INTERNATIONAL MONETARY FUND

IMF Country Report No. 25/82

JAPAN

2025 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR JAPAN

April 2025

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2025 Article IV consultation with Japan, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its March 26, 2025 consideration of the staff report that concluded the Article IV consultation with Japan.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on March 26, 2025, following discussions that ended on February 6, 2025, with the officials of Japan on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on March 11, 2025.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Japan.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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International Monetary Fund
Washington, D.C.

PRESS RELEASE

PR25/084

IMF Executive Board Concludes 2025 Article IV Consultation with Japan

FOR IMMEDIATE RELEASE

Washington, DC – **April 2, 2025:** The Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Japan.

After three decades of near-zero inflation, signs are growing that Japan's economy can reach a new equilibrium with inflation sustained at the Bank of Japan's 2 percent headline inflation target and growth at the 0.5 percent potential. Temporary supply-side disruptions have led to a significant growth slowdown in 2024, but growth is expected to pick up to 1.2 percent in 2025, with private demand replacing public consumption as the main growth driver. Above inflation wage growth is expected to strengthen in 2025, boosting households' disposable income and consumption. Private investment is also expected to remain strong, supported by high corporate profits and accommodative financial conditions. Inflation is expected to converge from above to the BoJ's 2-percent target in late 2025, helped by a moderation in oil and food prices. The current account balance increased to 4.8% of GDP in 2024, with the external position assessed, on a preliminary basis, as broadly in line with the level implied by medium-term fundamentals and desirable policies. Financial conditions in Japan remain accommodative but are gradually tightening amid increasing real interest rates and rising macroeconomic uncertainty.

Risks to growth are tilted to the downside, while risks to inflation are broadly balanced. A slowdown in the global economy, weak domestic consumption, or tighter financial conditions in a context of high public debt pose downside risks to growth, while upside risks arise from faster wage increases and greater regional integration. The possibility of inflation expectations stalling below the inflation target is a downside risk to inflation. Upside risks to inflation are rising food and energy prices, as well as stronger-than-expected wage growth.

The estimated fiscal deficit and general government debt in 2024 are lower than expected at the time of the 2024 Article IV, as expenditures to support the economic recovery were partially phased out and revenues overperformed. Still, the fiscal deficit is estimated to have worsened modestly from 2.3 percent of GDP in 2023 to 2.5 percent of GDP in 2024 and under current policies is projected to continue rising over the medium term. Following a successful exit from unconventional policies in March 2024, the BoJ has initiated a tapering of JGB purchases and gradually raised the policy rate, to 0.5 percent.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Executive Board Assessment[2]

Executive Directors commended Japan's prudent macroeconomic policies and welcomed the expected acceleration of growth in 2025 supported by rising real wages, and the ongoing transition to a growth-oriented model with headline inflation moving toward the Bank of Japan's target. Noting that risks are tilted to the downside, including from increased trade tensions, Directors underscored the need to continue to rebuild fiscal buffers, re-anchor inflation expectations, and advance comprehensive structural reforms to support potential growth in the context of an aging population.

Directors welcomed the authorities' commitment to fiscal consolidation. They emphasized the need for a clear plan to fully offset the rising cost of interest on the public debt and expenditure pressures associated with health and long-term care. Additionally, the consolidation is necessary to ensure debt sustainability and increase the fiscal space to respond to economic shocks, including natural disasters. Measures to raise revenue and improve the quality of social spending and rationalize subsidies while preserving high-quality public investment will be advisable. Directors highlighted the importance of discipline in managing supplementary budgets and recommended strengthening the medium-term fiscal framework and having a robust debt management strategy.

Directors agreed with the Bank of Japan's (BoJ) current accommodative monetary policy stance and noted that a gradual withdrawal of monetary accommodation will be appropriate if staff's baseline forecast materializes. Given the uncertainty related to the neutral policy rate, the effectiveness of monetary policy transmission, and the extent of re-anchoring of inflation expectations, Directors urged the BoJ to remain data-dependent and flexible, and to continue its clear communication. In this context, they commended the BoJ for its well communicated and smoothly implemented balance sheet reduction plan, which will also improve the government bond market functioning and price discovery. They also welcomed Japan's longstanding commitment to a flexible exchange rate regime and underscored the importance of limiting foreign exchange intervention to exceptional circumstances.

Directors concurred that the financial system remains broadly resilient. They encouraged close attention to risks arising from increasing macroeconomic uncertainty, potentially faster-than-expected interest rates increases, and bankruptcies among SMEs. They encouraged the authorities to continue to implement the main recommendations from the 2024 Financial Sector Stability Assessment to further strengthen systemic risk monitoring and financial sector oversight.

Directors broadly welcomed Japan's commitment to multilateral economic cooperation, including its efforts to further regional integration and its support to a rules-based trade system. They also commended Japan's support to the Fund's capacity development efforts. Directors recommended focusing the use of industrial policy on areas with externalities and subjecting them to cost-benefit analysis.

Directors emphasized the need for structural policies to improve efficiency and productivity in the context of an aging population. These include increasing labor market participation and flexibility, including for seniors and women, facilitating labor mobility to address labor

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[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

shortages, and leveraging the benefits of AI adoption. This could be achieved through expanding childcare facilities, enhancing training programs to develop IT and AI skills, and attracting foreign workers. Directors welcomed Japan’s commitment to green transformation and urged further progress.

Japan: Selected Economic Indicators, 2021-30

Nominal GDP: US$ 4,213 Billion (2023) | GDP per capita: US$ 33,845 (2023)
Population: 124 Million (2023) | Quota: SDR 30.8 billion (2023)

	2021	2022	2023	2024 Est.	2025 Proj.	2026	2027	2028	2029	2030
				(In percent change)						
Growth										
Real GDP	2.7	0.9	1.5	0.1	1.2	0.8	0.6	0.6	0.5	0.5
Domestic demand	1.7	1.5	0.5	0.2	1.1	0.9	0.6	0.5	0.5	0.5
Private consumption	0.7	2.1	0.8	-0.1	0.9	0.7	0.6	0.4	0.3	0.3
Gross Private Fixed Investment	1.3	1.6	1.5	0.6	1.3	1.0	0.5	0.3	0.3	0.3
Business investment	1.7	2.6	1.5	1.2	1.3	1.1	0.6	0.4	0.3	0.3
Residential investment	-0.3	-2.7	1.5	-2.3	0.8	0.5	0.1	0.0	0.0	0.0
Government consumption	3.4	1.4	-0.3	0.9	1.3	1.2	1.0	1.1	1.3	1.4
Public investment	-2.6	-8.3	1.5	-0.9	0.3	0.0	0.2	-0.3	-0.4	-0.4
Stockbuilding	0.5	0.2	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports	1.0	-0.5	1.0	-0.1	0.1	-0.1	0.0	0.0	0.0	0.0
Exports of goods and services	11.9	5.5	3.0	1.0	2.0	1.0	1.7	1.6	1.5	1.4
Imports of goods and services	5.2	8.3	-1.5	1.3	1.4	1.6	1.7	1.4	1.3	1.3
Output Gap	-1.6	-0.9	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0
				(In percent change, period average)						
Inflation										
Headline CPI	-0.2	2.5	3.2	2.7	2.4	2.0	2.0	2.0	2.0	2.0
GDP deflator	-0.2	0.4	4.1	2.9	2.0	2.0	2.1	2.0	2.0	2.0
				(In percent of GDP)						
Government										
Revenue	36.3	37.5	36.8	36.9	36.8	36.8	36.8	36.9	36.9	36.9
Expenditure	42.5	41.8	39.1	39.4	39.5	39.8	40.1	40.8	41.4	42.0
Overall Balance	-6.1	-4.2	-2.3	-2.5	-2.7	-3.0	-3.3	-3.9	-4.5	-5.2
Primary balance	-5.5	-3.8	-2.0	-2.1	-2.3	-2.3	-2.2	-2.4	-2.7	-3.1
Structural primary balance	-4.9	-3.8	-2.1	-2.1	-2.4	-2.3	-2.2	-2.4	-2.7	-3.2
Public debt, gross	253.7	248.3	240.0	236.7	233.1	230.7	228.8	227.8	227.6	228.0
				(In percent change, end-of-period)						
Macro-financial										
Base money	8.5	-5.6	6.4	-1.0	2.2	2.2	2.2	2.1	2.1	2.1
Broad money	2.9	2.3	2.2	1.2	1.8	2.0	2.2	2.1	2.0	2.0
Credit to the private sector	2.3	3.6	4.2	3.1	1.6	1.4	1.4	1.4	1.3	1.3
Non-financial corporate debt in percent of GDP	157.1	161.2	156.7	159.5	160.9	162.1	163.3	165.3	166.0	168.3
				(In percent)						
Interest rate										
Overnight call rate, uncollateralized (end-of-period)	0.0	0.0	0.0	0.2	…	…	…	…	…	…
10-year JGB yield (end-of-period)	0.1	0.4	0.6	1.1	…	…	…	…	…	…
				(In billions of USD)						
Balance of payments										
Current account balance	196.2	89.9	158.5	193.0	177.9	167.7	170.1	175.2	175.5	169.3
Percent of GDP	3.9	2.1	3.8	4.8	4.4	4.0	3.9	3.9	3.8	3.5
Trade balance	16.4	-115.8	-48.2	-26.1	-11.3	-15.6	-14.4	-11.4	-8.9	-7.2
Percent of GDP	0.3	-2.7	-1.1	-0.6	-0.3	-0.4	-0.3	-0.3	-0.2	-0.1
Exports of goods, f.o.b.	749.2	752.5	713.7	692.3	700.2	706.6	722.7	736.9	755.4	771.4
Imports of goods, f.o.b.	732.7	868.3	761.9	718.5	711.5	722.1	737.1	748.4	764.3	778.6
Energy imports	127.8	195.5	152.9	138.3	124.6	108.2	98.0	90.0	83.0	76.7
				(In percent of GDP)						
FDI, net	3.5	3.0	4.1	4.8	4.2	4.1	4.0	4.2	4.3	4.2
Portfolio Investment	-3.9	-3.3	4.7	2.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4
				(In billions of USD)						
Change in reserves	62.8	-47.4	29.8	-64.4	11.5	11.5	11.5	11.5	11.5	11.5
Total reserves minus gold (in billions of US$)	1356.2	1178.3	1238.5	1159.7	…	…	…	…	…	…
				(In units, period average)						
Exchange rates										
Yen/dollar rate	109.8	131.5	140.5	151.4	…	…	…	…	…	…
Yen/euro rate	129.9	138.6	152.0	163.8	…	…	…	…	…	…
Real effective exchange rate (ULC-based, 2010=100)	73.5	62.0	56.3	51.7	…	…	…	…	…	…
Real effective exchange rate (CPI-based, 2010=100)	70.7	61.0	58.1	55.0	…	…	…	…	…	…
				(In percent)						
Memorandum items:										
Real GDP per Capita Growth	3.0	1.3	2.0	0.5	1.7	1.3	1.2	1.1	1.1	1.1
Population Growth	-0.3	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6
Old-age dependency	48.7	48.8	48.9	49.2	49.7	50.1	50.5	50.9	51.4	52.0

Sources: Haver Analytics; OECD; Japanese authorities; and IMF staff estimates and projections.

INTERNATIONAL MONETARY FUND

JAPAN

STAFF REPORT FOR THE 2025 ARTICLE IV CONSULTATION

March 11, 2025

KEY ISSUES

Context. After three decades of near-zero inflation, signs are growing that Japan's economy is reaching a new equilibrium with inflation sustained at the Bank of Japan's 2 percent headline inflation target. But Japan continues to face challenges, including from its aging population and high public debt.

Outlook and risks. Growth is expected to accelerate in 2025 and converge to its potential of 0.5 percent in the medium term. Inflation is expected to converge from above to the BoJ's 2-percent target in late 2025, helped by a moderation in commodity prices for oil and food. Risks to growth are tilted to the downside, while risks to inflation are broadly balanced.

Policy lines. Policy priorities are to rebuild fiscal buffers, re-anchor inflation expectations, and advance structural reforms to support potential growth.

- Public debt is high and is expected to rise from 2030, driven by a higher interest bill and expenditure pressures related to spending on health and long-term care for an aging population. A clear fiscal consolidation plan is needed beginning in the near term to fully offset these pressures, ensure debt sustainability, and increase fiscal space needed to respond to shocks (including from natural disasters).

- The monetary policy stance is appropriately accommodative and should help ensure inflation expectations rise sustainably to the 2-percent inflation target. Accommodation should continue to be withdrawn gradually if the baseline forecast bears out.

- While the financial system remains generally resilient, systemic risk has risen slightly, reflecting a combination of rising macroeconomic uncertainty, risk of faster than expected interest rate increases or unrealized losses, and rising bankruptcies among SMEs.

- Advancing structural reforms, including improving labor mobility, would help improve Japan's allocative efficiency and boost productivity.

Approved By
Krishna Srinivasan (APD) and Kenneth Kang (SPR)

Discussions took place in Tokyo, Japan between January 23 and February 6, 2025. The Staff team was led by Nada Choueiri and comprised Yan Carrière-Swallow (deputy mission chief), Kohei Asao, Shujaat Ali Khan, Danila Smirnov, Ara Stepanyan (all APD), Andrea Deghi (MCM), Gene Kindberg-Hanlon (RES), and Haruki Seitani (OAP). Jun Mizuguchi and Shuntaro Hara (OED) joined the policy discussions. Gita Gopinath (First Deputy Managing Director) joined meetings with Finance Minister Kato and Bank of Japan Governor Ueda. Nadine Dubost and Qin Lin (APD) assisted in the preparation of this report. This report reflects data available as of March 3, 2025.

CONTENTS

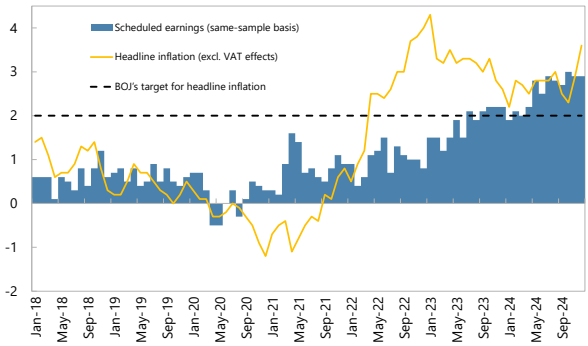
TABLES

ANNEXES

CONTEXT

1. After three decades of near-zero inflation, there are signs that Japan's economy can sustainably converge to a new equilibrium. Inflation has surpassed the BoJ's 2-percent target for the past three years. This has been partly driven by a confluence of global shocks, including the pandemic, supply disruptions, and rising commodity prices. While the direct impact of these shocks has largely waned, they appear to have induced a behavioral change in the economy. A tight labor market is delivering the strongest wage growth since the 1990s. These developments underpin optimism that the stabilization of inflation expectations at the central bank's target could be achieved and sustained.

Base Wage Growth Strengthens
(In y-o-y percent change)

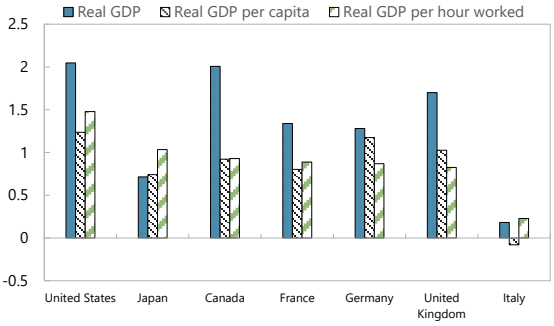


Sources: Haver Analytics and IMF staff estimates.

2. Japan continues to face challenges from its aging population, which has tended to depress domestic investment, contract labor supply, and serve as a drag on growth. Japan is experiencing a significant demographic shift with the working age population declining by around 13 percent over 2000-19 and the share of population aged 65 or older now the highest in the world (29 percent in 2023). Aging has already had a considerable impact on Japan's labor market, contributing to current labor shortages and a tepid growth rate that has averaged around 0.8 percent over 2000-19. These trends are expected to continue with the working age population expected to decline by a further 35 percent by 2065.

3. Amid these demographic trends, labor productivity has been more favorable than the low aggregate growth performance suggests. Japan's GDP per capita growth has been lagging its peers, reflecting the fall in the working age population, a shift towards part-time work (including among women and workers aged 65 and over), and a gradual fall in average hours worked from very high levels (IMF Country Report No. 23/128). However, Japan performed better than all its G7 peers except the United States in terms of GDP per hour worked over this period.

G7 Countries: Output Growth Over 2000-19
(Average annual percent change)



Sources: WEO Database, OECD Database, and IMF Staff Calculations.

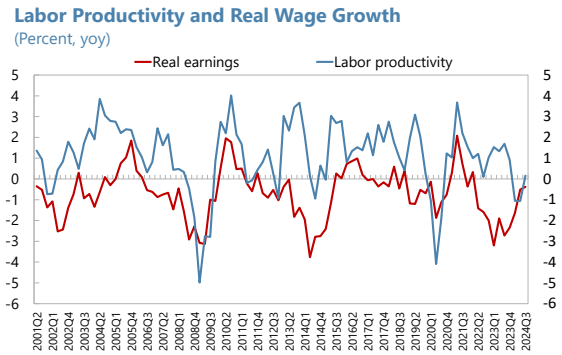
4. A minority government has been formed following a bout of political uncertainty. After three years at the helm, Prime Minister Kishida resigned last October, amid low approval ratings. His successor, PM Shigeru Ishiba, leads a minority government after the long-governing LDP-Komeito alliance lost its majority in the lower house. The new government's announced

priorities suggest policy continuity, including support for inclusive growth, the green transition, stronger national defense, and resilience of the strategic semiconductor sector.

RECENT DEVELOPMENTS

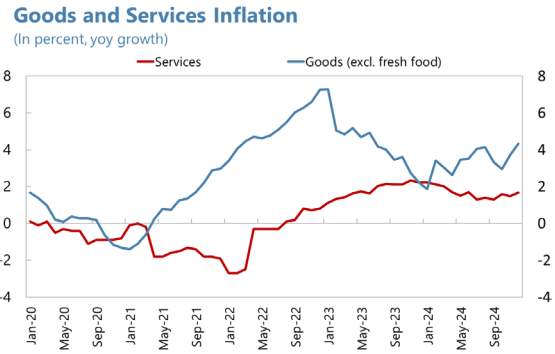
5. Economic activity slowed to 0.1 percent in 2024 due to temporary supply disruptions during 2024H1. After a 0.6 percent fall in Q1 owing to a production suspension by a major car manufacturer, growth picked up in the rest of the year. This rebound was driven by strong domestic demand, particularly private consumption, which was supported by rising wages. In contrast, net external demand negatively contributed to GDP growth in 2024.

6. The labor market tightened further, supporting wage growth. Unemployment dropped to its pre-pandemic level (2.2 percent in December), while the job openings to applications ratio stabilized at a relatively high level. Labor shortages reported by firms have surpassed their pre-pandemic highs, particularly in the services sectors, including healthcare and construction. The tight labor market, combined with several years of high inflation, supported an agreement for a high 5.1 percent average wage increase during the 2024 Shunto spring wage negotiations. This resulted in a gradual rise in nominal wages. However, in real terms, recent wage growth remains lackluster and has only recovered a small portion of the inflation-induced fall in real wages since 2021.



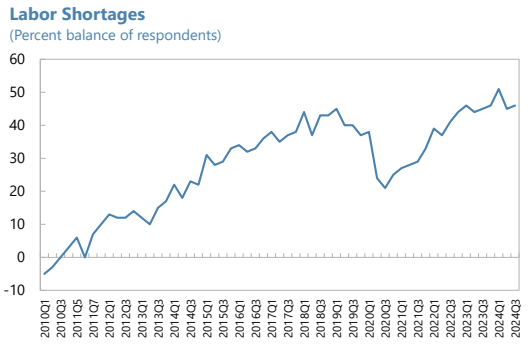
Sources: Haver Analytics; Ministry of Health, Labor and Welfare; and IMF staff calculations.
Note: Earnings include scheduled wages, overtime earnings, bonuses, and other allowances.

7. Both headline and core inflation (excluding fresh food and energy) remained above the BoJ's 2-percent headline inflation target in 2024. After an initial deceleration early in the year, services inflation ticked up towards the end of the year, but it remained below 2 percent. In contrast, goods prices remain the main driver of inflation, having accelerated from May 2024 due to the removal of electricity subsidies and food price rises. While exchange rate pass-through has increased recently, it remains relatively small (Annex I), because of which the inflationary impact of significant currency movements in 2024 has likely been relatively mild.

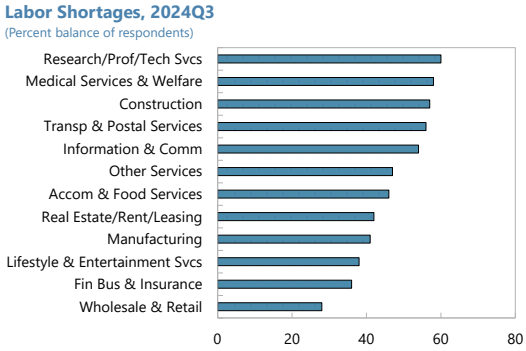


Sources: Haver Analytics and IMF staff calculations.

Japan: Labor Market Developments



Sources: Haver Analytics and Ministry of Health, Labor and Welfare.
Note: Labor Shortages refers to the net percentage of surveyed businesses or organizations that report a lack of qualified full-time employees to meet their operational needs.



Sources: Haver Analytics and Ministry of Health, Labor and Welfare.
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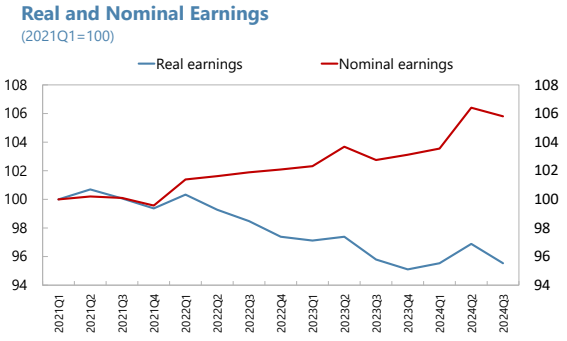


Sources: Haver Analytics and Ministry of Health, Labor and Welfare.
Note: Earnings include scheduled wages, overtime earnings, bonuses, and other allowances.

Sources: Haver Analytics, Ministry of Health, Labor and Welfare, and IMF staff calculations.
Note: Each dot on the chart represents one quarter. Earnings include scheduled wages, overtime earnings, bonuses, and other allowances.

8. The estimated fiscal deficit and general government debt in 2024 are lower than expected in the 2024 Article IV report. Expenditures supporting the economic recovery (such as transfers to households and SMEs) have been partially phased out. Tax revenue is estimated to be higher, driven by strong corporate profits, which more-than-offset the negative impact of the PIT cut. Still, the fiscal deficit is estimated to have worsened modestly from 2.3 percent of GDP in 2023 to 2.5 percent of GDP in 2024, and the 2024 primary deficit (2.1 percent) remains distant from the authorities' target of achieving a primary surplus in FY2025.[1]

9. The Bank of Japan (BoJ) has gradually raised the policy rate and started reducing the size of its balance sheet. After normalizing its monetary policy framework in March 2024, the BoJ raised the short-term policy rate for the second time in July 2024 to 0.25 percent. During the same meeting, they announced a gradual reduction in monthly outright JGB purchases from 5.7 trillion yen in July 2024 to 2.9 trillion by Q1 2026, which will result in negative net purchases. The policy rate

[1] This statement accounts for the differences between the authorities' primary balance accounting and the IMF's: 1) the authorities base their calculation on central and local governments for the fiscal year, while the IMF bases it on general government for the calendar year; 2) the authorities exclude expenditure for semiconductor/AI, green transformation, and the 2011 earthquake-related spending in their accounting, while the IMF includes them. These accounting differences imply less than 1 percent of GDP discrepancy in the primary balance. In addition, the authorities assume revenue measures to offset higher expenditure on defense and child-related policies, while the IMF does not, absent implemented legislation.

was raised further to 0.5 percent in January 2025. The BoJ has indicated that it will continue to raise rates gradually if its baseline macro-economic projections materialize. In the government bonds market, risk-free rate expectations and term premia have risen gradually in line with the BoJ's withdrawal of monetary policy accommodation. The rise in term premia, particularly at very long maturities of 15 to 40 years, has led to a steepening of the JGB curve.

10. Financial conditions remain accommodative but are gradually tightening. Since the BoJ's exit from unconventional monetary policy, real interest rates have started to increase but remain negative, maintaining supportive lending conditions. According to senior officer surveys, both large and small firms continue to view bank lending as accommodative. Loan rates have modestly increased, and most banks have increased ordinary deposit rates to around 0.1 percent in September, less than the rise in the policy rate. Stock prices have risen in 2024 on the back of global soft-landing hopes and recent changes to Japan's Nippon Individual Savings Accounts (NISA) funds inflows and investments by households.[2] The positive momentum in stock prices was briefly interrupted by a sharp sell-off in early August (Box 1).

11. The yen-dollar exchange rate has experienced sizable swings, largely driven by shifts in interest rate differentials but amplified by carry-trade positions. With the BoJ and major central banks on opposite sides of their policy cycles, the differential between Japanese and US rates has contributed to a sharp weakening of the yen since 2022. The yen-dollar exchange rate depreciated by 8 percent in 2024 and has displayed substantial volatility, though markets have remained resilient. The volatility of the yen in 2024 was an outlier relative to other currencies and was larger than can be explained by interest rate expectations alone. These large movements were met by foreign exchange interventions by the Ministry of Finance (purchases amounted to ¥9.8 trillion on April 29 and May 1, and ¥5.5 trillion on July 11-12). Following each intervention, the yen appreciated by about 3 percent over the following week. In late July and August, the yen appreciated markedly, reflecting a downward revision of expectations for US rates due to weak US labor market data and an earlier-than-expected rate hike by the BoJ at the July 31 policy meeting (Box 1). Changes in US yields have generally driven most of the variation of the interest rate differential with Japan in 2024, accounting for a large proportion of exchange rate volatility during the year. However, the buildup and subsequent unwinding of yen "carry trade" positions seem to have amplified the exchange rate's sensitivity to fundamentals.

12. Demand for Japanese manufacturing exports has remained subdued despite REER depreciation, although services exports have increased rapidly. Real services exports have risen by about 50 percent since the start of 2022, supported by post-COVID reopening and a REER depreciation of about 20 percent. However, manufacturing exports have remained subdued in recent years. Japan's share of global exports fell in 2024 and is now 1 percentage point below its

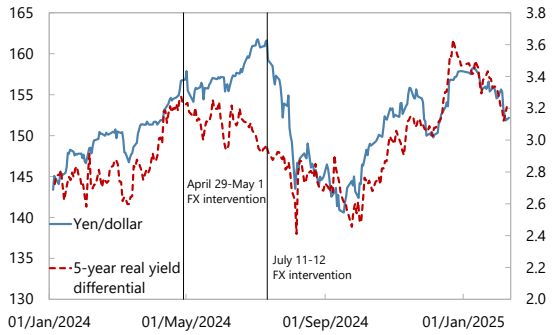
[2] The new NISA program expands tax exemptions for capital gains and dividends and removes the time limit on exemptions, encouraging households to shift from savings to investments. By December 2024, NISA investments totaled 52.7 trillion yen, with about 40 percent allocated to domestic equities based on preliminary survey data.

2019 level. While the drivers of this weakness are uncertain, subdued demand from trading partners is likely to have played a role, as China's goods import volumes have stagnated for two years. Intensifying competition, particularly in the autos sector, may have also weighed on export growth. Finally, a trend of high outward FDI from Japan has been consistent with a relocation of some production overseas, lowering export volumes but increasing primary income revenue.

Japan: The Yen's Elevated Volatility and Its Drivers

USD/JPY Exchange Rate and Real Yield Differential

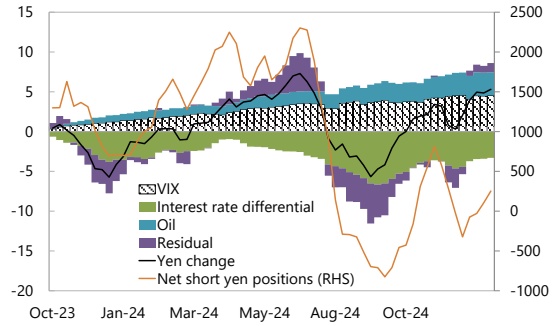
(Yen/USD (LHS); percentage points)



Source: Haver Analytics.

Drivers of Yen-Dollar Change, Nov 2023-Nov 2024

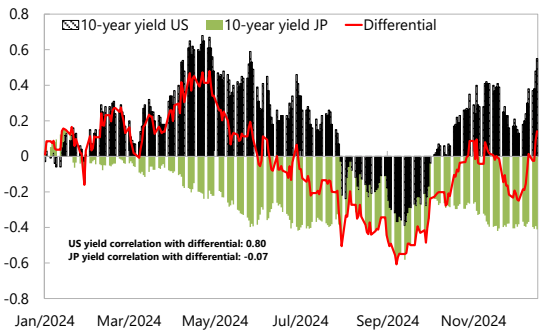
(Cumulative percent change (LHS); Billion yen (RHS))



Sources: Chicago Mercantile Exchange and IMF staff calculations.
Note: Net reportable noncommercial short positions.

US-Japan 10-year Bond Differential and Contributions

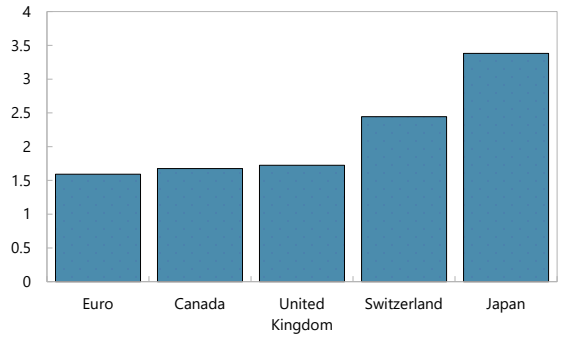
(Percentage point deviation from Dec 2023 average)



Sources: Haver Analytics and IMF staff calculations.

