chart IV-1-9). An examination of the distribution of distances between lending branches and borrowers shows that while the median figures for cross-prefecture lending and local lending are fairly similar, cross-prefecture lending tends to have a thicker tail towards greater distances. Similarly, the distribution of the number of borrowers per branch employee indicates that cross-prefecture lending tends to involve a greater number of borrowers than local lending, and its upper tail is also thicker (Chart B3-1).

Chart B3-1: Relationship between lending branch and borrower



Note: 1. Covers regional banks I. Data as of end-June 2025.

2. In the right-hand chart, the total figures for both the number of borrowers and the number of branch employees are used when a consolidated branch-in-branch is located in a lending branch.

Source: Ministry of Land, Infrastructure, Transport and Tourism; The Japan Financial News; BOJ.

Thus, cross-prefecture lending tends to involve a relatively large share of borrowers for which monitoring costs for interim management are high. Banks therefore should examine whether there is room for further improvement in monitoring methods, including the utilization of digital transformation (DX) initiatives. That said, when management resources are constrained, banks could respond by recognizing the inherent risk associated with the difficulty of assessing borrowers' business conditions and setting lending rates commensurate with that risk. Against this background, the following empirical analysis examines how the relationship between banks and borrowers in cross-prefecture lending affects lending rates.⁶⁰

⁶⁰ The analysis focuses on loans without credit guarantees among fixed-rate loans for which the level of interest rates at the time of setting can be identified, using loan-by-loan data for regional banks that are member banks of the Regional Banks Association of Japan (regional banks I) from the common data platform.

Box 3: Characteristics of bank branches engaging in cross-prefecture lending and interest rate setting that takes monitoring costs into account

Banks generally set their lending rates by adding a spread that reflects borrowers' creditworthiness to market interest rates. Among factors that affect the degree of difficulty in obtaining information about a borrower, whether the bank is the borrower's main bank and the distance between the lending branch and the borrower are closely tied with each borrower, and these factors can therefore determine lending rates. On the other hand, it is unlikely that the number of borrowers per branch employee has a uniform effect on the lending rates applied to borrowers at that branch. For this reason, this analysis focuses on whether the bank is a borrower's main bank or not and the distance between the branch and a borrower, and examines the effects these have on lending rates.

The estimation results indicate that lending rates tend to be lower for borrowers with higher interest coverage ratios (ICRs) and lower debt ratios, suggesting that robustness in borrowers' financial positions is associated with lower lending spreads (Chart B3-2). Even after controlling for firms' financial positions, the result shows that banks charge statistically significantly lower interest rates in the case of cross-prefecture lending to "non-main-bank borrowing firms."⁶¹ Taken together with the analysis in Section A of Chapter IV, this suggests that lending rates for such borrowers may be set low despite potential information gaps. Meanwhile, the coefficient for the distance between lending branches and borrowers is not statistically significant, suggesting that there is room for banks to reflect higher monitoring costs associated with borrower distance in lending rates.

Chart B3-2: Estimation results on lending rates

	Dependent variable: Fixed lending rate (%)					
	SMEs	Cross-prefecture loans	Home-prefecture loans	Large & medium-sized firms	Cross-prefecture loans	Home-prefecture loans
Dummy for non-main-bank borrower	-0.12 **	-0.10 **	-0.09	-0.07	-0.05	-0.05
Distance from branch to borrower	-0.00	0.00	0.01	0.00	0.03	-0.02
ICR	-0.04 ***	-0.04 ***	-0.04 ***	-0.14 ***	-0.16 ***	-0.11 ***
Debt ratio	0.29 ***	0.22 ***	0.32 ***	0.10 ***	0.05	0.14 ***
Loan outstanding	-0.10 ***	-0.07 ***	-0.11 ***	0.02	-0.00	0.02
Constant / Dummies for industry; borrower prefecture; loan origination period × loan term	Yes	Yes	Yes	Yes	Yes	Yes
Adj. Within R-squared	0.11	0.08	0.11	0.15	0.21	0.12
Sample size	38,200	13,634	24,566	3,427	1,481	1,946

