Financial System Report

Summary

April 2025

Bank of Japan

Note: This document presents a summary of the April 2025 issue of the *Financial System Report*.
See the *Report* for more details of the analyses as well as notes and sources of the charts.

Stability assessment of Japan's financial system

- Japan's financial system has been maintaining stability on the whole.
- Financial intermediation has continued to function smoothly.
  - Despite the increase in lending rates, firms' demand for loans has risen. Banks' lending stance has also remained accommodative. No major financial imbalances have been seen in these financial intermediation activities.
- Japanese banks have sufficient capital bases and stable funding bases to withstand various stress events, such as those equivalent to the global financial crisis that cause a major correction in financial markets and the real economy at home and abroad.
  - However, since the beginning of April, financial markets at home and abroad have fluctuated significantly, while uncertainty has heightened regarding the formulation of trade and other economic policies in each jurisdiction, geopolitical risks, and developments in global financial markets. Financial institutions need to be vigilant against materialization of various risks.
  - From a long-term perspective, if the structural decline in firms' loan demand reflecting the shrinking population and other factors continues, depending on the supply and demand balance in the loan market, banks' profitability and loss-absorbing capacity could decline, and this could lead to a contraction of financial intermediation activities or an overheating, such as excessive search for yield.
  - With these in mind, it is necessary to address the potential vulnerabilities appropriately and ensure the stability of Japan's financial system into the future.

Contents

Contents of the *Financial System Report* (April 2025)

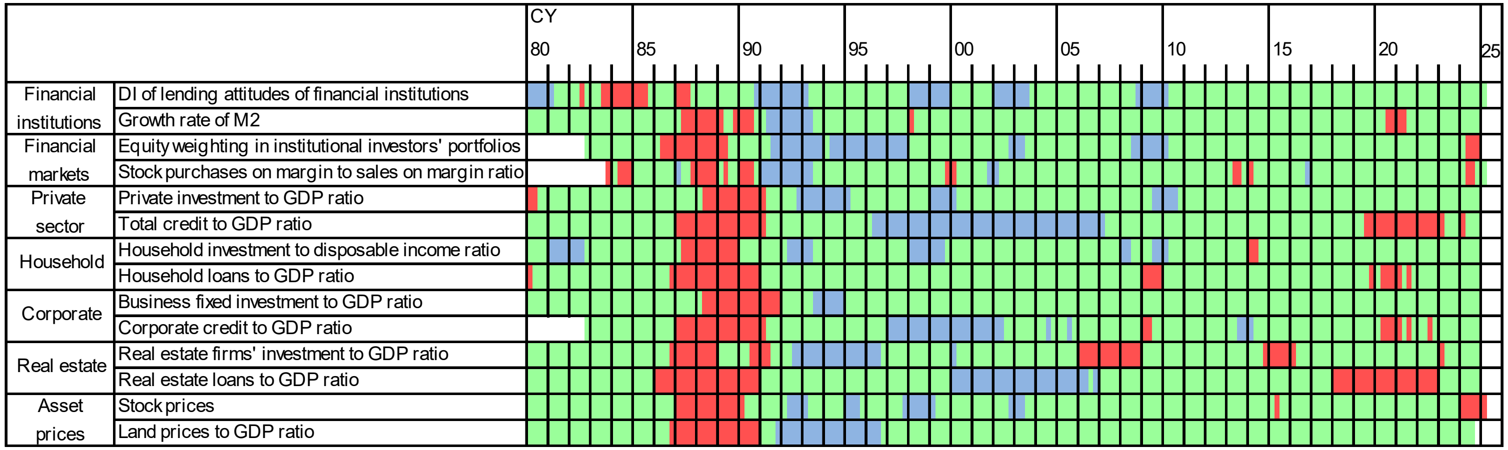
1. Financial cycle and developments in asset prices

- Financial cycle
- Stock market
- Real estate market

Financial cycle

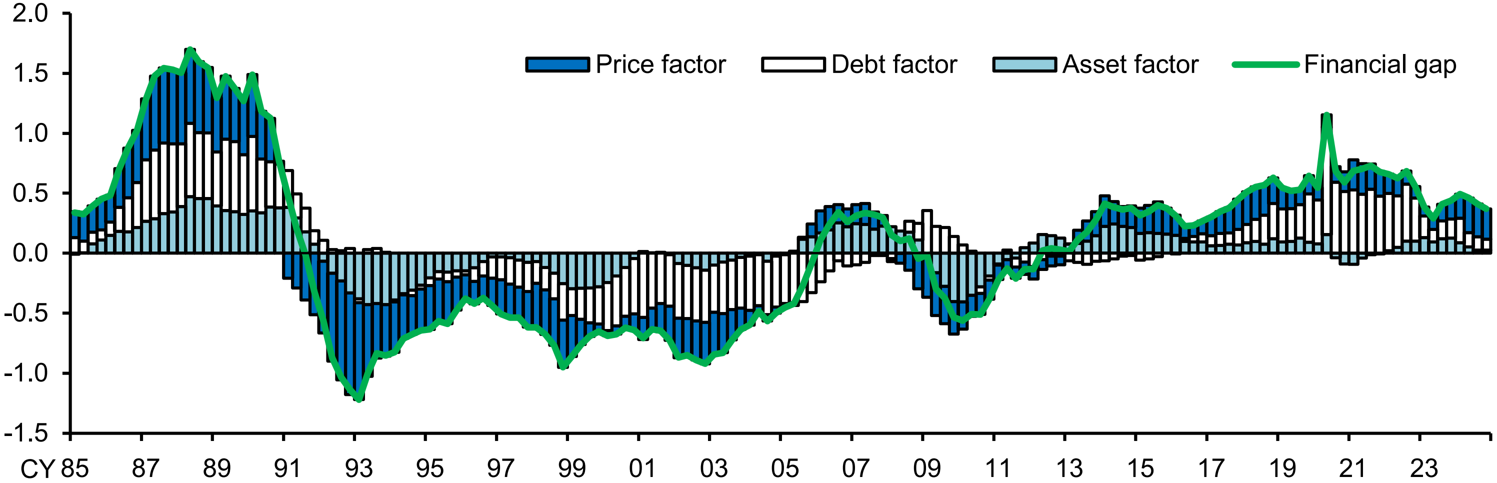
- No major financial imbalances have been seen in current financial activities based on the heat map and the financial gap.
  - The financial gap, which is a summary measure of the 14 FAIXs, has remained positive but has become narrower than a while ago.

Heat map



Note: See Chart V-1-1.

Financial gap

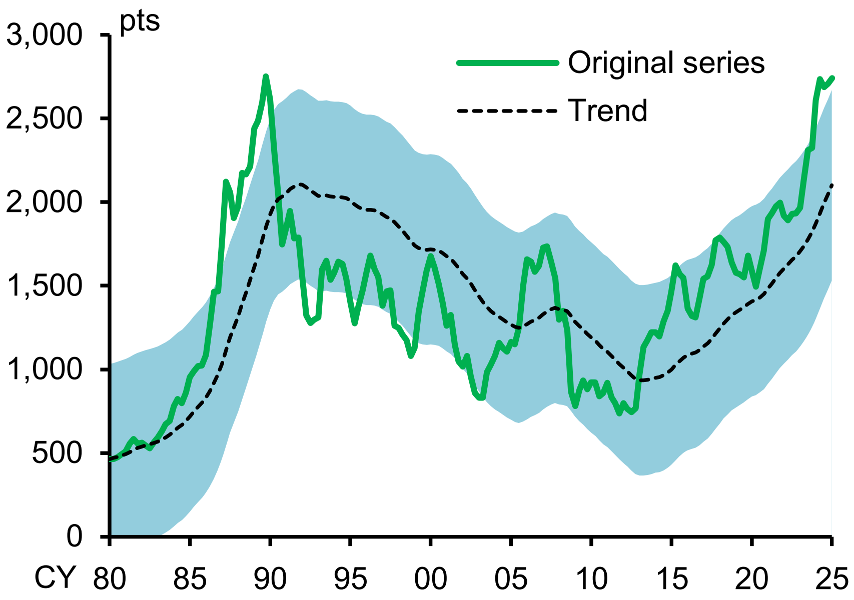


Note: See Chart V-1-2.

Asset prices: Japan's stock market

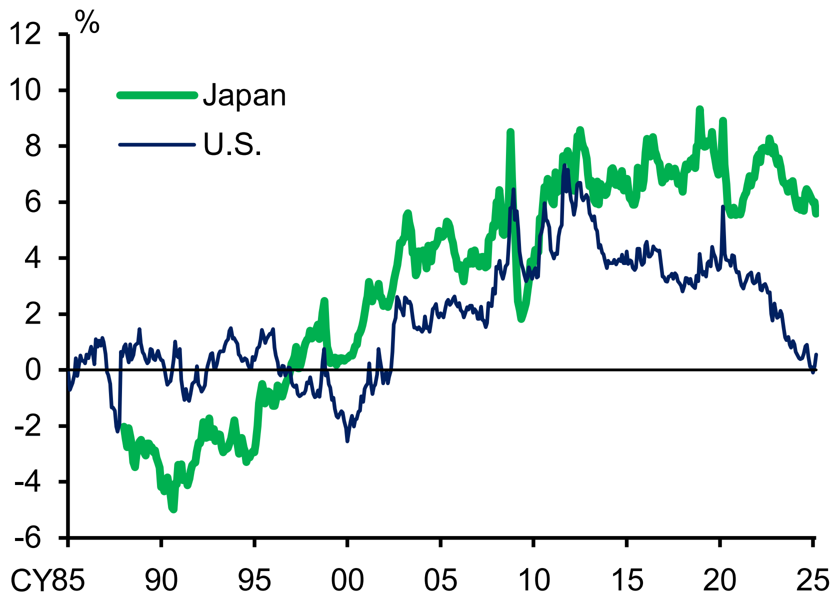
- Stock prices deviated upward from the trend. Meanwhile, equity risk premiums in terms of yield spreads were generally flat and there was no sign of significant overheating in terms of stock valuations.
  - Since early April, stock prices have been fluctuating substantially as uncertainty has been heightening regarding the effect of trade policy in each jurisdiction.
- Considering that Japanese banks have a certain amount of market risk associated with stockholdings, developments in asset prices warrant attention.

Japanese stock prices



Note: Latest data as of 2025/Q1 (January-March average). "Trend" is calculated using the one-sided HP filter. See Chart V-1-3.

Equity yield spreads



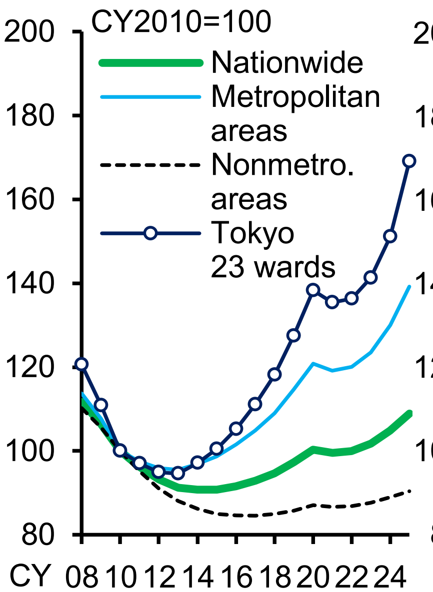
Note: Latest data as of end-March 2025. Calculated by subtracting 10-year government bond yields from expected returns based on expected EPS for the next 12 months. See Chart V-1-3.

Asset prices: Japan's real estate market (1)

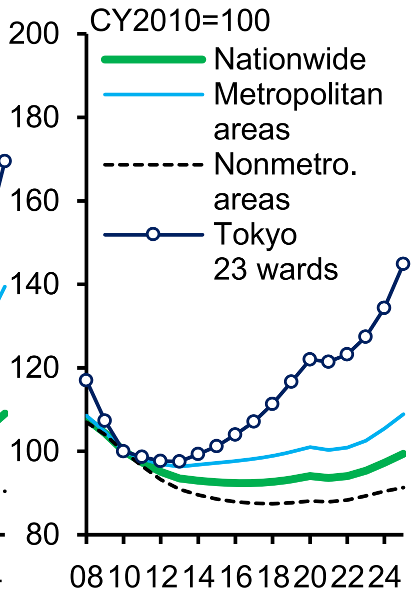
- Land prices -- both commercial and residential -- have been rising, and the pace has accelerated in the three major metropolitan areas.
- For commercial real estate transactions, prices of office buildings in the Tokyo metropolitan area have seen notable increases, and for residential real estate transactions, condominium prices have been rising substantially in Japan as a whole.

Land prices

Commercial land



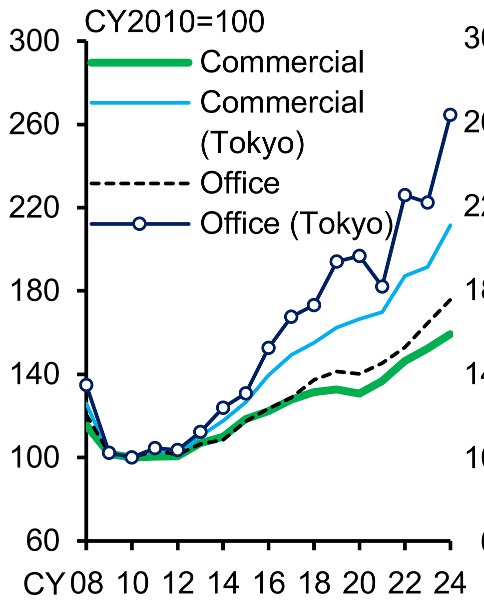
Residential land



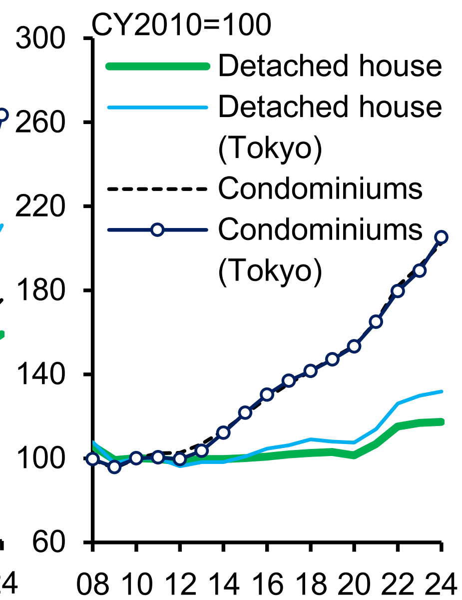
Note: See Chart V-1-6.