2024 Exchange Rate Volatility of Major Reserve Currencies

(Standard deviation of USD exchange rate, indexed to Jan 24=100)



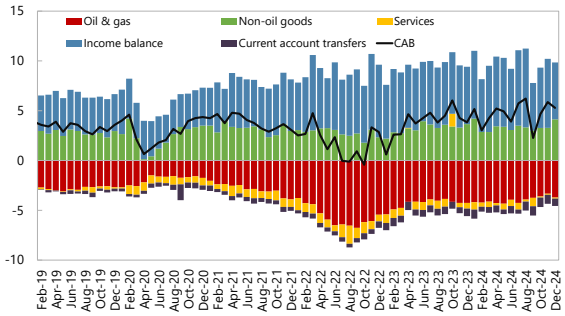
Sources: Haver analytics and IMF staff calculations.

13. Corporate reforms and increasing merger activity helped investment growth in Japan. Recent government and market reforms designed to improve corporate governance and capital management have encouraged corporates to embrace a more transparent, pro-growth agenda. Acquisitions in the first half of 2024 were up around 20 percent year-on-year. New guidelines from the Ministry of Economy, Trade and Industry (METI) on corporate takeovers and Tokyo Stock Exchange (TSE) reforms have also led to improved corporate governance and increased investment activity.[3] For instance, between April and June 2024, foreign funds invested approximately 7.9 trillion yen ($53 billion) in Japanese stocks, driven by expectations of stock market reforms.

[3] In 2024, the TSE introduced measures to boost capital efficiency among listed companies, such as publishing lists of firms actively working to improve cost of capital and stock price awareness, leveraging peer pressure to promote better corporate practices.

14. On a preliminary basis, the external position in 2024 is assessed as broadly in line with the level implied by medium-term fundamentals and desirable policies (Annex III).[4] The current account surplus increased to 4.8 percent of GDP in 2024 from 3.8 percent in 2023. About half of the improvement was driven by a higher primary income balance, supported by yen depreciation and a high stock of net foreign assets (83 percent of GDP). Primary income from direct investments has increased, and net portfolio investment income has also increased as a result of both yen depreciation and the continued wide differential in fixed-asset returns between Japan and other economies. An improvement in the goods trade balance explains most of the remaining increase in the current account, driven by higher export prices in yen terms, while the services balance is broadly unchanged.

Current Account Balance
(Monthly, percent of GDP, annualized, seasonally adjusted)



Sources: Haver Analytics and IMF staff calculations.
Note: Oil & gas balance includes petroleum, natural gas and other mineral fuels.

OUTLOOK AND RISKS

15. Growth is expected to accelerate to 1.2 percent in 2025, with private demand replacing public consumption as the main growth driver. Private consumption is expected to strengthen further, with above-inflation wage growth boosting households' disposable income and consumption. Private investment is also expected to remain strong, supported by high corporate profits and accommodative financial conditions. Public consumption is expected to contribute positively to 2025 growth, though to a lesser extent than private consumption. External demand is not expected to contribute to growth, as strong import growth will offset the improvement in Japan's exports in 2025. The output gap is projected to remain largely closed from 2025 onward. Over the medium term, growth is expected to converge to its potential (0.5 percent).

16. A few indicators underpin the positive outlook for private consumption and investment despite rising interest rates. Japanese households continue to have considerable savings, and the still very low borrowing costs and increasing wages provide a supportive outlook for private consumption. For Japanese corporates, strong profitability could cushion the impact of rising rates on investments—indeed the ratio of Japanese corporate profits to sales has increased sharply over the last two years, stabilizing at the highest level since 2003. Historically, high growth in profits-to-sales ratios has been positively associated with strong non-residential investment. Nevertheless, small and medium enterprises might not experience the same increase in profitability and could remain more sensitive to rising interest rates.

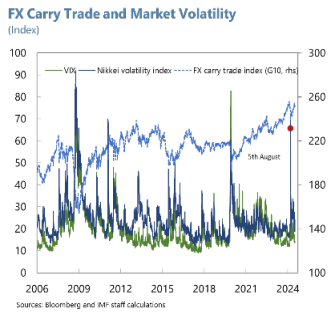
[4] The final assessment will be provided in the IMF's 2025 External Sector Report.

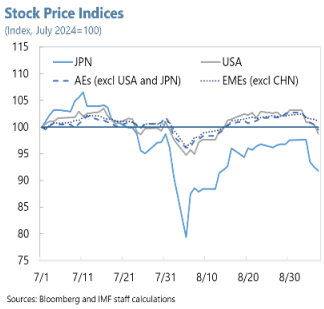
Box 1. The Carry Trade Unwind and Market Volatility in August 2024[1]

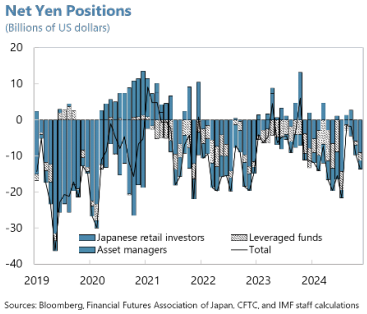
Concerns over a US economic slowdown intensified in early August 2024, fueled by weaker-than-expected labor market data released on August 2. These fears triggered a broad financial market sell-off, leading to a weaker dollar and global stock price declines. The narrowing of the dollar-yen interest rate differential accelerated the yen's appreciation, reinforcing trends driven by an earlier-than-expected rate hike by the BoJ on July 31. Spikes in equity market volatility went hand in hand with a large unwinding of currency "carry trades" (leveraged cross-currency positions designed to take advantage of interest rate differentials and low volatility) with yen carry trades reportedly dwarfing positions in other currencies. In turn, Japanese stock markets were hit particularly hard, with sharper declines than other economies. Japan's Nikkei index experienced its steepest one-day drop since 1987, falling 12.4 percent on August 5.

The sharp rise in the VIX further compounded pressures. As volatility increased, leveraged market participants faced mounting margin calls, prompting forced asset sales and purchases of options and VIX futures. These actions intensified the volatility spike, pushing the VIX far beyond levels typically associated with the corresponding declines in the S&P 500 (October 2024 GFSR).[2] The unwinding of carry trades coincided with a widespread sell-off across global asset classes, particularly those with more concentrated hedge fund positions.

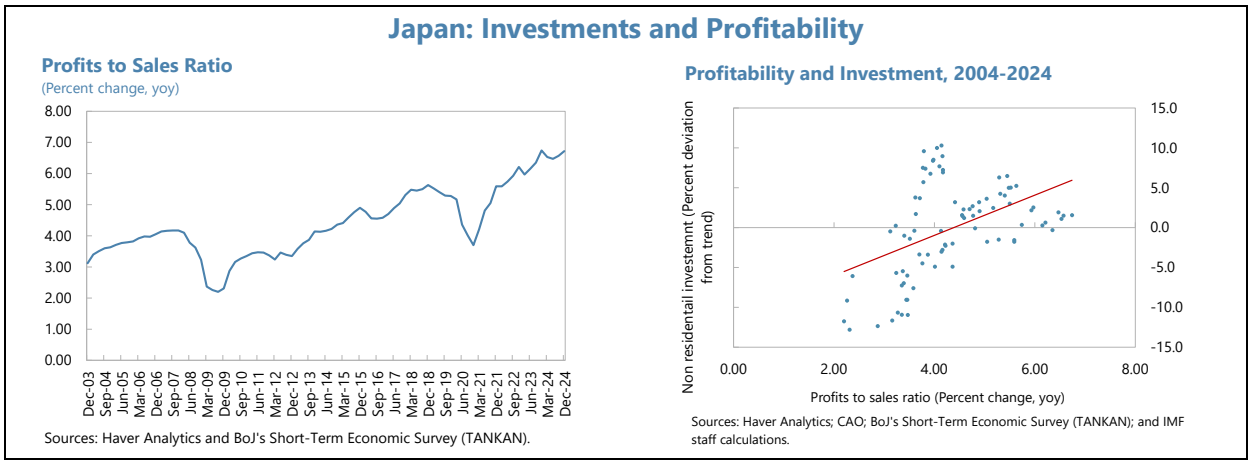
Despite the turbulence, markets demonstrated notable resilience and recovered swiftly. By mid-August, the yen stabilized around 140 against the dollar, Japanese stock prices rebounded from early-month lows and FX market volatility remained relatively muted compared to past episodes of financial stress. However, the scale of the market reaction points to amplifying factors and vulnerabilities built during a prolonged period of low volatility, which had encouraged excessive risk-taking and the accumulation of leveraged positions such as carry trades. Reliance on leverage further intensifies reactions to adverse shocks, heightening the risk of volatility spirals and adverse feedback loops in jittery, illiquid markets. As such, risk-taking in financial markets remained elevated, as only a portion of trades reliant on low volatility and yen funding had unwound (BIS 2024).[3]







1/ This box was prepared by Andrea Deghi.
2/ The sharp move in the VIX did not trigger a broader U.S. sell-off, as the volatility largely reflected technical issues with the index's construction rather than actual market activity.
3/ Carry trades can be implemented in various ways. Market estimates suggest that yen carry trades by foreign entities, particularly JPY positions in currency futures reported by the Chicago Mercantile Exchange, have largely unwound. However, these positions are relatively small in scale. In contrast domestic investors—such as life insurance companies with FX-unhedged foreign bond investments—hold much larger and more illiquid longer-term positions. These have likely been unwinding at a slower pace.



17. Both headline and core inflation are expected to converge to the BoJ's 2-percent headline inflation target in 2025. The decline in inflation will be driven by an expected moderation in oil and food prices, and largely closed output gap. Staff's baseline assumes that electricity subsidies will be terminated in March 2025, while gasoline subsidies will remain in place through end-2025.[5] Staff's forecast of sustainably achieving the 2-percent inflation target is underpinned by: broad-based price increases, with 80 percent of items in the CPI basket experiencing price increases in 2024; and a structurally tight labor market with limited room to further increase labor force participation rates for seniors and women. Inflation expectations have become more closely aligned with the 2-percent target, including at longer horizons, though measures based on surveys of professional forecasters and on market pricing of breakeven inflation remain below target.[6]

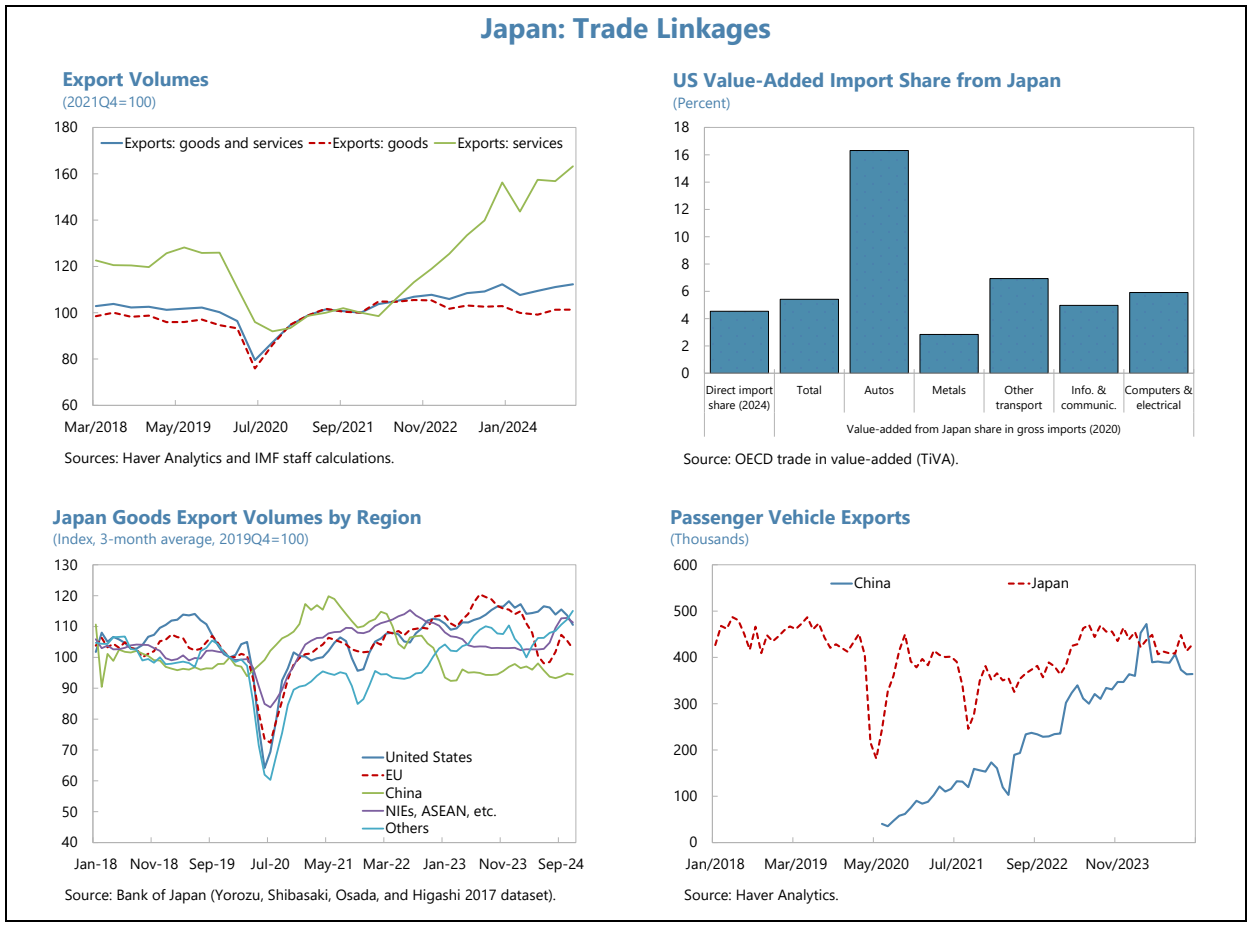
18. Risks to growth are tilted to the downside (Annex IV)**.** These include a slowdown in the global economy, deepening geoeconomic fragmentation and increasing trade restrictions, and more volatile food and energy prices. On the domestic side, the main downside risk is weak consumption if real wages do not pick up. A materialization of downside growth risks could return Japan to an effective-lower-bound constrained environment, with less room to use expansionary balance sheet policies given the already-elevated level of BoJ assets. Another risk to the outlook is a possible decline in confidence in fiscal sustainability that tightens financial conditions in a context of high public debt and gross financing needs. Greater regional integration or faster than expected wage increases represent upside risks to growth. For inflation, risks are broadly balanced. On the downside, inflation expectations may stall below the headline inflation target following Japan's prolonged experience with low inflation. Upside risks stem from rising food and energy prices, and from stronger-than-expected wages in the upcoming spring wage negotiations.

19. Deepening geoeconomic fragmentation and increased trade restrictions pose downside risks to growth and uncertain effects on inflation. Increased trade restrictions by Japan's major trading partners could have direct and indirect effects, given that the US and China

[5] If the electricity subsidy is extended for the entire year, headline inflation could temporarily fall below the 2 percent target.

[6] Shallow markets distort the latter measures.

each account for about 20 percent of Japan's goods exports and together account for about one-third of Japan's goods imports. Japan's auto sector is particularly exposed, accounting for about 16 percent of all value-added content in gross US motor vehicle imports in 2020. Japanese industry may also face indirect effects, such as reduced demand for China's exports impacting demand for intermediate products supplied by Japan. Also, Japanese multinational manufacturers operate in economies that may be the target of direct tariffs and require intermediate products from countries where tariffs are imposed. Rising uncertainty about future trade policy could also harm domestic and global activity, for example by delaying investment decisions. The effect of rising protectionism on inflation in Japan is less certain, with two-sided risks. Weaker activity and increased excess capacity would lower inflation, but there may be offsetting indirect cost pressures. Policymakers should closely monitor the effects of rising trade barriers on prices and stand ready to adjust the monetary policy stance if price pressures are sustained.



Authorities' Views

20. The authorities broadly agreed with staff's assessment of the economic outlook and near-term risks. Like staff, they expected real GDP growth to accelerate in 2025 driven by private consumption as real incomes improve, supported by another strong wage negotiation round. Regarding the near-term inflation outlook, the BoJ saw larger upside risks than staff, citing concern

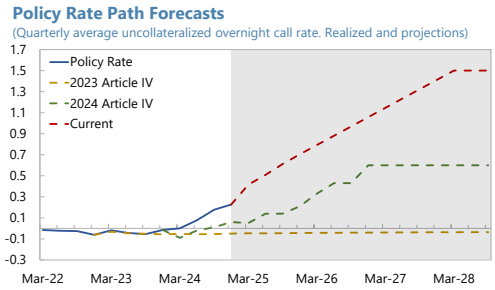
that the wage Phillip's curve could be steeper than currently anticipated in an environment of severe labor shortages. Additionally, the authorities noted that exchange rate pass-through to inflation has an important implication under the low-inflation environment as a factor that compresses real wage growth and hinders the virtuous cycle of wage-price inflation. Concerning the risk of increased trade barriers, the authorities emphasized that the impact on Japan would depend on the specific policies introduced by trading partners. The authorities concurred with the preliminary assessment that Japan's 2024 external position was broadly in line with medium-term fundamentals and desirable policies.

ECONOMIC POLICIES

Policies need to balance the objectives of maintaining adequate aggregate demand to sustain convergence to 2-percent inflation, ensuring fiscal sustainability, and boosting potential growth despite an aging population.

A. Monetary and FX Policies

21. The monetary policy stance is appropriate and accommodation should continue to be withdrawn gradually to support inflation's convergence to target over the policy horizon. Staff estimate a nominal neutral rate range of 1-2 percent, subject to significant uncertainty given Japan's prolonged period of policy rates at or near the effective lower bound.[7] Recent inflation developments have allowed the BoJ to gradually raise the policy rate, though at 0.5 percent it remains substantially below its neutral level and highly accommodative. A closed output gap and the outlook for inflation converging towards target mean the BoJ should continue to raise the policy rate until reaching a neutral stance by the end of the policy horizon (2027Q4). Given the moderate pace at which underlying inflation is firming—relative weakness in services inflation; the slow pickup in real wages; some measures of long-term inflation expectations below target—a gradual withdrawal of accommodation is appropriate in the baseline.



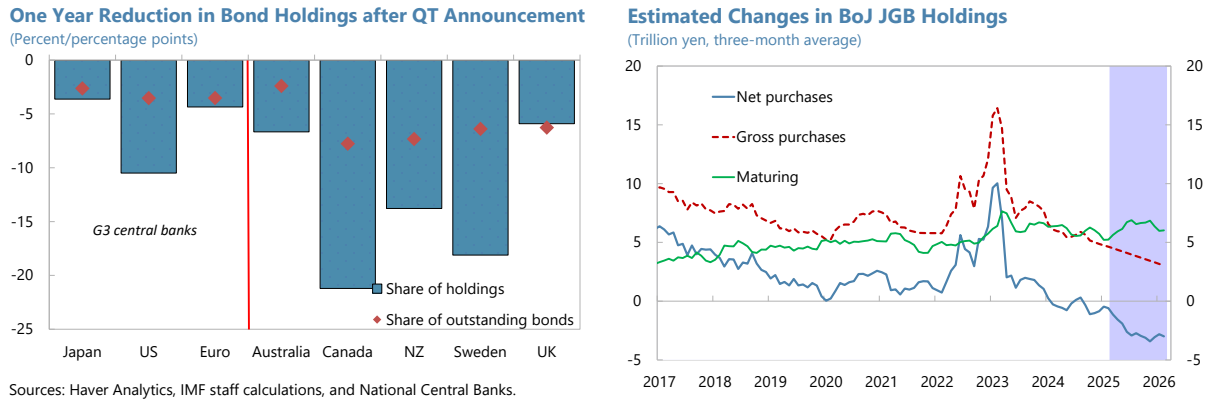
22. High uncertainty amplifies the case for the BoJ's current flexible approach. In addition to external factors, there is heightened uncertainty regarding: the neutral rate; the effectiveness and channels of monetary policy transmission amid structural economic shifts; and the extent to which inflation expectations are re-anchored at 2 percent. If wages and services prices strengthen more than expected, rates may need to rise faster than in staff's baseline and current market pricing. Conversely, while staff expect long-term expectations to re-anchor at 2 percent as the baseline forecast materializes, there is a risk that they could stall below the target, which would call for a

[7] Staff's estimate of the neutral rate is informed by the methodologies of Holston, Laubach, and Williams (2017), Vitek (2018), and Wynne and Zhang (2018).

slower pace of policy rate hikes. This underscores the need for the BoJ to maintain its data-dependent and flexible approach and clear communications to anchor market expectations. This approach will help mitigate potential market disruptions or sudden repricing of risk-free assets as monetary accommodation is withdrawn.

23. Balance sheet reduction has been clearly communicated and is proceeding smoothly. On July 31, the BoJ announced its plan to reduce its JGB gross purchases by about half by 2026Q1, with some flexibility reserved to respond to market conditions. This plan would reduce the BoJ's holdings of JGBs by about 3 percent after one year. The market reaction to the announcement was modest, reflecting the BoJ's clear communication strategy and moderate approach. The plan was a welcome development for several reasons: First, a smaller balance sheet will provide more policy space if the effective lower bound binds in a future downturn. Second, it will lower risks of BoJ financial losses, as liability expenses rise relative to interest revenues on bonds purchased at low interest rates.[8] Third, a smaller role for the BoJ will improve JGB market functioning and price discovery. The modest pace of balance sheet reduction is appropriate to avoid risks of disruption given the BoJ's outsized participation in the JGB market and is aligned with the pace of balance sheet reduction announcements by the ECB and Federal Reserve (Annex VIII). The modest pace also provides greater room to maneuver the policy rate to achieve the desired monetary policy stance. Looking ahead, the BoJ should stand ready to modify the pace and maturity profile of its purchases should disorderly bond market conditions arise or if financial conditions become inconsistent with the desired monetary policy stance, taking note of the government's debt management strategy (¶32).

Japan: Projected Reduction of the Bank of Japan's Balance Sheet



Sources: Haver Analytics, IMF staff calculations, and National Central Banks.
Note: Estimated for Japan.

Source: IMF staff calculations.

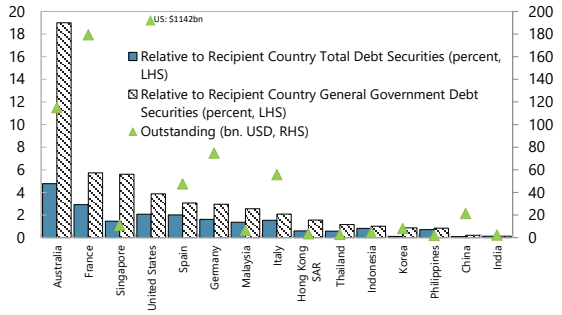
24. Monetary policy in Japan can have important financial market spillovers abroad. Japan's large stock of outstanding government debt securities and sizable net international investment position of about $3.4 trillion provide a possible transmission channel for monetary policy to spill over into asset prices abroad. Following adjustments to the YCC program in the

[8] Even though valuation losses will not affect the BoJ balance sheet if bonds are held to maturity and the amortized cost method is used to value its government bond holdings, the negative yield spread can result in operating losses.

December 2022 and July 2023 policy meetings, bond yields rose sharply in Japan and abroad. In contrast, the reduction in the pace of bond purchases announced in July 2024 led to a more modest rise in Japanese and foreign yields, reflecting prior communication and small reductions in these purchases. In general, asset price news related to the BoJ's asset purchase programs can have spillovers to other Asian economies (Annex VIII). Clear communication and gradualism can limit adverse asset price reactions and outward spillovers.

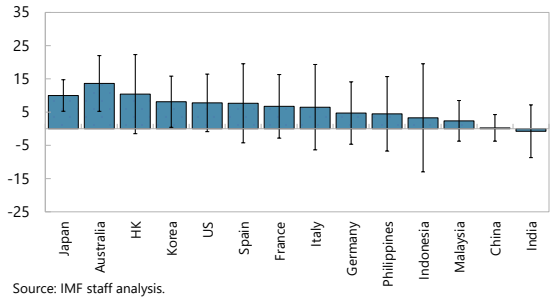
Japan: Spillovers from Monetary Policy

Japanese Portfolio Debt Investment in Select Markets
(Percent (LHS); bn. USD (RHS))



Sources: Ministry of Finance, Japan; BIS; Haver Analytics; and IMF staff calculations.

10-Year Government Bond Spillovers from LSAP Policy Shocks in Japan
(Basis points)



Source: IMF staff analysis.
Note: LSAP policy shock scaled to be consistent with a 10bps rise in JGB yields.
Average impact over 10 days reported. One-standard deviation errors shown.

25. Exchange rate flexibility should continue to help absorb external shocks and support monetary policy's focus on price stability. The authorities remain committed to a flexible exchange rate regime, as is apparent from the very large movements in the yen in 2024. With economic uncertainty high in the US and Japan, the exchange rate is likely to continue to fluctuate widely. The use of foreign exchange intervention (FXI) should be limited to exceptional circumstances such as when economies are vulnerable to sharp currency fluctuations because of unhedged exposures, shallow markets, or because inflation expectations are at risk of de-anchoring. In such cases, FXI may be useful to mitigate the adverse effects of excessive exchange rate movements that pose significant risks to macroeconomic and financial stability, including if markets turn disorderly.

Authorities' Views

26. The BoJ emphasized that monetary policy remains guided by developments in underlying inflation and wages. They noted that some measures of underlying inflation and inflation expectations, while on a rising trend, remain below target, warranting continued accommodation. Should the baseline materialize, the policy rate would need to rise gradually toward a neutral level. While they estimate the neutral rate in the 1-2.5 percent range, they stressed that it should be interpreted with considerable latitude, and they will continue to conduct monetary policy in a data dependent manner. They also stressed that clear and regular communication will be crucial for preserving orderly market conditions, given evolving wage-price dynamics and the potential need to adjust the pace of rate hikes should upside inflation risks materialize.

27. The BoJ assessed that the announced reduction in JGB holdings had proceeded smoothly, and market impact had been orderly. The BoJ cited indications that market functioning had started to improve as the BoJ's gross purchases declined. To improve functioning where necessary, the BoJ had expanded the provision of certain JGB bonds that were in short supply.

28. The authorities expressed concerns about the one-sided and rapid pace of yen depreciation. They pointed out that, among other factors, speculative trading had contributed to rapid exchange rate moves. They reiterated that excessive exchange rate volatility can have adverse implications for households, firms, and the broader economy, while remaining committed to market-determined exchange rates.

B. Fiscal Policy

29. The fiscal position should be tighter, and quality of spending should be improved in 2025. Under current policies, staff assesses that the fiscal deficit in 2025 would increase slightly by 0.2 percent of GDP to 2.7 percent of GDP, with additional spending planned for defense, children-related measures, and industrial policies (IP). While Japan has some fiscal space, a clear consolidation plan is needed even in the near term to support debt sustainability. Staff recommends an additional 0.2 percent of GDP consolidation in 2025, which can be realized by ending energy subsidies as soon as possible while leveraging the FY2025 primary balance target as a fiscal anchor. There is a significant risk that the deficit will widen further, given the political demands on the minority government. This should be avoided as fiscal space remains limited to respond to shocks, including from natural disasters. The PIT reform to the income deduction limit and other possible deficit-expanding measures would need to be financed by additional revenues or savings elsewhere in the budget.

30. Over the medium term, additional consolidation is required to ensure debt sustainability and increase fiscal space and should be underpinned by a robust fiscal framework. While spending is expected to be boosted by continued use of supplementary budgets,[9] nominal GDP growth is projected to exceed the effective interest rate on public debt, such that the public-debt-to-GDP ratio is projected to fall through 2029. However, this ratio will remain above 220 percent of GDP and the highest among major economies. From 2030 onwards, debt is projected to rise, driven by a higher interest bill and spending pressures related to climate, defense, and aging (Annex VII).[10] To fully offset these pressures, recover fiscal buffers, and place debt on a steady downward path, staff recommends additional fiscal consolidation of 0.2 percent per year until 2027, rising to 0.5 percent of GDP per year from 2028 onwards, implying a primary balance reaching surplus in 2032 (staff's definition) and a cumulative improvement in the primary balance of 3.6 percent of GDP relative to the baseline by 2033. Beyond 2033, spending pressures will continue to

[9]Staff's forecast assumes that supplementary budgets will continue to be approved in each projection year with a constant nominal size and composition as the 2024 version.

[10] Staff projects that healthcare/long-term care spending and pension spending will reach respectively 13.7 percent and 9.2 percent of GDP by 2040.

rise, requiring further fiscal effort to keep debt on a downward path. Strengthening the medium-term fiscal framework will help enforce fiscal consolidation, given past postponements of primary balance target deadlines.

31. Efforts on expenditure and revenue would be needed to achieve the desired consolidation, while spending should become more growth-friendly. Current spending remains elevated compared to pre-pandemic levels, highlighting the need to eliminate as soon as possible poorly-targeted subsidies, including energy subsidies (0.6 percent of GDP in 2024) that can hamper decarbonization efforts. Meanwhile, expenditure on high-quality public investment—with a higher fiscal multiplier than current spending (IMF Country Report 22/99)—should be preserved. Enhancing the targeting and efficiency of social security spending—including on healthcare—is critical to contain rising costs while preserving quality. On the revenue side, the tax effort to offset higher defense and green transformation spending should be finalized and implemented swiftly.[11]Additional revenue measures could include: strengthening financial income taxation for high-income earners; lowering exemptions and broadening the taxable valuation base under the property tax; streamlining pension and employment income expense deduction while eliminating spousal income deduction; and unifying and eventually increasing the consumption tax rate.

32. The gradual rise in the cost of servicing the large public debt will put a premium on a robust debt management strategy. Staff expect the yield on 10-year JGBs could exceed 200 basis points by 2026, from about 140 bps today and an average of less than 2 basis points over 2018-21. Despite public debt average residual maturity exceeding 9 years, gross financing needs (GFNs) are already about half of GDP. Interest payments will double by 2030 and quadruple by 2036, at which point they are expected to account for 13 percent of government expenditure. In the face of rising GFNs and a shrinking BoJ balance sheet, the government will need to rely on additional demand from foreign investors and domestic institutions (particularly pension funds whose asset allocations allow for near-term expansion of JGB holdings).[12] The government plans measures to increase demand, such as issuing floating-rate bonds and shortening maturities which would reduce market risks to banks holding these bonds, amid rising interest rates. However, the debt management strategy needs to be further articulated. Strengthening the rule-based fiscal framework will enhance accountability and credibility in fiscal sustainability, contributing to broadening the investor base.