Note: Covers non-guaranteed loans by regional banks | as of end-June 2025. The distance from branch to borrower and the loan outstanding are logarithmic values. ICR and debt ratio are values available at the time of loan origination. ***, **, and * indicate statistical significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

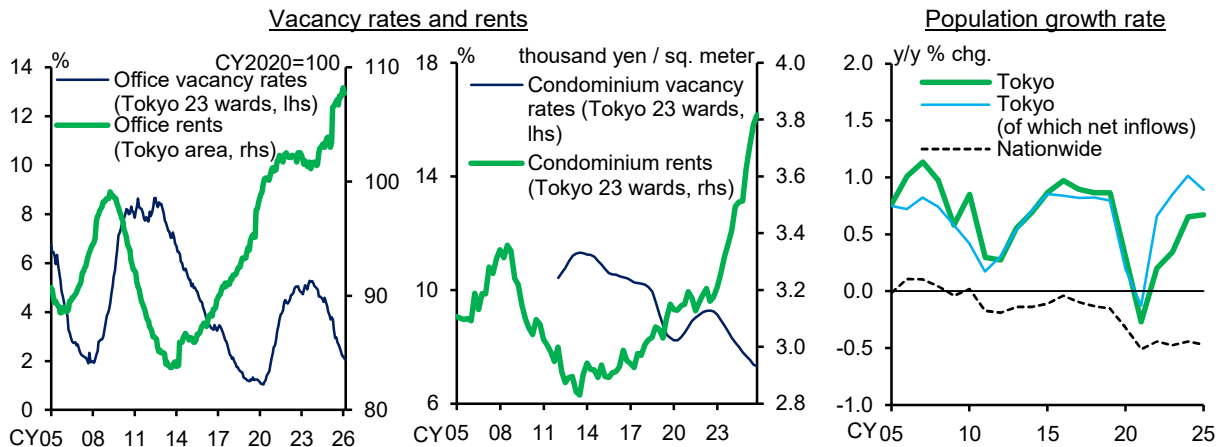
Source: Ministry of Land, Infrastructure, Transport and Tourism; The Japan Financial News; BOJ.

⁶¹ For lending to large and medium-sized firms, neither being a "non-main-bank borrowing firm" nor the distance between the branch and the borrower has a statistically significant effect on lending rates. Compared with SMEs, more information is available, suggesting that lending rates for such firms are generally set on the basis of their creditworthiness.

Box 4: Developments in real estate markets

This box examines the background to the recent rise in real estate prices from both demand and supply sides. Looking first at the demand side, demand for offices and housing has remained firm, particularly in major urban areas (Chart B4-1). For offices in the Tokyo metropolitan area, amid a continued decline in vacancy rates, there was a substantial rise in rents at the beginning of fiscal 2025, when many rents were renewed. As for condominiums, amid a continued increase in residential demand particularly in the Tokyo metropolitan area, driven by population growth, there has been a decline in vacancy rates and a continued rise in rents. On the other hand, on the supply side, construction costs have been trending upward due to a surge in material prices and labor shortages, which appears to be constraining supply through delays in construction schedules and revisions to construction plans (Chart B4-2). The downward trend in construction starts, as measured by floor area and the number of new condominiums for sale, has also continued.