Real estate transaction prices

Commercial real estate



Residential real estate

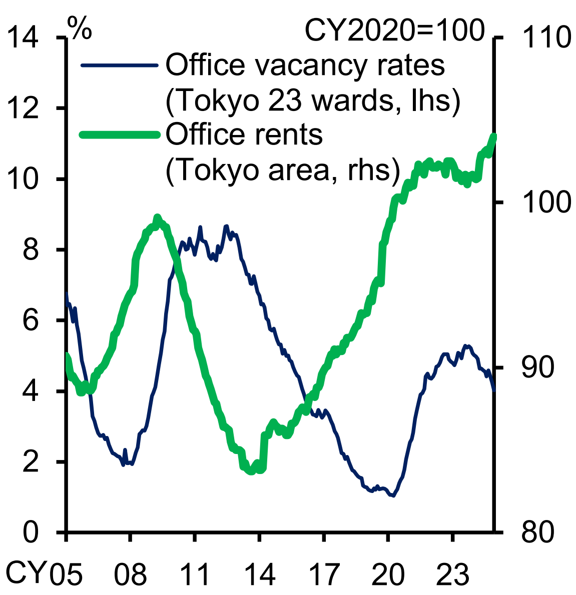


Note: See Chart V-1-7.

Asset prices: Japan's real estate market (2)

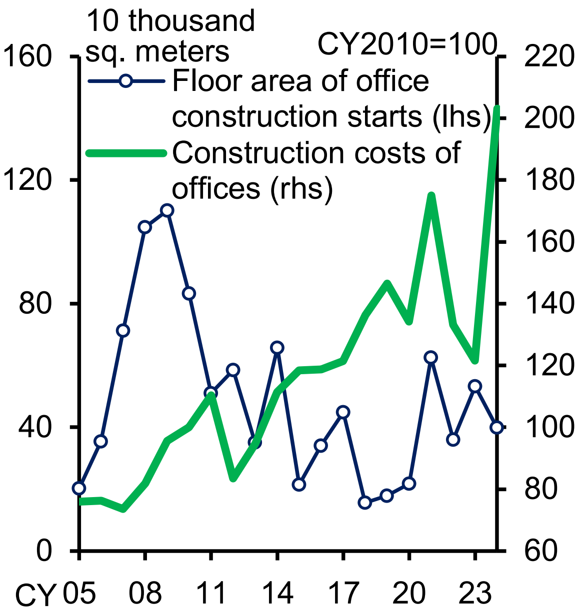
- Both supply and demand factors likely have driven these increases in real estate prices.
- Vacancy rates of office buildings in the Tokyo metropolitan area have begun to decline as the economy recovers moderately. Rents have been rising further recently.
- The surge in material costs and labor shortages have contributed to rising real estate prices through the rise in construction costs, a delay in construction projects, and the curtailing of new projects due to a deterioration in profitability.

Rents and vacancy rates



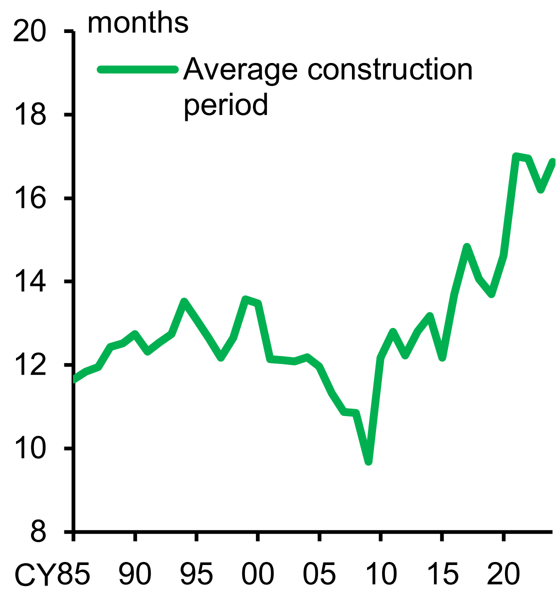
Note: See Chart V-1-8.

Construction costs and construction starts



Note: Covers Tokyo. See Chart V-1-9.

Average construction period



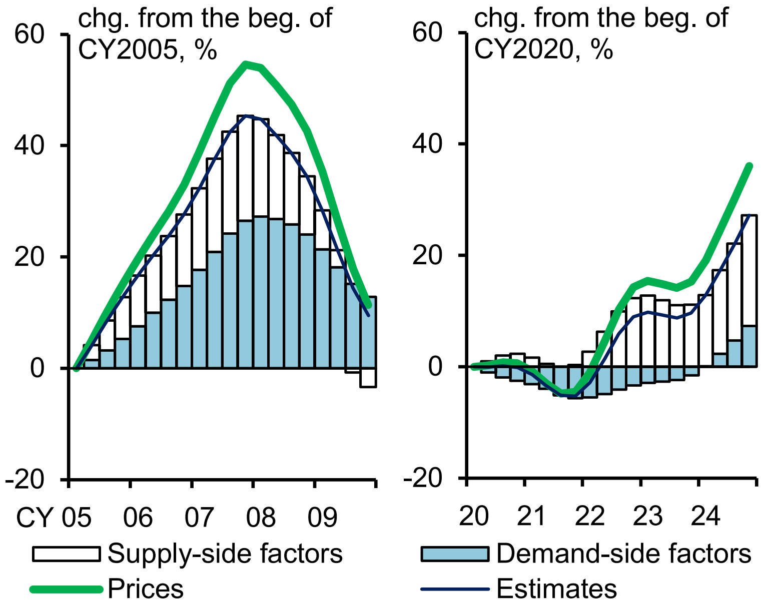
Note: See Chart V-1-9.

Asset prices: Japan's real estate market (3)

- For office prices in the Tokyo metropolitan area, in the current phase, it is likely that the rise in prices has been driven mainly by supply factors.
- Real estate prices reflect expectations about the pace of future rent increases and investment demand in anticipation of price rises. Recently, large-scale land transactions for asset-holding and resale purposes are on the rise and real estate risk premiums (property yields minus 10-year government bond yields) have declined.

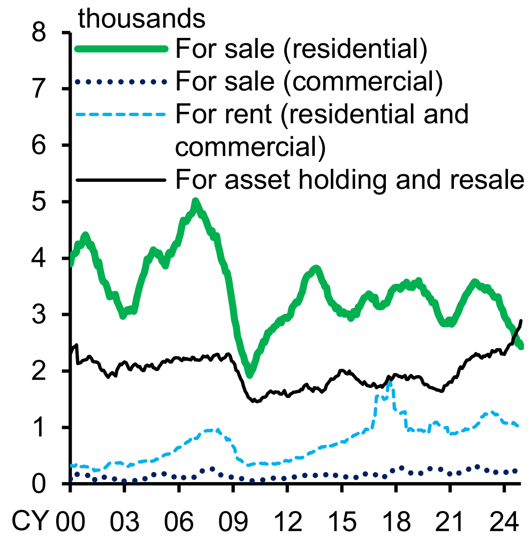
Factors affecting office prices

(Mini-bubble periods) (Current phase)



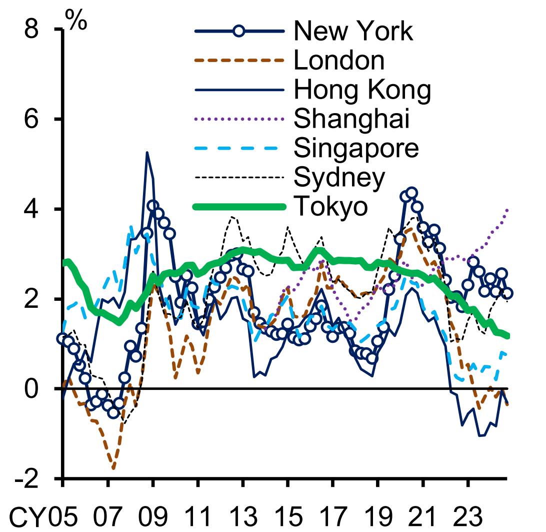
Note: Shows the decomposition based on the estimates of a structural VAR with 5 variables; office prices, vacancy rates, rents, construction starts, and construction costs in Tokyo. See Chart V-1-12.

Number of large land transactions by use



Note: See Chart V-1-10.

Real estate risk premiums (yield gaps)

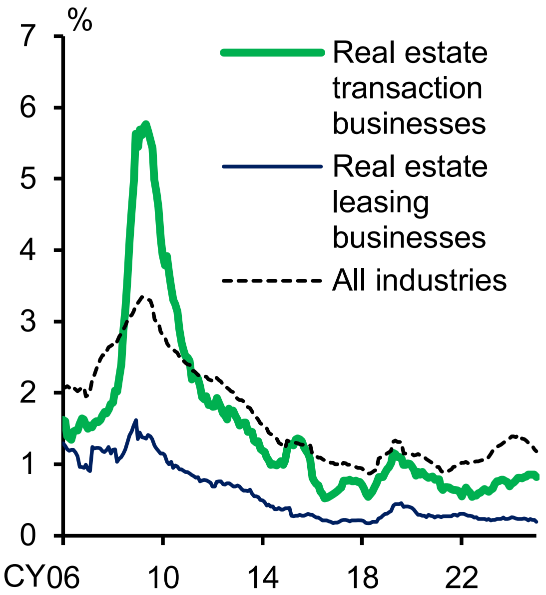


Note: Yield gaps are calculated as cap rates of Grade-A office buildings in each city minus 10-year government bond yields. See Chart V-1-11.

Asset prices: Loans and investments to real estate by banks

- At this point, default rates of firms in the real estate industry have remained low.
- According to the analysis in the April 2024 *Report*, even when a large adjustment in commercial real estate prices takes place in metropolitan areas, the economic losses for Japanese banks are likely to be limited on an aggregate basis.

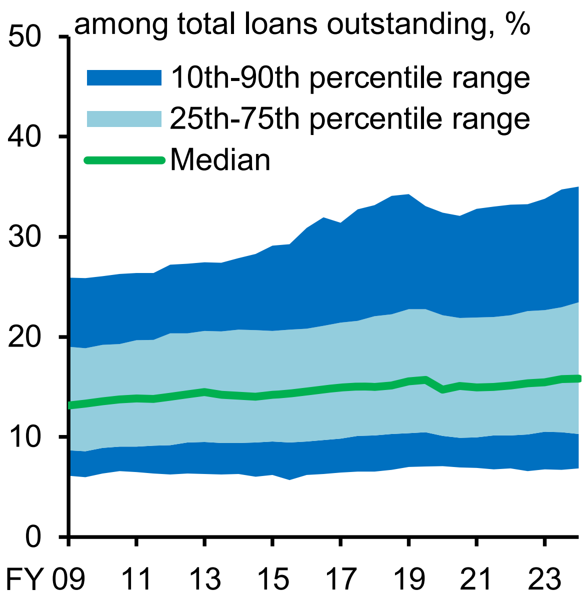
Default rates of real estate businesses



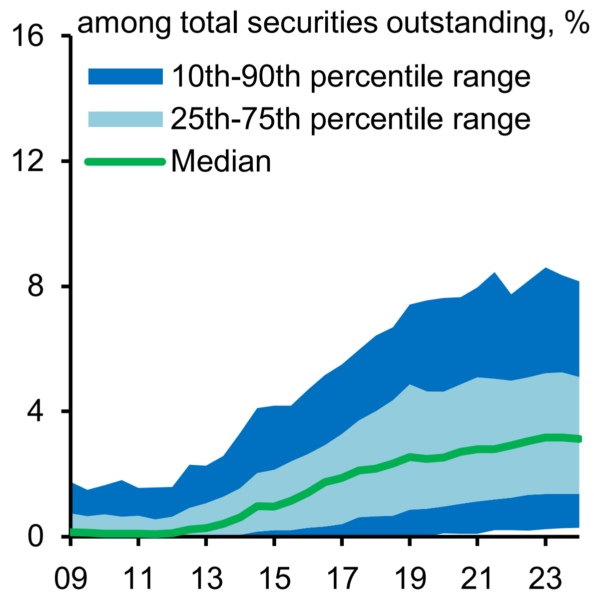
Note: Latest data as of January 2025.
See Chart V-1-15.

Banks' real estate-related exposure

Share of real estate-related loans



Share of real estate-related investments



Note: Calculated using data on each bank's loans to real estate businesses and loans and investments to real estate funds. See Chart V-1-16.

Contents of the *Financial System Report* (April 2025)

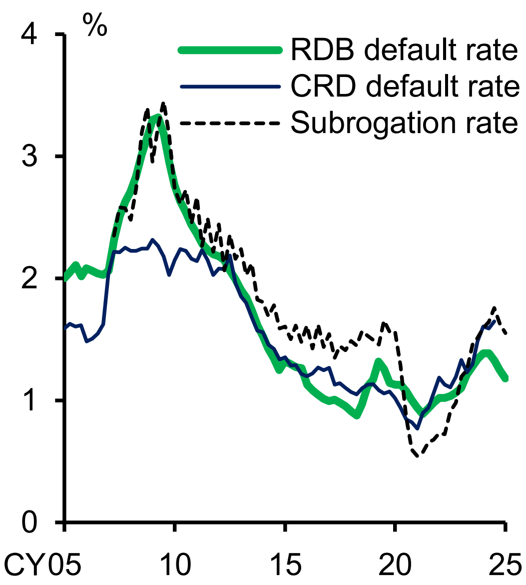
2. Corporate bankruptcies and defaults

- Corporate bankruptcies and defaults by firm characteristic
- Banks' business improvement support for firms

Corporate bankruptcies and defaults (1)

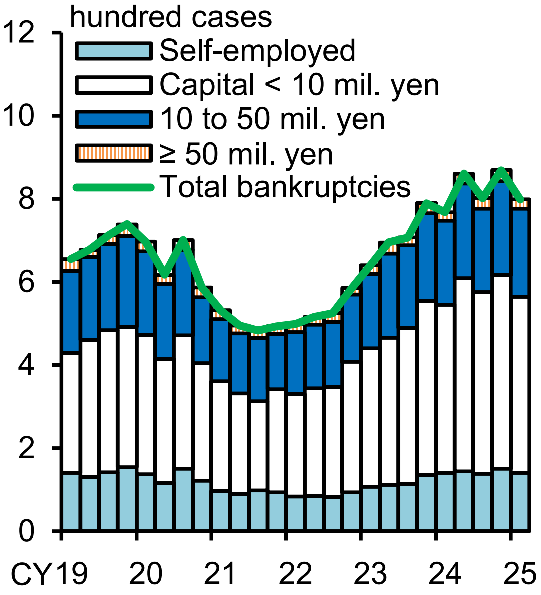
- Some indicators of default rates have recently pointed to a slowdown in the rise of default rates or a decline. Corporate bankruptcies have been increasing particularly among small-sized firms since the second half of 2022, but the pace of increase has been slowing recently.
- Banks' credit cost ratios have remained at a low level because of precautionary loan-loss provisions by banks and the presence of credit guarantees.