33. The authorities should reserve the use of supplementary budgets for exceptional circumstances. The size of supplementary budgets has been elevated in the post-pandemic period. The repeated use and incomplete execution of supplementary budgets undermines efficient resource allocation, budget transparency, and fiscal discipline, all of which impact market credibility. Their use should be limited to responding to large, unexpected shocks that overwhelm automatic

[11] The tax legislation to offset higher defense spending is not yet finalized despite the plan being created in 2022. Plans for carbon pricing to offset increased green transformation spending remain unclear. Spending on defense and green transformation began rising in FY2023, and staff projects it will reach 2 percent and 0.4 percent of GDP, respectively, by 2028.

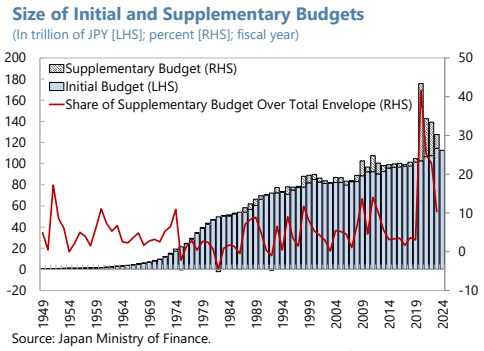
[12] Banks' appetite to purchase JGBs may be limited by the regulation of Interest Rate Risk in the Banking Book (IRRBB). Major banks have been rebalancing their securities portfolios and the duration of their yen-denominated bond holdings has been getting shorter.

stabilizers, which would also avoid providing unwarranted stimulus in normal times. All medium-term spending commitments—including on IP and green transformation—should be incorporated into the regular budget process.

Box 2. Japan's Supplementary Budgets [1/]

Japan has a long history of formulating supplementary budgets. These are governed by the Public Finance Act since 1947, which stipulates that supplementary budgets can only be introduced to cover a shortfall in expenses related to national obligations, or to add or modify expenses that have become particularly urgent due to circumstances arising after the initial budget has been formulated. The Act however does not clearly define circumstances that can be deemed as 'particularly urgent'.

Compared with peers, Japan has lacked an effective fiscal rule to discipline the practice of supplementary budgets. Since the enactment of the Act in 1947, there has not been a single fiscal year in which a supplementary budget was not formulated. No fiscal rules limit the size of supplementary budgets, in contrast to the initial budget, where the budget ceiling mechanism works relatively well. A mechanism to control the total budget envelope is common across advanced economies, but absent in Japan. IMF Fiscal Rules Dataset shows that 75 percent of advanced economies have expenditure rules to limit the level or growth of expenditure, and 88 percent of them have formal enforcement procedures under either national or supranational rules.



Source: Japan Ministry of Finance.
Note: Budget figures are based on the general account of central government.

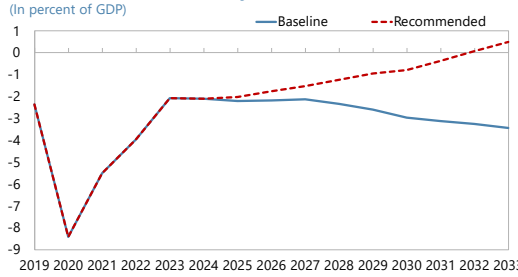
Limiting supplementary budgets would enhance the quality of spending. Typically, the government formulates a supplementary budget within 1-2 months after the Prime Minister issues the order. Due to the limited time for preparation, as well as the lack of effective rules that limit the size and scope of supplementary budgets, the government faces challenges in implementing quality policies in a cost-effective manner. Limiting supplementary budgets would help the government implement policies based on its medium-term agenda with better scrutiny, improving the quality of fiscal spending.

1/ Prepared by Kohei Asao.

Japan: Fiscal Projections and Recommendations

Growth-friendly fiscal consolidation is needed …

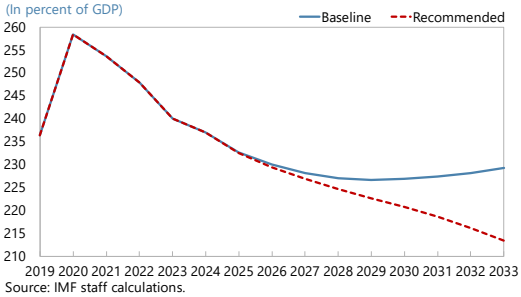
General Goverment Primary Balance
(In percent of GDP)



Source: IMF staff calculations.
Note: The recommended path is based on our DSA analysis. It ensures that debt remains on a downward path while avoiding sharp contraction over the long term. We maintain the same GDP growth and inflation assumptions as in the baseline.

… to keep debt on a firmly downward trajectory.

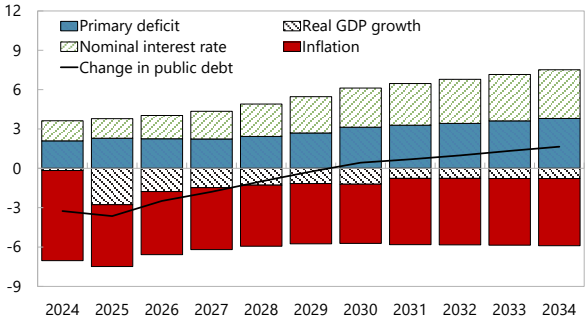
General Government Gross Debt
(In percent of GDP)



Source: IMF staff calculations.
Note: The recommended path is based on our DSA analysis. It ensures that debt remains on a downward path while avoiding sharp contraction over the long term. We maintain the same GDP growth and inflation assumptions as in the baseline.

Higher interest rates and age-related spending contribute to higher debt over the medium term.

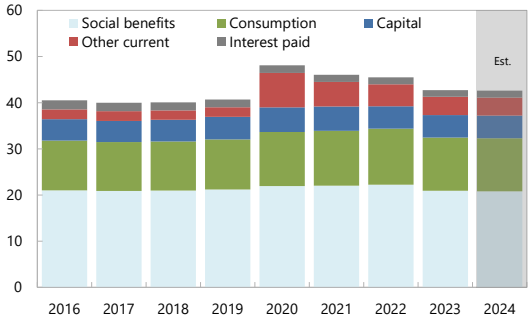
Contribution to Change in Public Debt
(Percent of GDP)



Source: IMF staff calculations.

'Other current' spending, that covers various subsidies, has remained high since 2020.

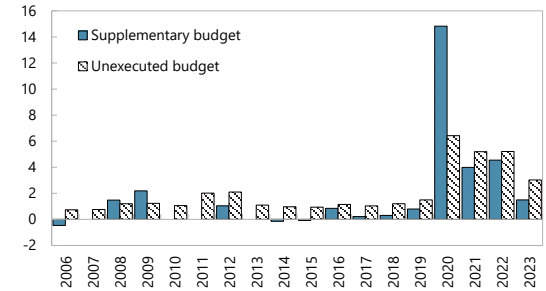
Composition of Public Spending
(In percent of GDP)



Sources: CAO and IMF staff calculations.

Supplementary budgets remain large, although a higher portion of the budget remains unexecuted.

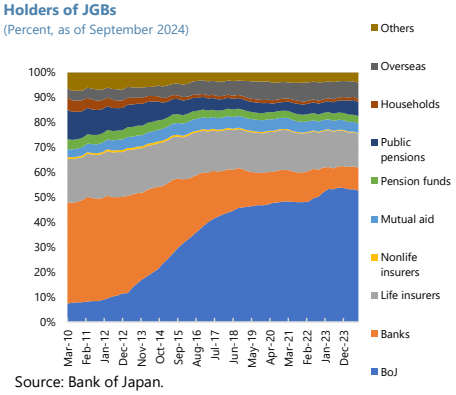
Supplementary Budget and Unexecuted Budget
(In percent of GDP, fiscal year)



Sources: MOF and IMF staff calculations.
Note: The figures are based on the central government's general account. The blue bars represent the amount of new debt to fund supplementary budget(s) approved during the fiscal year.

Pension funds and foreign investors increased their shares of JGBs in recent months.

Holders of JGBs
(Percent, as of September 2024)



Source: Bank of Japan.

Authorities' Views

34. The authorities agreed with the need for fiscal consolidation while achieving economic growth. They emphasized that fiscal space remains constrained in responding to large shocks, and

the situation will worsen further over the medium term, with higher interest payments and social security spending. They concurred with the importance of fiscal discipline in managing supplementary budgets. They stressed the importance of normalizing fiscal spending to rebuild fiscal buffers for potential risks.

35. The authorities emphasized that they remain committed to achieving primary surplus at the earliest possible time. While noting that the FY2025 initial budget plan is appropriately tighter than FY2024, they indicated that, according to the latest estimates by CAO, it was unlikely to meet the primary balance target in FY2025, but they may be able to achieve primary balance in FY2026. They plan to present a fiscal consolidation approach, including early achievement of primary surplus, in the upcoming policy package (The Basic Policy on Economic and Fiscal Management and Reform 2025).

C. Macrofinancial Linkages and Financial Stability

36. Japan's financial system remains broadly resilient, supported by robust capital and liquidity buffers. Banks' revenues have generally increased as credit costs remain low, the rise in interest rates has been gradual, and the yen has depreciated. Major banks continue to manage interest rate risks proactively through portfolio rebalancing and diversifying their funding sources. Financial intermediation remains stable supported by continued demand for loans from both corporate and household sectors. The insurance sector is well-capitalized and profitable, despite challenges from market volatility and demographic shifts.

37. While the financial system remains generally resilient, systemic risk has risen slightly since the 2024 Article IV consultation. This reflects a combination of rising macroeconomic uncertainty, risks of faster than expected interest rate increases or unrealized losses, and rising bankruptcies among SMEs. Rising global macroeconomic uncertainty could impact market sentiment and financial institutions' investments (¶19). While gradually rising interest rates have helped bank profitability, faster-than-expected increases in interest rates or sudden changes in global financial conditions could amplify financial market volatility and interact with three persisting vulnerabilities identified in the 2024 FSAP: large securities held under mark-to-market accounting, significant foreign currency exposures—particularly through USD funding instruments—and signs of overheating in some areas of real estate markets. A faster-than-expected tightening of financial conditions could also disrupt the JGB market, amplifying interest rate risks.

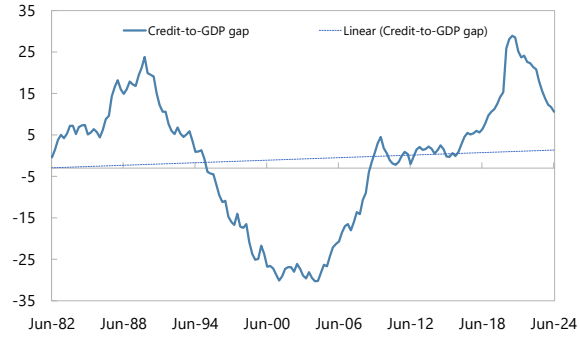
38. Market and credit risks should remain contained if rates continue to rise gradually as envisaged under the baseline but could intensify if rate increases accelerate. Domestic and foreign loan portfolios have shown resilience to rising rates in 2024. Regional and Shinkin bank lending has slowed as COVID-era "zero-zero loans" are being repaid, narrowing the credit gap, while some internationally active banks have adopted a more cautious stance on foreign investments and reduced domestic bond duration. However, staff analysis shows that less-capitalized domestic banks are becoming more vulnerable to rate hikes, facing greater risks from unrealized losses and heightening deposit competition from major banks and nonbank financial institutions. Furthermore,

corporate bankruptcies have been increasing among small firms with preexisting financial weaknesses, albeit from a low base, and could pose risks for regional banks.[13] This underscores the need to empower the FSA to set and adjust individual bank capital ratios above the minimum requirements in response to each bank's risk profile, to ensure timely intervention beyond existing indirect formal options.

Japan: Credit and Market Risks in Financial Markets

Credit-to-GDP Gap

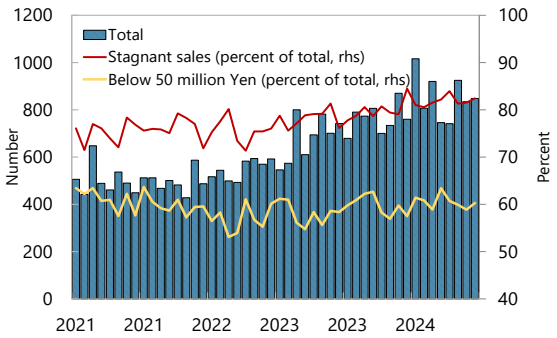
(Percent)



Sources: BIS and IMF Staff Calculations.

Business Failures

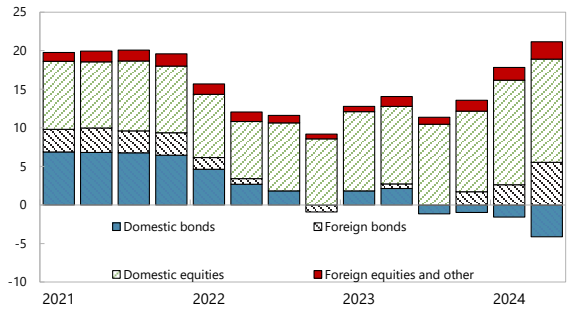
(Left axis: number; Right axis: percent)



Sources: EUROPACE AG/Haver Analytics and Teikoku Databank.

Valuation Gains/Losses Among Major Life Insurances

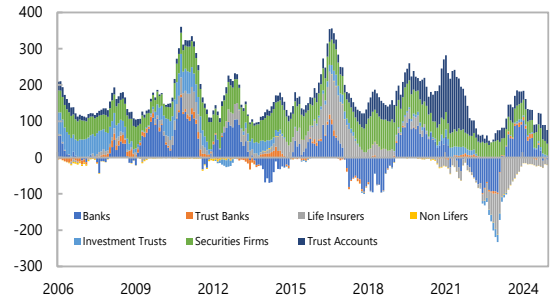
(Percent)



Sources: Bank of Japan, Published individual company filings, and IMF staff calculations.

Japanese Residents' Net Purchases of Foreign Long-Term Debt Securities

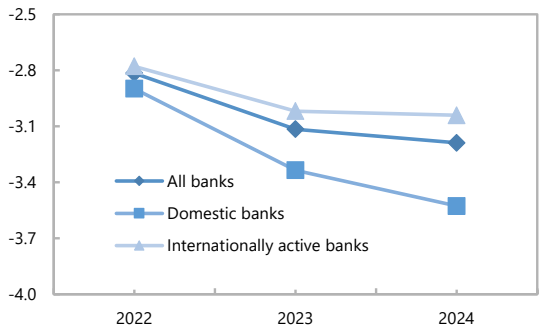
(in billions of USD, trailing 12-month sum)



Source: EUROPACE AG/Haver Analytics.

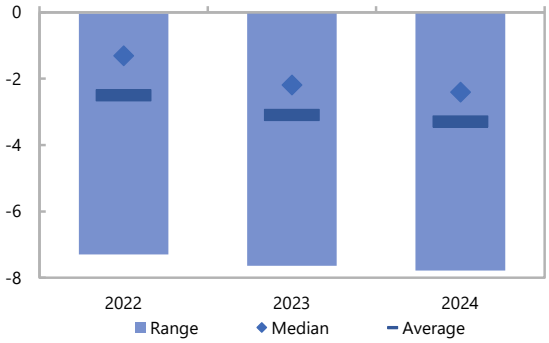
[13] According to Teikoku Databank, the number of corporate bankruptcies in Japan has risen significantly for three consecutive years, approaching 10,000 cases in 2024.

Sensitivity of Total Bond Portfolio to a 100bps Parallel Increase in Interest Rates
(Percent of RWA, Average)



Sources: FSA and IMF staff calculations.

Domestic Banks: Sensitivity of Domestic Bonds to a 100bps Parallel Increase in Interest Rates
(Percent of RWA)



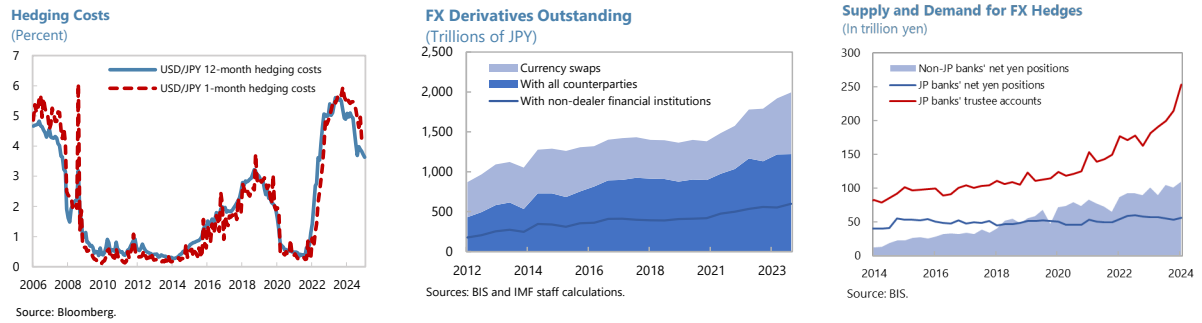
Sources: FSA and IMF staff calculations.

Notes: In the middle-left panel, valuation gains/losses on securities holdings are computed for the four largest life insurances. Total securities exclude trading securities. The bottom left panel shows the average market value change of bond portfolios in response to foreign and domestic interest rate shocks. The 23 banks covered in the analysis constitute over 80 percent of the banking system assets. Internationally active banks are defined as those with one or more foreign branches or subsidiaries, while the rest are classified as domestic banks. In the bottom right panel, the boxes represent the range of estimated sensitivities of bonds' portfolios across domestic banks. The analyses in the bottom panels use fiscal year-end data. The data for 2024 reflect information as of the end of September 2024. All securities are evaluated on a mark-to-market basis, irrespective of whether they are held to maturity or included in regulatory capital.

39. Systemic risk monitoring requires further strengthening, particularly in closing existing data gaps and identifying vulnerabilities related to foreign currency funding. While observable data based on trustee accounts and bank positions suggest a significant yen supply in FX derivatives, gaps remain in capturing non-bank and corporate hedging activity. Data collection should be improved to comprehensively monitor shifts in FX exposures, including through derivatives, given their scale and potential impact on asset valuations and outward spillovers (Box 1). The authorities should continue efforts to strengthen risk-based supervision and develop the Early Warning System with more forward-looking metrics, especially for credit and liquidity risks. The authorities are advised to closely monitor liquidity coverage ratios (LCRs) by significant currency for all banks, enhance oversight of net open FX positions, and consider implementing a minimum LCR requirement for domestic banks (including by significant currency), given banks' significant FX exposures.[14]

[14] See Annex VI for updates on the implementation of key 2024 FSAP recommendations.

Japan: Foreign Exchange Markets



Notes: The middle panel shows the notional value of outstanding FX swaps, outright forwards, and currency swaps involving the yen. The right panel illustrates foreign currency holdings in trustee accounts managed by Japanese banks on behalf of third parties, with an assumption that 80 percent of the total is hedged against currency risk. Japanese banks' net yen positions are computed according to Kloks and others (2023).

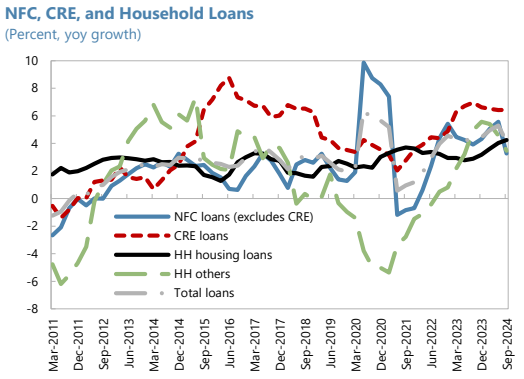
40. Vulnerabilities in pockets of the real estate sector highlight the need for enhanced risk oversight and macroprudential policy coordination. Major banks have continued to expand non-recourse lending to real estate investment funds and real estate investment trusts (REITs), despite signs of overheating in parts of the real estate market.[15] Banks with significant CRE exposures risk amplifying macrofinancial and economic spillovers, particularly in case of sharp real estate corrections, necessitating enhanced risk oversight and proactive macroprudential measures to mitigate further buildup of risks. The expansion of the "Common Data Platform" is a positive step and its continued development remains essential to address evolving risks. Assigning a formal mandate to the Council for Cooperation on Financial Stability (CCFS) would reinforce the institutional framework. Finally, expanding the macroprudential toolkit with targeted and well-calibrated borrower-based tools would help mitigate vulnerabilities in the real estate sector,[16] complementing the 5-year/125 percent rule.[17]

[15] Model estimates suggest that both the residential and commercial real estate markets appear overvalued in some areas (see also Japan 2024 FSAP). Moreover, the share of housing loans with debt service to income of 30 percent or above at origination is on the rise, especially in urban areas.

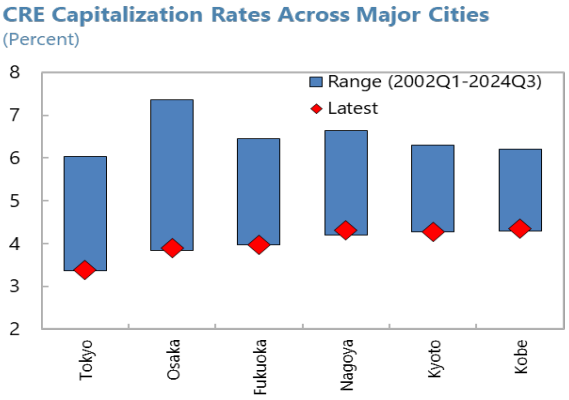
[16] Cross-country evidence shows that targeted borrower-based tools can help curb leverage build-up and, during adverse shocks, limit defaults and spending reductions (Biljanovska and others 2023; Ampudia and others 2021).

[17] Industry practice limits mortgage payment adjustments to 25 percent once every five years. However, during rapid rate hikes, unpaid interest can accrue, raising total repayment costs.

Japan: Real Estate Market Indicators



Sources: BOJ, EUROPACE AG/Haver Analytics, and IMF staff calculations.

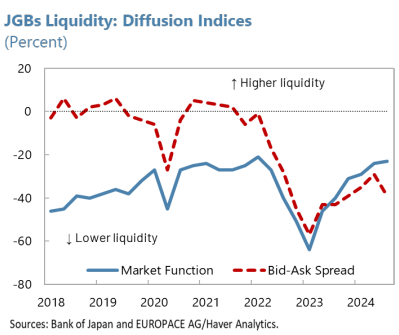


Sources: MSCI Real Estate and IMF staff calculations.

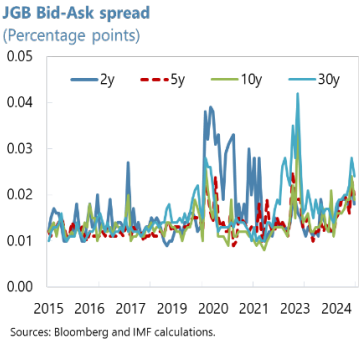
Notes: The capitalization rate is a standard profitability metric used to evaluate the profitability of an income-generating property. It is calculated by dividing the property's net operating income by its current market value.

41. The BoJ should remain prepared to address JGB market strains as they arise. The liquidity and functioning of the JGB market have improved since April 2024 despite temporary deterioration in early August amid a spike in market volatility. While the BoJ remains committed to gradual balance sheet normalization, the significant concentration of the BoJ's government bond holdings from earlier QQE and YCC policies may limit the supply of tradable bonds in the short-term.[18] Rising foreign market volatility could also impact domestic liquidity conditions, potentially triggering spillover effects. To mitigate these risks the central bank should closely monitor liquidity conditions and funding rates in money markets, while paying particular attention to the uneven distribution of liquidity among banks as well as the growth in repo transactions driven by demand from financial dealers and foreign investors.

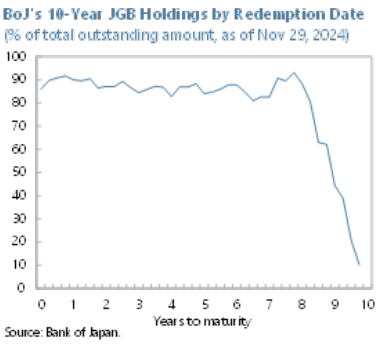
Japan: JGB Market Liquidity



Sources: Bank of Japan and EUROPACE AG/Haver Analytics.



Sources: Bloomberg and IMF calculations.



Source: Bank of Japan.

Notes: In the left panel, the diffusion indices are composite survey-based indicators designed to assess bond market performance. The indices are calculated based on the proportion of responding institutions selecting specific options (e.g., "high" or "low") to reflect their assessment of the current state of bond market functioning and liquidity.

[18] The BoJ holds over 50 percent of outstanding JGBs, including over 90 percent of key tranches. The scarcity of bonds crucial for derivatives pricing and hedging may restrict market activity and force participants toward costlier alternatives. To ease market tightening, the BoJ relaxed the terms for the Securities Lending Facility for CTD bonds.

42. Tools to support market liquidity in the occurrence of severe financial market dysfunction, as well as resources to further enhance financial oversight and crisis preparedness, should be strengthened. Authorities should gradually expand Recovery and Resolution Planning (RRP) to all banks that could be deemed systemic at the time of failure, requiring more banks to maintain a minimum amount of loss-absorbing capacity calibrated to their resolvability needs and complemented with comprehensive planning guidance. This guidance should outline expectations for enhancing recovery capabilities and addressing impediments to resolvability. Moreover, the scope of institutions eligible to receive emergency liquidity assistance (ELA) could be further expanded to systemic NBFIs, prioritizing central counterparties. Finally. while progress has been made in expanding staffing resources in certain areas, allocations should be further increased to strengthen financial sector oversight and resolution.

Authorities' Views

43. The authorities broadly concurred on the sources of vulnerabilities in the financial sector, but they felt that systemic risks remain broadly unchanged. The authorities highlighted the system's resilience and the overall benefits of rising interest rates for bank profitability. They agreed on the need to monitor vulnerabilities, although the credit cost and NPL ratio for banking sector remain low amid what they perceive as slightly rising number of bankruptcies among small SMEs from a historical low base. They assessed that the banking sector was well equipped to manage the impact on their loan portfolios. Ongoing monitoring of risks from financial institutions' security holdings and banks' foreign currency exposure remains necessary, but the authorities noted that the risks have been suppressed through banks' active efforts to manage currency funding and adjust portfolios amid rising interest rates. They agreed on signs of overheating in parts of the real estate sector and rising risk exposure through NBFIs, while highlighting stable vacancy rates and contained spillover risks from foreign CRE.

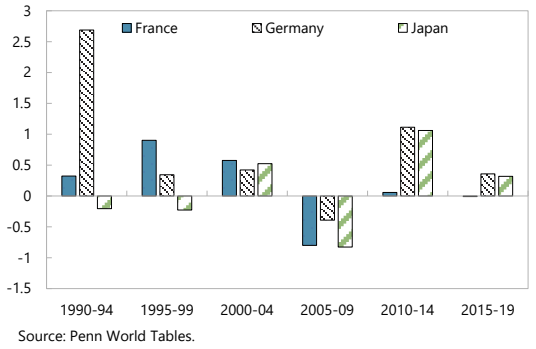
44. The authorities reaffirmed their commitment to advancing the implementation of FSAP recommendations but maintained their reservations in a few areas. They reported progress in areas such as cyber risk oversight, investment fund supervision, resource allocation and systemic risk analysis (Annex VI). But the authorities continue to assess the current institutional framework for macroprudential policy as effective and do not see a need to assign a formal mandate to the CCFS. Noting the historical experience with quantitative restrictions on real-estate related loans, they reiterated concerns about the potential negative impact of introducing what they perceive as one-size-fits-all macroprudential measures such as borrower-based tools. The FSA does not see a strong case for making explicit provision to prioritize financial safety and stability among the objectives in the FSA's legal mandate since financial safety and stability, and effective intermediation should be pursued at the same time. The FSA continues to prioritize financial stability through its policies and practices to address concerns about the soundness of certain financial institutions within the current banking law rather than direct intervention to strengthen capital and liquidity adequacy through new legislation. The authorities assessed that the existing safeguards and risk mitigation measures for ELA operations are adequate and do not require modifications. They concurred on the need to expand RRP to systemically important banks while setting priorities among banks.

D. Reforms to Boost Growth and Resilience

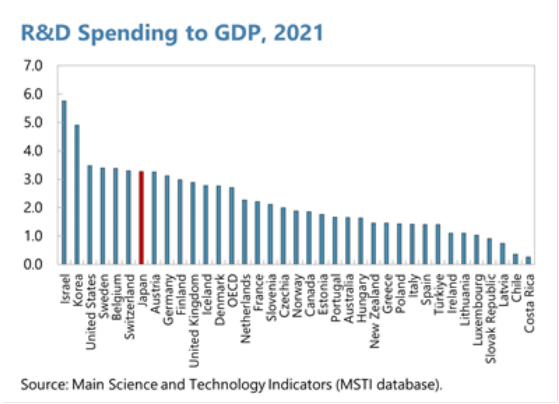
45. Japan's total factor productivity (TFP) growth has been slowing for a decade. Since the mid-2000s, Japan's TFP distance from the United States has widened by 10 percentage points. TFP growth has been subdued despite Japan being one of the top R&D spenders and enjoying a high number of patent applications per capita. Misallocation of labor and capital, as well as population aging that also weighed on investment, may have contributed to this outcome. Japan has witnessed a steady decline in allocative efficiency since the early 2000s, exerting a drag on TFP growth (Annex II). Staff's cross-country analysis suggests that a structural decline in allocative efficiency likely reflects an increase in market frictions. In addition, Japan's ultra-low interest rates and quantitative easing may have allowed unviable firms to survive longer than they otherwise would have, delaying necessary economic restructuring (Hong and others 2021; Jafarov and Minnella 2023). Reforms aimed at improving labor mobility across firms would help improve Japan's allocative efficiency and boost productivity.

46. Japan's labor market is expected to witness a significant transformation in the medium-to-long term driven by population aging and advances in artificial intelligence (AI). Japan is aging rapidly—a trend that is expected to accentuate over coming decades—and is at the forefront in labor-saving automation to alleviate labor shortages. The rapid development of AI has the potential to reshape the labor market in Japan.