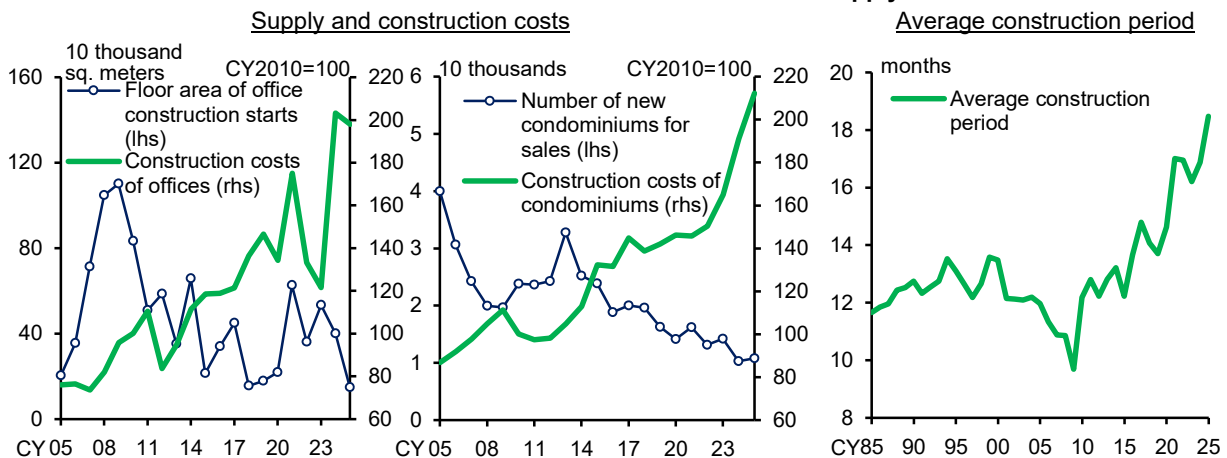
Chart B4-1: Demand for real estate



Note: 1. In the left-hand chart, latest data for "Office vacancy rates" and "Office rents" are as of March 2026 and February 2026, respectively. "Office rents" is based on the Services Producer Price Index.
 2. Latest data for the middle chart are as of 2025/Q4. "Condominium rents" indicates the average rents under new contracts released by the Real Estate Information Network for East Japan.
 3. The year-on-year growth rate of population in the right-hand chart is as of October 1 of each year. "Net inflows" is based on net social population change between January 1 and December 31.

Source: Ministry of Internal Affairs and Communications; Real Estate Information Network for East Japan; Sanko Estate Co., Ltd.; TAS Corp.; Tokyo Metropolitan Government; BOJ.

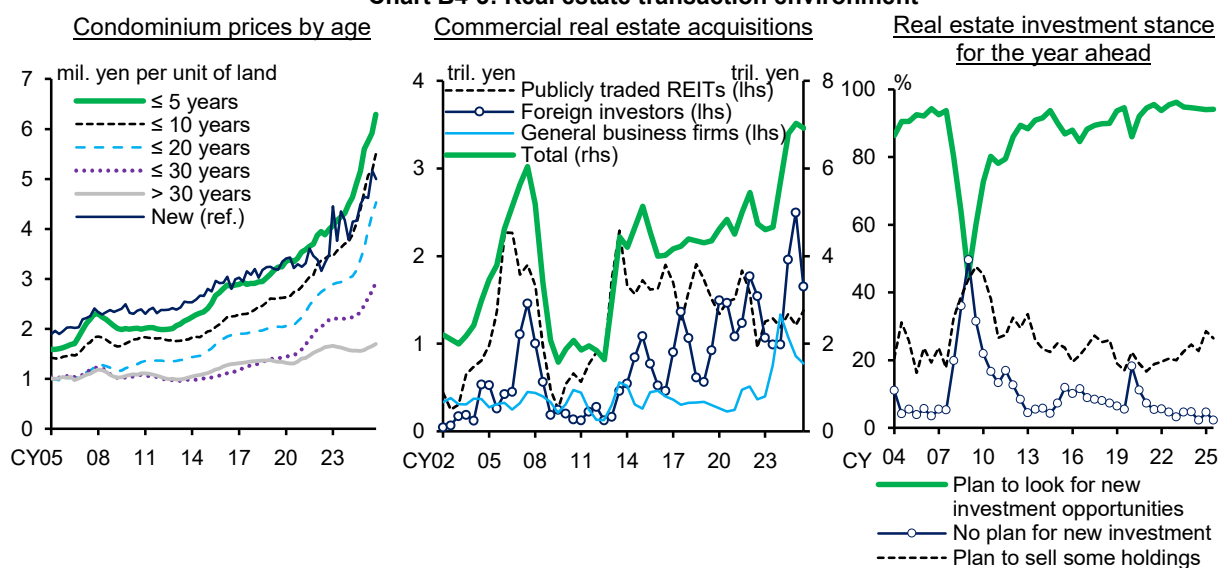
Chart B4-2: Construction cost and new supply