Default rates and subrogation rates



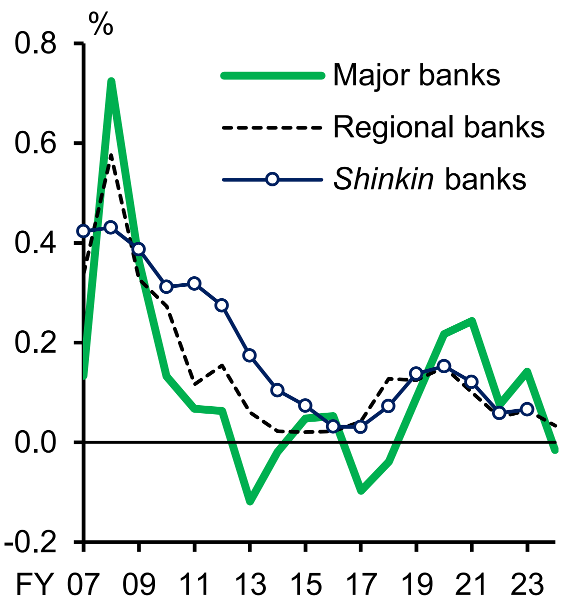
Note: See Chart IV-1-6.

Bankruptcies by firm size



Note: See Chart IV-1-5.

Banks' credit cost ratios

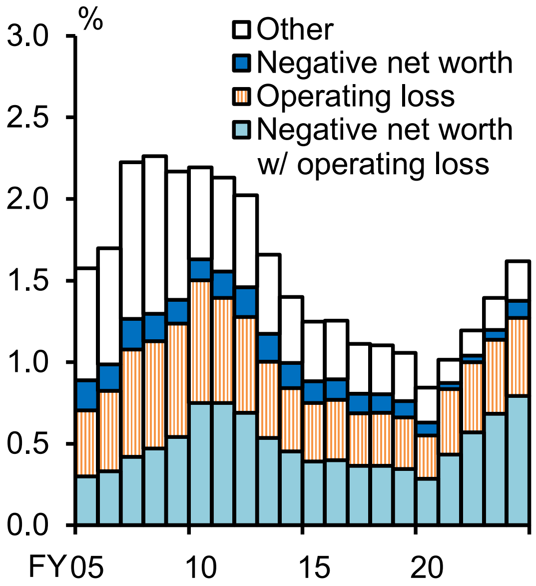


Note: See Chart IV-1-1.

Corporate bankruptcies and defaults (2)

- More than half of the defaulting firms are those with operating losses, including those with negative net worth. Recently, the share of these firms among small and medium-sized enterprises (SMEs) and micro firms has been declining.
- The overall improvement in the financial positions of SMEs and micro firms has likely contributed to the recent slowdown in default rates.

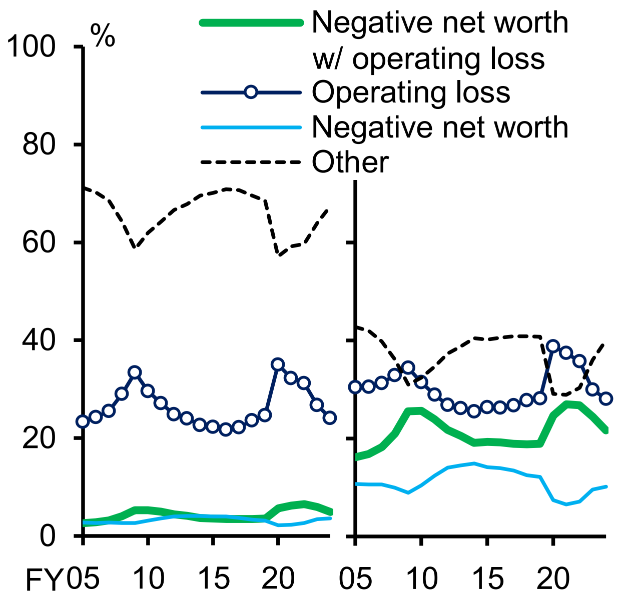
Default rates by firm characteristic



Note: See Chart IV-1-6.

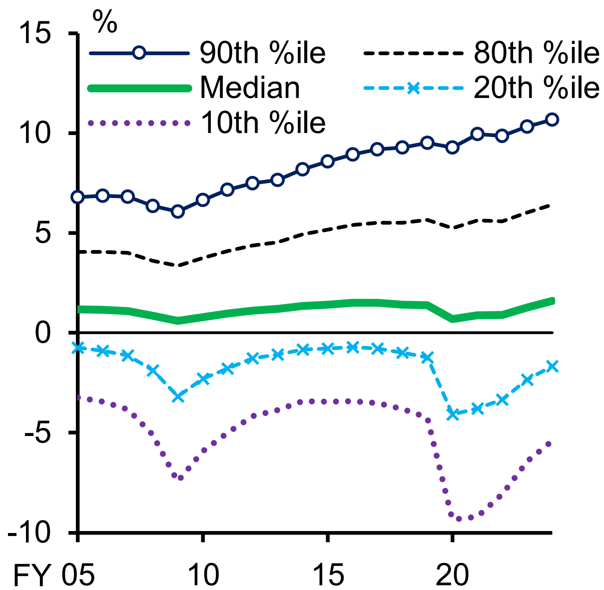
Composition by firm characteristic

(SMEs) (Micro firms)



Note: See Chart IV-1-6.

Ratio of operating profits to sales (SMEs)

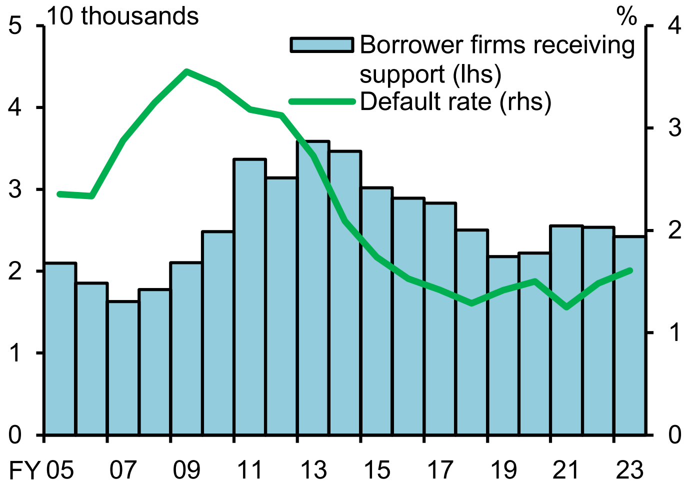


Note: See Chart IV-1-4.

Banks' business improvement support for firms

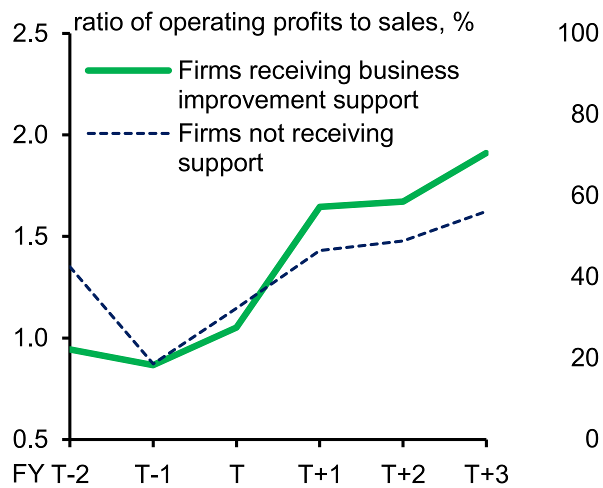
- The number of firms receiving the support from regional banks started to increase again.
- Supported firms tend to experience improvement in their operating profits to sales ratio to a greater extent than those of non-supported firms.

Number of borrower firms receiving business improvement support by regional banks



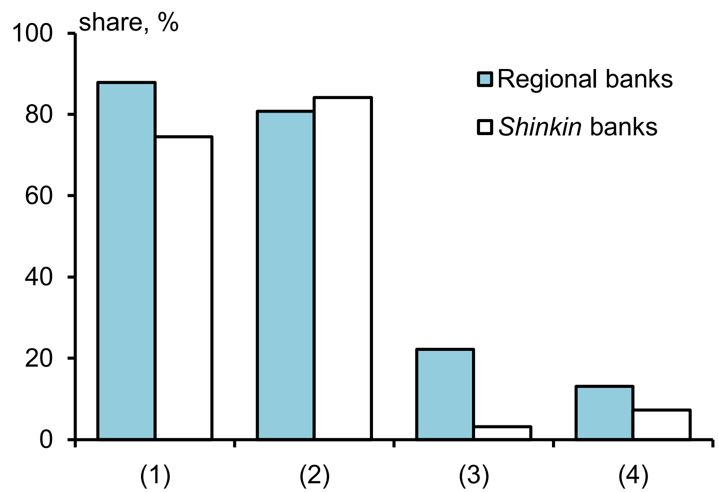
Note: See Chart IV-1-12.

Financial positions of firms receiving business improvement support



Note: "Firms not receiving support" (i.e., the control group) are selected as firms in the same industry, of the same size, and with a similar ratio of operating profits to sales in the fiscal year prior to the start of the support as "Firms receiving business improvement support" (i.e., the treatment group). "T" represents the fiscal year in which the business improvement support began for firms receiving support. See Chart IV-1-15.

Regional and *shinkin* banks' measures to secure personnel



(1) Train internally (on-the-job training, etc.)
(2) Utilize external organizations
(3) Utilize affiliated firms within the same banking group
(4) Hire specialized personnel from outside the bank

Note: Shows results of a questionnaire conducted by the Bank of Japan in fiscal 2024. See Chart IV-1-14.

Contents of the *Financial System Report* (April 2025)

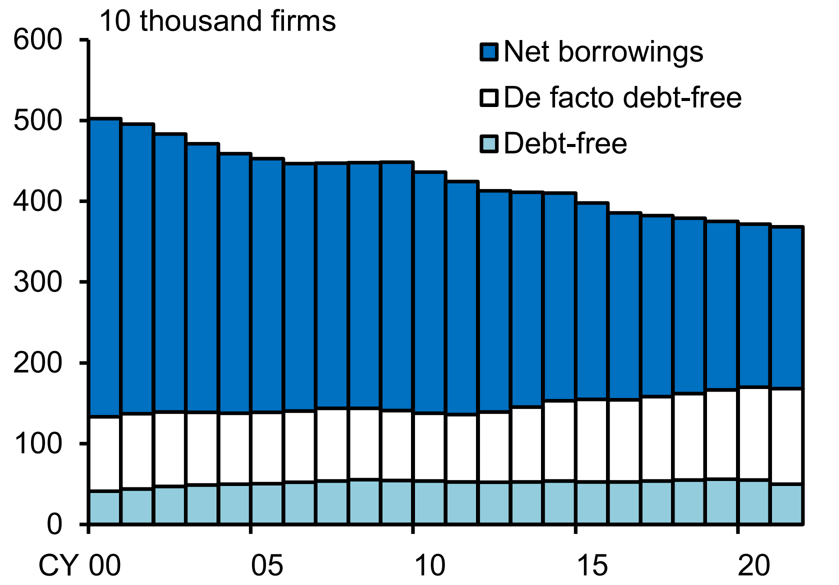
3. Banks', firms', and households' resilience to rising interest rates

- Firms' borrowings
- Housing loans
- Banks' interest rate risk and developments in deposits

Firms' resilience to rising interest rates (1)

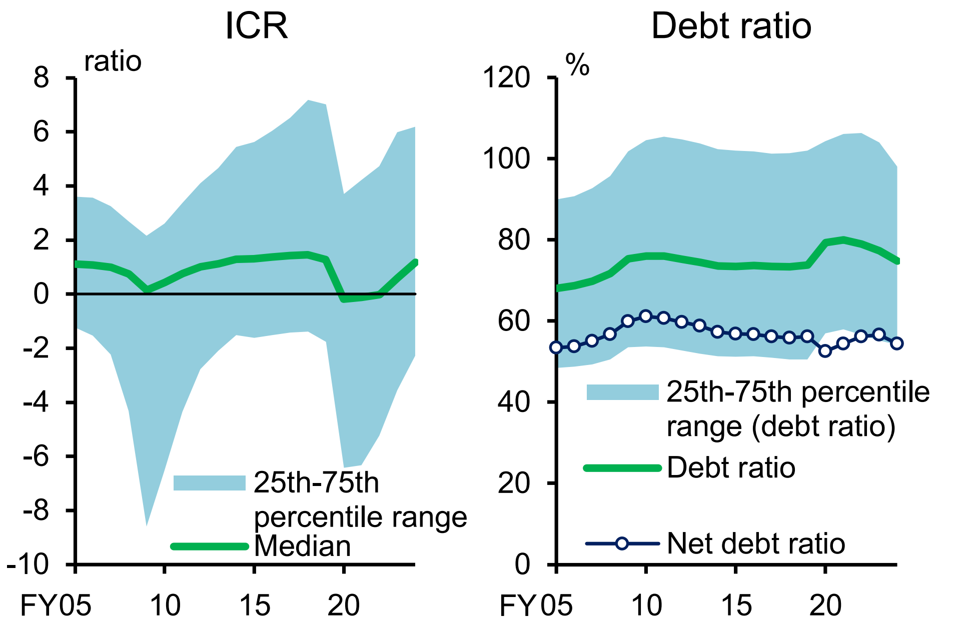
- The number of de facto debt-free firms is rising as a trend, and the number of firms with their borrowings exceeding their cash and deposit holdings is decreasing.
- With corporate profits continuing to improve, the interest coverage ratio (ICR) of firms with their borrowings exceeding their cash and deposit holdings is increasing overall. Moreover, as a result of progress in the repayment of debts, including precautionary borrowings obtained during the pandemic, firms' debt ratios have declined.
- As a whole, firms' resilience to rising interest rates has been rising.

Number of firms by borrowing status



Note: Shows the number of privately owned establishments. The breakdown is estimated 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. “Net borrowings" are firms with a positive amount of interest-bearing debt less holding of cash and deposit holdings. See Chart IV-1-8.

Financial positions of firms with net borrowings



Note: "Debt ratio" is the ratio of total borrowings to total assets. "Net debt ratio" is the ratio of total borrowings less on-hand liquidity to total assets. On-hand liquidity is defined as the sum of cash, deposits, and short-term securities among liquid assets. See Chart IV-1-9.