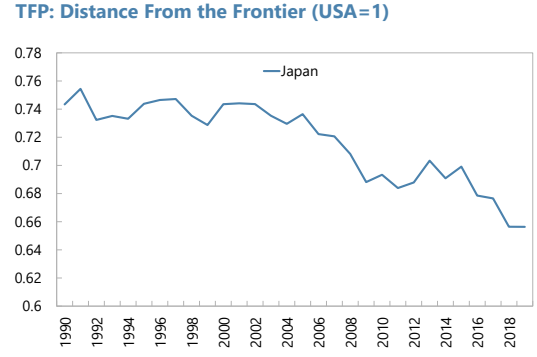
Japan: Total Factor Productivity and Allocative Efficiency



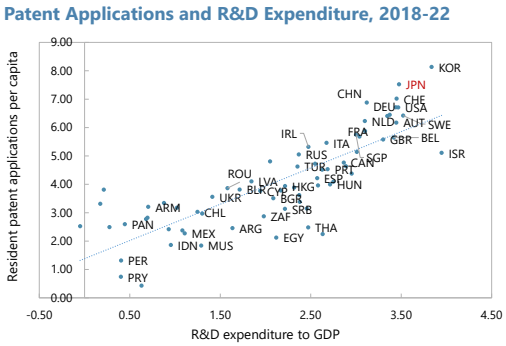
Source: Penn World Tables.



Source: Main Science and Technology Indicators (MSTI database).



Source: Penn World Tables.



Sources: WIPO Statistics Database, OECD, UNESCO, and World Bank.

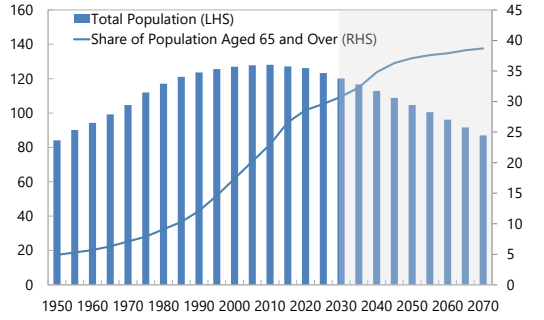
47. While population aging may have accelerated automation, it might have also weighed on productivity growth and contributed to labor shortages. Robot density in Japanese manufacturing is among the highest in the world, leading to a reduction in routine jobs. It seems population aging has accelerated automation, as sectors that experienced a larger decline in the share of young people in total employment tended to invest more in software. Staff analysis suggests a strong negative association between the share of workers aged 55 and older in employment and labor productivity (Annex IX). Additionally, sectors employing a lower share of young people (15-34 years old) tend to report more labor shortages five years later.

48. AI's ability to address aging-related labor shortages in Japan is relatively limited for now. Japan has a higher proportion of jobs with low AI exposure compared to peers and a relatively lower proportion of jobs with high AI complementarity. While senior workers face less AI exposure than younger cohorts, certain occupations, such as clerical and sales, roles often held by women, are at risk of displacement. Significant skill differences between occupations with high and low AI exposure will limit mobility across these occupations. However, occupations at risk of AI displacement due to high exposure and low complementarity share some skills with those occupations with high AI complementarity enabling policies to mitigate negative impacts of AI adaptation.

Japan: Aging and Automation

Japan's Aging Population

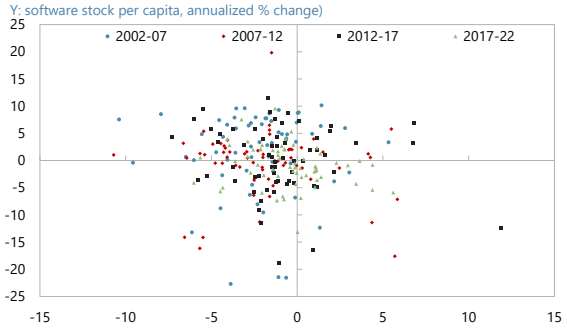
(Total population, million People (LHS); Share of Population Aged 65 and Over (RHS))



Source: CAO.

Employment and Software Investment

(X: workers aged 15-34 relative to total employment,
Y: software stock per capita, annualized % change)



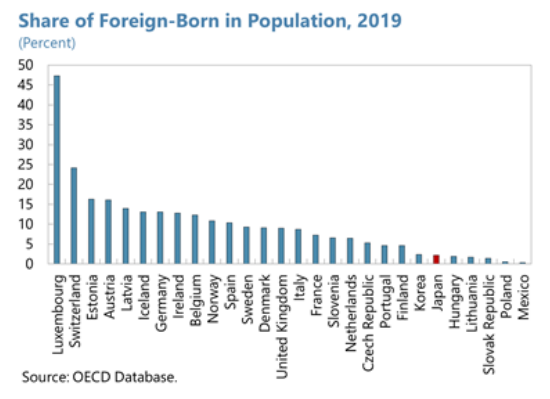
Sources: MIAC and RIETI.

49. Japan's seniors have a relatively high labor force participation rate compared to other OECD countries. The gradual increase in the public pension eligibility age from 60 to 65, starting in 2001, and the requirement for employers to ensure employment for individuals until age 65, if they wish, help explain this outcome. While seniors often choose non-regular positions for their flexibility, this choice may also be influenced by incentives to work fewer hours and adjust wage incomes to avoid breaching the income threshold above which a loss of pension benefits occurs.

50. Policies can play a crucial role in boosting working hours supplied by seniors and women, while facilitating mobility needed to benefit from AI adoption. Japan has made significant progress in increasing female labor force participation during the last decade. Further supporting women's ability to fully participate in the labor force will require expanding childcare

facilities and resources, facilitating fathers' contribution to home/childcare, and further encouraging the use of flexible working arrangements. Training programs with an emphasis on IT and AI-related skills are crucial to enhance the complementarity of AI with the labor force and improve the productivity of senior workers. Improving labor market mobility and reducing barriers to job switching are essential to address labor shortages due to aging and the potential job displacement impact of AI. This would also help improve allocative efficiency. Subsidized occupation-oriented on-the-job training programs could help reskill and upskill the labor force, facilitating labor mobility.

51. While AI may help to address some of Japan's labor shortages, and since upskilling/reskilling the labor force takes time, attracting foreign workers could help alleviate labor shortages. The government has increased its efforts to attract foreign workers, including through Specified Skilled Worker and High Skilled Foreign Professionals programs in key industries such as healthcare and construction. As a result, the number of foreign workers in Japan has almost tripled during the past decade, reaching around 3 percent of total employment in 2023. Foreign workers are mostly employed in manufacturing, professional services, wholesale and retail trade, and accommodation sectors, but continue to play a much smaller role in the Japanese labor force than they do in other OECD economies.



52. Similar to other G20 economies, Japan has increased its adoption of IPs. Japan's IPs aim to achieve eight objectives, including economic security, resilience, inclusive growth, and green and digital transformation[19]. Across industries, Japan has especially strengthened support for semiconductor production, where its global market share has fallen from 50 percent in 1988 to 10 percent in 2019. Fiscal support in FY2021-2024 averages 0.2 percent of GDP annually, including subsidies offered to major foreign chip companies for establishing factories in Japan. Given Japan's limited fiscal space and the unclear growth impact of past IPs, all such schemes should undergo a comprehensive cost-benefit analysis. Going forward, IP should be narrowly targeted to specific objectives when externalities or market failures exist, to minimize distortions. It should avoid favoring domestic products over imports or creating incentives that lead to a fragmentation of the global system for trade and investment, which would support Japan's leadership at the WTO.

[19] In May 2022, the authorities announced plans to spend 20 trillion yen on green transformation over the next 10 years. In November 2024, they announced plans to provide over 10 trillion yen for semiconductor and AI industries by FY2030.

Japan: Industrial Policies

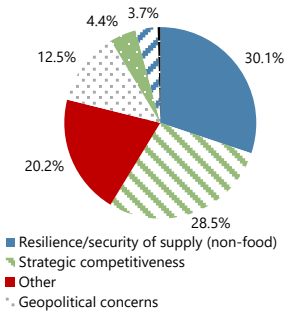
Japan's IP Objectives and Highlighted Industries

Objectives	1) Realization of a carbon-neutral society (green transformation); 2) Realization of a digital society (digital transformation); 3) Globalization and realization of economic security; 4) Realization of a new healthy society; 5) Inclusive growth in the region that contributes to coping with a declining birthrate; 6) Realization of a resilient society against disasters; 7) Realization of a biomanufacturing revolution; and 8) Establishment of a growth-oriented, resource-autonomous circular economy.
Industries	1) Semiconductors and computing powers; 2) Automobile and mobility; 3) Batteries; 4) Industrial machinery & robots; 5) Aircraft and next generation air mobility; 6) Space industry; 7) Forging and refining industry; 8) Chemical industry; 9) Steel industry; 10) Medical devices; 11) Pharmaceutical products; 12) Healthcare services; 13) Nursing care services; 14) Logistics and distribution (wholesale and retail); 15) Tourism and creative industry.

Note: The Ministry of Economy, Trade, and Industry (METI) defines Japan's IP as mission-oriented, while highlighting 15 industries in its medium-term plan based or several criteria, such as economic importance and METI's industry coverage.
Source: METI.

New Industrial Policies, by Motive

(In percent; IPs implemented from 2023Q1 to 2024Q4)



Source: IMF staff calculations based on Evenett, Jakubik, Martin and Ruta (2024).

53. Japan's commitment to multilateral economic cooperation is welcome. Japan continues to expand its network of regional trade agreements. In 2024 Japan re-launched FTA negotiations with the Gulf Cooperation Council and on a China–Japan–South Korea FTA. The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), where Japan is a member, also continues to expand. Japan should continue these efforts to further regional integration and support a more open, stable, and transparent system through reforms at the World Trade Organization and the full restoration of the dispute settlement system.

54. Japan remains committed to green transformation, and further progress on policies would enable reaching its targets. Japan's commitment to reducing Greenhouse Gas (GHG) emissions by 46 percent by 2030 relative to 2013 levels aligns with most other advanced economies. In February 2025, it submitted revised Nationally Determined Contribution (NDC) including new emission reduction targets through 2040, in line with the Paris Agreement. Notable ongoing efforts—such as the issuance of climate transition bonds to finance government green investment, the implementation of carbon credits trading to reduce emissions, and local government policies aimed at building resilience—are in line with international practices and previous staff advice. Nevertheless, without further policy changes, Japan is likely to fall short of its targets. To help meet its green commitments while boosting growth, additional policies are needed. Options include the removal of energy subsidies, the expansion of carbon pricing, feebates and tradable performance standards. Carbon pricing could be accompanied by targeted cash transfers to protect the vulnerable from adverse distributional effects.[20]

55. Japan continues to address risks of transnational aspects of corruption consistent with staff's previous recommendations. The amendment of the provisions on the criminal bribery of foreign officials under the Unfair Competition Prevention Act took into effect in April 2024 and Japan should pursue efforts to implement the OECD Phase 4 recommendations. The authorities have issued binding guidance to help strengthen the implementation of customer due diligence

[20] IMF Country Report 24/118 illustrates that a policy mix of carbon pricing and complimentary redistributive measures can achieve Japan's 2030 NDC targets while boosting GDP and reducing consumption inequality.

(CDD) requirements by key gatekeepers, including real estate brokers and legal professionals, and expanded the CDD requirements for customers who are foreign and domestic politically-exposed persons. The authorities should also require all companies created in Japan to file the necessary information with the beneficial ownership registry introduced in 2022.

Authorities' Views

56. The authorities largely agreed with staff's recommendations to address Japan's structural challenges. On labor markets, they noted the government's intention to pursue a multipronged approach, including policies to increase labor supply, promote labor mobility, enhance productivity, and promote the adoption of AI. METI emphasized that Japan's industrial policies are not industry specific, but rather aim to advance multiple objectives that contribute to sustainable growth. They agreed that IP should not exacerbate geoeconomic fragmentation and argued that their IP addresses externalities existing in their main focus areas. They agreed with the importance of cost-benefit analyses and noted that an estimated result of such analysis on several semiconductor companies found that the expected tax revenue from related industries and jobs would exceed the amount of subsidies to the semiconductor sector. On climate, the authorities restated their carrot-and-stick approach to mitigation policy, which they see as crucial to ensure a stable and inclusive green transition.

STAFF APPRAISAL

57. Growth is expected to accelerate to 1.2 percent in 2025 and to converge to its potential of 0.5 percent in the medium term. Inflation is expected to converge to the BoJ's 2-percent target in late 2025, helped by a moderation in oil and food prices. The external position is assessed, on a preliminary basis, as broadly in line with the level implied by medium-term fundamentals and desirable policies. Risks to growth are tilted to the downside, while risks to inflation are broadly balanced.

58. The fiscal position should be tighter and the quality of spending improved, including by ending energy subsidies as soon as possible. Public debt is high and expected to rise from 2030, driven by a higher interest bill and expenditure pressures related to spending on health and long-term care for an aging population. A clear consolidation plan is needed even in the near term to fully offset these pressures, ensure debt sustainability, and increase fiscal space needed to respond to shocks (including from natural disasters). The authorities should reserve the use of supplementary budgets for exceptional circumstances.

59. The monetary policy stance is appropriately accommodative and will help ensure inflation expectations rise sustainably to the 2-percent inflation target. Accommodation should continue to be withdrawn by raising the policy rate gradually if the baseline forecast bears out. The program to reduce the size of the Bank of Japan's balance sheet is appropriately moderate in pace and has been well communicated, which mitigates the risk of disruptive outward spillovers. Japan's longstanding commitment to a flexible exchange rate regime will help absorb shocks and support monetary policy's focus on price stability.

60. While the financial system remains generally resilient, systemic risk has risen slightly. This reflects a combination of rising macroeconomic uncertainty, the risk of faster than expected interest rate increases, and rising bankruptcies among SMEs. Early progress in implementing key recommendations from the FSAP has been uneven, and continued efforts would help mitigate risks to the financial system.

61. Reforms to increase labor mobility and investment in human capital would help improve Japan's allocative efficiency and boost productivity. The aging population reduces productivity and contributes to labor shortages. Adoption of AI and automation should offset these trends to some extent, but will require increased labor mobility and training programs.

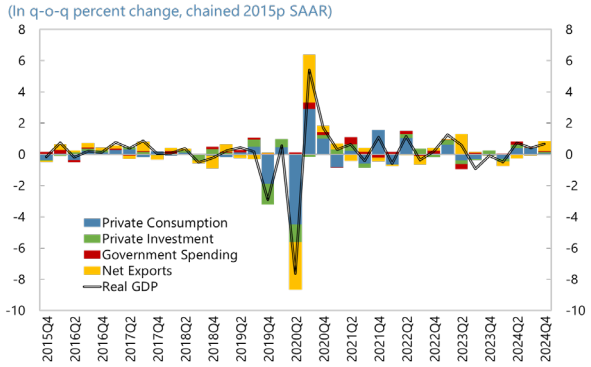
62. Given Japan's limited fiscal space and the unclear growth impact of past IPs, all such schemes should undergo a comprehensive cost-benefit analysis. Going forward, IP should be narrowly targeted to specific objectives when externalities or market failures exist. It should avoid creating incentives that lead to a fragmentation of the global system for trade and investment, consistent with Japan's commitment to multilateral cooperation.

63. It is recommended that the next Article IV consultation take place on the standard 12-month cycle.

Figure 1. Japan: Recent Economic Developments

Growth recovered thanks to strengthening private consumption….

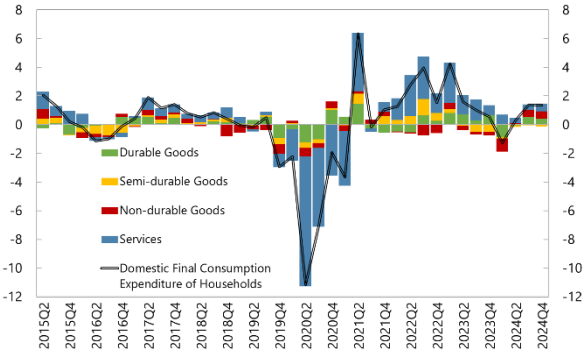
Contributions to Real GDP Growth
(In q-o-q percent change, chained 2015p SAAR)



Sources: Cabinet Office of Japan; Haver Analytics; and IMF staff calculations.

…particularly for durable goods….

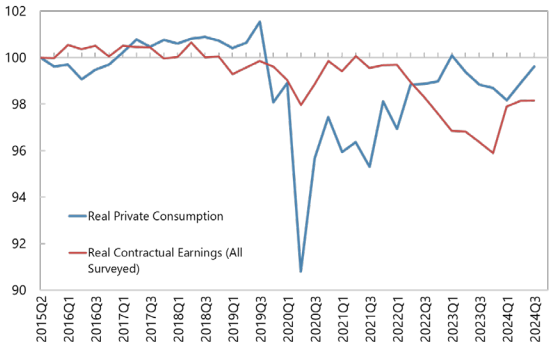
Domestic Final Household Consumption Expenditure by Type
(In q-o-q percent change, chained 2015p SAAR)



Sources: Cabinet Office of Japan; Haver Analytics; and IMF staff calculations.

…supported by improvement in real earnings.

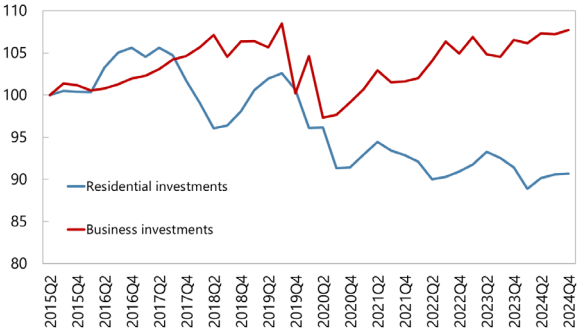
Real Wage and Real Consumption Growth
(In index, 2015Q2=100)



Sources: Haver Analytics and IMF staff calculations.

Business investment rose but the performance of residential investment was poor.

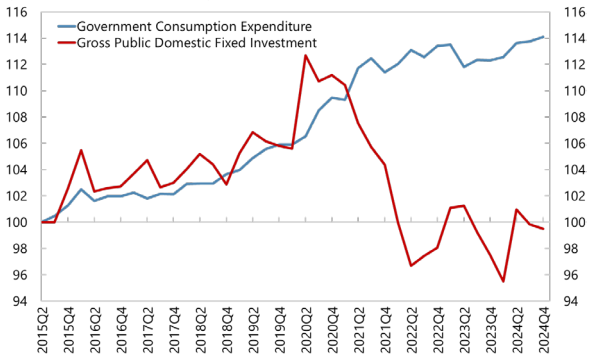
Real Private Sector Investments
(In index, 2015Q2=100, SAAR)



Sources: Haver Analytics; and IMF staff calculations.

Government consumption grew, while government investments were subdued.

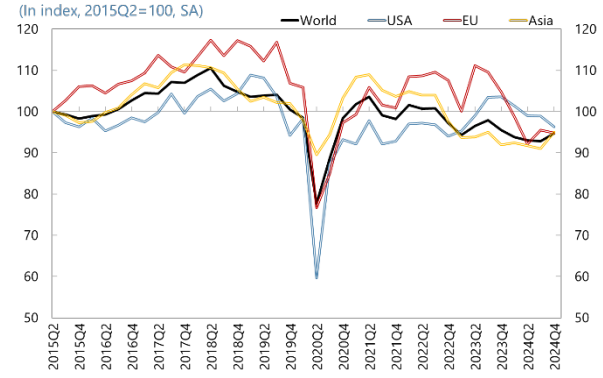
Real Government Consumption and Investment
(In index, 2015Q2=100, SAAR)



Sources: Cabinet Office of Japan; Haver Analytics; and IMF staff calculations.

Exports weakened during 2024 across all destinations.

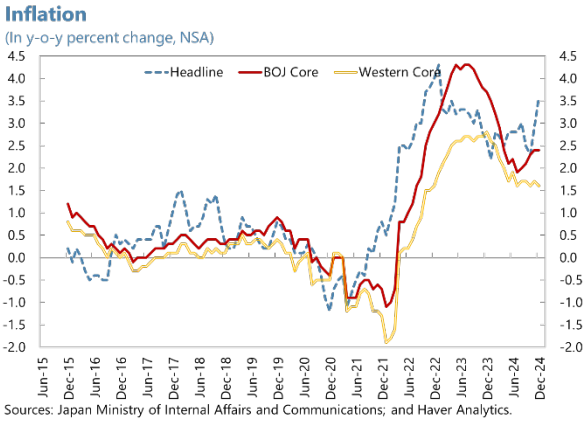
Real Export by Destination
(In index, 2015Q2=100, SA)



Sources: Japan Ministry of Finance; Haver Analytics; and IMF staff calculations.

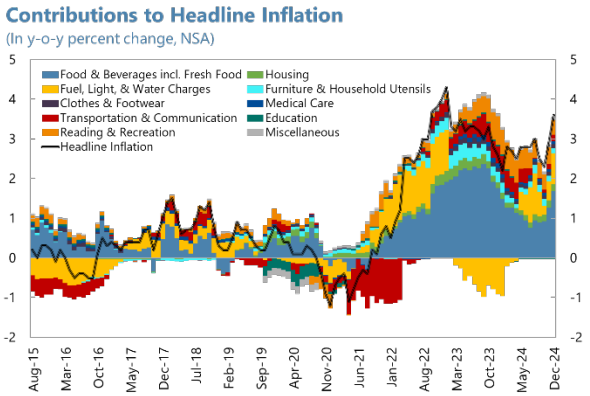
Figure 2. Japan: Inflation Developments

Headline and BOJ core inflation remained above the headline inflation target …



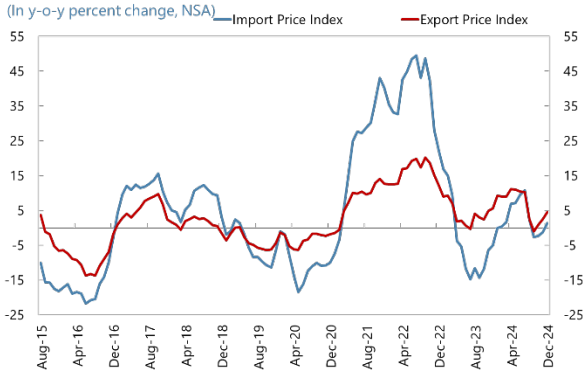
Sources: Japan Ministry of Internal Affairs and Communications; and Haver Analytics.

…largely driven by goods prices inflation.



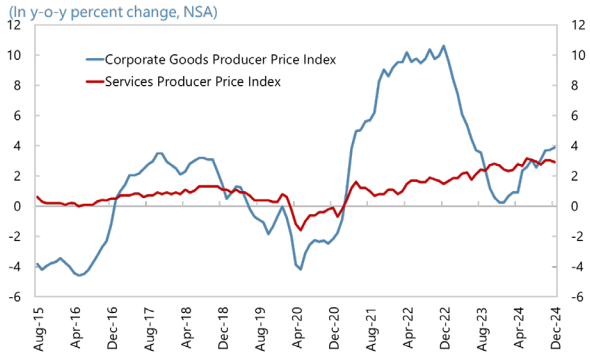
Sources: Ministry of Internal Affairs & Communications; Haver Analytics; and IMF staff. calculations.

Import prices have declined from post-pandemic peaks…



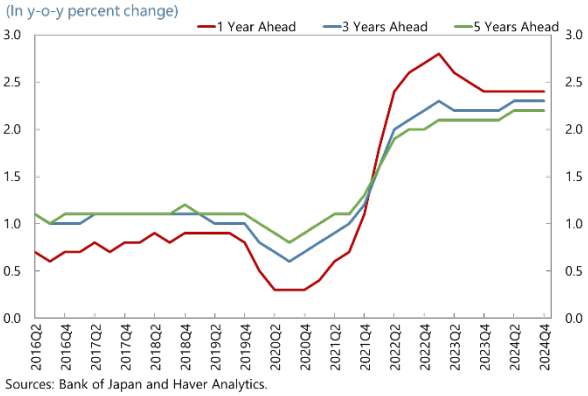
Sources: Bank of Japan and Haver Analytics.

…while services producer prices have been rising.



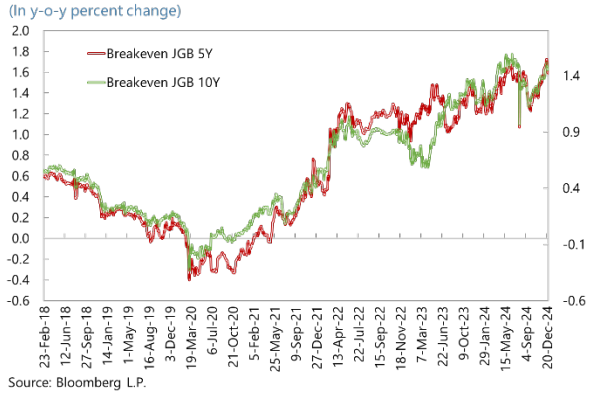
Sources: Bank of Japan and Haver Analytics.
Note: Data from source excludes the effects of change in consumption tax.

Survey based measures of inflation expectations have stabilized above the target….



Sources: Bank of Japan and Haver Analytics.

…while inflation expectations in financial markets have risen considerably, although they remain below target.



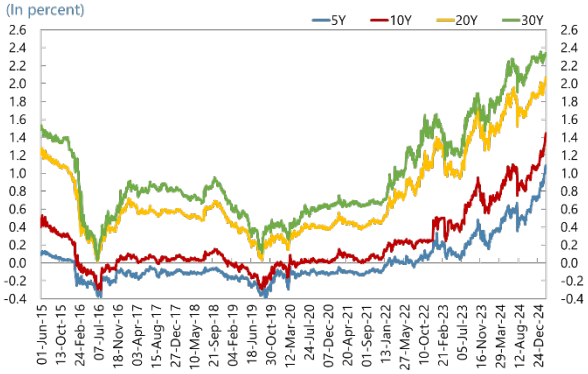
Source: Bloomberg L.P.

Figure 3. Japan: Monetary and Credit Conditions

Long-term JGB yields rose considerably following the normalization of monetary policy.

Japanese Government Bond Yields

(In percent)

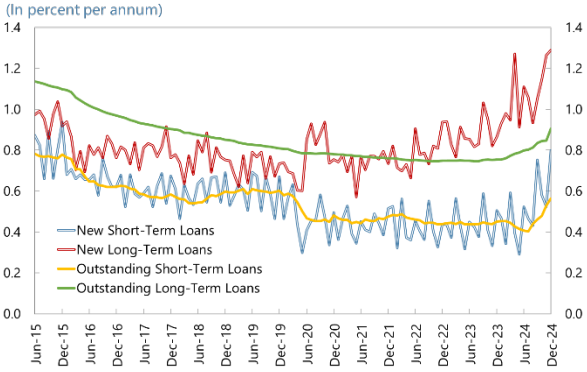


Sources: Tullett Prebon Information and Haver Analytics.

However, loan rates have increased only for the new long-term loans, with short-term loan rates largely unchanged…

Bank Lending Rates

(In percent per annum)

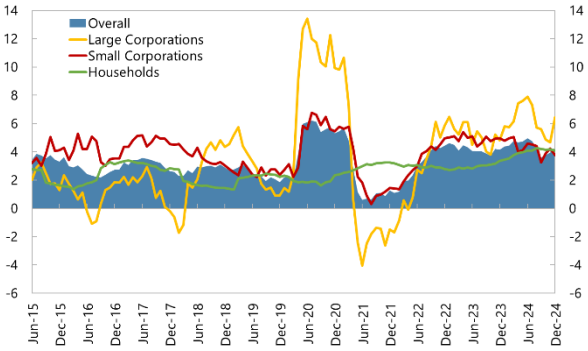


Sources: Bank of Japan and CEIC Data. Note: Short-term are <1 year & long-term are ≥1 year.

…and lending conditions remain supportive.

Growth in Lending by Domestically Licensed Banks

(In y-o-y percent change)

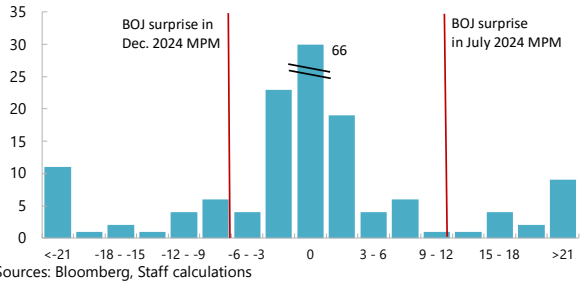


Sources: Bank of Japan; Haver Analytics; and IMF staff calculations.

Recent BoJ policy rate surprises have been aligned with the experience of other inflation targeting central banks

Histogram of MPM surprises

(Difference between monetary policy decision and analyst forecasts, bps)



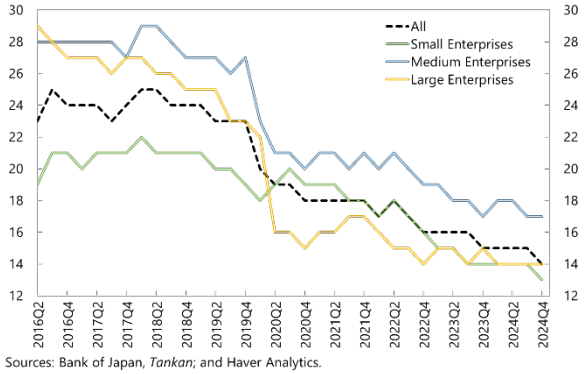
Sources: Bloomberg, Staff calculations

Note: Sample includes all policy rate decisions made by the following central banks since January 2022: BOJ, FED, ECB, BOE, BOC, BOA, BONZ.

Both large and small firms continue to perceive bank lending as accommodative.

Perception of Lending Attitudes by Firms

(In percent balance, diffusion index [higher = accomodative])

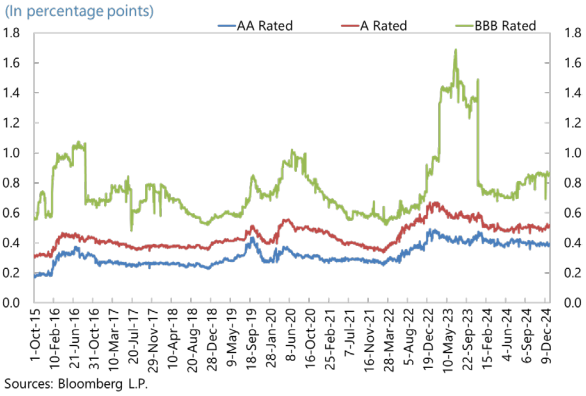


Sources: Bank of Japan, *Tankan*; and Haver Analytics.