Note: 1. The left-hand and middle charts cover Tokyo. The data for construction costs are estimated construction costs per floor area of construction starts. Offices are for business use and condominiums are for residence whose structures are steel reinforced concrete or reinforced concrete.
 2. In the right-hand chart, the data are calculated as the ratio of construction works permitted but not started to construction works executed, based on the "Current Survey of Orders Received for Construction (Big 50 Constructors)."
 3. Latest data as of 2025.

Source: Ministry of Land, Infrastructure, Transport and Tourism; Real Estate Economic Institute.

Chart B4-3: Real estate transaction environment

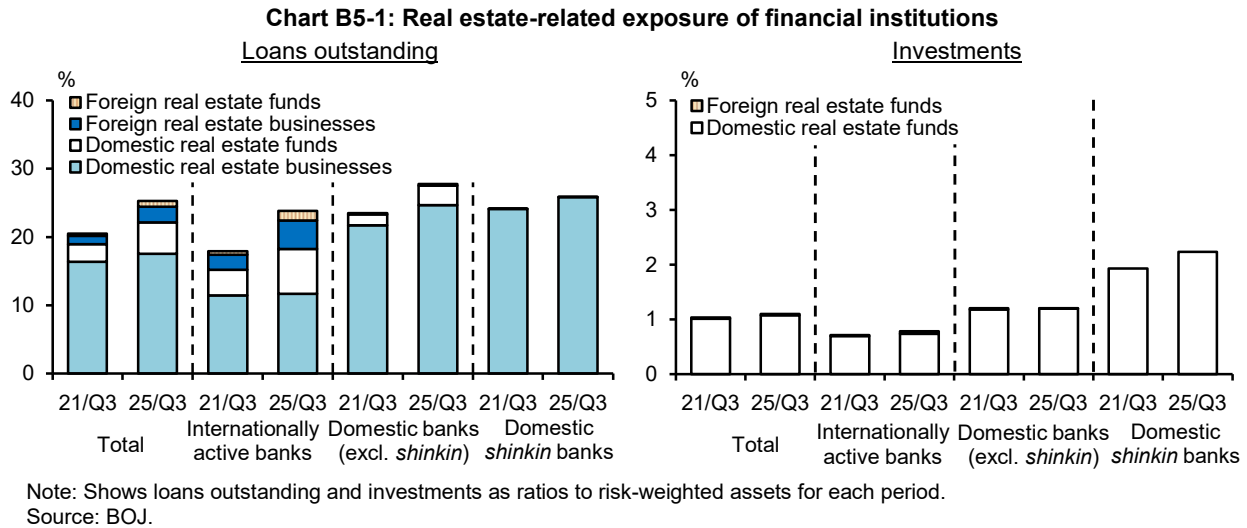


Note: 1. Latest data for the left-hand chart are as of 2025/Q4. Shows the distribution inventory prices of existing condominiums and the launch prices of newly constructed condominiums in the Tokyo metropolitan area.
 2. Latest data for the middle chart are as of the second half of 2025. Shows annualized values (sums for the past one year).
 3. Latest data for the right-hand chart are based on the October 2025 survey. Based on a survey of real estate investors (asset managers, banks, developers, etc.). Multiple answers allowed.
 Source: Japan Real Estate Institute; Tokyo Kantei.