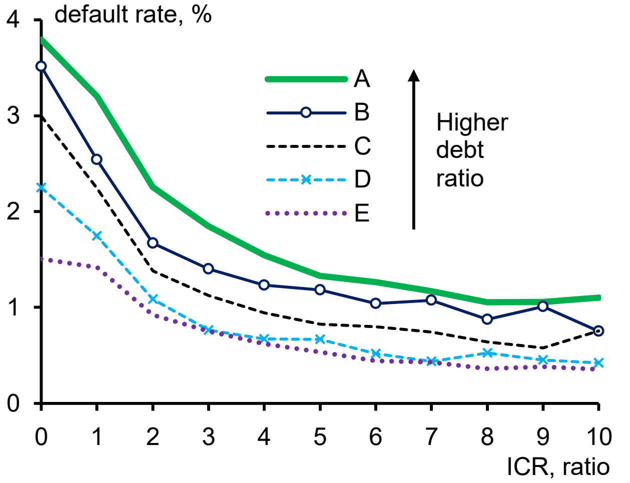
Firms' resilience to rising interest rates (2)

- The default rates of firms with high leverage and firms with limited on-hand liquidity tend to be higher than other firms and tend to change in a nonlinear fashion around an ICR of one.
- Estimates of changes in the probability of default when interest rates rise show that, although financially vulnerable firms tend to be somewhat sensitive to rising interest rates, the increase in the probability of default would be limited when looking at firms as a whole.

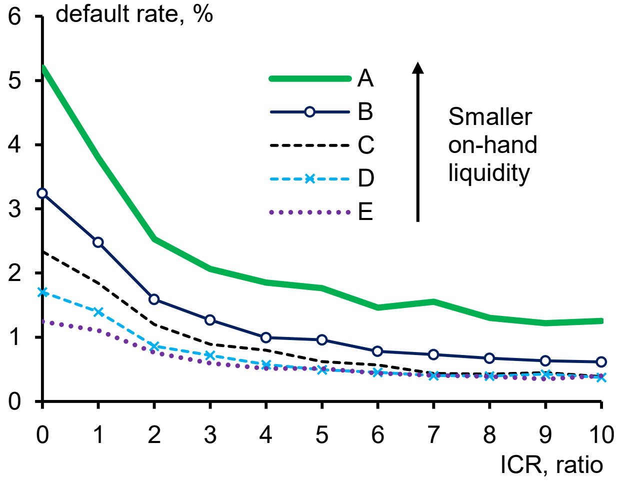
Rising interest rates and defaults of SMEs and micro firms

Relationship between ICR and actual default rates

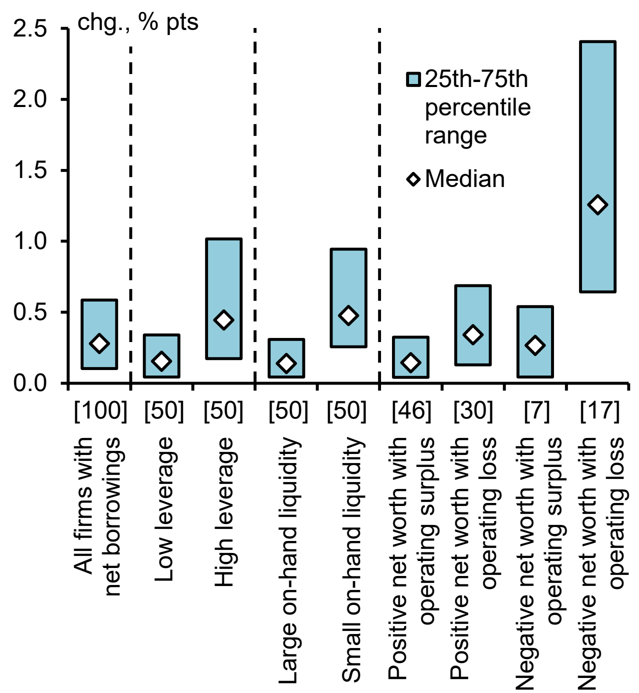
(By debt ratio)



(By on-hand liquidity ratio)



Sensitivity of probability of default to interest rates

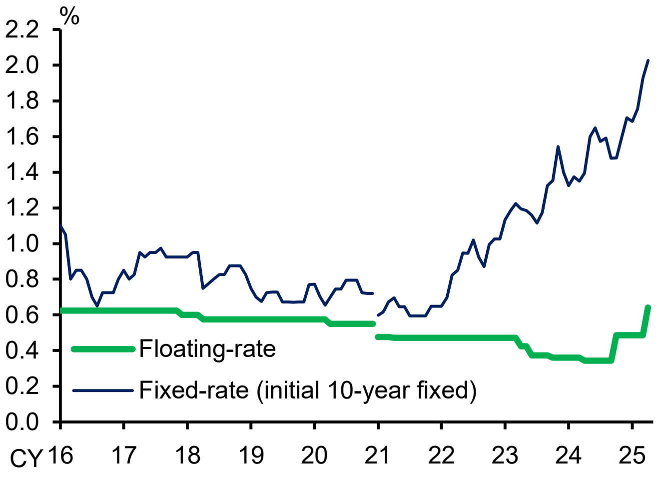


Note: 1. In the left-hand charts, the sample period is from fiscal 2004 to 2023. Firms are divided into 5 equally weighted groups based on their debt ratios or their ratios of on-hand liquidity to total assets. See Chart IV-1-10.
2. In the right-hand chart, a probability of default (PD) model is estimated for each firm category, and sensitivity (change in the PD) to 1 percentage point rises in long- and short-term interest rates is estimated for each firm. "Leverage" (debt ratio) and "on-hand liquidity" (ratio to total assets) are grouped based on median values. Figures in brackets indicate the shares of respective firm categories. See Chart IV-1-11.

Households' resilience to rising interest rates

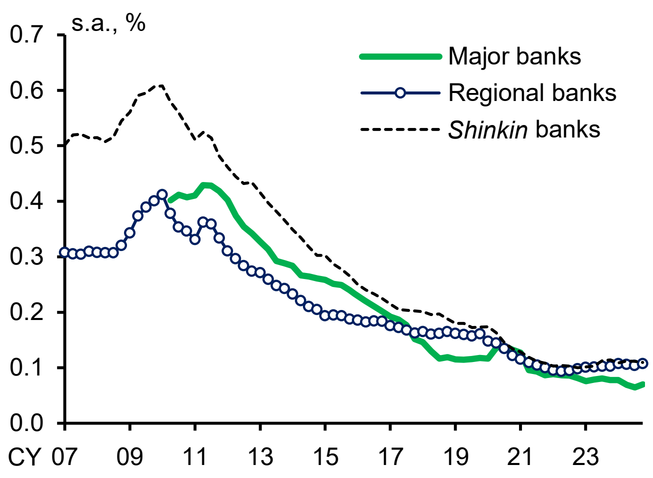
- Housing loan rates have been rising and the number of households with housing loans among younger age groups has increased in recent years.
- Delinquency rates of housing loans have remained unchanged at a low level. In the near term, the existence of rules to prevent drastic change in payments for housing loans, such as the "5-year rule" and the "125 percent rule," will likely work to mitigate the impact of rising interest rates.

Interest rates on housing loans



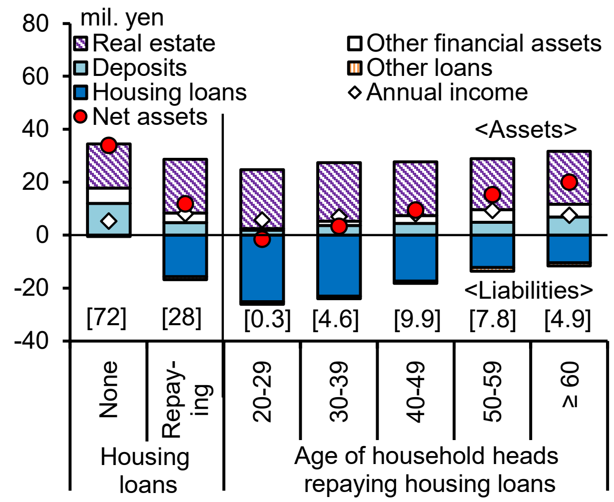
Note: Latest data as of April 2025. See Chart III-1-13.

Delinquency rates of housing loans



Note: Latest data as of December 2024. See Chart V-1-17.

Assets and liabilities of households with housing loans by age group

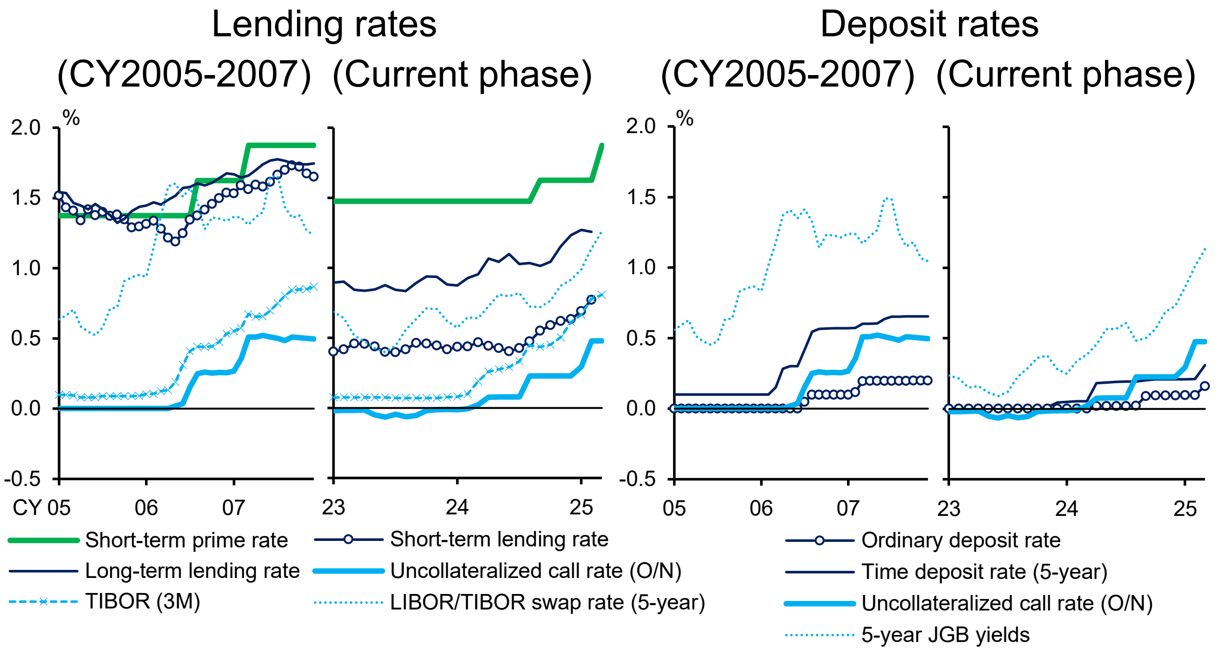


Note: Based on microdata from the 2019 National Survey of Family Income, Consumption and Wealth. Covers households with home ownership and shows the averages per household. Figures in brackets indicate the share of each group among households with home ownership. See Chart V-1-18.

Loan and deposit interest rates

- Lending rates have continued to rise moderately since the last *Report* in October 2024, mainly reflecting changes in the base rates.
- For deposits, many banks have recently raised interest rates on ordinary deposits to around 0.2 percent. Interest rates on time deposits have seen moderate increases.
- Increases in lending rates in response to an increase in market interest rates have tended to exceed increases in deposit rates. Therefore, over a somewhat longer term, rising interest rates are likely to boost banks' profits.

Lending and deposit rates (compared to the previous phase of policy rate hikes)



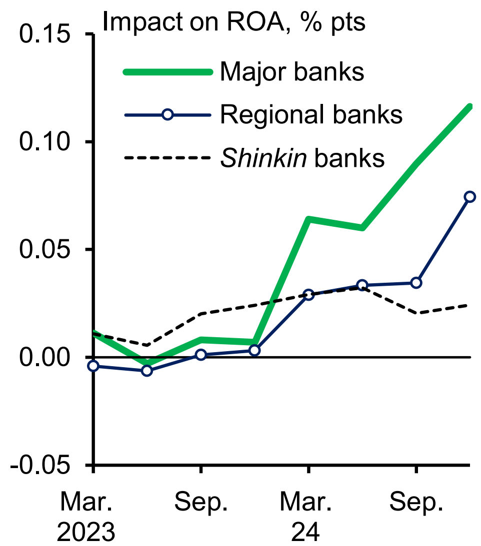
Note: 1. Lending rates indicate average contract interest rates on new loans and discounts (3-month backward moving averages). Deposit rates indicate the typical rates posted at banks.
2. The latest data for market rates, short-term prime rates, and deposit rates are as of March 2025. Those for lending rates are as of February 2025. See Chart VI-1-6.

Banks' resilience to rising interest rates (1)

- As interest rate renewals of financial assets held by banks proceed, their lending margins and margins on securities investments improve, leading to an increase in profits.
  - Banks' profits rise to a larger extent for banks among which market rate-linked loans account for a large share of their lending.
  - Factors such as the structural decline in domestic loan demand have continued to exert downward pressure on profitability in recent years.

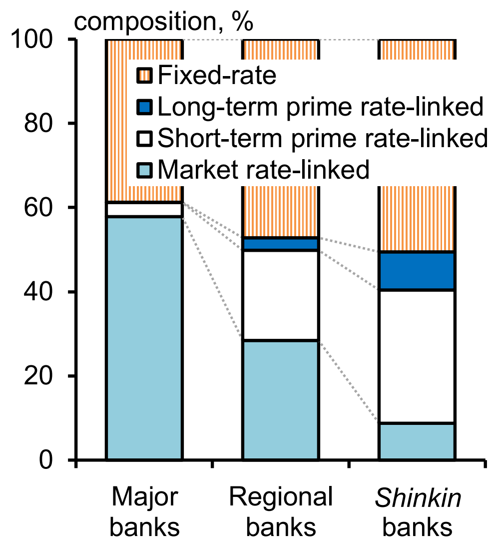
Impact of rising domestic interest rates on banks' profits

Impact on profits



Note: Shows an estimate of the impact of changes in yields from end-2022 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. See Chart VI-1-7.