Corporate bond spreads have somewhat stabilized amidst strong corporate earnings.

Corporate - Government 5 Year Bonds Spreads

(In percentage points)



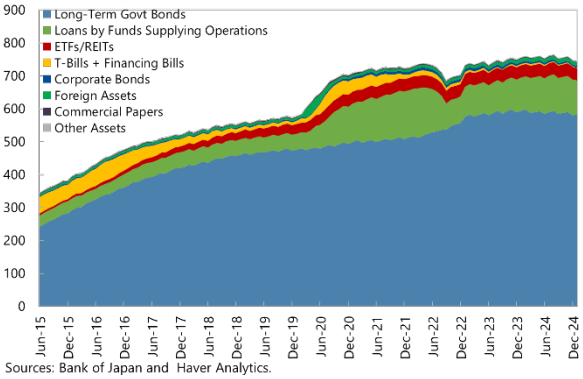
Sources: Bloomberg L.P.

Figure 3. Japan: Monetary and Credit Conditions (Concluded)

A modest decline of JGB holdings was partly offset by an expansion in lending to financial institutions.

Bank of Japan Accounts: Assets

(In trillions of JPY)

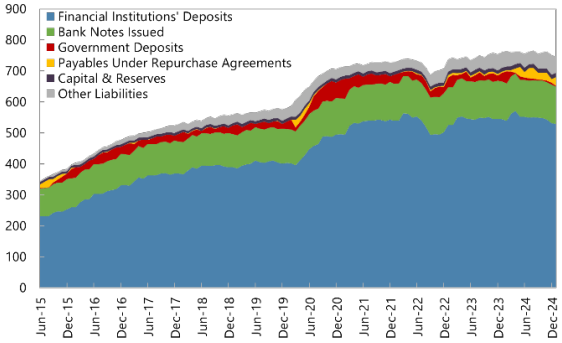


Sources: Bank of Japan and Haver Analytics.

An Increase in obligations under repurchase agreements was offset by a reduction in government deposits.

Bank of Japan Accounts: Liabilities

(In trillions of JPY)

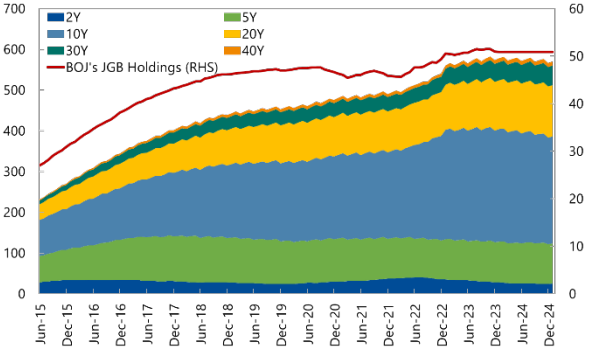


Sources: Bank of Japan and Haver Analytics.

BoJ holdings of JGBs are relatively constant across maturities.

Bank of Japan's JGB Holdings by Maturity

(In trillions of Yen [LHS]; percent share[RHS])

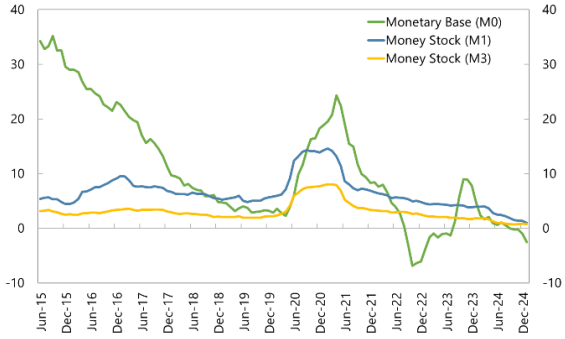


Sources: Bank of Japan and Haver Analytics.

A tightening of monetary policy has led to a deceleration of growth of the monetary base.

Money Stock

(In y-o-y percent change)

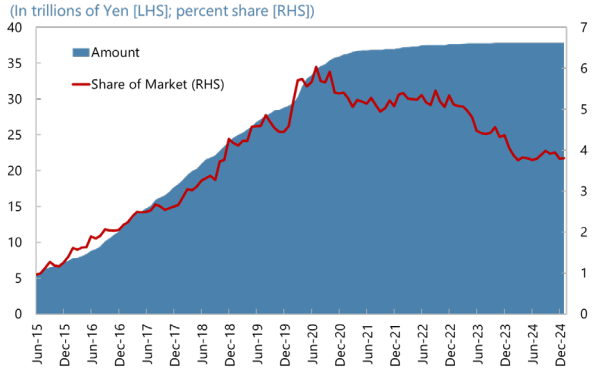


Sources: Bank of Japan and Haver Analytics.

The BoJ's share of outstanding ETFs and J-REITs has continued to decline since purchases were halted.

Bank of Japan's Outstanding ETFs and REITs

(In trillions of Yen [LHS]; percent share [RHS])

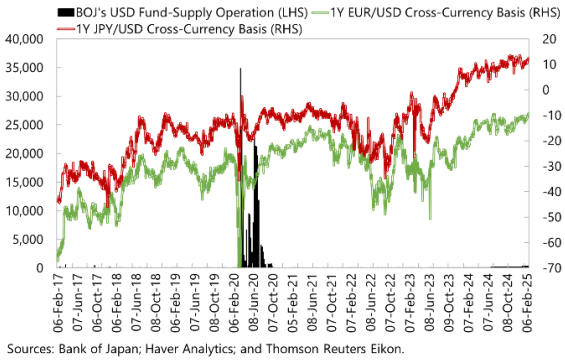


Sources: Bank of Japan; Investment Trust Association; Haver Analytics; & IMF staff calculations.

The cross-currency basis for yen against the US dollar and euro has narrowed.

Bank of Japan Lending - USD Funds-Supplying Operation

(In millions of USD)

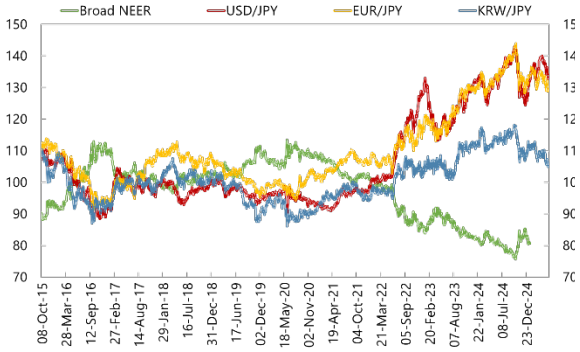


Sources: Bank of Japan; Haver Analytics; and Thomson Reuters Eikon.

Figure 4. Japan: Financial Markets Developments

The yen-dollar exchange rate has fluctuated widely in 2024…

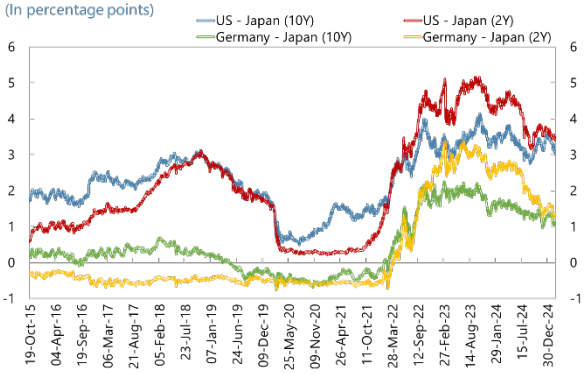
Selected Exchange Rates
(In index, Jan 4, 2017 = 100)



Sources: Bank of Japan; Bank of Korea; J.P. Morgan; and IMF staff calculations.

…largely reflecting the differential in interest rates between the US and Japan.

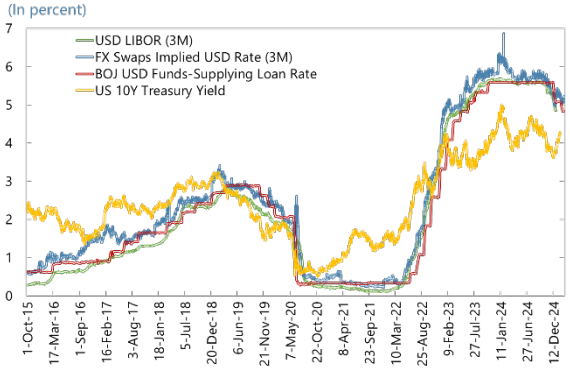
Interest Differentials
(In percentage points)



Sources: Tullett Prebon Information and Haver Analytics.

Dollar funding costs have risen amid tighter US monetary policy.

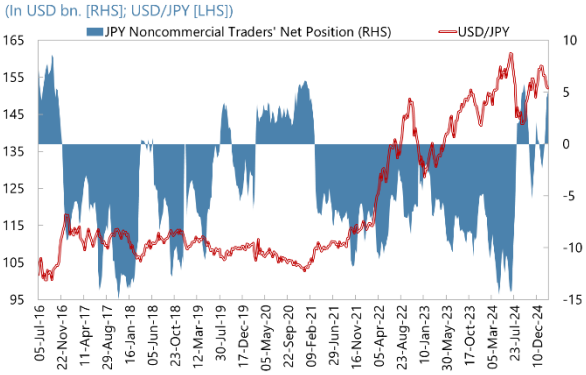
USD Funding Cost in Japan
(In percent)



Sources: Bloomberg L.P.; Haver Analytics; and IMF staff calculations.

Large short positions accumulated in futures markets during mid-2024 were suddenly unwound.

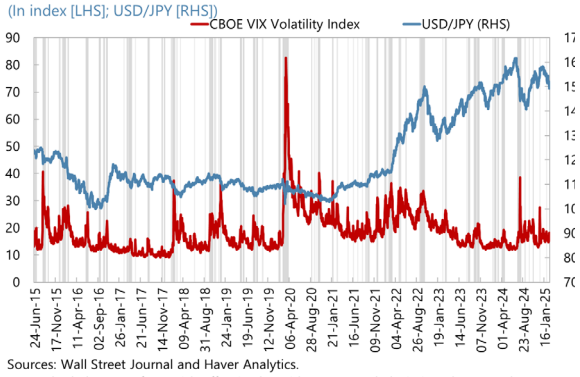
CFTC Net Noncommercial Positions on Yen
(In USD bn. [RHS]; USD/JPY [LHS])



Sources: Commodity Futures Trading Commission; Wall Street Journal; and Haver Analytics.

Implied volatility spiked in early August 2024, but has otherwise remained low.

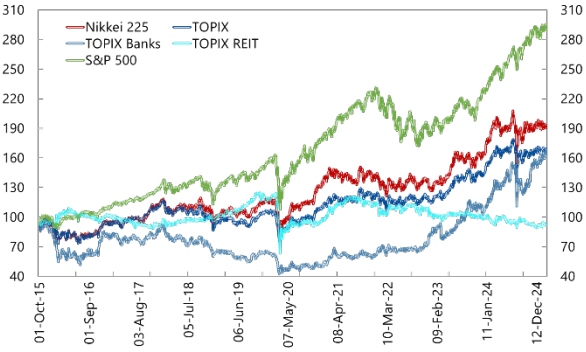
VIX Index and Exchange Rate
(In index [LHS]; USD/JPY [RHS])



Sources: Wall Street Journal and Haver Analytics.
Note: Shaded areas refer to risk-off episodes with VIX one std. deviation above 60-day MA.

Despite periods of significant volatility, Japanese equities have performed well since 2022, along with major markets

Equity Markets
(In index [Jul 1, 2015 = 100])

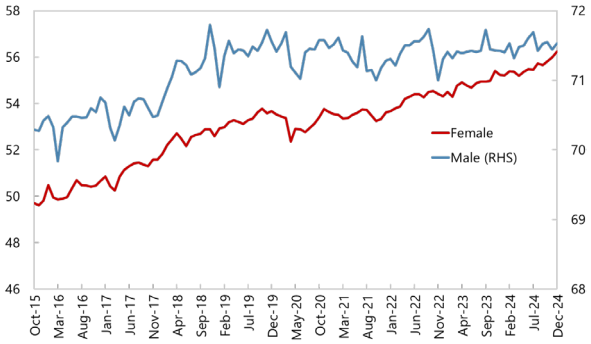


Sources: Financial Times; Japan Exchange Group; Standard & Poor's; and Haver Analytics.

Figure 5. Japan: Labor Market and Wage Developments

Female labor force participation rate continues to increase.

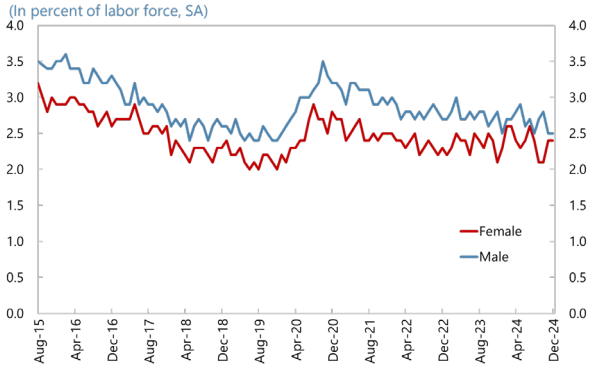
Labor Force Participation Rate
(In percent, SA)



Sources: Ministry of Internal Affairs and Communications and Haver Anaytics.

Unemployment remains near historic lows reflecting a tight labor market ….

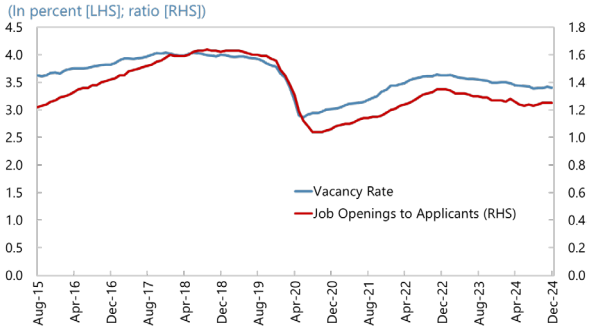
Unemployment Rate
(In percent of labor force, SA)



Sources: Ministry of Internal Affairs and Communications and Haver Analytics.

…with elevated vacancy and job openings to application rates ….

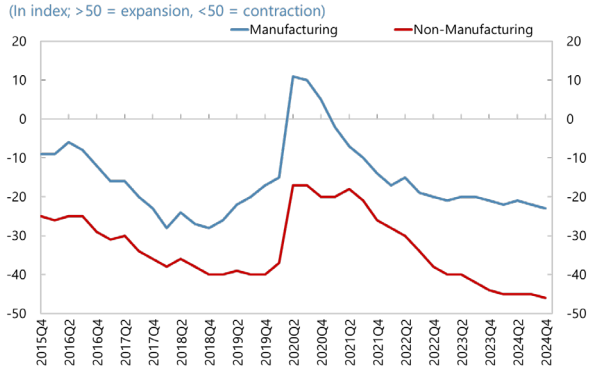
Vacancy Rate & Ratio of Job Openings to Applicants
(In percent [LHS]; ratio [RHS])



Sources: Ministry of Health, Labour, & Welfare; and Haver Analytics. Note: Data are seasonally adjusted. Vacancy rate is the number of available jobs that remain unfilled as a percentage of the available labor force.

…and further worsening of labor shortages.

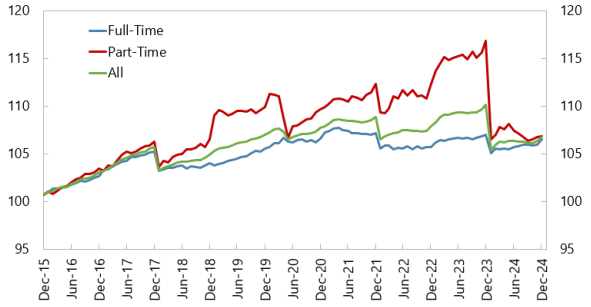
Tankan Enterprise Survey: Employment Conditions
(In index; >50 = expansion, <50 = contraction)



Sources: Bank of Japan, *Tankan Survey*; and Haver Analytics.

Regular employment remained largely flat during 2024…

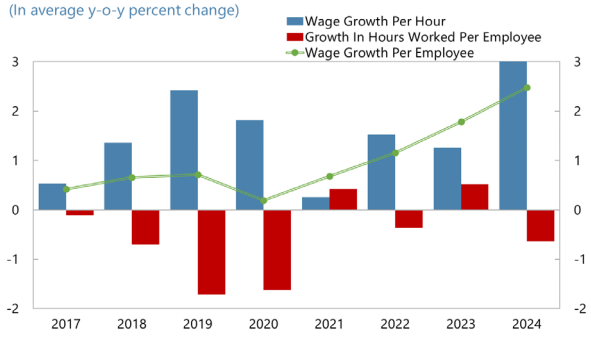
Growth of Regular Employees by Type
(Index; Jul 2015 = 100)



Sources: Ministry of Internal Affairs & Communications; Haver Analytics; & IMF staff caclulations.

…while upward trend in wage growth continued.

Nominal Wage Growth per Full-Time Employee
(In average y-o-y percent change)



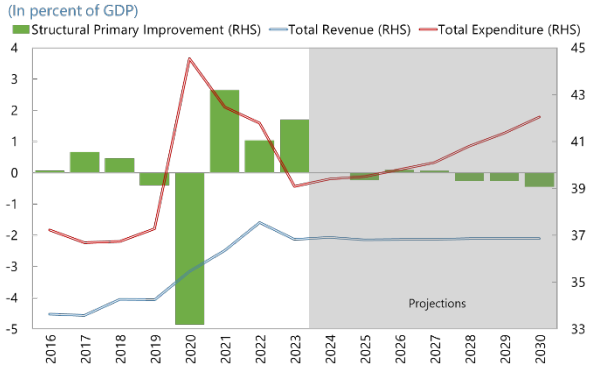
Sources: Ministry of Health, Labour, & Welfare, *Monthly Labor Survey - Common Business Establishments*; Haver Analytics; and IMF staff calculations. Note: 2024 average y-o-y percent change is average of Jan 2024 to Sep 2024.

Figure 6. Japan: Fiscal Developments and Sustainability

Expenditure is expected to increase more than revenue in the medium term…

General Government Fiscal Balance

(In percent of GDP)

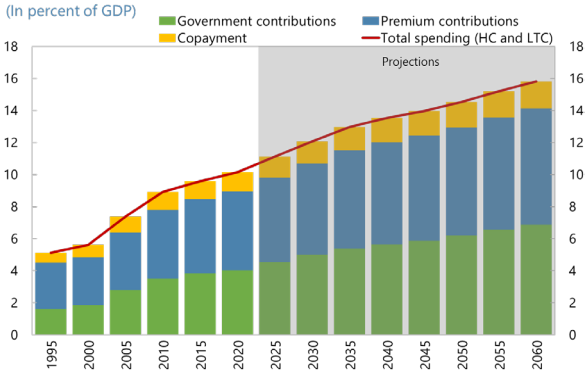


Sources: IMF, *World Economic Outlook*; and IMF staff estimates.

…as health and long-term care spending is projected to rise due to an aging population…

Financing of Health Care and Long-Term Care

(In percent of GDP)

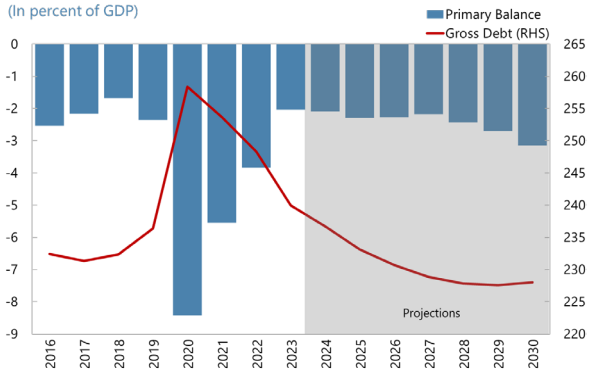


Sources: Ministry of Health, Labor, and Welfare; and IMF staff estimates.

…starting to outweigh the r-g dynamics from 2030, leading to rising debt.

Gross Public Debt and Primary Balance

(In percent of GDP)

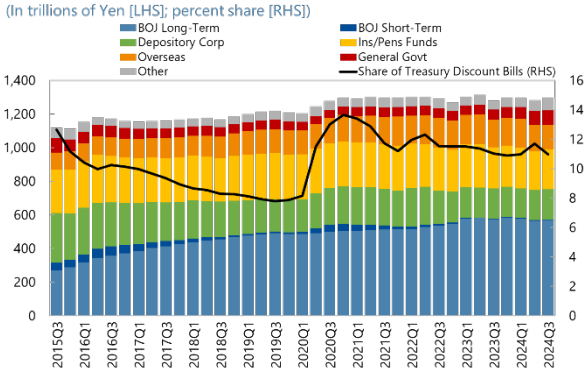


Sources: Cabinet Office of Japan and IMF staff estimates.

The BOJ's holdings of JGBs have begun to decrease marginally following their policy change.

Public Debt Financing

(In trillions of Yen [LHS]; percent share [RHS])

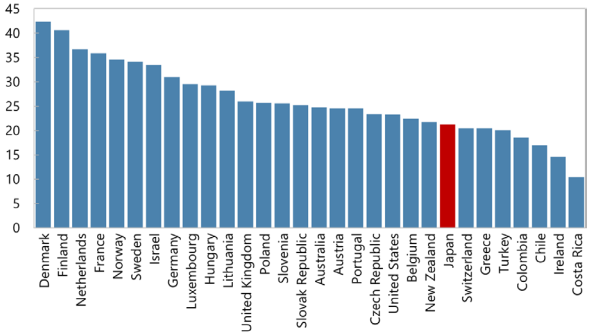


Sources: Bank of Japan; Haver Analytics; and IMF staff calculations.

Relative to peers, Japan's share of non-social security spending has remained low…

OECD: Public Spending excl. Social Security & Interest, 2024

(In percent of GDP)

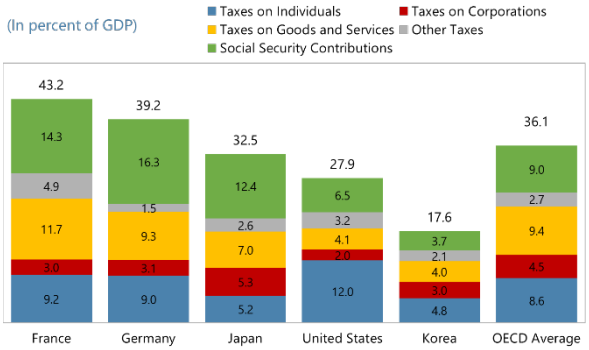


Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
Note: OECD countries with missing data have been omitted.

…and there is room for further revenue mobilization.

General Government Tax & Social Security Revenue, 2024

(In percent of GDP)



Sources: Cabinet Office of Japan; and IMF, *World Economic Outlook*; and IMF staff calculations. Note: 2022 Data is used for U.S. as 2023 and 2024 projection are not available.

Table 1. Japan: Selected Economic Indicators, 2021-30

Nominal GDP: US$ 4,213 Billion (2023) GDP per capita: US$ 33,845 (2023)
Population: 124 Million (2023) Quota: SDR 30.8 billion (2023)

	2021	2022	2023	2024 Est.	2025 Proj.	2026	2027	2028	2029	2030
				(In percent change)						
Growth										
Real GDP	2.7	0.9	1.5	0.1	1.2	0.8	0.6	0.6	0.5	0.5
Domestic demand	1.7	1.5	0.5	0.2	1.1	0.9	0.6	0.5	0.5	0.5
Private consumption	0.7	2.1	0.8	-0.1	0.9	0.7	0.6	0.4	0.3	0.3
Gross Private Fixed Investment	1.3	1.6	1.5	0.6	1.3	1.0	0.5	0.3	0.3	0.3
Business investment	1.7	2.6	1.5	1.2	1.3	1.1	0.6	0.4	0.3	0.3
Residential investment	-0.3	-2.7	1.5	-2.3	0.8	0.5	0.1	0.0	0.0	0.0
Government consumption	3.4	1.4	-0.3	0.9	1.3	1.2	1.0	1.1	1.3	1.4
Public investment	-2.6	-8.3	1.5	-0.9	0.3	0.0	0.2	-0.3	-0.4	-0.4
Stockbuilding	0.5	0.2	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports	1.0	-0.5	1.0	-0.1	0.1	-0.1	0.0	0.0	0.0	0.0
Exports of goods and services	11.9	5.5	3.0	1.0	2.0	1.0	1.7	1.6	1.5	1.4
Imports of goods and services	5.2	8.3	-1.5	1.3	1.4	1.6	1.7	1.4	1.3	1.3
Output Gap	-1.6	-0.9	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0
				(In percent change, period average)						
Inflation										
Headline CPI	-0.2	2.5	3.2	2.7	2.4	2.0	2.0	2.0	2.0	2.0
GDP deflator	-0.2	0.4	4.1	2.9	2.0	2.0	2.1	2.0	2.0	2.0
				(In percent of GDP)						
Government										
Revenue	36.3	37.5	36.8	36.9	36.8	36.8	36.8	36.9	36.9	36.9
Expenditure	42.5	41.8	39.1	39.4	39.5	39.8	40.1	40.8	41.4	42.0
Overall Balance	-6.1	-4.2	-2.3	-2.5	-2.7	-3.0	-3.3	-3.9	-4.5	-5.2
Primary balance	-5.5	-3.8	-2.0	-2.1	-2.3	-2.3	-2.2	-2.4	-2.7	-3.1
Structural primary balance	-4.9	-3.8	-2.1	-2.1	-2.4	-2.3	-2.2	-2.4	-2.7	-3.2
Public debt, gross	253.7	248.3	240.0	236.7	233.1	230.7	228.8	227.8	227.6	228.0
				(In percent change, end-of-period)						
Macro-financial										
Base money	8.5	-5.6	6.4	-1.0	2.2	2.2	2.2	2.1	2.1	2.1
Broad money	2.9	2.3	2.2	1.2	1.8	2.0	2.2	2.1	2.0	2.0
Credit to the private sector	2.3	3.6	4.2	3.1	1.6	1.4	1.4	1.4	1.3	1.3
Non-financial corporate debt in percent of GDP	157.1	161.2	156.7	159.5	160.9	162.1	163.3	165.3	166.0	168.3
				(In percent)						
Interest rate										
Overnight call rate, uncollateralized (end-of-period)	0.0	0.0	0.0	0.2	...	...	...	...	...	...
10-year JGB yield (end-of-period)	0.1	0.4	0.6	1.1	...	...	...	...	...	...
				(In billions of USD)						
Balance of payments										
Current account balance	196.2	89.9	158.5	193.0	177.9	167.7	170.1	175.2	175.5	169.3
Percent of GDP	3.9	2.1	3.8	4.8	4.4	4.0	3.9	3.9	3.8	3.5
Trade balance	16.4	-115.8	-48.2	-26.1	-11.3	-15.6	-14.4	-11.4	-8.9	-7.2
Percent of GDP	0.3	-2.7	-1.1	-0.6	-0.3	-0.4	-0.3	-0.3	-0.2	-0.1
Exports of goods, f.o.b.	749.2	752.5	713.7	692.3	700.2	706.6	722.7	736.9	755.4	771.4
Imports of goods, f.o.b.	732.7	868.3	761.9	718.5	711.5	722.1	737.1	748.4	764.3	778.6
Energy imports	127.8	195.5	152.9	138.3	124.6	108.2	98.0	90.0	83.0	76.7
				(In percent of GDP)						
FDI, net	3.5	3.0	4.1	4.8	4.2	4.1	4.0	4.2	4.3	4.2
Portfolio Investment	-3.9	-3.3	4.7	2.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4
				(In billions of USD)						
Change in reserves	62.8	-47.4	29.8	-64.4	11.5	11.5	11.5	11.5	11.5	11.5
Total reserves minus gold (in billions of US$)	1356.2	1178.3	1238.5	1159.7	...	...	...	...	...	...
				(In units, period average)						
Exchange rates										
Yen/dollar rate	109.8	131.5	140.5	151.4	...	...	...	...	...	...
Yen/euro rate	129.9	138.6	152.0	163.8	...	...	...	...	...	...
Real effective exchange rate (ULC-based, 2010=100)	73.5	62.0	56.3	51.7	...	...	...	...	...	...
Real effective exchange rate (CPI-based, 2010=100)	70.7	61.0	58.1	55.0	...	...	...	...	...	...
				(In percent)						
Memorandum items:										
Real GDP per Capita Growth	3.0	1.3	2.0	0.5	1.7	1.3	1.2	1.1	1.1	1.1
Population Growth	-0.3	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6
Old-age dependency	48.7	48.8	48.9	49.2	49.7	50.1	50.5	50.9	51.4	52.0

Sources: Haver Analytics; OECD; Japanese authorities; and IMF staff estimates and projections.