With upward pressure on real estate prices due to both the demand and the supply factors discussed above, there is active trading in the real estate market (left and middle panels of Chart B4-3). Against the backdrop of a continued decline in the supply of newly constructed condominiums, transactions of existing condominiums have been conducted at high price ranges, with transaction prices rising sharply especially for relatively new properties, which likely reflects demand, including for investment properties. As for commercial real estate, transaction values have remained elevated, supported by participation from a wide range of market players, including foreign investors. It has been pointed out that, among these transactions, there has been an increase in transactions involving low-yield projects that assume short-term increases in real estate prices amid expectations of sustained firm demand and further rent increases (Chart V-1-6). While the majority of real estate market participants believe that the real estate market will continue to perform well, even amid expectations of a continued rise in interest rates, it is necessary to continue to carefully monitor whether there is any rapid change in market participants' future investment stance (right panel of Chart B4-3).

Box 5: Stress test based on a real estate stress scenario

Japanese banks' exposures to real estate (as a ratio to risk assets) have increased across all types of banks over the past several years, under a continued rise in commercial and residential real estate prices (Chart B5-1).



This box presents an updated version of the real estate shock scenario analyzed in Section B of Chapter V in the April 2024 issue of the *Report*. The scenario assumes a broader range of transmission channels than the previous scenario and assesses the stress resilience of banks' financial bases. Specifically, in addition to the previous scenario, which assumes a decline in commercial real estate prices and rents in the three major metropolitan areas, triggered by sales of Japanese real estate by foreign real estate funds, the updated scenario also assumes a decline in the prices and rents of residential real estate and in land prices in these three metropolitan areas, which have been on a sustained upward trend (Chart B5-2).⁶² Such negative shocks to real estate prices and rents would depress the earnings of real estate transaction businesses and real estate leasing businesses, leading to rating downgrades which, in turn, would push up banks' credit costs. The scenario also takes into account that banks located outside the three major metropolitan areas may incur credit costs via "cross-prefectural" lending to borrowers in those areas. A decline in real estate prices also reduces the value of investment units in real estate funds and raises loan-to-value (LTV) ratios, impairing loans to and investments in such funds, while a fall in land prices lowers collateral values and, by reducing average recovery rates on loan portfolios, increases credit costs.⁶³ Furthermore, falling asset prices can lead borrowers to adjust their balance sheets and reduce their borrowing, thereby causing a slowdown in the real economy. This could put additional downward pressure on banks' financial bases through higher credit costs. The real estate stress

⁶² Under the scenario, financial variables such as domestic and foreign interest rates and stock prices are assumed to be the same as in the baseline scenario in Section B of Chapter VI. In the April 2024 real estate shock scenario, the assumed decline in commercial real estate prices was limited to Tokyo, Aichi, and Osaka prefectures within the three major metropolitan areas, whereas the present scenario assumes price declines across the whole of the three metropolitan areas. Regarding lending to foreign real estate funds, whereas the April 2024 scenario assumed a 100 percent loss on exposures to U.S. real estate, the current scenario assumes a situation in which real estate prices around the world decline by an extent comparable to that seen during the global financial crisis.

⁶³ The present scenario assumes that real estate fund prices fall sharply, by around 60 percent, and that the losses due to fund investment are fully written down and booked as realized losses on securities holdings. Meanwhile, for real estate held by banks for their own business use, it is assumed that no impairment losses are recorded, given that the assumed declines in commercial real estate prices and land prices (of roughly 25 percent and 10 percent, respectively) are relatively moderate.

scenario in this box incorporates these kinds of interactions between financial intermediation and the real economy and examines banks' financial robustness.