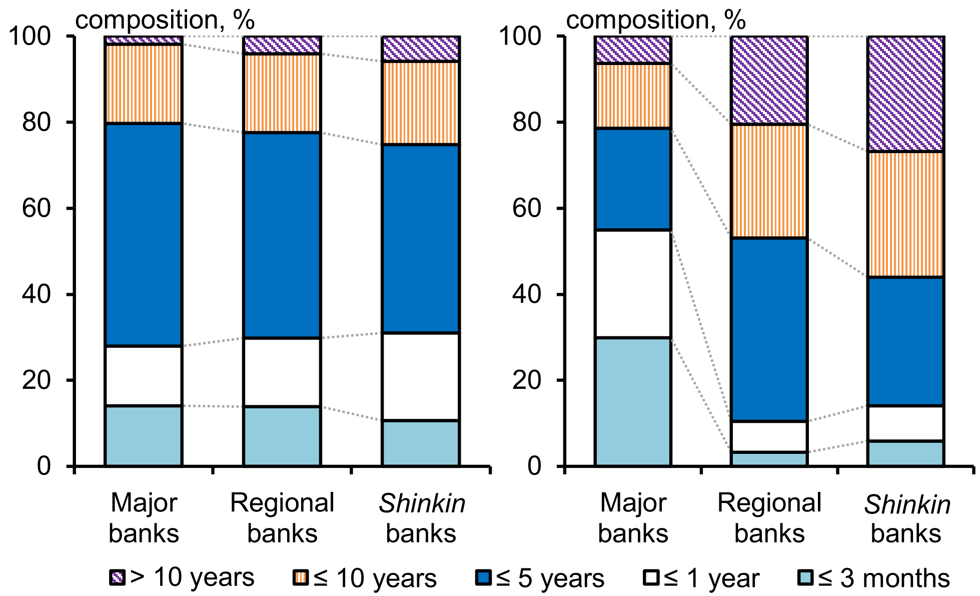
Corporate loans outstanding by interest rate type



Note: See Chart III-1-12.

Outstanding amount by interest rate renewal period

(Fixed-rate corporate loans) (Securities)

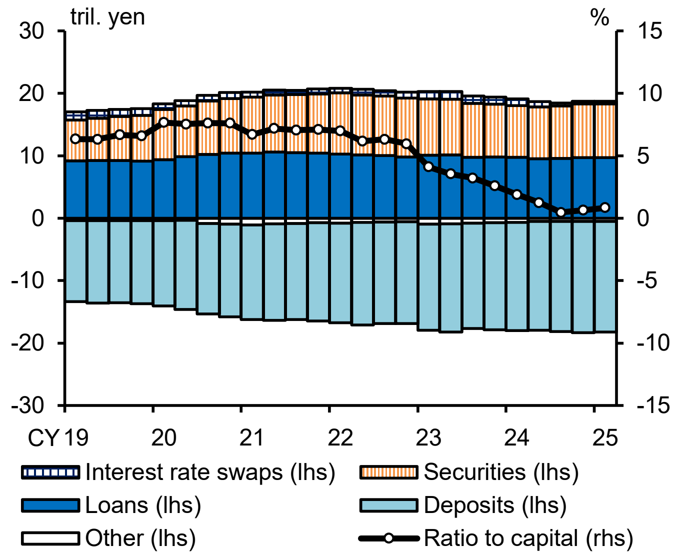


Note: See Chart VI-1-7.

Banks' resilience to rising interest rates (2)

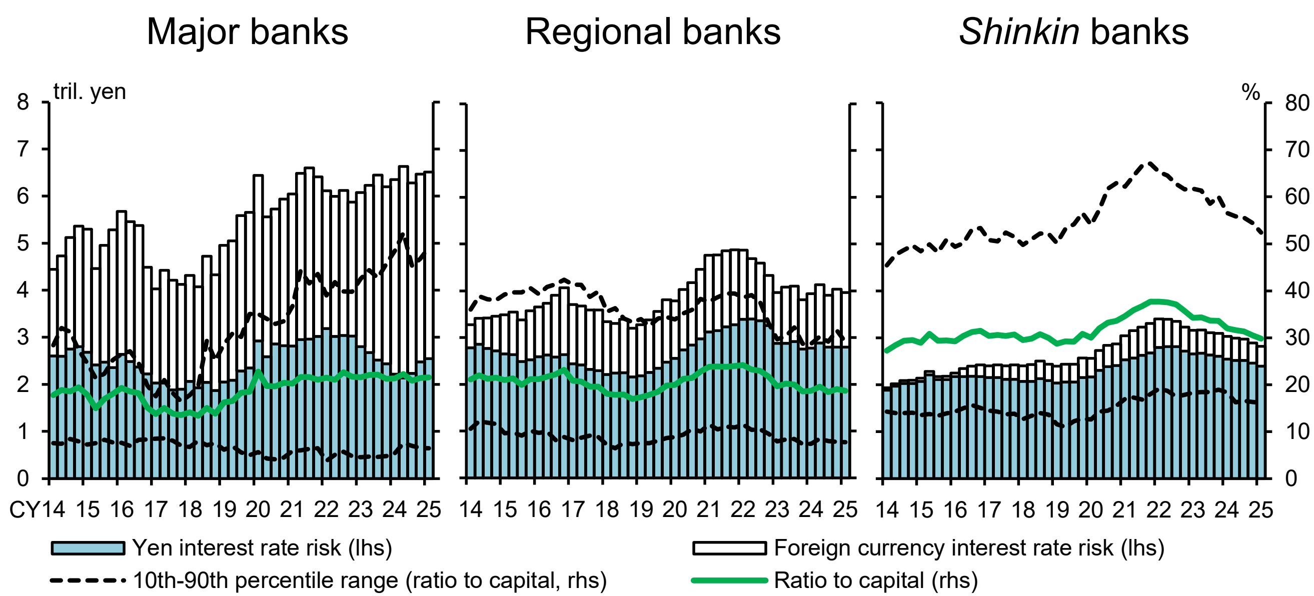
- The amount of yen interest rate risk in the banking book on the asset side and the liability side is more or less in balance and has remained low.
- Banks' interest rate risk on yen-denominated bonds as a whole has been suppressed compared to before, and its risk-to-capital ratio has generally been unchanged.
  - There are banks with large interest rate risks associated with securities investment. Such banks need to continue to manage interest rate risks carefully.

Interest rate risk in the banking book



Note: Shows yen interest rate risk in terms of the 100 BPV.
See Chart VI-1-12.

Interest rate risk of securities holdings



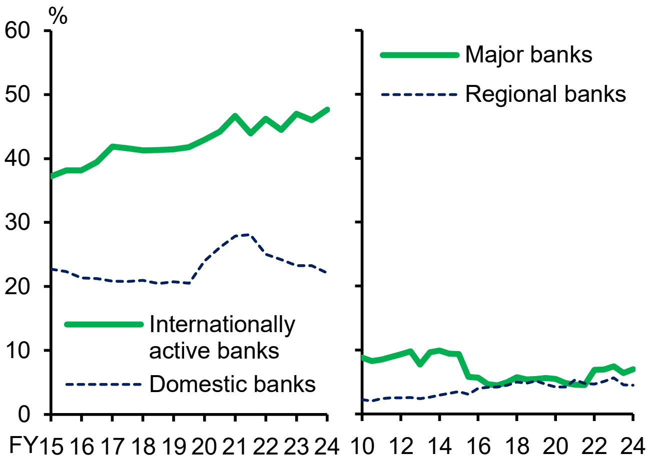
Note: Shows interest rate risk in terms of the 100 BPV for yen and 200 BPV for foreign currency.
See Chart IV-2-2.

Banks' resilience to rising interest rates (3)

- In terms of their yen funding, banks have stable funding bases, mainly backed by small, sticky retail deposits, and have ample liquidity. Deposits outstanding far exceeds loans outstanding, and banks have secured yen funding at low interest rates.
  - From a somewhat longer-term perspective, it warrants attention that some banks may gradually find it difficult to secure deposits due to structural factors such as demographic changes, depending on the regional characteristics of their customer base and their progress toward digitalization.

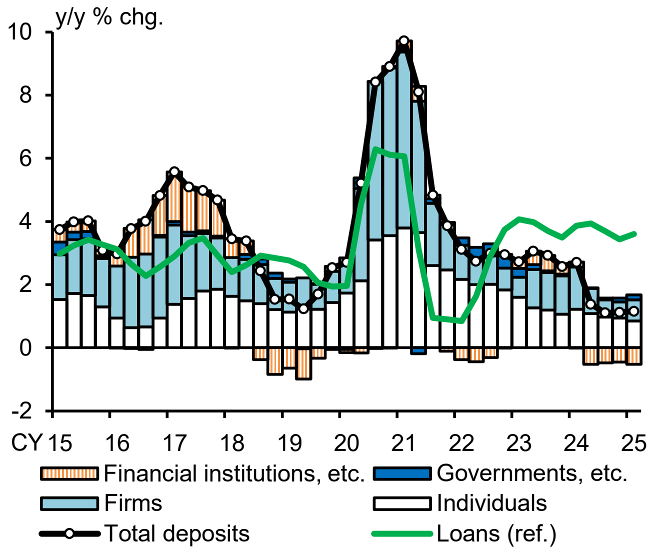
Liquid asset ratio

High quality liquid assets | Short-term market funding



Note: Shows ratios to total assets. See Chart IV-3-1.

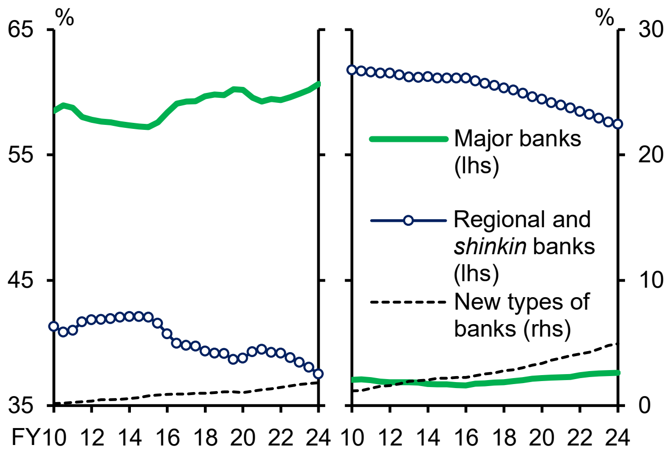
Deposits outstanding by type of depositor



Note: Covers domestically licensed banks and *shinkin* banks. See Chart IV-3-2.

Share of deposits by type of bank

Corporate deposits | Retail deposits



Note: See Chart IV-3-3.

Contents of the *Financial System Report* (April 2025)

4. Growing presence of NBFIs and banks' exposures to the NBFI sector

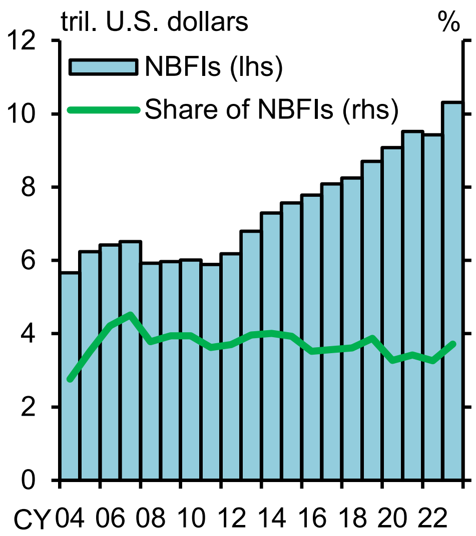
- Linkages between foreign NBFIs and Japan's financial system
- Hedge funds, open-end funds, and PE and PD funds

Linkages between foreign NBFIs and Japan's financial system (1)

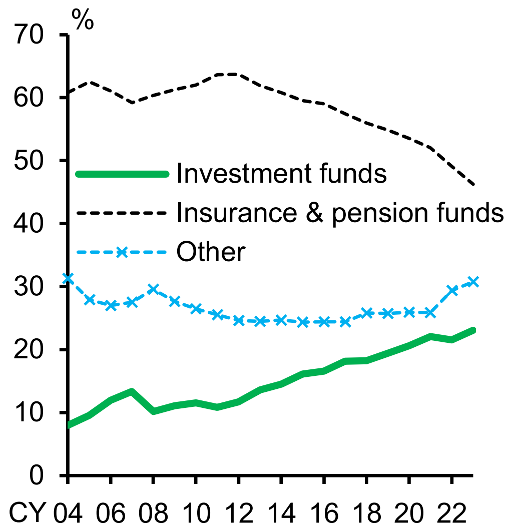
- In Japan, where depository financial institutions are dominant in financial intermediation, the share of financial assets held by the domestic non-bank financial intermediary (NBFI) sector has remained unchanged at about 30 percent, although investment funds are increasing their share.
- However, for the foreign NBFI sector, its links with the domestic banking sector and financial markets have strengthened.
  - Japanese banks' exposure to the foreign NBFI sector has been increasing significantly, mainly through investment trusts and loans to investment funds. Inward securities investment, mainly by foreign investment funds, has also been increasing.

Asset size of the domestic NBFI sector

Financial assets of NBFIs

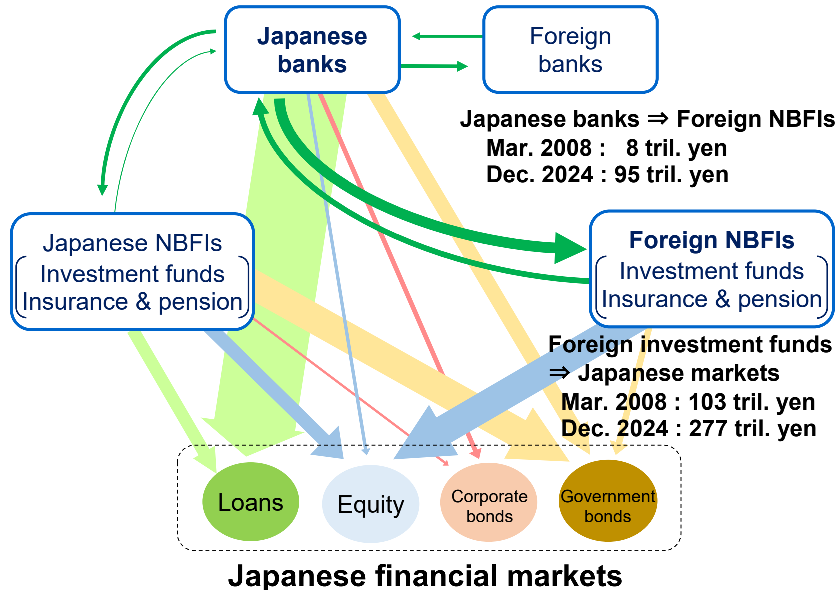


Breakdown of NBFIs



Note: The share in the left-hand chart indicates the share of NBFIs among the financial sector. The right-hand chart shows the share of each sector among the NBFI sector. "Other" includes financial dealers and brokers and finance companies. See Chart V-2-1.