Table 2. Japan: Monetary Authority Accounts and Monetary Survey, 2021-30

	2021	2022	2023	2024 Est.	2025	2026	2027	2028	2029	2030
					Proj.					
Monetary Authority										
Net foreign assets	-17.5	-25.7	-30.0	-32.0	-32.5	-32.2	-31.7	-31.5	-31.3	-30.9
Net domestic assets	687.6	658.1	703.1	698.1	713.1	728.1	743.1	758.1	773.1	788.1
Net domestic credit	729.7	680.2	743.5	738.5	753.5	768.5	783.5	798.5	813.5	828.5
Net credit to non-financial public sector	454.6	480.0	516.6	531.6	541.6	551.6	561.6	571.6	581.6	591.6
Credit to the private sector	10.5	9.6	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Net credit to financial corporations	264.6	190.6	219.3	199.3	204.3	209.3	214.3	219.3	224.3	229.3
Other items net	-42.2	-22.1	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4
Monetary base	670.1	632.4	673.0	666.1	680.6	695.9	711.4	726.6	741.8	757.2
Monetary Survey (Depository Corporations)										
Net foreign assets	95.2	92.1	89.8	101.2	109.2	114.9	119.7	125.6	131.3	136.6
Net domestic assets	1,485.9	1,525.6	1,562.6	1,545.5	1,567.9	1,596.0	1,628.3	1,658.9	1,689.1	1,720.5
Net domestic credit	1,614.3	1,597.9	1,665.3	1,635.2	1,662.6	1,695.6	1,732.9	1,768.6	1,803.8	1,840.2
Net credit to nonfinancial public sector	708.8	705.3	739.3	686.4	701.5	723.7	750.5	774.7	799.5	825.2
Credit to the private sector	677.5	702.0	731.4	754.2	766.5	777.3	787.9	799.3	809.7	820.3
Net credit to other financial institutions	228.0	190.6	194.6	194.6	194.6	194.6	194.6	194.6	194.6	194.6
Other items net	-128.4	-72.3	-102.7	-89.7	-94.7	-99.7	-104.7	-109.7	-114.7	-119.7
Broad money	1,558.0	1,593.3	1,627.7	1,646.7	1,677.0	1,710.9	1,748.0	1,784.5	1,820.5	1,857.1
Currency in circulation	116.2	119.1	118.9	115.4	111.9	107.7	103.0	97.9	92.3	86.4
Current deposits	911.4	951.5	997.7	1,014.2	1,042.0	1,074.1	1,110.0	1,145.5	1,181.1	1,217.5
Other deposits	530.3	522.8	511.1	517.1	523.1	529.1	535.1	541.1	547.1	553.1
				(In percent of GDP)						
Net credit to other financial institutions	41.2	34.0	32.9	31.9	30.9	30.1	29.3	28.5	27.8	27.1
Credit to the private sector from depository corporations	122.5	125.3	123.6	123.8	121.9	120.2	118.6	117.3	115.8	114.4
Corporate debt (includes loans and securities other than shares)	157.1	161.2	156.7	159.5	160.9	162.1	163.3	165.3	166.0	168.3
Corporate debt (includes loans and securities other than shares), trillions of	869.0	903.3	927.2	971.8	1,011.8	1,048.6	1,085.0	1,127.0	1,160.4	1,206.4
Household debt in percent of disposable income	118.2	120.0	120.4	122.2	121.6	121.3	120.1	118.9	118.7	118.8
				(In y-o-y percent change)						
Base money	8.5	-5.6	6.4	-1.0	2.2	2.2	2.2	2.1	2.1	2.1
Broad money	2.9	2.3	2.2	1.2	1.8	2.0	2.2	2.1	2.0	2.0
Credit to the private sector from depository corporations	2.3	3.6	4.2	3.1	1.6	1.4	1.4	1.4	1.3	1.3
Corporate loans by domestically licensed banks	0.6	4.5	5.3	5.1	5.0	4.4	4.2	4.1	4.1	4.1
Housing loans	3.5	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Credit to the private sector from all financial institutions	2.5	1.8	4.9	3.2	1.7	1.5	1.4	1.5	1.4	1.4
Memorandum items:										
Velocity of broad money	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Money multiplier (broad money)	2.3	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Loan-to-deposit ratio (percent) 1/	54.0	55.6	56.3	58.3	59.3	60.1	60.8	61.5	62.2	63.0

Sources: Bank of Japan; Haver; IMF staff estimates and projections.

1/ Defined as the ratio of credits to the private sector and net credit to other financial institutions to customer deposits.

Table 3. Japan: External Sector Summary, 2021-30

	2021	2022	2023	2024 Est.	2025 Proj.	2026	2027	2028	2029	2030
Balance of Payments				*(In billions of USD)*						
Current account balance	196.2	89.9	158.5	193.0	177.9	167.7	170.1	175.2	175.5	169.3
Trade balance (goods)	16.4	-115.8	-48.2	-26.1	-11.3	-15.6	-14.4	-11.4	-8.9	-7.2
Exports of goods	749.2	752.5	713.7	692.3	700.2	706.6	722.7	736.9	755.4	771.4
Imports of goods	732.7	868.3	761.9	718.5	711.5	722.1	737.1	748.4	764.3	778.6
Imports of goods, Oil	88.9	131.3	106.2	97.1	87.5	76.0	68.8	63.1	58.2	53.8
Services balance	-38.6	-42.5	-21.5	-17.3	-17.3	-18.1	-18.7	-19.5	-20.0	-20.7
Credits	183.6	211.1	218.7	226.6	231.8	237.1	237.1	237.1	237.1	237.1
Debits	211.8	219.9	228.2	236.9	245.9	255.3	255.3	255.3	255.3	255.3
Income balance	239.9	267.6	257.8	265.9	237.0	232.9	232.2	232.6	228.4	218.7
Credits	346.6	380.7	408.9	432.1	359.2	357.3	363.0	362.6	352.4	338.9
Debits	106.7	113.1	151.2	166.3	122.1	124.5	130.8	129.9	124.0	120.2
Current net transfers	-21.5	-19.5	-29.6	-29.5	-30.5	-31.5	-29.0	-26.5	-24.0	-21.5
Capital account	-3.8	-0.9	-2.8	-1.4	-2.0	-2.1	-2.3	-2.2	-2.3	-2.3
Financial account	153.3	53.1	176.0	181.8	175.8	165.6	167.9	173.0	173.1	167.0
Direct investment, net	174.7	126.7	171.4	191.7	169.5	172.8	174.7	191.6	198.0	200.4
Portfolio investment, net	-198.3	-142.6	197.7	95.0	-20.3	-17.8	-17.0	-17.1	-17.4	-18.0
Other investment, net	94.1	78.4	-267.5	-69.6	-13.9	-30.0	-30.4	-42.1	-48.1	-56.1
Financial derivatives, net	19.9	38.0	44.6	29.1	29.1	29.1	29.1	29.1	29.1	29.1
Reserve assets	62.8	-47.4	29.8	-64.4	11.5	11.5	11.5	11.5	11.5	11.5
Errors and omissions, net	-39.0	-35.8	20.4	-9.7	0.0	0.0	0.0	0.0	0.0	0.0
					(In percent of GDP)					
Current account balance	3.9	2.1	3.8	4.8	4.4	4.0	3.9	3.9	3.8	3.5
Trade balance (goods)	0.3	-2.7	-1.1	-0.6	-0.3	-0.4	-0.3	-0.3	-0.2	-0.1
Exports of goods	14.9	17.7	16.9	17.2	17.3	16.8	16.6	16.2	16.2	16.0
Imports of goods	14.5	20.4	18.1	17.8	17.6	17.1	16.9	16.5	16.4	16.1
Services balance	-0.8	-1.0	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Income balance	4.8	6.3	6.1	6.6	5.9	5.5	5.3	5.1	4.9	4.5
Global Assumptions										
Oil prices (US$/barrel)	69.2	96.4	80.6	79.2	76.6	71.5	69.6	68.6	68.0	67.6
(Percent change)	65.8	39.2	-16.4	-1.8	-3.2	-6.7	-2.7	-1.4	-0.9	-0.6
Memorandum items :										
Nominal GDP (US$ billion)	5,039.1	4,262.1	4,213.2	4,025.3	4,039.6	4,212.7	4,356.8	4,539.0	4,656.7	4,821.5
Net foreign assets (NFA)/GDP, US$ basis	73.0	72.8	77.3	85.4	89.5	89.7	90.6	90.8	92.2	92.5
Return on NFA (in percent), US$ basis	6.5	8.6	7.9	7.7	6.6	6.2	5.9	5.6	5.3	4.9
Net export contribution to growth	1.1	-0.5	0.9	-0.1	0.1	-0.1	0.0	0.0	0.0	0.0

Sources: Haver Analytics; Japanese authorities; and IMF staff estimates and projections.

Table 4. Japan: General Government Operations, 2021-30

	2021	2022	2023	2024 Est.	2025	2026	2027	2028	2029	2030
					Proj.					
					(In percent of GDP)					
Total revenue	36.3	37.5	36.8	36.9	36.8	36.8	36.8	36.9	36.9	36.9
Taxes 1/	20.6	21.6	21.0	21.3	21.3	21.3	21.4	21.4	21.4	21.4
Social contributions	13.7	13.8	13.4	13.4	13.4	13.5	13.5	13.5	13.5	13.5
o/w Social security contributions	13.3	13.4	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Other revenue	2.0	2.2	2.4	2.2	2.1	2.0	1.9	1.9	1.9	1.9
o/w interest income	1.0	1.1	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0
Total expenditure	42.5	41.8	39.1	39.4	39.5	39.8	40.1	40.8	41.4	42.0
Expense	41.7	41.4	38.7	38.5	38.7	39.0	39.3	40.1	40.7	41.4
Consumption	11.9	12.1	11.5	11.5	11.4	11.3	11.3	11.3	11.3	11.3
Social benefits	22.0	22.2	20.9	20.8	20.9	20.9	21.0	21.3	21.6	22.0
o/w Social security benefits	19.4	19.3	18.6	18.2	18.3	18.4	18.5	18.8	19.1	19.5
Interest	1.5	1.5	1.4	1.5	1.5	1.7	2.1	2.4	2.7	2.9
Other expense	6.2	5.5	4.8	4.7	5.0	5.0	5.0	5.1	5.1	5.2
(Memo) Compensation of employees 2/	5.2	5.2	4.8	...	...	...	...	...	...	...
(Memo) Use of goods and services 2/	4.3	4.5	4.1	...	...	...	...	...	...	...
(Memo) Subsidies 2/	0.6	1.3	1.3	...	...	...	...	...	...	...
(Memo) Transfers not elsewhere classified 2/	5.1	4.1	3.0	...	...	...	...	...	...	...
Net investment in nonfinancial assets	0.8	0.4	0.4	0.9	0.9	0.8	0.8	0.8	0.7	0.7
Gross investment in nonfinancial assets	4.4	4.1	4.0	4.1	4.1	4.0	4.0	4.0	3.9	3.9
o/w public investment	4.2	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.7
o/w land acquisition	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1
(less) Consumption of fixed capital	3.6	3.7	3.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Net lending/borrowing (overall balance)	-6.1	-4.2	-2.3	-2.5	-2.7	-3.0	-3.3	-3.9	-4.5	-5.2
Excluding social security fund	-6.8	-5.2	-3.3	-3.4	-3.6	-3.8	-4.1	-4.8	-5.4	-6.0
Primary balance	-5.5	-3.8	-2.0	-2.1	-2.3	-2.3	-2.2	-2.4	-2.7	-3.1
Structural balance 3/	-5.4	-4.2	-2.4	-2.5	-2.8	-3.0	-3.3	-3.9	-4.5	-5.2
Structural primary balance 3/	-4.9	-3.8	-2.1	-2.1	-2.4	-2.3	-2.2	-2.4	-2.7	-3.2
Stock positions 4/										
Debt										
Gross 5/	253.7	248.3	240.0	236.7	233.1	230.7	228.8	227.8	227.6	228.0
Net	156.0	149.5	136.0	134.6	133.2	132.5	132.2	132.8	134.0	135.9
Net worth	21.4	32.0	43.7	...	...	...	...	...	...	...
Nonfinancial assets	146.6	150.7	147.8	...	...	...	...	...	...	...
Produced assets	124.7	128.5	126.3	...	...	...	...	...	...	...
Non-produced assets	21.9	22.2	21.5	...	...	...	...	...	...	...
Net financial worth	-125.2	-118.7	-104.1	...	...	...	...	...	...	...
Financial assets	131.8	133.3	139.6	...	...	...	...	...	...	...
Monetary Gold and SDR, etc.	1.4	1.6	1.6	...	...	...	...	...	...	...
Currency and deposits	17.7	20.0	19.1	...	...	...	...	...	...	...
Loans	3.3	3.5	3.1	...	...	...	...	...	...	...
Debt securities	13.6	13.6	14.6	...	...	...	...	...	...	...
Equity and investment fund shares	34.2	34.5	35.6	...	...	...	...	...	...	...
o/w shares	13.5	13.3	14.5	...	...	...	...	...	...	...
Other financial assets	61.5	60.2	65.5	...	...	...	...	...	...	...
Liabilities	257.1	251.9	243.6	...	...	...	...	...	...	...
Monetary Gold and SDR, etc.	1.2	1.3	1.3	...	...	...	...	...	...	...
Loans	26.4	26.5	25.0	...	...	...	...	...	...	...
Debt securities	214.0	209.5	203.6	...	...	...	...	...	...	...
Equity and investment fund shares	3.4	3.6	3.6	...	...	...	...	...	...	...
Other liabilities	12.1	11.0	10.0	...	...	...	...	...	...	...
Memorandum item :										
Nominal GDP (trillion yen)	553.1	560.5	591.9	609.3	628.9	646.7	664.2	681.7	699.1	716.8

Sources: Japan Cabinet Office; Ministry of Finance; and IMF staff estimates and projections.

1/ Including fines.
2/ Fiscal year basis.
3/ In percent of potential GDP.
4/ Market value basis.
5/ Nonconsolidated basis.

Table 5. Japan: Medium-Term Projections, 2021-30

	2021	2022	2023	2024 Est.	2025	2026	2027	2028	2029	2030
					Proj.					
					(In percent change)					
Real GDP	2.7	0.9	1.5	0.1	1.2	0.8	0.6	0.6	0.5	0.5
Private final consumption	0.7	2.1	0.8	-0.1	0.9	0.7	0.6	0.4	0.3	0.3
Government consumption	3.4	1.4	-0.3	0.9	1.3	1.2	1.0	1.1	1.3	1.4
Gross Private fixed investment	1.3	1.6	1.5	0.6	1.3	1.0	0.5	0.3	0.3	0.3
Public investment	-2.6	-8.3	1.5	-0.9	0.3	0.0	0.2	-0.3	-0.4	-0.4
Stockbuilding (contribution to growth)	0.5	0.2	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	11.9	5.5	3.0	1.0	2.0	1.0	1.7	1.6	1.5	1.4
Imports	5.2	8.3	-1.5	1.3	1.4	1.6	1.7	1.4	1.3	1.3
Total domestic demand	1.7	1.5	0.5	0.2	1.1	0.9	0.6	0.5	0.5	0.5
Net exports (contribution)	1.0	-0.5	1.0	-0.1	0.1	-0.1	0.0	0.0	0.0	0.0
Real GDP per Capita	3.0	1.3	2.0	0.5	1.7	1.3	1.2	1.1	1.1	1.1
Private final consumption per Capita	1.0	2.4	1.3	0.4	1.4	1.3	1.2	1.0	0.9	0.9
Unemployment rate (percent)	2.8	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Headline CPI inflation (average)	-0.2	2.5	3.2	2.7	2.4	2.0	2.0	2.0	2.0	2.0
Output gap (in percent of potential output)	-1.6	-0.9	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0
					(In percent of GDP)					
Overall fiscal balance	-6.1	-4.2	-2.3	-2.5	-2.7	-3.0	-3.3	-3.9	-4.5	-5.2
Primary balance	-5.5	-3.8	-2.0	-2.1	-2.3	-2.3	-2.2	-2.4	-2.7	-3.1
General government debt										
Gross	253.7	248.3	240.0	236.7	233.1	230.7	228.8	227.8	227.6	228.0
Net	156.0	149.5	136.0	134.6	133.2	132.5	132.2	132.8	134.0	135.9
Current account balance	3.9	2.1	3.8	4.8	4.4	4.0	3.9	3.9	3.8	3.5
National savings	29.7	28.9	29.9	31.1	31.0	30.6	30.5	30.3	30.1	29.8
Private	31.4	28.8	28.4	29.6	29.7	29.6	29.8	30.3	30.7	31.0
Public	-1.7	0.1	1.6	1.5	1.3	1.0	0.7	0.0	-0.6	-1.2
National investment	25.8	26.8	26.2	26.3	26.6	26.6	26.6	26.5	26.4	26.3
Private	20.3	21.6	21.0	21.2	21.5	21.6	21.5	21.4	21.4	21.3
Public	5.5	5.2	5.2	5.1	5.1	5.1	5.1	5.0	5.0	4.9

Sources: Haver Analytics; Japanese authorities; and IMF staff estimates and projections.

Table 6. Japan: Financial Soundness Indicators, 2018-24 1/

	2018	2019	2020	2021	2022	2023	2024
Capital Adequacy							
Regulatory capital to risk-weighted assets 2/3/	17.1	17.2	16.4	16.6	15.4	14.9	16.4
Regulatory tier 1 capital to risk-weighted assets	14.9	15.1	14.3	14.6	13.8	13.4	14.9
NPL net of provisions/capital 2/4/	4.8	4.3	4.8	5.7	6.9	6.1	6.7
Asset Quality							
Non-performing loans (NPL) to total loans ratio 2/4/	1.1	1.1	1.1	1.2	1.3	1.2	1.3
Sectoral distribution of loans 4/5/							
Residents	90.2	90.5	89.1	...	...	...	...
Deposit-takers	5.0	5.0	4.6	...	...	...	...
Central bank	0.0	0.0	2.2	...	...	...	...
Other financial corporations	9.6	10.2	10.0	...	...	...	...
General government	8.7	8.4	7.9	...	...	...	...
Non-financial corporations	36.1	36.4	35.3	...	...	...	...
Other domestic sectors	30.8	30.6	29.1	...	...	...	...
Non-residents	9.8	9.5	10.9	...	...	...	...
Earnings and Profitability							
Return on assets 2/4/	0.2	0.1	-0.1	0.1	0.1	0.2	0.2
Return on equity 2/4/	5.4	2.3	-1.3	3.5	2.6	5.8	4.7
Interest margin	1.1	1.1	1.0	0.9	0.9	1.1	1.2
Net interest income to gross income 2/4/	62.2	70.4	60.3	63.5	69.1	66.6	61.0
Non-interest expenses to gross income 2/4/	69.0	82.7	73.5	70.7	69.8	70.4	66.4
Personnel expenses to non-interest expenses 2/4/	44.2	43.7	43.0	42.9	42.7	43.8	44.6
Liquidity							
Liquid assets to total assets 2/4/	29.6	29.4	29.5	34.4	35.8	33.3	32.5
Liquid assets to short-term liabilities 2/4/	49.9	49.2	47.4	52.6	53.3	50.8	49.3
Non-interbank loans-to-customer-deposits 2/4/	71.7	71.7	71.9	67.8	67.3	68.1	68.5
Other							
Capital-to-total assets 2/3/	5.2	5.2	4.7	4.6	4.3	4.1	4.4
Gross derivative asset to capital 2/4/	35.8	35.2	55.8	43.3	57.1	76.2	81.1
Gross derivative liability to capital 2/4/	33.2	33.7	52.0	42.7	59.9	80.3	87.3

Sources: IMF, Financial Soundness Indicators (FSI) database.
1/ Data for these series are for Q1 of each year.
2/ Including city banks and regional banks but not shinkin banks.
3/ Aggregated based on a consolidated basis.
4/ Aggregated based on an unconsolidated basis.
5/ Including all deposit-taking institutions in Japan.

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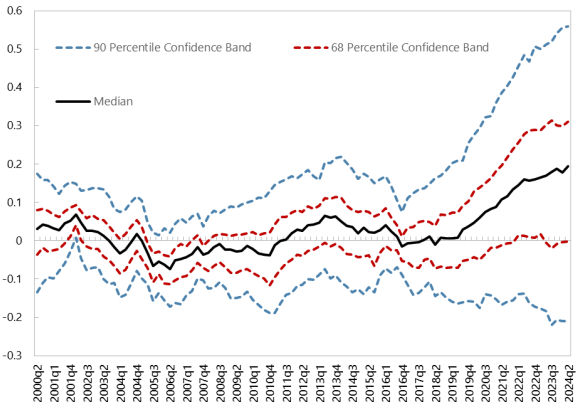
Annex I. Exchange Rate Pass-Through to Inflation: The Role of Non-Linearities[1]

1. Large yen fluctuations against the dollar underscore the importance of understanding the dynamics of exchange rate pass-through (ERPT) to better assess inflation in Japan. Exchange rate fluctuations can significantly impact domestic inflation and overall economic activity. This annex assesses whether the ERPT has changed in Japan during the recent period.

2. The ERPT could be nonlinear and state dependent. For Japan, studies highlight significant nonlinearities and state-dependent pass-through rates, particularly influenced by threshold effects of input costs and economic conditions (Sasaki, Yamamoto, and Nakajima 2024; Yagi and others 2022). Nguyen and Sato (2019) identified a pronounced asymmetry in pass-through rates in Japan, with depreciations having a more substantial impact than appreciations. These findings align with broader literature that documents higher pass-through during periods of high inflation and economic uncertainty (Carrière-Swallow and others 2024; Nogueira Júnior and León-Ledesma 2008).

3. We apply a range of empirical models to capture structural breaks in the relationship between inflation and shocks to the yen-dollar rate. Two model types are employed: a threshold regime switching model (TVAR) and a fully time varying parameters model (TVP). The former model divides a standard SVAR model into two regimes based on high vs. low inflation periods, with the cut-off value determined by best fit. The TVP allows for all parameters and shock variances to constantly evolve as random walks (rather than assume two models only). The model includes data on the output gap, Brent crude oil price, rate differential between 10-year JGBs and 10-year constant maturity US Treasuries, a broad measure of US domestic activity, the CBOE VIX index, the JPY/USD, CPI excluding Fresh Foods and Energy (adjusted for consumption tax changes), and inflation expectations. We considered recursive identification. The data are in quarter-on-quarter percentage changes, except for the output gap and the interest rate differential.

Response of Core Inflation to 10 Percent Depreciation in Yen
(Quarter-on-quarter, percent, 1 quarter after shock)



Source: IMF Staff Estimates

4. The results indicate that periods of high inflation in Japan have been associated with higher ERPT, where a key channel is a rise in inflation expectations.[2] The threshold models find that pass-through is statistically significant with a one standard deviation confidence interval of 0.1 to 0.3 percent for annualized quarter-on-quarter core inflation for a 10 percent depreciation of the

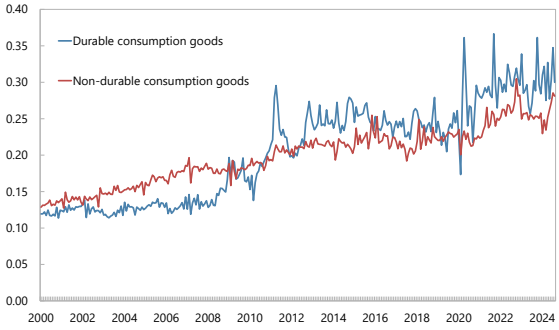
[1] Prepared by Chris Redl and Ara Stepanyan.

[2] We find a similar results for periods of sharp depreciation and appreciation in the value of the yen.

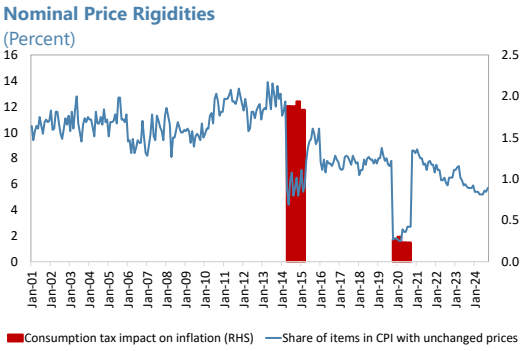
yen. However, the magnitude of the pass-through remains relatively mild, including in comparison with estimates for other countries reported in the literature. The TVP estimation provides some insight on exactly which periods have contributed to these results. It suggests that 2013 saw a small uptick in pass through, but by a large margin the post-COVID period has seen an increase in pass-through estimates rising from approximately 0 in 2016-2019 to a median annualized estimate of 0.78 percent, although estimation uncertainty remains high.[3]

5. Structural shifts in the Japanese economy could explain the increased exchange rate pass through in recent years. Import penetration of domestic consumption has doubled since the early-2000s, reaching about 30 percent by 2024. Another factor could be reduced nominal price rigidities. While we do not have firm level data on the frequency of price changes, aggregate data on the share of items in the CPI basket with unchanged prices has declined since 2014. Each month 11 percent of items in the CPI would not have any price changes on average during 2000-13. This rate declined and stabilized around 8 percent during 2014-19. The share of items in CPI with no change resumed declining from 2021 and reached around 5 percent in 2024—half its pre-2013 level. However, this might also reflect firms' endogenous response to higher inflation, particularly for the more recent period.

Possible Factors Behind Increased Exchange Rate Pass-Through



Sources: Ministry of Economy, Trade and Industry and IMF staff calculation.



Sources: Ministry of Internal Affairs and Communications, Statistics Bureau; Bank of Japan; and IMF Staff

[3] Both 2013 and especially the post-2020 period show inflation expectations responding more strongly to yen shocks.

Annex II. Trends in Allocative Efficiency and Their Impact on Productivity[1]

1. Allocative efficiency measures the extent to which capital and labor are allocated to the economy's most prodPage uctive firms. Using an approach pioneered by Hsieh and Klenow (2009), and refined by Bils, Klenow, and Ruane (2021), a sector's or economy's TFP growth ($\Delta \ln TFP$) can be decomposed into two components:

$$\Delta \ln TFP = \Delta \ln INV + \Delta \ln AL,$$

where $\Delta \ln INV$ captures innovation by firms in productivity or product variety, and $\Delta \ln AL$ captures changes in the quality of capital and labor allocation across firms. If production factors are becoming more concentrated in relatively unproductive firms, allocative efficiency declines, exerting a drag on TFP growth.

2. In line with other major advanced economies, Japan has witnessed a steady decline in allocative efficiency since early 2000s, exerting a drag on TFP growth.[2] The measure of economy-wide allocative efficiency declined by 21 percent between 2000 and 2019.[3] The decline implies an average annual drag on TFP growth from increasing resource misallocation of about 1 percentage point during this period. Economy-wide allocative efficiency declined for major advanced economies in the run-up to the Global Financial Crisis during the early 2000s (Text Figure). Some of this decline likely reflects temporary factors such as time it takes for productive firms to find and hire new workers. However, while allocative efficiency subsequently appears to have recovered in the United States, in Japan and major European economies it remained low heading into the Covid-19 pandemic. This suggests that the decline in allocative efficiency in the latter group may be more structural in nature.

3. The decline in Japan's allocative efficiency has been broad-based across sectors, and especially pronounced in high-end services. The decline in Japan's economy-wide allocative efficiency reflects a broad-based decline in allocative efficiency across both goods-producing and services sectors (Text Figure). However, the decline is most pronounced in high-end services sectors such as finance and information services. These two sectors weigh heavily on aggregate productivity because, as of 2019, they represented 21 percent of the total value added generated by Japan's market sectors.[4]

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[1] Prepared by Robert Zymek (RES) and Ara Stepanyan (APD).

[2] This is in line with the findings by Nakamura K., Kaihatsu S., and T. Yagi (2019).

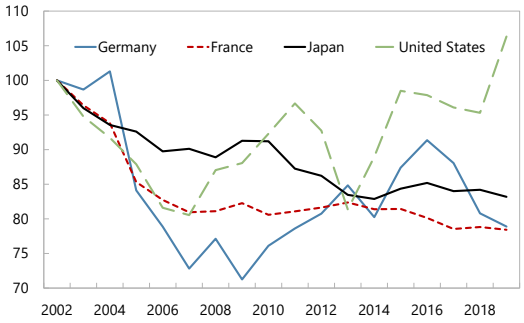
[3] Chapter 3 of the April 2024 World Economic Outlook documents the contribution of allocative inefficiency changes to TFP growth for both advanced and emerging market economies during the 2000-19 period using firm level data from the Orbis database. For details on data sources and methodologies, see the accompanying Online Annex 3.2.

[4] "Market sectors" refers to the sectors shown in Annex Figure 2b, which span all economic activity except Utilities, Public Administration, Education and the Arts.

Total Factor Productivity and Innovation

Allocative Efficiency

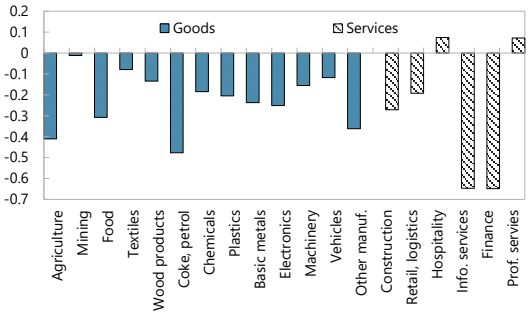
(2002=100)



Sources: Bureau van Dijk Orbis and IMF staff calculations.

Change in Allocative Efficiency, 2000-19

(Percent)



Sources: Bureau van Dijk Orbis and IMF staff calculations.

4. A structural decline in allocative efficiency likely reflects an increase in market frictions, and policies aimed at addressing those frictions could help reverse declining productivity growth. While allocative efficiency may fluctuate over the medium term in response to economic shocks, a structural decline in allocative efficiency over the long run is generally thought to reflect a rise in market frictions that cause capital and labor to be allocated to the "wrong" firms. Such frictions may include uneven distribution of market power across firms, firm-size-dependent tax, labor and social insurances policies, capital-market frictions, and labor market barriers. Cross-country evidence suggests that structural allocative efficiency improves with market entry and competition, trade openness, financial access, and labor market flexibility. While the largest gaps in these structural drivers of allocative efficiency are typically between advanced and emerging economies, the evidence suggests that Japan could improve allocative efficiency through reforms aimed at improving labor mobility across firms. Such reforms would help reverse some of the decline in Japanese TFP relative to the US over the past two decades.

Annex III. External Sector Assessment

Overall Assessment: *On a preliminary basis, the external position in 2024 is assessed as broadly in line with the level implied by medium-term fundamentals and desirable policies.*[1] The CA surplus increased to 4.8 percent of GDP in 2024 from 3.8 percent in 2023. An increase in the primary income balance has driven about half of the increase in the CA surplus, while the net goods trade balance has also improved, supported by continued easing of cost pressures on goods import prices and rising yen-denominated export prices. Japan's CA surplus is expected to continue over the medium term, mainly driven by its primary income surplus, arising from a large positive NIIP and a high rate of return on net foreign assets.