Chart B5-2: Assumptions in the real estate stress scenario

Main variables		Estimation methods	Maximum deviation rates
Real estate variables in the three major metropolitan areas	Commercial property prices	Based on the rate of change after the mid-2000's mini-bubble period	About -25%
	Office rents		About -10%
	Residential property prices	Based on the same rate of change as for commercial property	About -25%
	Housing rents		About -10%
Land prices (average for all uses)	Based on the rate of change after the mid-2000's mini-bubble period	About -10%	
Real economic variables	Japanese real GDP	Based on the simulation results of FMM	About -1%
	Value-added of real estate businesses	Based on the shocks to real estate variables and the relationship between these variables and value-added	About -25%
Real estate funds	Real estate fund prices	Based on the shocks and the ratio of market capitalization to net asset value during the global financial crisis (GFC)	About -60%
	Loans to domestic real estate funds	Based on the increase in LTV following the shocks, assuming losses on loans to funds exceeding a specified LTV threshold	About -7%pts
	Loans to foreign real estate funds	Based on the increase in LTV under the assumption that foreign real estate prices decline by 37%, comparable to the GFC	About -12%pts

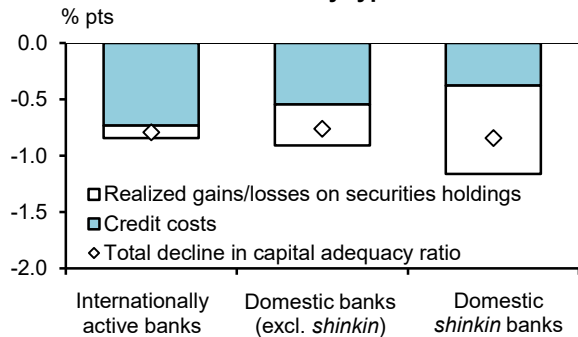
Note: "Maximum deviation rate" indicates the maximum difference between the values under the baseline scenario and the real estate stress scenario in each quarter. For value-added of real estate businesses, "maximum deviation rate" is the rate of decline in the real estate businesses in the three major metropolitan areas, while the real estate variables outside the areas are in line with the baseline. For loans to funds, "maximum deviation rate" indicates the maximum difference in the credit cost ratio.

The simulation results show that the capital adequacy ratios of all types of banks decline by around 0.8 percentage points (Chart B5-3). The breakdown of this decline differs across bank types. For internationally active banks, which have relatively large loan exposures to domestic and foreign real estate funds, the main contribution to the decline comes from higher credit costs on these lending. On the other hand, for domestic *shinkin* banks, which have sizable exposures to investment in real estate funds, the primary factor behind the fall in capital adequacy ratios is a deterioration in realized losses on securities due to a decline in fund prices, as investment in such funds tends to have higher loss rates under stress than lending to such funds. The amount of losses incurred by banks in the current scenario is larger than in the real estate shock scenario in the April 2024 issue. This mainly reflects the broader range of transmission channels, as well as the expansion in real estate-related exposures -- particularly loans to and investments in real estate funds, which are more prone to losses under the assumptions in the present scenario.

When domestic banks (both regional banks and *shinkin* banks) are divided into those headquartered in the three major metropolitan areas -- where real estate prices and rents are assumed to decline -- and those headquartered in other regions, the simulation shows that, overall losses are larger for banks located in the three major metropolitan areas, with regard to their credit costs and realized gains/losses on securities holdings (Chart B5-4). However, domestic *shinkin* banks headquartered in other regions also incur considerable losses stemming from their real estate exposures in the three major metropolitan areas via securities investments in real estate funds, while domestic banks (excluding *shinkin* banks) located in regions other than three major