Interconnectedness of the domestic and foreign financial sectors via loan and investment activities

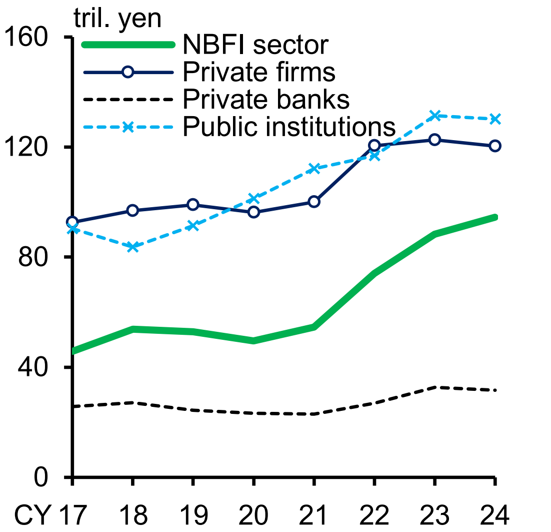


Note: Direction and width of arrows indicate the outstanding amount of loans and investments between the sectors and to the respective markets (as of December 2024). Some data are omitted due to data limitations. See Chart V-2-2.

Linkages between foreign NBFIs and Japan's financial system (2)

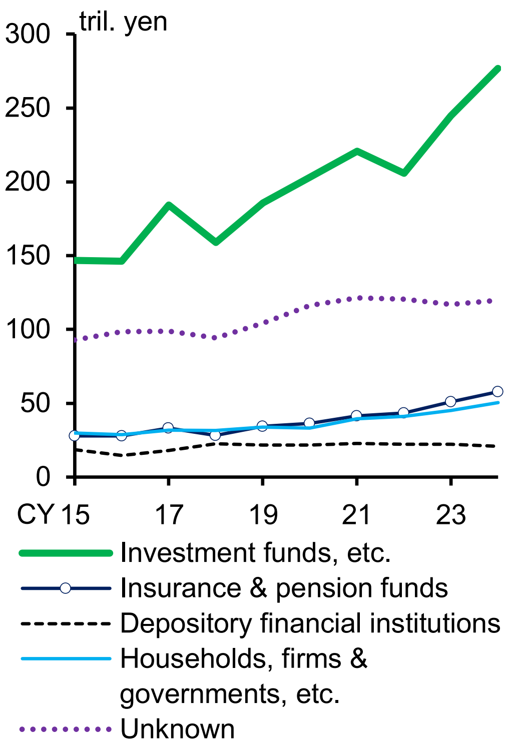
- ➢ Time series data also confirm that Japanese banks are increasing their investments and loans in the foreign NBFI sector significantly and inward portfolio investment by the foreign NBFI sector, mainly investment funds, has also continued to increase.
- ➢ Among investment to Japan by U.S. investment funds, investment by hedge funds, including off-balance sheet exposures, has increased rapidly since 2022.

Foreign loans and investments outstanding of Japanese banks



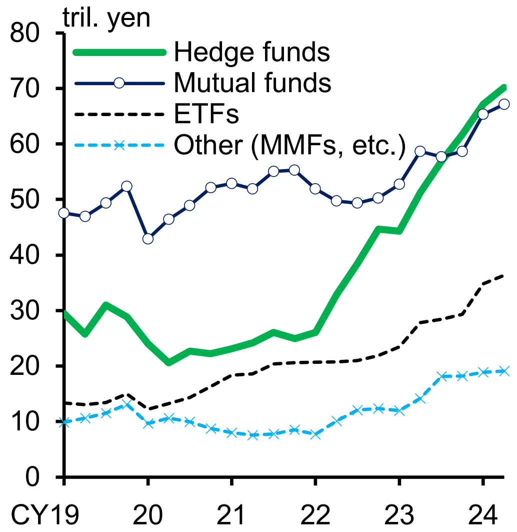
Note: Based on BIS International Consolidated Banking Statistics (CBS). See Chart V-2-3.

Japanese securities held by foreign investors



Note: See Chart V-2-5.

Investments to Japan by U.S. investment funds

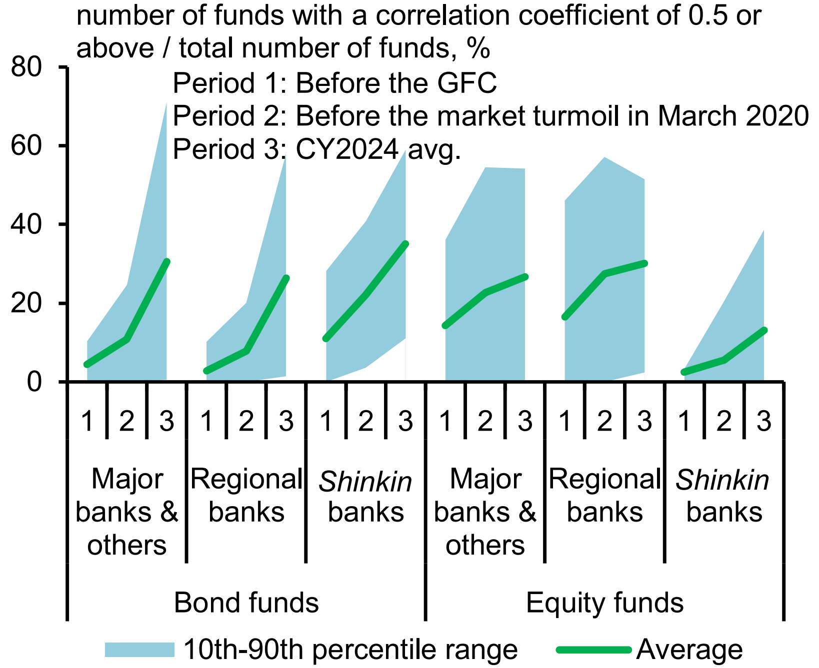


Note: Based on data released by the U.S. SEC. Data for "Hedge funds" are gross market exposure including derivative positions. See Chart V-2-5.

Linkages between foreign NBFIs and Japan's financial system (3)

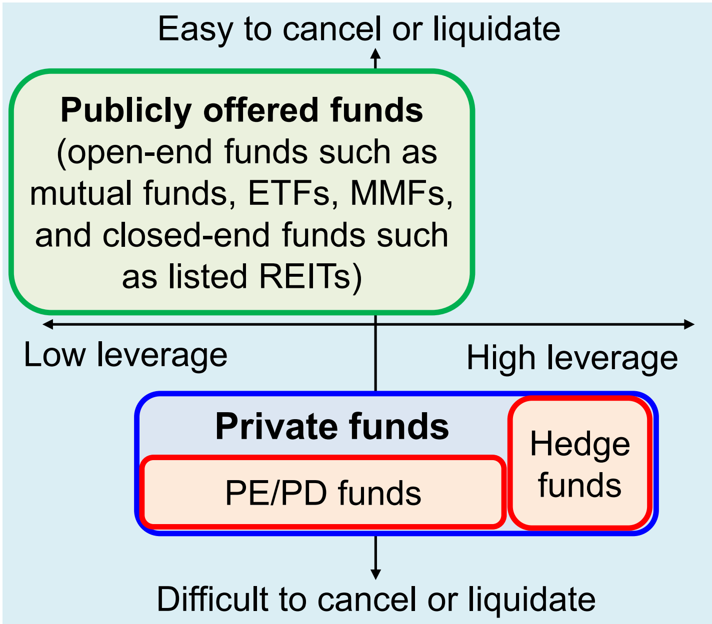
- For an increasing number of banks, their portfolios have become much more correlated with those of investment funds since the global financial crisis.
- Japan's financial markets and Japanese banks' financial positions can be more susceptible to a stress event in the global financial environment which could lead to portfolio adjustments on a global basis of foreign investment funds with vulnerabilities in their liability structure and leverage.

Correlations between returns on each bank's securities portfolios and investment funds



Note: Correlation coefficients between returns on each bank's securities portfolios and various investment funds are calculated, and the share of funds with a correlation coefficient of 0.5 or above is calculated for each bank. See Chart V-2-4.

Vulnerabilities in terms of the balance sheet structure of investment funds

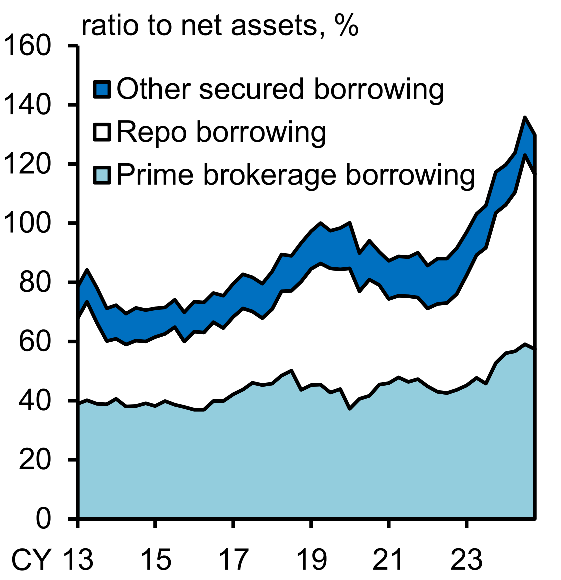


Note: See Chart V-2-6.

Hedge funds (1)

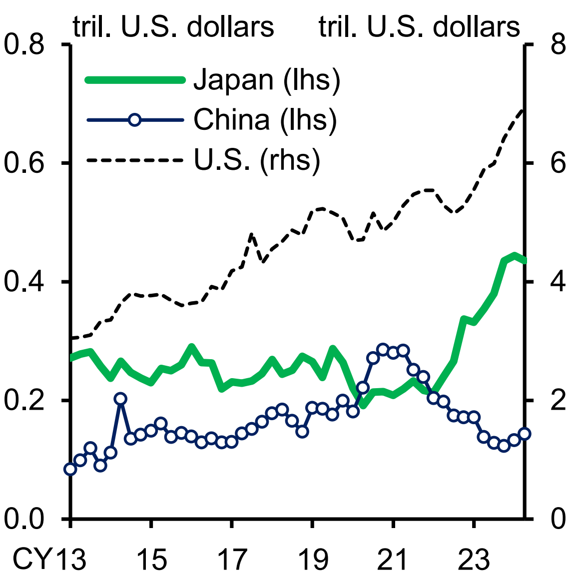
- Hedge funds tend to have a high level of financial leverage due to secured borrowing and the use of derivatives.
- U.S. hedge funds' exposure to Japan remains relatively small, but has been expanding rapidly since 2022 amid a decline in investment in China.

Financial leverage of U.S. hedge funds



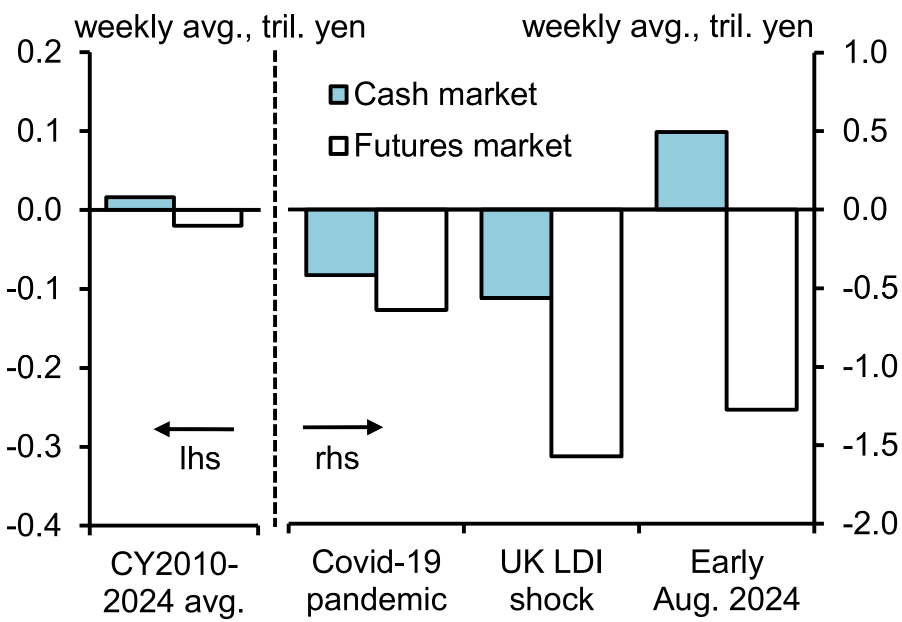
Note: Based on data released by the U.S. SEC. Latest data as of 2024/Q4. See Chart V-2-11.

Exposure of U.S. hedge funds by country



Note: Based on data released by the U.S. SEC. See Chart B4-2.

Foreign investors' net trading volume of Japanese stocks by stress event



Note: See Chart V-2-12.

Hedge funds (2)

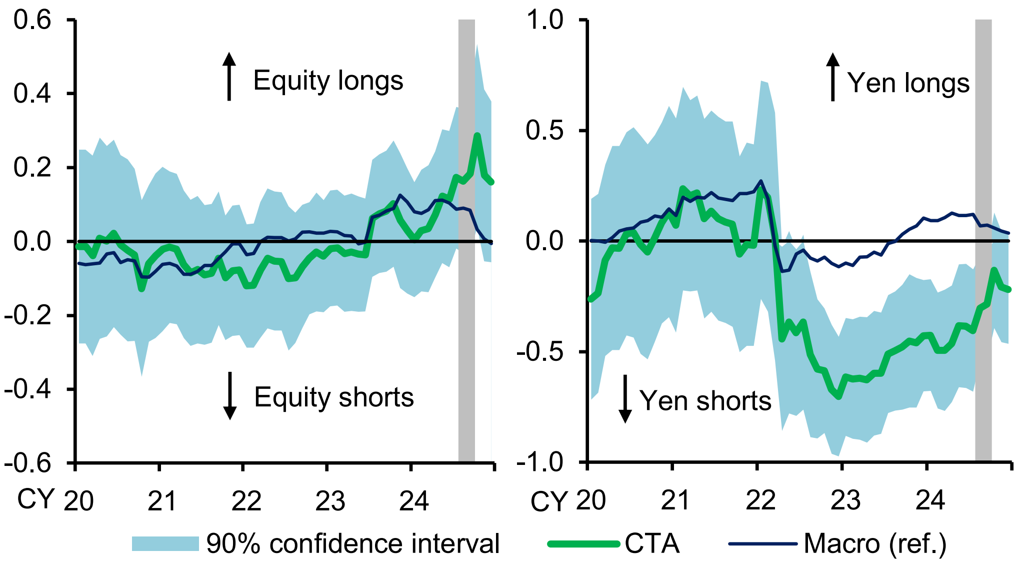
➢ In some cases, position adjustments by foreign hedge funds are considered to have a significant impact on domestic financial markets and asset prices.