Potential Policy Responses: Policies focused on structural reforms and fiscal sustainability (a credible and specific medium-term fiscal consolidation plan) are needed to maintain an external position consistent with medium-term fundamentals and desirable policies. These 'desirable' policies will help shift the drivers of the economy to one driven by the private sector and raise Japan's potential growth over the medium term. Priority should be given to labor market and fiscal reforms that support private demand, raise potential growth, and promote digital and green investment. Industrial policies should be pursued cautiously and remain narrowly targeted to specific objectives where externalities or market failures prevent effective market solutions and aim to minimize trade and investment distortions. Japan's global leadership role to promote more open, stable, and transparent trade policies in regional/multilateral trade agreements should be prioritized.

Foreign Asset and Liability Position and Trajectory	**Background**. On a provisional basis, Japan's NIIP rose to 83 percent of GDP in Q3-2024, from 79 percent at end-2023, significantly higher than the pre-pandemic (2016–19) average of 61 percent. This was driven by an increase in both net FDI and portfolio outflows and the positive valuation effects from yen depreciation. Japan holds the world's largest stock of net foreign assets, valued at $3.4 trillion in Q3-2024. **Assessment.** Japan's foreign asset holdings are well diversified, both by geography and risk classes. As of Q3-2024, gross foreign assets largely comprised portfolio investment accounting for about 43 percent of the total, followed by FDI with 21 percent. Of that portfolio investment, about 20 percent was yen denominated and 56 percent was dollar denominated. In the event of yen appreciation against the dollar, the risk of negative valuation effects could materialize. Vulnerabilities associated with liabilities are contained, given that equity and direct investment account for about 34 percent of gross foreign liabilities. The NIIP is projected to generate a net annual investment income return of about 8% percent in 2024, significantly larger than the pre-pandemic (2016–19) average of 6.2 percent. The improved return is partly driven by the increasing share of FDI in external assets, which has a higher average return than other components. Japan's large positive NIIP is partly related to the asset accumulation for old-age consumption; a gradual decumulation of such assets is expected over the long term.				
Q3-2024 (% GDP)	NIIP: 83	Gross Assets: 258	Debt Assets: 90	Gross Liab.: 175	Debt Liab.: 95
Current Account	**Background.** Japan's CA surplus reflects a sizable income balance owing to its large net foreign asset position. The CA surplus increased to 4.8 percent of GDP in 2024 from 3.8 percent in 2023. The income balance has improved from 6.1% in 2023 to 6.6% in 2024, reflecting increased overseas direct investment and the effects of the yen depreciation. The goods trade balance has also improved,, from -1.1% to -0.6% of GDP, but remains in deficit, in contrast to surpluses in the pre-COVID period. Offshoring of production has offset some of the positive impact of yen depreciation on exports, while Japan faces increasing competition in some of its export sectors. Following a surge in inbound tourism that boosted the services trade balance in 2023, the services balance remained broadly unchanged in 2024. From a savings-investment perspective, a rising private savings rate in 2024 explains most of the increase in the current account. In the medium term, the CA balance is projected to average 3.9 percent, below current levels, partly reflecting a modest appreciation of the yen. **Assessment.** The 2024 cyclically adjusted CA is 4.9 percent of GDP, and the cyclically adjusted CA norm is 4.1 percent of GDP (with a range between 3.0 and 5.2 percent of GDP). The 2024 CA gap midpoint is assessed at +0.8 percent of GDP, with a range between −0.3 and 2.0 percent of GDP. The EBA-identified policy gaps reflect relatively greater medium-term fiscal consolidation needs, as well as a positive credit gap, in relation to medium-term desired policy.[2] The unexplained residual of the assessment potentially reflects structural impediments and country-specific factors not included in the model, such as investment bottlenecks, including entrepreneurship entry barriers and corporate savings distortions.					
2024 (% GDP)	CA: 4.8	Cycl. Adj. CA: 4.9	EBA Norm: 4.1	EBA Gap: +0.8	Staff Adjustors: 0.0	Staff Gap: +0.8
Real Exchange Rate	**Background.** The REER continued to depreciate in 2024 by 5 percent, following a depreciation of about 5 percent in 2023. This reflects the yen's nominal depreciation against major currencies as a result of continued wide interest rate differentials. **Assessment.** The IMF staff CA gap implies a REER gap of -4.8 percent in 2024 (with an estimated elasticity of 0.17 applied). The EBA REER index and level models deliver gaps of −39.3 and −35.3 percent, respectively. Consistent with the IMF staff CA gap, the REER gap is assessed to be in the range of -11.5 to 1.9 percent, with a midpoint of -4.8 percent.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** The financial account recorded net outflows in 2024, mirroring the CA surplus, and increased to 4.5 percent of GDP in 2024 from 4.2 percent in 2023. Net FDI outflows of 4.8 percent of GDP are primarily driven by outward FDI flows to Asia, Europe, and North America. Net portfolio outflows of 2.4 percent of GDP have remained high following outflows of 4.7% in 2023, reflecting higher demand for foreign assets from domestic investors and lower demand for yen-denominated assets due to a divergence of real interest rates between Japan and other major economies. **Assessment.** Vulnerabilities are limited. Inward investment tends to be equity based, and the home bias of Japanese investors is strong. So far, outward spillovers from Japan's policies to financial conditions in other economies (interest rates, credit growth) are contained.					
FX Intervention and Reserves Level	**Background.** Reflecting legacy accumulation, reserves stood at $1.2 trillion, or about 29 percent of GDP, in Q3-2024. This amount was little changed since end-2023. **Assessment.** The exchange rate is free floating, although FX interventions occurred in April-May and July 2024. FX interventions should be isolated and limited to addressing disorderly market conditions.					

[1]The final assessment will be provided in the 2025 External Sector Report.

[2]The optimal value (P*) for the credit-to-GDP gap in five years is estimated at 7.3 percent of GDP, consistent with the estimate in the 2023 External Sector Report.

Annex IV. Risk Assessment Matrix

Source of Risk and Main Impacts	Likelihood	Source	Expected Impact	Recommended Policy Actions
Trade policy and investment shocks. Higher trade barriers or sanctions reduce external trade, disrupt FDI and supply chains, and trigger further U.S. dollar appreciation, tighter financial conditions, and higher inflation.	High	External	High	→ Continue to pursue open market policies and enhance supply chain resilience. BoJ to carefully monitor effects of weaker external demand and rising cost pressures from trade restrictions and depreciation and respond as appropriate to achieve its inflation target.
Regional conflict(s). Intensification of conflicts (e.g., in the Middle East, Ukraine, Sahel, and East Africa) or terrorism disrupt trade in energy and food, tourism, supply chains, remittances, FDI and financial flows, payment systems, and increase refugee flows.	Medium	External	Medium	→ Pursue policies to enhance supply chain resilience. Adjust monetary policy to maintain anchored inflation expectations in the event of a persistent rise in cost pressures. Use targeted financial support measures if needed.
Commodity price volatility. Supply and demand volatility (due to conflicts, trade restrictions, OPEC+ decisions, AE energy policies, or green transition) increases commodity price volatility, external and fiscal pressures, social discontent, and economic instability.	Medium	External	Medium	→ Allow pass-through of commodity prices while mitigating the impact on the most vulnerable with targeted policies
Global growth acceleration. Easing of conflicts, positive supply-side surprises (e.g., oil production shocks), productivity gains from AI, or structural reforms raise global demand and trade.	Low	External	Medium	→ BoJ to adjust monetary policy in line with achieving its inflation target
Tighter financial conditions and systemic instability. Higher-for-longer interest rates and term premia amid looser financial regulation, rising investments in cryptocurrencies, and higher trade barriers trigger asset repricing, market dislocations, weak bank and NBFI distress, and further U.S. dollar appreciation, which widens global imbalances, worsens debt affordability, and increases capital outflow from EMDEs.	Medium	External	High	→ BOJ to adjust monetary policy in line with achieving its inflation target and adjust macroprudential buffers to reduce stress on domestic banks.
Sovereign debt distress. Higher interest rates, stronger U.S. dollar, and shrinking development aid amplified by sovereign-bank feedback result in capital outflows, rising risk premia, loss of market access, abrupt expenditure cuts, and lower growth in highly indebted countries.	High	External	Low	→ As a safe-haven currency, yen likely to appreciate. No policy response unless disorderly market conditions merit FX intervention
Deepening geoeconomic fragmentation. Persistent conflicts, inward-oriented policies, protectionism, weaker international cooperation, labor mobility curbs, and fracturing technological and payments systems lead to higher input costs, hinder green transition, and lower trade and potential growth.	High	External	High	→ Continue to pursue open market policies and enhance supply chain resilience.
Climate change. Extreme climate events driven by rising temperatures cause loss of life, damage to	Medium	External	High	→ Strengthen climate adaptation and mitigation efforts and provide targeted relief to affected households.

Source of Risk and Main Impacts	Likelihood	Source	Expected Impact	Recommended Policy Actions
infrastructure, food insecurity, supply disruptions, lower growth, and financial instability.				
Cyberthreats. Cyberattacks on physical or digital infrastructure (including digital currency and crypto assets ecosystems) or misuse of AI technologies trigger financial and economic instability.	**High**	External	**High**	→ Take pre-emptive measures to prevent cyberattacks and do contingent planning to build resilience if there is an attack.
Labor shortages constrain activity. Insufficient immigration and a slowing of the rise in labor force participation leads to persistent labor shortages constraining investment and growth.	**Medium**	Domestic	**Medium**	→ Strengthen policies to further support female labor force participation, improve visa access and promote other supportive policies for migrant workers.
Consumption recovery is not sustained. Recent real wage gains prove to be short-lived and are not sustained. Weak consumer confidence and high uncertainty are accompanied by stagnating real consumption.	**Medium**	Domestic	**Medium**	→ Targeted fiscal measures and monetary easing to support domestic demand.
Bond market stress from a reassessment of sovereign risk. An increase in the sovereign risk premium would worsen public debt dynamics and cause distress in the financial sector.	**Medium**	Domestic	**High**	→ Adopt a credible medium-term fiscal consolidation to put debt on a downward path.

Annex V. Progress on Past Recommendations

Previous Article IV Policy Recommendations	Actions Taken
Significantly faster fiscal consolidation in the short term through a combination of revenue and expenditure measures, resulting in a primary deficit of -3.9 percent in 2024.	Under-execution of budgeted funds for COVID resurgence and for state funds, as well as higher-than-expected revenue due to inflation and depreciation, led to an estimated GG primary deficit of -2.1 percent of GDP in 2024 compared to a forecast of -6.3 percent of GDP in the 2024 Article IV staff report. However, no comprehensive consolidation plan has been approved, and while some energy subsidies have started to be phased out, they remain large.
Normalize the monetary policy framework by ending yield-curve control and quantitative and qualitative easing policies.	The BOJ terminated its YCC and QQE policies in March 2024.
Formulate a strategy to eventually unwind the BOJ's bond holdings over the medium to long term and consider a strategy to unload the risk assets while minimizing related financial market disruptions.	A plan to gradually reduce monthly JGB purchases from 5.7 trillion yen to 2.9 trillion yen by Q1 2026 was launched in July 2024 and is being implemented. The plan allows flexibility to vary the size of purchases in response to market conditions. No plan has been announced for unwinding holdings of ETFs and J-REITs.
If the baseline inflation forecast bears out, the BoJ should continue to gradually raise the policy rate.	The BOJ raised the policy rate from 0 to 0.1 percent in March 2024, to 0.25 percent in July 2024, and to 0.5 percent in January 2025; it has expressed its intention to continue gradual rate hikes if its baseline forecast materializes.
Discipline the formulation of supplementary budgets	A supplementary budget for FY24 was approved in December 2024 with a size comparable to the previous year, and without adequate justification that exceptional circumstances are occurring.
Strengthen the governance of state funds	The new supervisory plan for state funds was introduced in April 2024 to strengthen fiscal governance. However, more than 100 state funds remain, and the 2024 supplementary budget allocated 3.5 trillion yen to 30 state funds.
Expand childcare facilities, reduce labor market dualism, and facilitate job mobility	The coverage of childcare facilities for children aged 0-2 has increased by about 1.5 percent during 2024.

Annex VI. Progress on Recommendations from 2024 FSAP

Recommendations	Timeline[1]	Implementation Status
Cross-Cutting Issue		
Increase staffing resources significantly and strengthen skills to enhance the supervision and resolution of financial institutions and the supervision of cybersecurity risks (Government, FSA; ¶66-67, ¶83).	ST	• The FSA has allocated additional resources to enhance on-site monitoring of investment funds, resolution processes, and cybersecurity. • A senior position for insurance company supervision is planned to be introduced in July 2025. • The FSA continues to provide cross-cutting and comprehensive training in areas such as bank supervision, insurance company supervision, market oversight and digital activities including IT and cyber risk. These initiatives are continuously updated.
Systemic Risk Monitoring and Macroprudential Policy Framework		
Further broaden and deepen systemic risk analysis with more forward-looking and comprehensive monitoring of risks of the financial system and stronger interagency collaboration (FSA, BOJ; ¶68-69).	C	• The FSA has expanded its data collection and systemic risk analysis by incorporating external corporate and market data into its analytical assessment. Insights from data analyses are presented in the "FSA Analytical Notes" series, which highlights case studies and system-wide risk analyses using granular data. • The BOJ has developed a satellite module to assess global CRE market vulnerabilities during periods of stress. The BOJ has improved its credit cost module using granular loan-level data from the Common Data Platform, enabling analysis of "effectively interest-free and unsecured loans" issued during COVID. • The FSA and BOJ continue to regularly collaborate on systemic risk analysis and plan to strengthen their partnership by launching full-scale data collection via the Common Data Platform in March 2025.
Strengthen the governance of interagency decision-making on macroprudential policy by assigning a formal mandate to the CCFS (FSA, BOJ; ¶63).	ST	• The CCFS, as the collegiate to exchange views on financial market developments, continues to operate without a clear, formal mandate. • Under the current framework, CCFS has been held regularly twice each year since 2014. A quarterly liaison meeting complements the CCFS to address potential changes to the CCyB rate and macroprudential measures, with results reported semi- annually. The semi-annual Financial Monitoring Council (FMC) and periodic

Recommendations	Timeline[1]	Implementation Status
		working-level meetings continued to be conducted with the aim to strengthen cooperation in various fields related to monitoring, for example, cooperation between inspection and on-site examination, collaboration on off-site monitoring, and enhancement of the data collection framework.
Expand the macroprudential policy toolkit with targeted borrower-based tools (FSA, BOJ; ¶64).	MT	• Targeted borrower-based tools (e.g., LTV, loan-to-income, debt-to-income, and/or DSTI caps) have not been implemented in Japan. • Under the current framework, the FSA's macroprudential policy response continues to focus on monitoring risk accumulation across the financial market and specific sectors, while addressing issues through reports, guidance, inspections, and annual reviews on LBO and real estate finance to manage excessive exposures. • The FSA, with the BOJ, monitors financial system risks using loan-level data from the Common Data Platform and engage closely with financial institutions to assess risk build-up.
Banking Sector Regulation and Supervision		
Continue to strengthen risk-based supervision and develop the Early Warning System with more forward-looking metrics, especially for credit and liquidity risks (FSA; ¶44).	I	• While the FSA continues efforts to strengthen risk-based supervision given developments in the economic and financial environment including the failure of Silicon Valley Bank, no significant changes have been made to the Early Warning System framework. • The FSA has encouraged banks to take improvement measures through in-depth supervisory dialogues under the framework adopted before 2019. The FSA continues to encourage banks that have breached the threshold of the indicator to take improvement measures through in- depth supervisory dialogues and issues an order for reporting based on Article 24 of the Banking Act, if necessary.
Make explicit provision in the law to ensure the priority of financial safety and stability in the mandate of the FSA (Government; ¶45)	ST	• While the 2019 "JFSA's Approaches to Prudential Supervision" Discussion Paper states the interdependence of financial stability and effective intermediation, no changes have been made to the FSA's mandate to prioritize financial safety and stability in law.

Recommendations	Timeline[1]	Implementation Status
Provide the FSA with the power to set and adjust individual bank capital ratios above the minimum requirements in response to a bank's risk profile (Government; ¶46).	ST	• The FSA's Pillar 2 powers remain unchanged, lacking authority to set risk-based capital ratios or require capital beyond regulatory minimums. • Under the current framework, the FSA addresses soundness concerns through supervisory discussions under the Early Warning System and may issue orders under Articles 24 or an improvement order under Article 26 of the Banking Act if necessary.
Establish a minimum liquidity requirement for domestic banks (FSA; ¶47).	ST	• Minimum liquidity requirements have not been set for domestic banks in Japan. • The FSA continues to monitor individual banks' liquidity risks through the Early Warning System, designed to identify financial metrics that may signal potential future issues.
Insurance Sector Regulation and Supervision		
Reform the approach to insurance supervision by establishing a comprehensive risk-based, proactive supervisory framework of individual insurers and large intermediaries using regular on-site inspections and off-site monitoring (FSA; ¶50).	ST	• The approach to insurance supervision remains unchanged, though the FSA has been deliberating measures to enhance its supervisory framework for large insurance intermediaries by introducing additional legal obligations, such as strengthening internal controls for insurance solicitation, and improving regular monitoring to ensure compliance. • Negotiations with HR authorities are currently in progress to secure additional staffing for insurance supervision, aimed at enhancing oversight capabilities, including the conduct of on-site inspections. • Risk-based initiatives under consideration include revising the Early Warning System to capture broader risks and intensifying monitoring of insurers' management systems, with a focus on areas like profitability and specific insurance types prone to losses, such as corporate fire insurance.
Ensure that suitability requirements apply to all key persons and set explicit and comprehensive expectations on the establishment and adequacy of all control functions (FSA; ¶50).	ST	• Deliberations have been conducted to comprehensively apply suitability requirements and establish clear expectations for control functions, ensuring alignment with the ICPs. • FSA plans to introduce suitability requirements for staff verifying ESR calculations and insurance liabilities, alongside independence requirements for ESR-related control functions. Supervisory practices are planned to be enhanced through

Recommendations	Timeline[1]	Implementation Status
		off-site monitoring, including dialogues with insurers and requests for improvement when compliance issues arise.
Delegate licensing powers to the Commissioner of the FSA and review whether government can provide for increased independence to the FSA to determine its expenditure budget and to finance itself independently (Government, FSA; ¶51).	ST	• No changes have been made in the structure and powers of the FSA, or inter-agency coordination. • FSA has deliberated how to receive this recommendation on delegating licensing powers to the FSA and enhancing its independence in budget determination, taking note of the governmental structure and constitutional constraints.
Cyber Resilience and Financial Stability		
Enhance the regulatory framework and supervisory processes for cybersecurity by updating supervisory guidelines, methodologies, and tools (FSA; ¶71).	MT	• The FSA issued cybersecurity-related amendments to the "Comprehensive Guidelines for Supervision of Major Banks, etc." and other applicable guidelines across all financial system sub- sectors, along with the "Guidelines on Cybersecurity for the Financial Sector" (collectively referred to as "Guidelines" in this section). Following public consultation, the Guidelines took immediate effect and apply to all supervised financial entities, including FMIs. • The FSA has taken the following actions to implement a structured, risk based approach to cyber risk supervision and ensure alignment with the Guidelines: i) The Guidelines, along with FSA's responses to comments received during the consultation period, clarify that the Guidelines is applicable on a risk-based manner; ii) The FSA refers to the Guidelines in conducting off-site monitoring and on-site inspections; iii) The FSA is currently reviewing the Cybersecurity-Self Assessment (CSSA) questionnaire, to be finalized and distributed by mid-2025.

Recommendations	Timeline[1]	Implementation Status
Enhance cyber supervision/oversight of financial market infrastructures (FSA, BOJ; ¶71).	ST	• The FSA and BOJ initiated an annual supervisory review of the cybersecurity posture of major FMIs. This review assesses governance, policies, and practices through discussions with senior management and cybersecurity teams and is expected to be an ongoing process. • The BOJ is enhancing its oversight of cyber resilience by utilizing the CPMI-IOSCO Cyber Guidance to assess cyber risks in overseen FMIs, including those it operates. • The BOJ and FSA continue to collaborate on annual reviews to enhance their supervisory and oversight approach to cyber resilience for jointly supervised and overseen FMIs. The BOJ is enhancing its overseers' expertise through training in cyber risk assessment.
Regulation and Supervision of Investment Funds		
Enhance the onsite supervisory approach by broadening its scope to include more firms, including larger asset managers and self- regulatory organizations (SESC; ¶54).	ST	• The SESC increased risk-based on-site supervisions, with focus on areas where preliminary off- site monitoring identifies risks. • A data collection scheme targeting large investment funds has been introduced to identify risks in investment trusts and collective investment schemes following a pilot phase since FY 2023. • The FSA and SESC have increased their staffing resources to strengthen both off-site and on-site supervision, for example by creating a senior position dedicated to supervising the asset management industry. • As part of the planned merger between the Investment Trusts Association and the Japan Investment Advisers Association to enhance self-regulation, on-site visits are now planned to oversee the new association's organizational structure, business operations, and ensure its self-regulatory capabilities. Planned on-site visits will be done in cooperation with the FSA's Supervisory Bureau's off-site supervision.
Regulation and Supervision of Fintech Industry		
Intensify monitoring of FTSPs and PPI issuers/Consider reviewing regulatory framework to ensure adequate coverage of any new risks (FSA; ¶56).	I / ST	• The FSA has coordinated meetings between top management and the Deputy Director-General of the Strategy Development and Management Bureau on management control to improve risk monitoring.

Recommendations	Timeline[1]	Implementation Status
		• Enhanced oversight and regulations are under consideration for FTSPs expanding into B-to-B transactions. • No changes have been made to the current coverage ratio. The FSA continues to monitor the adequacy of PPI coverage, participate in international discussions on financial technology innovation, and engage in dialogues with major FTSPs and PPI issuers.
Climate-related Oversight of Banking and Insurance Sectors		
Develop and publicize a clear plan towards formalizing supervision of climate-related risks in consideration of the work of international bodies (FSA; ¶73).	MT	• The FSA established "the Office for Climate-related Financial Risk Monitoring Hub". The office aims to coordinate and conduct climate-related financial risk monitoring in a more systematic and cross-sectoral manner, based on "Supervisory Guidance on Climate-related Risk Management and Client Engagement (July 2022)" (hereinafter referred to as "the Guidance"), while also considering discussions at international bodies where the FSA is actively engaged. • The FSA surveyed major financial institutions on risk management and client engagement and plans to start holding further hearings. A report summarizing findings, informing climate risk management and client engagement, will be published by summer 2025.
Financial Safety Net and Crisis Preparedness		
Protect the financial soundness of the BOJ to cover potential losses with additional safeguards and mitigate the risk of moral hazard arising from ELA operations (BOJ, MOF, FSA; ¶76).	C	• No changes have been made to the BOJ's ELA framework.
Expand ELA eligibility to some NBFIs that could be systemically important, prioritizing CCPs (BOJ; ¶77).	MT	• No changes have been made to expand the scope of institutions eligible to receive ELA.
Gradually expand RRP to all banks that could be deemed systemic at the time of failure, supported by planning guidance that comprehensively articulates expectations in improving recovery capabilities and	ST	• The authorities are considering an expansion of RRP to other systemically important banks while setting priorities among potentially in-scope banks.

Recommendations	Timeline[1]	Implementation Status
addressing impediments to resolvability (FSA; ¶79).		
Continue to operationalize, codify, and regularly review and update the authorities' individual and collective crisis readiness efforts, the policies underpinning the several resolution regimes, and the supporting decision-making structures and information flows (All; ¶80).	C	• The FSA continues to conduct internal seminars where the RRP team informs BAU monitoring teams on Japan's Orderly Resolution framework, resolvability monitoring initiatives, and international trends. • The FSA continues to conduct seminars among domestic resolution authorities to deepen the shared understanding on RRP. In particular, the FSA, BOJ, and Deposit Insurance Corporation of Japan are codifying practical issues on Orderly Resolution to ensure a shared understanding and institutional knowledge. Efforts focus on improving resolvability by refining timelines, coordinating home/host authority operations, and organizing actions with financial institutions in line with international discussions.
Under the FCRC's auspices, execute a multi- year interagency crisis simulations program for diverse failure scenarios, including fast-fail resolutions of systemic and midsize banks, and their concurrent failure (All; ¶81).	C	• To foster a shared understanding of detailed operations in Orderly Resolution in Japan, the FSA, BOJ, and Deposit Insurance Corporation of Japan have focused on defining and formalizing operational roles and timelines while sharing codified outputs to ensure alignment and consistency. • No further changes have been made to implement multi-year interagency crisis simulations, but measures to examine operational capabilities are under consideration.
Ensure an effective recovery and resolution (planning) regime for insurers and CCPs consistent with pertinent international standards and guidance (FSA, Government; ¶82).	MT	• The FSA continue to consider a resolution framework for FMIs based on the existing framework and risk profiles of individual FMIs. • The FSA requires five IAIGs to develop recovery plans, reflecting the new IAIG designation of one insurer in July 2024. In response to IAIS revisions to ICP and ComFrame materials on recovery and resolution, the FSA is considering updates to its supervisory guidelines to ensure alignment with international standards.

Note: The information in this table has been prepared using inputs provided by the authorities.
[1]/C: Continuous, I: immediate (within one year), ST: short term (1–2 years), and MT: medium term (3–5 years).

Annex VII. Sovereign Risk and Debt Sustainability Analysis

Fiscal deficits in 2023-24 have been significantly smaller than expected in the last SRDSF, contributing to a downward revision to the estimated starting debt-to-GDP ratio in 2024. Under the baseline, the public debt is projected to gradually decline over the next few years due to favorable interest rates-growth dynamics that have been helped by higher inflation. Over the long term, debt is projected to rise due to pressures from an aging population and increased debt servicing costs, with the projected interest rate path revised up compared to the 2024 Article IV. Gross financing needs are elevated, but the risks of debt distress are moderate, as rollover risks are mitigated by the large domestic investor base and the debt profile. A credible medium-term fiscal adjustment that makes room for aging related spending pressures and introduces a revenue-enhancing tax reform is warranted to put public debt on a downward path in the longer term.

1. Background. Headline inflation reached levels not seen in three decades, and Japan's economy shows signs of sustainably converging to a new equilibrium. Fiscal policy has expanded responding to this transition, with additional measures announced in supplementary budgets in November 2023 and November 2024. This follows two years of exceptional fiscal support in the wake of COVID-19 and the spillovers from the war in Ukraine. Amidst elevated interest rates globally, sovereign borrowing costs in Japan have started rising—with yields on 30-year JGBs rising by more than 70 bps this year to around 2.3 percent—following the normalization of monetary policy away from NIRP and YCC. With the BoJ and major central banks on opposite sides of their cycles, the interest rate differential has contributed to a sharp weakening of the yen since 2022. By mid-November 2024, the yen had weakened by about 25 percent against the US dollar since January 2022.

2. Baseline. Staff's baseline scenario is based on the announced budget and supplementary fiscal package adopted at the end of 2024, and assumes the continuation of the practice of supplementary budgets in outer years. Under this baseline, the primary deficit will remain elevated. Public debt is projected to rise over the longer term, mainly driven by age-related spending pressures and by higher borrowing costs narrowing the interest-growth differential. However, near- and medium-term debt dynamics are favorable, thanks to strong real GDP growth projected in 2025, continued real growth in following years, and historically high inflation, producing negative real interest rates. Consequently, gross public debt is projected to fall from 240 percent of GDP in 2023 to 228 percent of GDP in 2029, before rising thereafter.

3. Realism. Historical outcomes point to some pessimism in staff's projections for the primary deficit and public debt. That said, both the projected debt path and primary balance adjustment are within the normal historical range observed in peer countries. The recent rapid reduction of debt to GDP ratio, caused by still low borrowing costs amid high inflation and the rollback of the fiscal measures associated with the pandemic, were exceptional circumstances of the last three years.

4. Risks and mitigating factors. High and persistent debt levels under the baseline fail to build the necessary fiscal buffers and expose Japan to a range of shocks. The debt-to-GDP ratio could jump

significantly if growth slumps and could rise gradually (given the debt profile) but persistently if interest rates increase above the staff's projections. However, a long average maturity that limits the pass-through from higher yields to effective interest rates, and a large domestic investor base, serve as mitigating factors. Near- and medium-term risks have been gradually improving in the recent years due to a more favorable balance between real interest rates and growth.

5. Long-term risks. Japan's aging population puts significant pressure on GFN and debt levels in the long term, particularly due to exposure to rising healthcare costs should those rise faster than expected. These risks remain manageable given the horizon at which they are expected to materialize, underscoring the importance of credible medium-term fiscal adjustment to address them. Additionally, these risks highlight the need for structural reforms to contain age related spending, as well as policies to boost labor market participation. Longer term risks remain broadly similar to the 2024 Article IV.

Figure 1. Japan: Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall	…	Moderate	Staff's assessment of the overall risk of sovereign stress is moderate against mechanical signals of high risk in the medium-term mechanical signals.The overall risk of sovereign stress is moderate, reflecting Japan's domestic investor base, home bias, and public debt with long maturity and denominated in local currency which acts as reserve currency.
Near term 1/			
Medium term	High	Moderate	Staff's assessment of medium-term risk of sovereign stress is moderate against a mechanical signal of high. The latter is driven by an elevated debt level at the end of the projection horizon and large average gross financing needs under the baseline. Risks are mitigated by the large domestic investor base, debt profile, and Japan acting as a global reserve currency issuer.
Fanchart	High	…	
GFN	High	…	
Stress test		…	
Long term	…	Moderate	Long-term risks are moderate as aging-related expenditures on health and social security slowly feed into debt dynamics.
Sustainability assessment 2/	n.a.	n.a.	Not required
Debt stabilization in the baseline			Yes

DSA Summary Assessment

Commentary: Japan is at a moderate overall risk of sovereign stress. Under current policies, debt is projected to decrease over the next few years due to favourable growth and real interest rate dynamics but will not stabilize thereafter, with the increase driven by a less favourable interest growth-differential and by age-related spending pressures. The primary deficit is projected to remain broadly unchanged untill 2027 as measures supporting the recovery are phased out, but will pick up starting in 2028, as debt servicing payments and age-related spending pressures weigh on the primary deficit. Athough sovereign stress risks according to mechanical signals are high in the medium term, they are mitigated by a large domestic investor base, a favorable debt profile, and Japan acting as a global reserve currency issuer.

Source: Fund staff.

Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.

1/ The near-term assessment is not applicable in cases where there is a disbursing IMF arrangement. In surveillance-only cases or in cases with precautionary IMF arrangements, the near-term assessment is performed but not published.