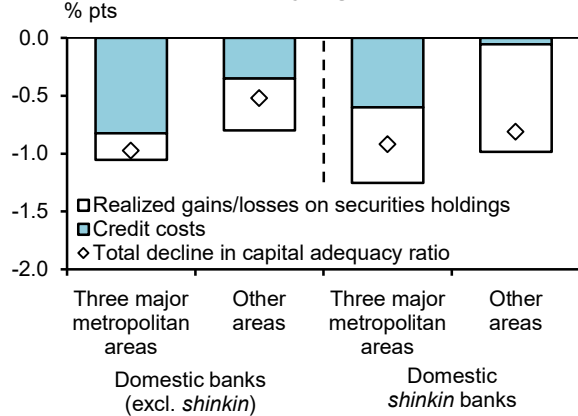
metropolitan areas incur losses both from such securities investments and from cross-prefecture real estate lending to borrowers in the three major metropolitan areas.⁶⁴

Chart B5-3: Results of the real estate stress scenario by type of bank



Note: Indicates the differences between the capital adequacy ratios at the end of the simulation period (as of end-fiscal 2028) under the baseline scenario and the real estate stress scenario, and the contributions of credit costs and the realized gains/losses on securities holdings. The contributions of credit costs and the realized gains/losses on securities holdings are on a basis that takes tax effects into account.

Chart B5-4: Results of the real estate stress scenario by region (domestic banks)



Note: 1. Indicates, by region, the differences between the capital adequacy ratios at the end of the simulation period (as of end-fiscal 2028) under the baseline scenario and the real estate stress scenario, and the contributions of credit costs and the realized gains/losses on securities holdings. The contributions of credit costs and the realized gains/losses on securities holdings are on a basis that takes tax effects into account.
 2. Banks are classified as being in the three major metropolitan areas if their headquarters are located in the three major metropolitan areas.

Overall, the simulation shows that even in the event of stress in which there is a substantial shock to real estate prices, capital adequacy ratios as a whole remain above regulatory levels, and the stability of the financial system as a whole can therefore be judged as being maintained.

⁶⁴ The impact of credit costs on loans to sectors other than real estate is limited, as the downward pressure on the real economy through channels such as falling land prices is relatively small.

Glossary

Financial statements of financial institutions

Net income = operating profits from core business + realized gains/losses on stockholdings + realized gains/losses on bondholdings – credit costs ± others (such as extraordinary gains/losses)

Gross operating profits from core business = core gross operating profits = net interest income + net non-interest income

Operating profits from core business = pre-provision net revenue (PPNR) = net interest income + net non-interest income – general and administrative expenses

Net interest income = interest income – interest expenses

Net non-interest income = net fees and commissions + profits on specified transactions + other operating profits – realized gains/losses on bondholdings

Overall gains/losses on stockholdings = realized gains/losses on stockholdings + changes in valuation gains/losses on stockholdings

Realized gains/losses on stockholdings = gains on sales of stocks – losses on sales of stocks – losses on devaluation of stocks

Overall gains/losses on bondholdings = realized gains/losses on bondholdings + changes in valuation gains/losses on bondholdings

Realized gains/losses on bondholdings = gains on sales of bonds + gains on redemption of bonds – losses on sales of bonds – losses on redemption of bonds – losses on devaluation of bonds

Credit costs = loan-loss provisions + write-offs + losses on credit sales – recoveries of write-offs

Credit cost ratio = credit costs / total loans outstanding

Adjusted OHR = overhead costs / gross operating profits from core business

Capital adequacy ratios of internationally active banks

Common equity Tier 1 (CET1) capital ratio = CET1 capital / risk-weighted assets

CET1 capital consists of common equities and retained earnings, etc. (including accumulated other comprehensive income).

Tier 1 capital ratio = Tier 1 capital / risk-weighted assets

Tier 1 capital includes CET1 capital and preferred equities that meet certain conditions.

Total capital adequacy ratio = Total capital / risk-weighted assets

Total capital includes Tier 1 capital and subordinated bonds that meet certain conditions.

Capital adequacy ratios of domestic banks

Core capital ratio = core capital / risk-weighted assets

Core capital includes common equities and retained earnings as well as preferred equities that meet certain conditions.