- Immediately before the market fluctuations observed in August 2024, correlations between (1) hedge funds' performance and (2) returns from Japanese stocks and carry trade were high, particularly among Commodity Trading Advisors (CTAs) that employ trend-following strategies, suggesting that hedge funds had built long (short) positions in Japanese stock (yen).

Hedge fund positions in the Japanese markets

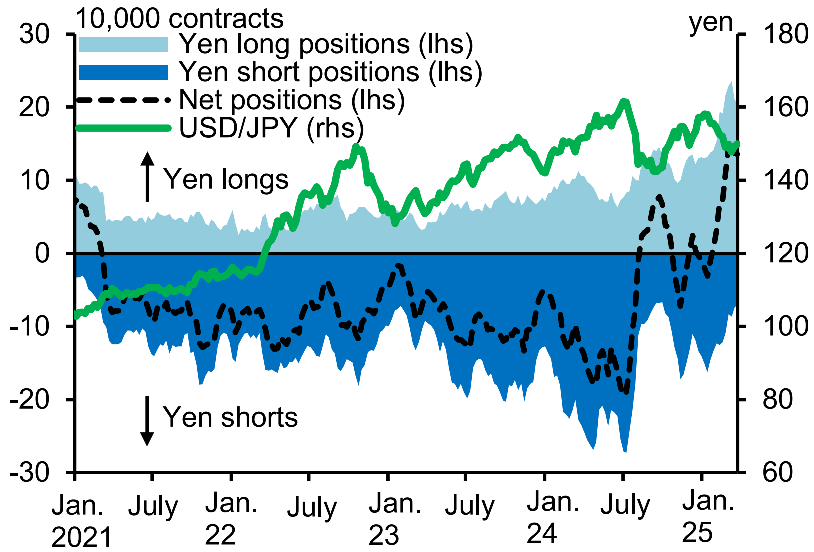
Sensitivity of hedge fund performance with respect to various assets

(Japanese equity) (Carry trade <U.S. dollar/yen>)



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 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), and the JPX JGB Futures Index. All variables are month-on-month rates of change. The gray shaded areas indicate the period August-September 2024. See Chart B4-3.

IMM yen positions

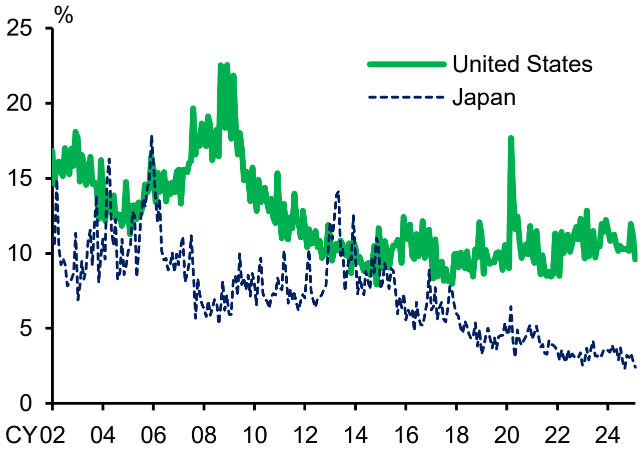


Note: Latest data as of end-March 2025. See Chart B4-4.

Open-end funds

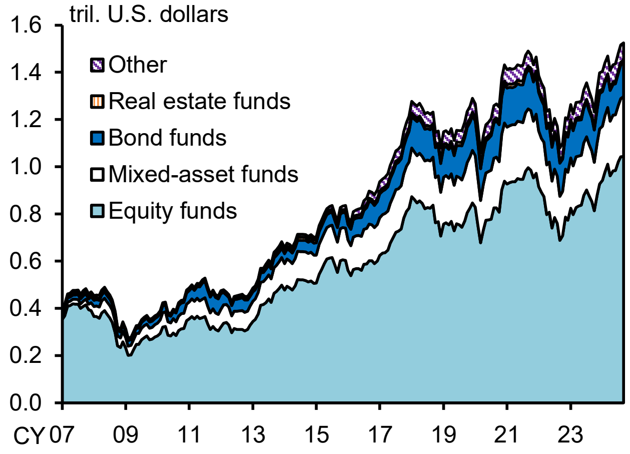
- It has been pointed out that open-end funds may amplify market volatility through the sale of securities holdings prompted by simultaneous and large-scale redemptions by investors.
- Foreign open-end funds investing in Japan often invest in multiple regions. Attention is warranted that, even in the absence of stress originating from the Japanese market, there may be large redemptions from these funds in the event of global financial and economic stress.

Redemption rates of open-end funds



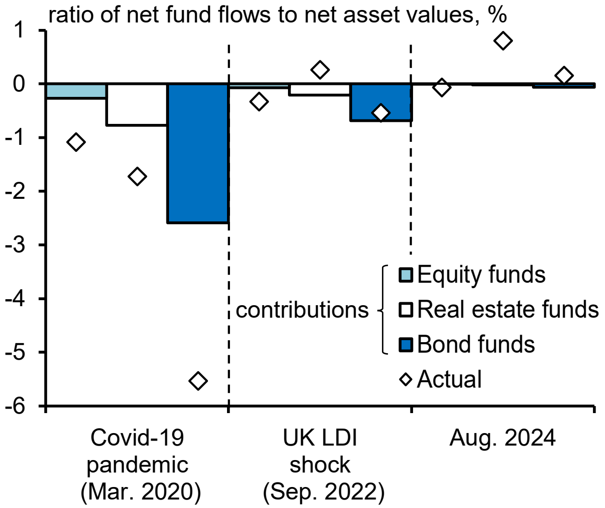
Note: Latest data as of February 2025.
See Chart V-2-7.

Investments to Japan by foreign open-end funds



Note: Calculated based on the LSEG Lipper data.
Latest data as of September 2024.
See Chart V-2-9.

Impact of deterioration in foreign financial conditions on net fund flows to open-end funds investing in Japan

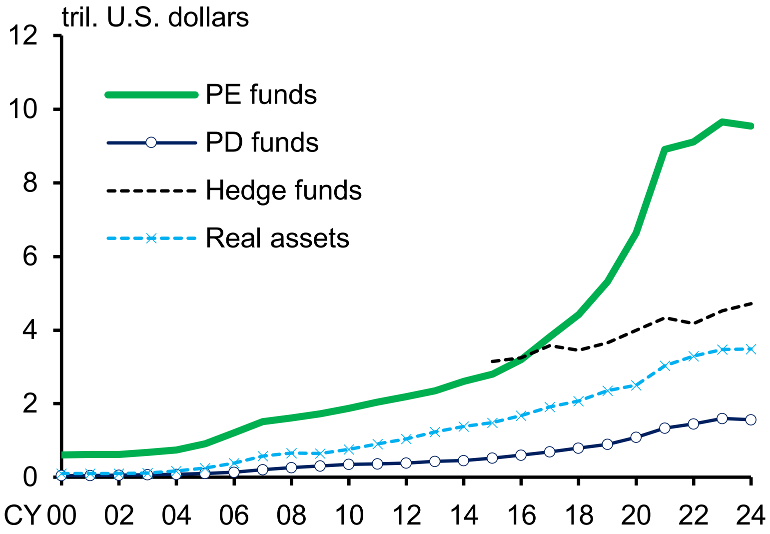


Note: Based on a panel regression using net fund flows as the dependent variable and fund attributes (return, size, and liquidity ratio) and macroeconomic indicators (U.S. short-term interest rates, U.S. NFCI, and U.S. dollar index) as the independent variables, the contribution of U.S. NFCI is calculated. See Chart V-2-10.

PE and PD funds

- Among private funds, private equity (PE) funds that invest in unlisted and privately held firms, and private debt (PD) funds that provide loans to such firms have been increasing their assets under management globally.
- Japanese banks have been increasing their investment in private funds. Despite the proportion of such loans in total loans being still low, they have focused on lending to large U.S. funds, aiming to improve the profitability of their foreign loans and secure ancillary transactions. Meanwhile, institutional investors in Japan have also started to increase their investment in PE and PD funds as part of their alternative investments.

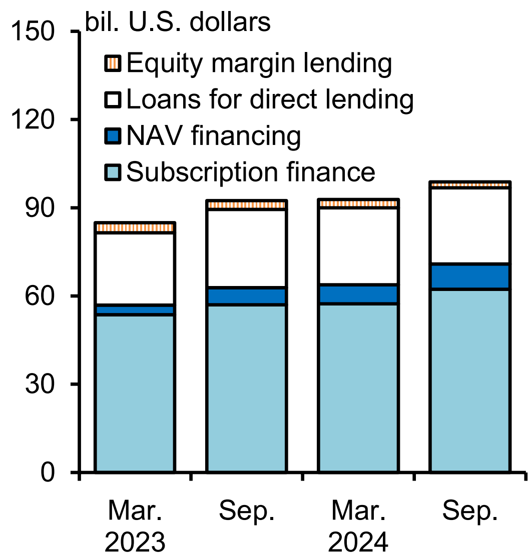
Assets under management in private funds



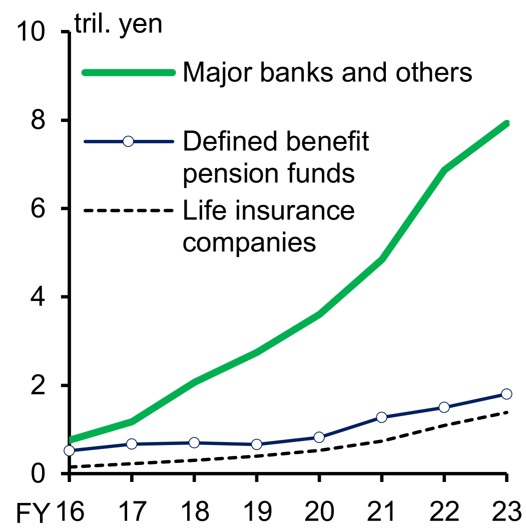
Note: Based on Preqin data. See Chart B3-1.

Exposure of Japanese financial institutions

Loans to foreign private funds by the three major banks



Investments in PE and PD funds by Japanese financial institutions



Note: The left-hand chart shows loan exposures (including commitment lines) to private funds in the Americas. In the right-hand chart, "Defined benefit pension funds" indicates corporate pension funds, and "Life insurance companies" are based on data of three listed companies (missing data are estimated using linear interpolation, etc.). See Chart B3-3.

Contents of the *Financial System Report* (April 2025)

5. Macro stress testing

- Rises in foreign interest rates scenario and financial stress scenario
- Exploratory analysis: growing presence of investment funds

Stress testing: Overview of scenarios

- Since the beginning of April, financial markets at home and abroad have fluctuated significantly, while uncertainty has heightened regarding the formulation of trade and other economic policies in each jurisdiction, geopolitical risks, and developments in global financial markets. Under these circumstances, as in the previous *Report*, this *Report* examines the resilience of the financial system against tail risks regarding global financial and economic activity.
- In detail, macro stress testing is conducted to examine the stability of the financial system under (1) the baseline scenario, (2) a "rises in foreign interest rates" scenario, and (3) a "financial stress" scenario.

(1) The baseline scenario assumes that Japan's economy keeps growing with foreign economies continuing to grow moderately, based on forecasts for economic variables by private research institutions and international organizations as of January 2025. It assumes that domestic and foreign interest rates will move in line with the forward rate curve as of the end of January 2025.

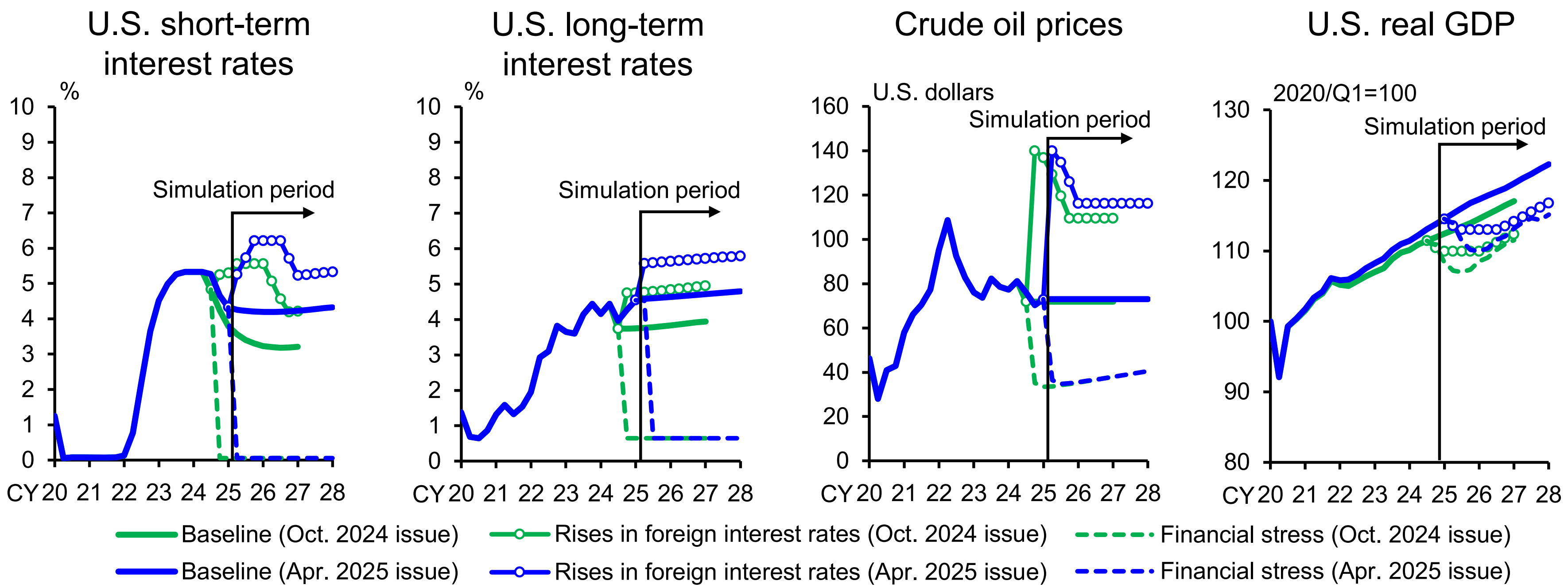
(2) The rises in foreign interest rates scenario assumes that a materialization of geopolitical risks and other factors leads to a slowdown in foreign economies and a global surge in prices, resulting in a rise in foreign interest rates.

(3) The financial stress scenario assumes adjustments of the same magnitude as that observed at the time of the global financial crisis and a significant deterioration in domestic and foreign economies.

Assumptions on foreign financial markets and foreign economies

- In the rises in foreign interest rates scenario, the U.S. federal funds rate is assumed to be 2 percentage points higher than the baseline scenario, and remains high for one year. U.S. long-term interest rates are assumed to be 1 percentage point higher than the baseline scenario and remain high throughout the simulation period.
  - The magnitude of rise in foreign interest rates is the same as that in the rises in foreign interest rates scenario in the previous *Report*.
- In the financial stress scenario, a slowdown in foreign economies similar to that seen during the global financial crisis is assumed. Foreign interest rates decline substantially.

Foreign financial and economic variables assumed in macro stress testing

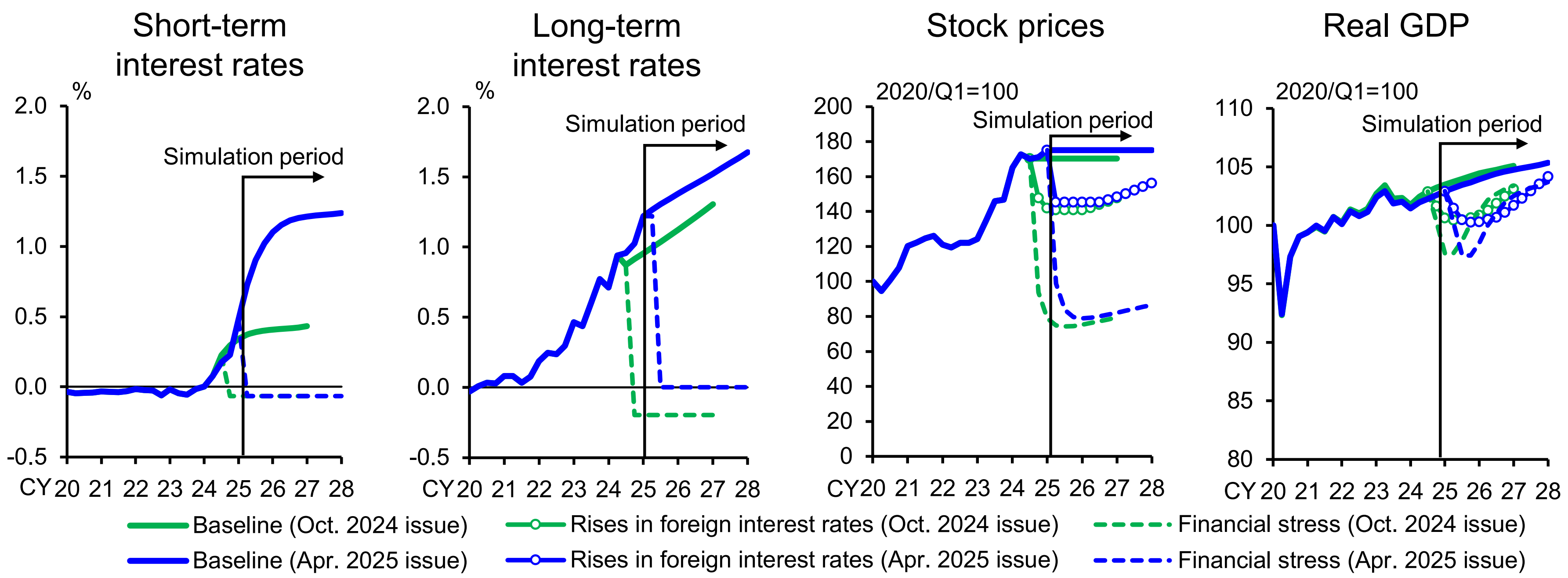


Note: "Short-term interest rates" refers to the overnight rate, and "long-term interest rates" refers to the 10-year yield. See Chart VI-2-1, Chart VI-2-2, and the "Scenario Tables."

Assumptions on domestic financial markets and Japan's economy

- In the rises in foreign interest rates scenario, domestic interest rates are assumed to be unchanged from the baseline scenario, as in the previous *Report*. Japan's economy is assumed to slow down, mainly due to a slowdown in foreign economies and a rise in crude oil prices.
- In the financial stress scenario, Japan's economy decelerates significantly, as in foreign economies. Domestic interest rates will decline significantly, while prices of risky assets plummet.

Japanese financial and economic variables assumed in macro stress testing

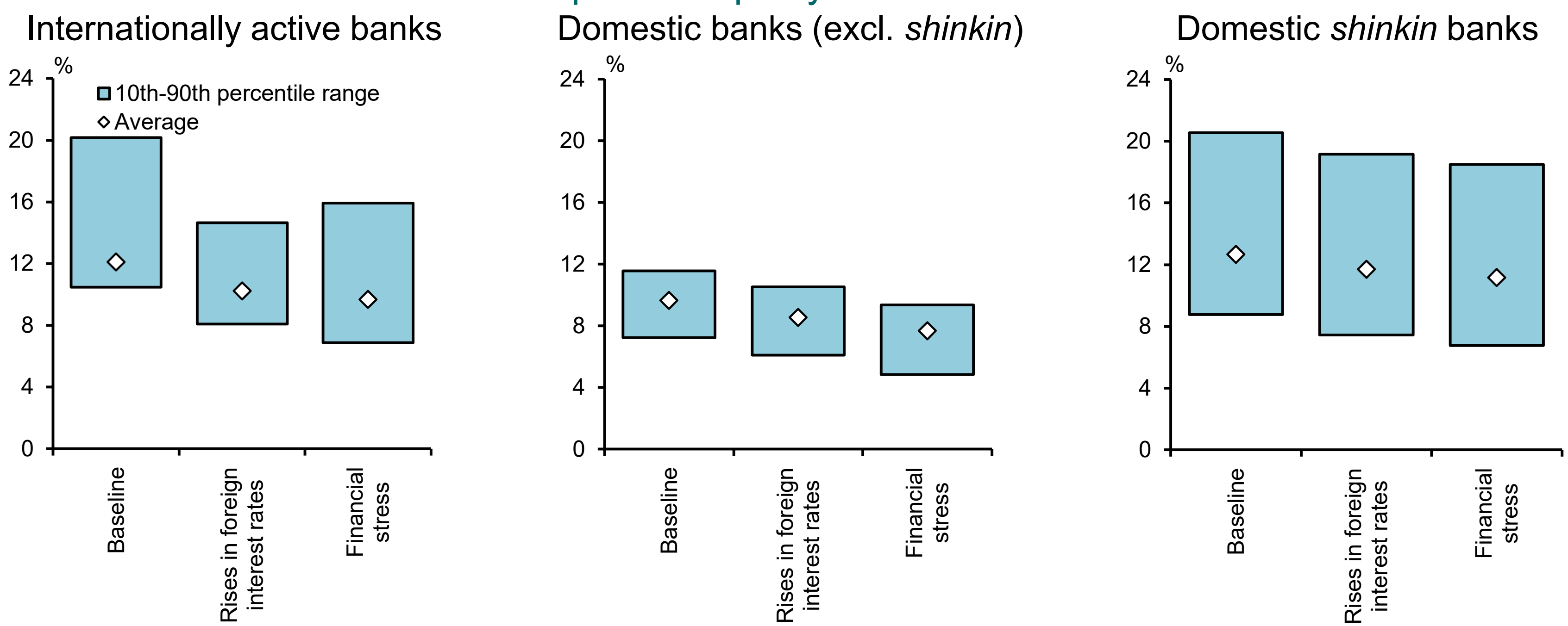


Note: The paths of Japanese short- and long-term interest rates in the rises in foreign interest rates scenario are the same as in the baseline scenario.
"Short-term interest rates" refers to the overnight rate, and "long-term interest rates" refers to the 10-year yield. See Chart VI-2-1, Chart VI-2-2, and the "Scenario Tables."

Results of macro stress testing

- In the rises in foreign interest rates scenario, capital adequacy ratios are pushed down, particularly among internationally active banks, by a decrease in net interest income due to rising foreign currency funding costs and by an increase in valuation and realized losses on securities holdings.
- In the financial stress scenario, capital adequacy ratios are pushed down by a decrease in net interest income, an increase in credit costs, and a deterioration in valuation and realized losses on securities holdings, as in the past *Report*.
- In both downside scenarios, banks' capital adequacy ratios are lower than in the baseline scenario, but remain above regulatory levels on average. It can therefore be assessed that banks have sufficient capital to withstand the aforementioned stress.

Distribution of capital adequacy ratios under each scenario

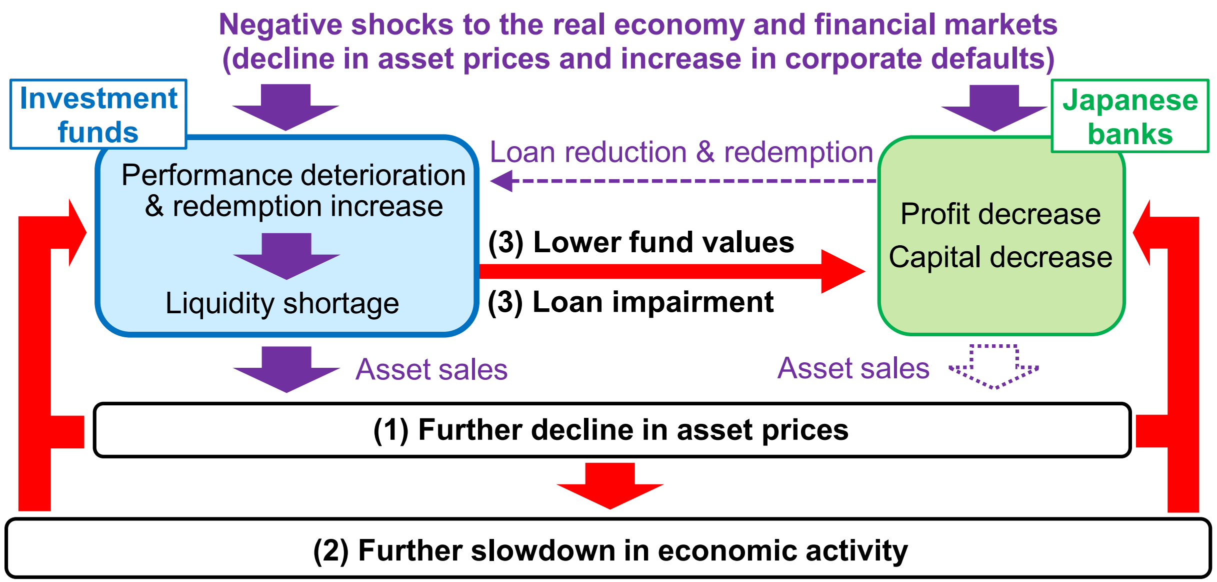


Note: Shows capital adequacy ratios at the end of the simulation period (as of end-fiscal 2027). See Chart VI-2-8.

Exploratory analysis: growing presence of investment funds

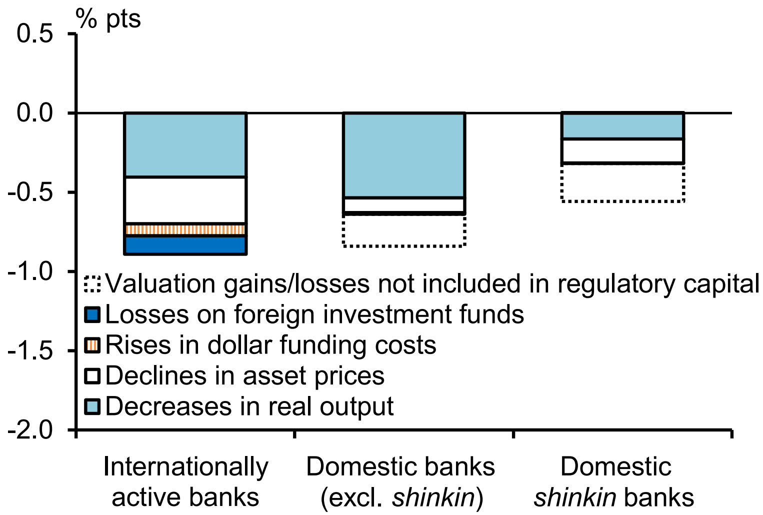
- The current *Report* provides an exploratory analysis that builds on the financial stress scenario but with the amplification mechanism via portfolio adjustments by investment funds, acknowledging the limitations in available data regarding NBFIs.
  - In detail, (1) an additional decline in asset prices following the sale of securities held by investment funds, (2) a further slowdown in economic activity due to additional adjustments in financial markets, and (3) an increase in Japanese banks' losses that are related to lending to and investments in foreign funds.
- The simulation result based on the exploratory scenario indicates that, in addition to the greater valuation losses on securities due to the fall in asset prices, the lower capital adequacy ratios reflect losses on lending to and investments in foreign funds and increased credit costs due to the additional slowdown in the domestic and foreign economies.

Mechanisms of shock amplification via investment funds



Note: The dotted arrows are mechanisms that are omitted in the exploratory analysis in this *Report*.

Decrease in capital adequacy ratio compared to the financial stress scenario



Note: Shows the contribution of each factor to the difference between the capital adequacy ratios at the end of the simulation period (as of end-fiscal 2027) under the financial stress scenario and the exploratory analysis. See Chart VI-2-10.

(Conclusion) Stability assessment and caveats

- Japan's financial system has been maintaining stability on the whole.
- Financial intermediation has continued to function smoothly, and no major financial imbalances have been seen in the financial intermediation activities.

Risks faced by financial institutions

- The quality of banks' domestic and foreign loan portfolios has been maintained. With corporate profits being on an improving trend on the whole, the pace of increase in bankruptcies has slowed. However, with uncertainty heightening due to trade policy in each jurisdiction, among other factors, it is necessary to closely monitor resulting effects, including those on borrower firms with foreign businesses.
- With the links between (1) the domestic banking sector and financial markets and (2) the foreign NBFI sector strengthening, Japan's financial system may have become more susceptible to fluctuations in global financial markets and the influence of foreign investment funds. Keeping these points in mind, banks need to identify and manage risks associated with securities holdings.
- Banks have sufficient yen funding liquidity. As for foreign currency, they have maintained stable funding. Banks need to continue to work toward establishing stable funding bases.
- Banks need to continue to properly manage risks related to digital technologies and climate-related financial risks.

Resilience of the financial system

- Regarding banks' loss-absorbing capacity, their capital well exceeds regulatory requirements.
- Banks' amount of yen interest rate risk on the asset and liability sides is more or less in balance. Banks on the whole are resilient enough to withstand rising interest rates.
- Based on the results of the macro stress testing, it can be judged that the stability of Japan's financial system is maintained even under stress which assumes foreign interest rates remain higher for longer and stress equivalent to the global financial crisis.
- Since the beginning of April, financial markets at home and abroad have fluctuated significantly, while uncertainty has heightened regarding the formulation of trade and other economic policies in each jurisdiction, geopolitical risks, and developments in global financial markets. Financial institutions need to be vigilant against the materialization of various risks.