2/ A debt sustainability assessment is optional for surveillance-only cases and mandatory in cases where there is a Fund arrangement. The mechanical signal of the debt sustainability assessment is deleted before publication. In surveillance-only cases or cases with IMF arrangements with normal access, the qualifier indicating probability of sustainable debt ("with high probability" or "but not with high probability") is deleted before publication.

Figure 2. Japan: Debt Coverage and Disclosures

							Comments
1. Debt coverage in the DSA: 1/			CG	GG	NFPS	CPS	Other	
1a. If central government, are non-central government entities insignificant?							n.a.	
2. Subsectors included in the chosen coverage in (1) above:								
			Subsectors captured in the baseline				Inclusion	
CPS	NFPS	GG: expected	CG	1	Budgetary central government		Yes	
				2	Extra budgetary funds (EBFs)		No	Not applicable
				3	Social security funds (SSFs)		Yes	
				4	State governments		Yes	
				5	Local governments		Yes	
				6	Public nonfinancial corporations		No	
				7	Central bank		No	
				8	Other public financial corporations		No	
3. Instrument coverage:						Currency & deposits	Loans	Debt securities	Oth acct. payable 2/	IPSGSs 3/	
4. Accounting principles:					Basis of recording			Valuation of debt stock			
					Non-cash basis 4/	Cash basis		Nominal value 5/	Face value 6/	Market value 7/	
5. Debt consolidation across sectors:						Consolidated	Non-consolidated				

Color code: chosen coverage | Missing from recommended coverage | Not applicable

Reporting on Intra-Government Debt Holdings

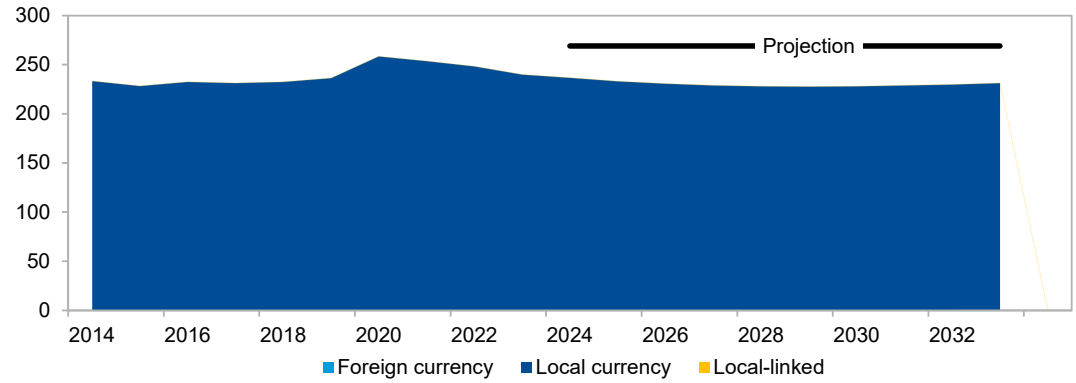
					Holder	Budget. central govt	Extra-budget. funds (EBFs)	Social security funds (SSFs)	State govt.	Local govt.	Nonfin. pub. corp.	Central bank	Oth. pub. fin corp	Total
					Issuer									
CPS	NFPS	GG: expected	CG	1	Budget. central govt									0
				2	Extra-budget. funds									0
				3	Social security funds									0
				4	State govt.									0
				5	Local govt.									0
				6	Nonfin pub. corp.									0
				7	Central bank									0
				8	Oth. pub. fin. corp									0
					Total	0	0	0	0	0	0	0	0	0

1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities.
4/ Includes accrual recording, commitment basis, due for payment, etc.
5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.
7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.

Commentary: Debt coverage is general government. While gross debt is the main indicator, net debt is also important in Japan, given the large financial assets held by the government. It should be noted, however, that not all the financial assets are available to meet debt obligations. The holdings include, for example, social security assets for future obligations.

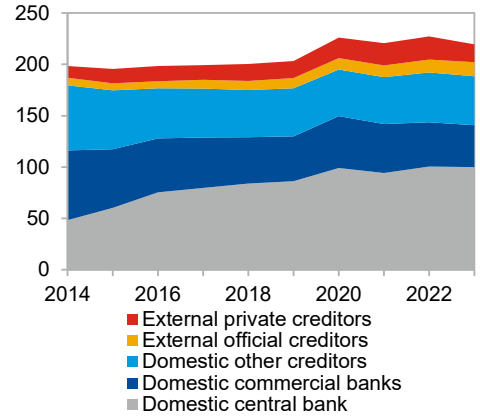
Figure 3. Japan: Public Debt Structure Indicators

Debt by currency (percent of GDP)



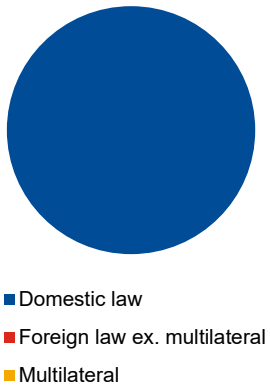
Note: The perimeter shown is consolidated public sector.

Public debt by holder (percent of GDP)



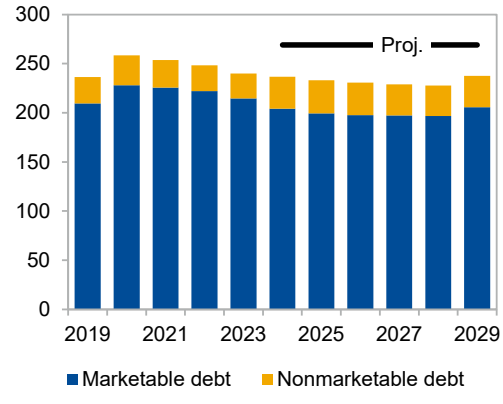
Note: The perimeter shown is general government.

Public debt by governing law, 2023 (percent)



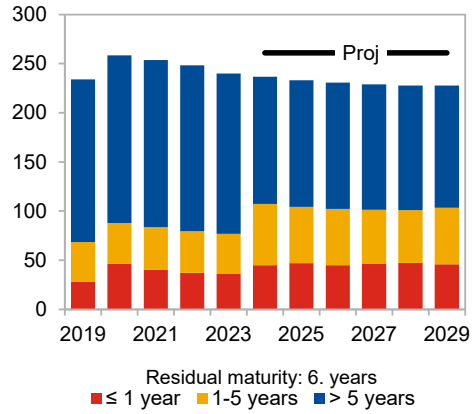
Note: The perimeter shown is general government.

Debt by instruments (percent of GDP)



Note: The perimeter shown is general government.

Public debt by maturity (percent of GDP)



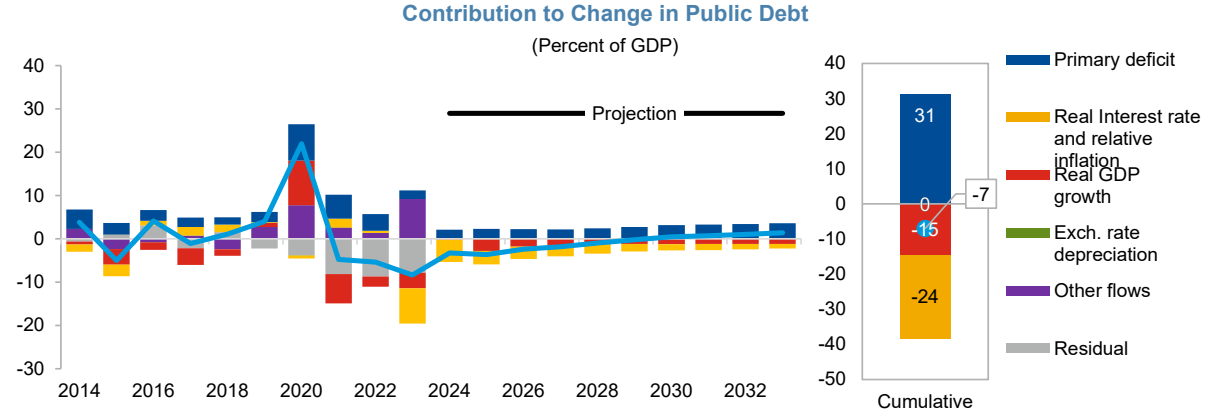
Note: The perimeter shown is general government.

Commentary: Domestic creditors held 86 percent of public debt in 2023. The Bank of Japan increased significantly over the last decade from 12 percent in 2012 to 46 percent in 2023. All public debt is governed by domestic law. Debt is mostly long term, with an average residual maturity above 9 years.

Figure 4. Japan: Baseline Scenario

(Percent of GDP unless otherwise indicated)

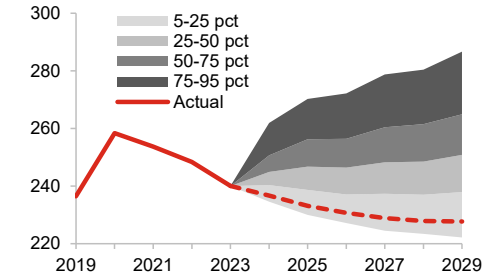
	Actual	Medium-term projection						Extended projection			
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Public debt	240.0	236.7	233.1	230.7	228.8	227.9	227.6	228.1	228.8	229.8	231.2
Change in public debt	-8.3	-3.3	-3.6	-2.4	-1.8	-1.0	-0.2	0.5	0.7	1.0	1.4
Contribution of identified flows	-0.5	-3.3	-3.6	-2.4	-1.8	-1.0	-0.2	0.5	0.7	1.0	1.4
Primary deficit	2.0	2.1	2.3	2.3	2.2	2.4	2.7	3.1	3.3	3.4	3.6
Noninterest revenues	35.6	35.8	35.8	35.8	35.9	35.9	36.0	36.0	35.9	36.0	36.0
Noninterest expenditures	37.7	37.9	38.1	38.1	38.0	38.4	38.7	39.1	39.2	39.4	39.6
Automatic debt dynamics	-11.8	-5.4	-5.9	-4.7	-4.0	-3.4	-2.9	-2.7	-2.6	-2.4	-2.2
Real interest rate and relative inflation	-8.1	-5.2	-3.2	-2.9	-2.5	-2.1	-1.8	-1.5	-1.4	-1.2	-1.1
Real interest rate	-8.1	-5.2	-3.2	-2.9	-2.5	-2.1	-1.8	-1.5	-1.4	-1.2	-1.1
Relative inflation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real growth rate	-3.6	-0.2	-2.8	-1.8	-1.5	-1.3	-1.2	-1.2	-1.2	-1.2	-1.2
Real exchange rate	0.0	…	…	…	…	…	…	…	…	…	…
Other identified flows	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(minus) Interest Revenues	-1.2	-1.1	-1.0	-1.0	-1.0	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0
Other transactions	10.4	1.1	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.0	1.0
Contribution of residual	-7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs	41.1	35.4	49.2	54.2	55.1	59.1	62.6	63.3	65.9	69.1	72.7
of which: debt service	40.2	34.4	47.9	53.0	53.9	57.6	60.8	61.1	63.6	66.6	70.0
Local currency	40.2	34.4	47.9	53.0	53.9	57.6	60.8	61.1	63.6	66.6	70.0
Foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memo:											
Real GDP growth (percent)	1.5	0.1	1.2	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Inflation (GDP deflator; percent)	4.1	2.9	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1
Nominal GDP growth (percent)	5.6	2.9	3.2	2.8	2.7	2.6	2.6	2.5	2.6	2.6	2.6
Effective interest rate (percent)	0.6	0.6	0.6	0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.6



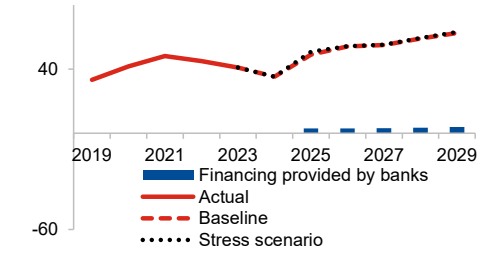
Commentary: Public debt will fall over the medium term following strong gorwth and negative real interest rates. However, in the long run it will increase reflecting a primary deficit that is higher than the debt stabilizing level by 0.6 percentage points on average over the 2030s.

Figure 5. Japan: Medium-Term Risk Assessment

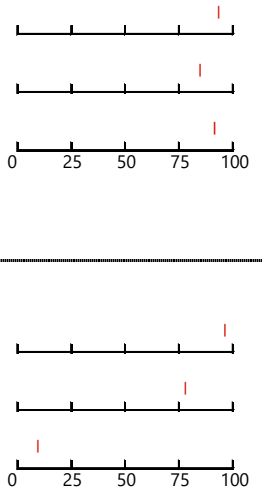
Final Fanchart (pct of GDP)



Gross Financing Needs (pct of GDP)



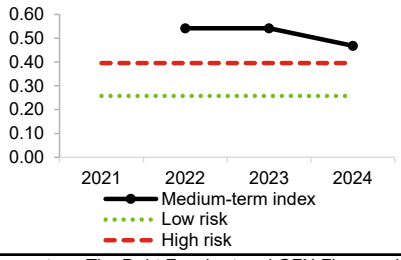
	Value	Contrib [1/]	Percentile in peer group [2/]
Debt fanchart module			
Fanchart width *(percent of GDP)*	64.5	0.9	
Probability of debt non-stabilizaiton *(percent)*	43.9	0.4	
Terminal debt-to-GDP x institutions index	47.8	1.0	
Debt fanchart index (DFI)		2.3	
Risk signal: [3/]		**High**	
Gross financing needs (GFN) module			
Average baseline GFN *(percent of GDP)*	52.6	17.9	
Initial Banks' claims on the gen. govt *(pct bank assets)*	10.7	3.5	
Chg. In banks' claims in stress *(pct banks' assets)*	0.4	0.1	
GFN financeability index (GFI)		21.6	
Risk signal: [4/]		**High**	



Triggered stress tests (stress tests not activated in gray)

Banking crisis | Commodity prices | Exchange rate | Contingent liab. | Natural disaster

Medium-Term Index (index number)



Medium-term risk analysis

	Value	Value (normalized)	Weight	Contribution
Debt fanchart index	2.3	0.5	0.5	0.3
GFN finaceability index	21.6	0.4	0.5	0.2
Medium-term index		0.5		
Risk signal: 5/		**High**		
Final assessment:		**Moderate**		

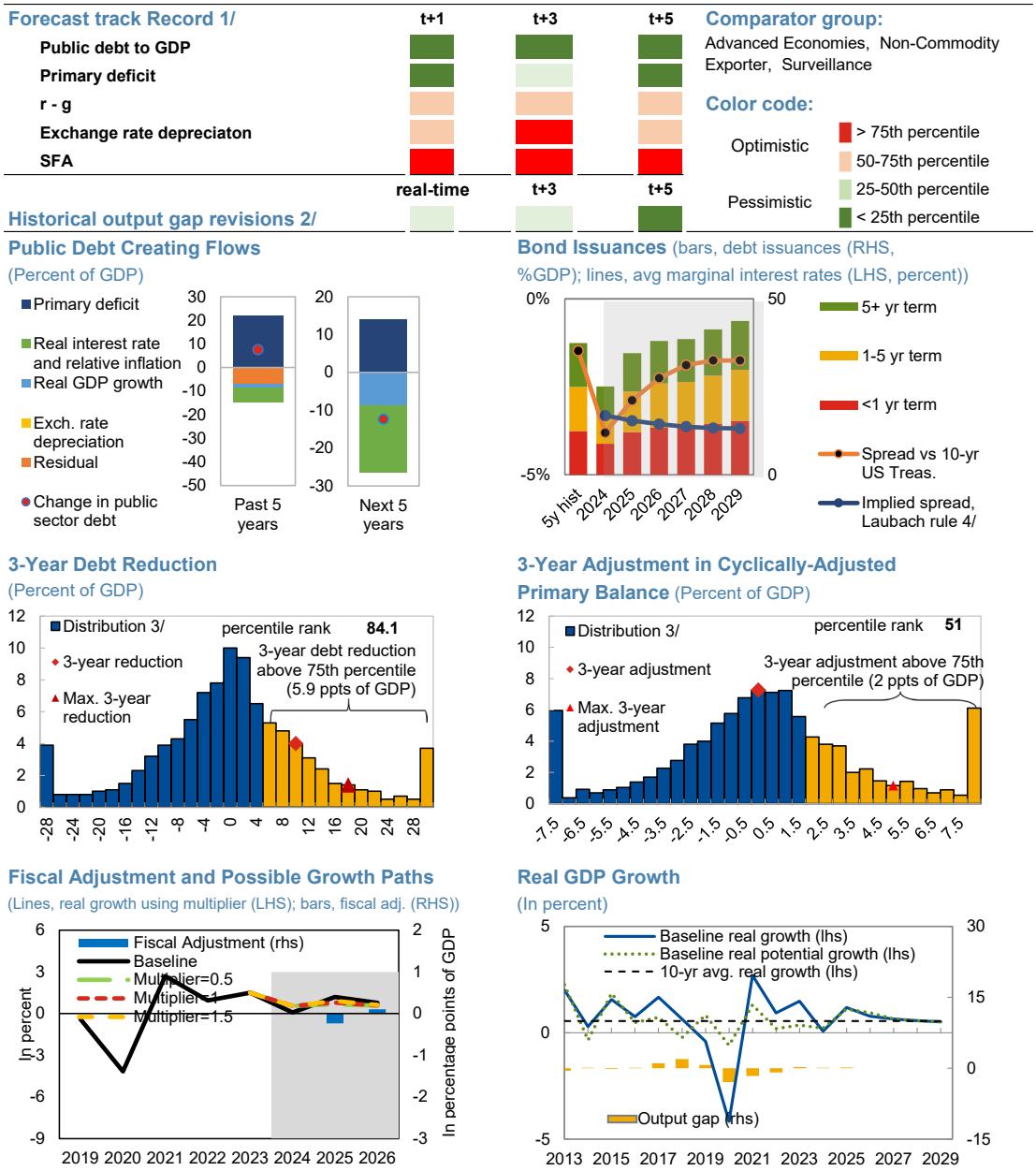
Prob. of missed crisis, 2024-2029, if stress not predicted: 54.5 pct.
Prob. of false alarms, 2024-2029, if stress predicted: 3.4 pct.

Commentary: The Debt Fanchart and GFN Financeability Modules both point to high risk. For the fanchart, this reflects debt levels that are high even when adjusted by institutional quality. High financing risk reflects high average GFNs but also some significant bank financing in the baseline. A sharp exchange rate depreciation would lead to more elevated GFNs in the medium term.

Source: IMF staff estimates and projections.

1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation.
2/ The comparison group is advanced economies, non-commodity exporter, surveillance.
3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.
4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.
5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

Figure 6. Japan: Realism of Baseline Assumptions



Commentary: The realism analysis shows a large median forecast error for medium-term primary defiict and public debt projections suggestiong a pessimistic bias. However, this is explained by the unwinding of exceptional support measures after the pandemic and sharp rise in inflation that is converging to the BoJ target of 2% in the baseline scenario. The large chanage in public debt creating flows is driven by the large changes in inflaiton and growth.

Source : IMF Staff.

1/ Projections made in the October and April WEO vintage.

2/ Calculated as the percentile rank of the country's output gap revisions (defined as the difference between real time/period ahead estimates

3/ Data cover annual obervations from 1990 to 2019 for MAC advanced and emerging economies. Percent of sample on vertical axis.

4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.

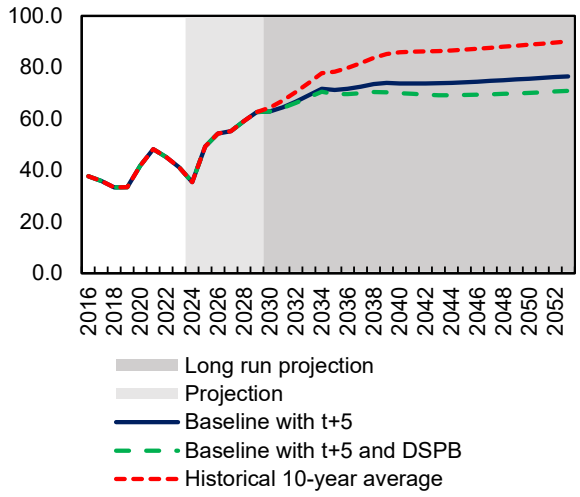
Figure 7. Japan: Triggered Modules

Large amortizations	**Pensions**	Climate change: Adaptation	Natural Resources
	Health	Climate change: Mitigation	

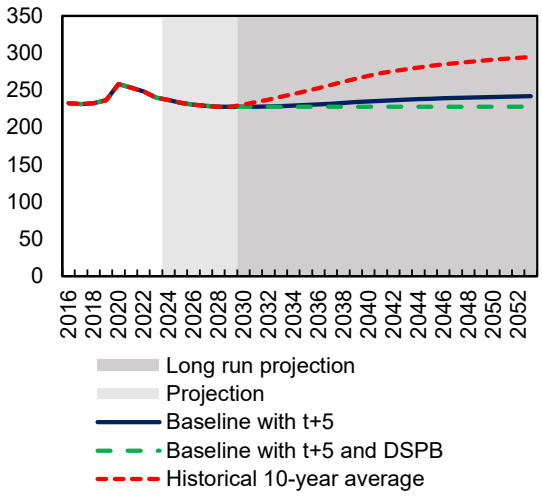
Japan: Long-Term Risk Assessment: Large Amortization

Projection	Variable	Risk Indication
Medium-term extrapolation	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Medium-term extrapolation with debt stabilizing primary balance	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Historical average assumptions	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Overall Risk Indication		

GFN-to-GDP Ratio



Total Public Debt-to-GDP Ratio



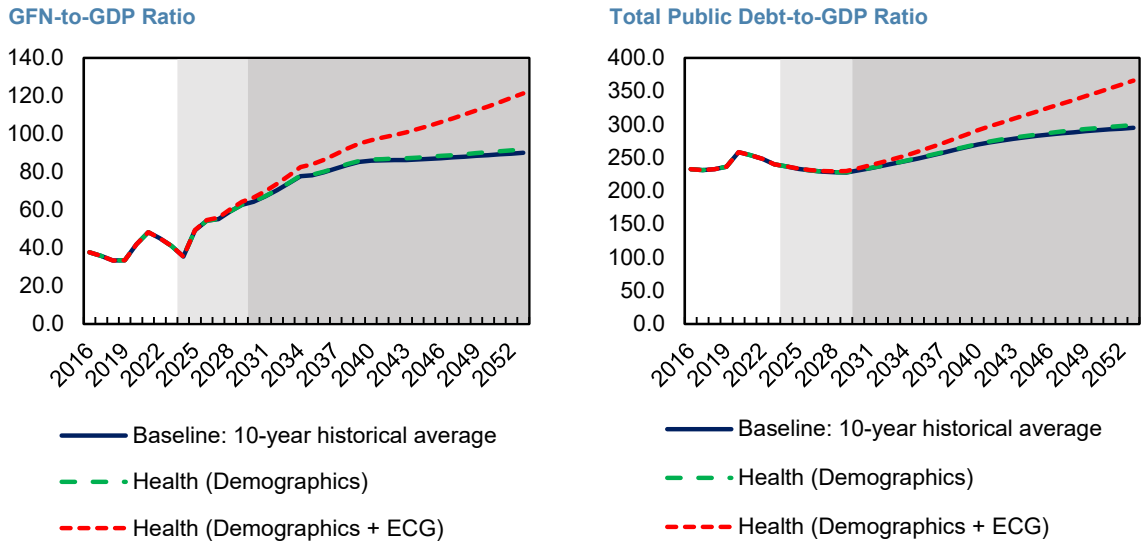
Commentary: Due to the high level of debt to GDP and thus the large levels of amortisationand roll over this entails, longer term risks are significantly affected by large amortisations. This is especially relevant as interest rates on debt rise to levels not seen in the past two decades. Despite Japan facing significant long-term pressures from an aging population, those pressures are greatly ameliorated by significant pension system assets of 38 percent of GDP in 2023 and automatic adjustment of pension benefits following the 2004 pension reforms which ensure that the pension system remains fully funded.

Figure 8. Japan: Demographics - Pensions

Permanent adjustment needed in the pension system to keep pension assets positive for:	30 years	50 years	Until 2100
(pp of GDP per year)	0.0%	0.0%	0.0%

Commentary: Japan faces significant long-term pressures from an aging population however those pressures are greatly ameliorated by significant pension system assets of 38 percent of GDP in 2023 and automatic adjustment of pension benefits following the 2004 pension reforms which ensure that the pension system remains fully funded.

Figure 9. Japan: Demographics - Health

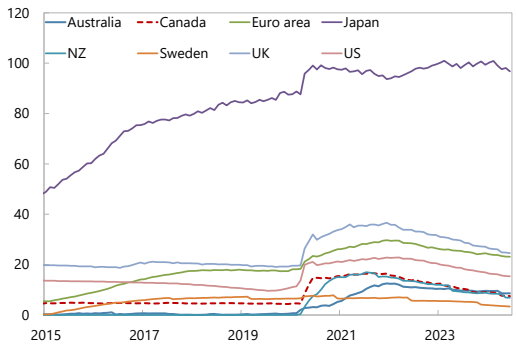


Commentary: Japan's demographics are set push up already high GFN in the long term, which rising above 100 percent of GDP by 2038. Should additional excess cost growth (ECG) occur at the standard 1.4 percent, GFN would be about 25 pp higher by 2052.

Annex VIII. Quantitative Tightening in Japan[1]

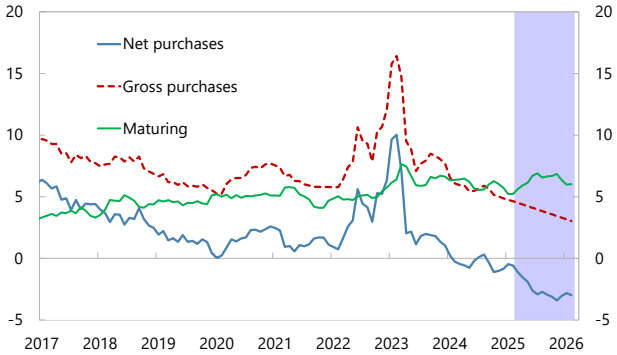
1. The Bank of Japan's (BoJ) initiation of Quantitative tightening (QT) in July 2024 marks a final step in the shift away from its longstanding Quantitative and Qualitative Easing (QQE) with Yield Curve Control (YCC).[2] The BoJ has steadily reduced its purchases of Japanese Government Bonds (JGBs) since early 2023, alongside adjustments to widen the YCC target range. After exiting the negative interest rate policy (NIRP) in March 2024, the BoJ announced plans on 31st July 2024 to reduce JGB purchases so that net holdings decline. At this early stage of the process of QT, the BoJ still maintains significant JGB holdings—equivalent to about 100 percent of GDP (Figure 1). This is substantially higher than sovereign bond holdings by other major central banks.

Figure 1. Central Bank Government Bond Holdings (Percent of GDP)



Sources: Haver Analytics and national central banks.

Figure 2. Estimated Changes in BoJ JGB Holdings (Trillion yen, three-month average)



Source: IMF staff calculations.

2. QT is necessary to align balance sheet policy with the primary monetary policy tool while also reducing financial risks to the BoJ and creating policy space in the event of a return to NIRP. Quantitative easing has become an important tool for central banks given the prevalence of effective lower bound constraints following the global financial crisis. Reducing the size of the balance sheet will complement the shift towards a less accommodative policy stance given recent increases in the short-term policy rate, while also freeing up policy space if the BoJ faces lower-bound constraints in the future. Maintaining a large stock of holdings has been found to compress the term premium and lower bond yields, potentially providing unnecessary stimulus (Nakazawa and Osada 2024). QT is estimated to have a contractionary effect on output and inflation, although it is thought to be asymmetric relative to QE, resulting in a more modest effect (Erceg and others 2024).[3] Reducing the size of the balance sheet can also limit the risk of financial losses to the BoJ if interest payments for the remuneration of excess reserves continue to rise, creating a mismatch relative to

[1] This Annex was prepared by Gene Kindberg-Hanlon (RES) and Danila Smirnov (APD).

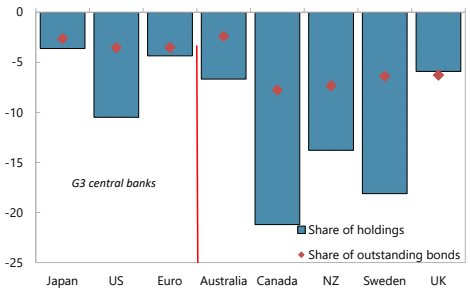
[2] Quantitative tightening refers to the process of central bank balance sheet reduction, which may be achieved through passive means—where tapering in reinvestment of maturing assets is results in a net reduction in asset holdings—or through active asset sales. Here the term QT encompasses both approaches.

[3] Some studies have also pointed to widening spreads and decreased transaction volumes where JGB holdings by the BoJ are high, potentially impairing market functioning (Fukuma and others 2024).

interest receipts from low-yielding bonds. Passive QT will reduce the stock of outstanding reserves as bonds mature, limiting the increase in interest expense if the policy rate rises. However, active QT, involving the sale before maturity of JGB holdings, could crystalize losses for the BoJ on bonds that have lost value due to rising interest rates.

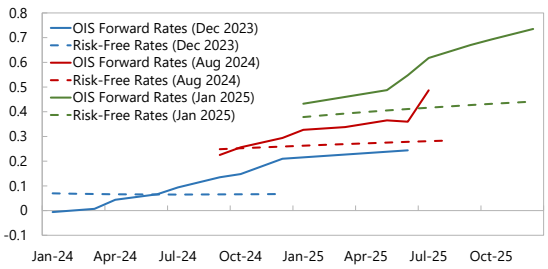
3. The scale of planned balance sheet reduction in Japan is modest relative to other central banks, consistent with BoJ's gradual approach to reducing policy accommodation. By Q1 2026 gross purchases of JGBs will fall to approximately half their average size in the first half of 2024, although some flexibility is reserved to vary the size of purchases in response to market conditions. The BoJ's planned pace of balance sheet reduction is initially modest, with little change in total JGB holdings until early 2025 (Figure 2). Planned reductions are relatively small compared to other countries that have already begun to reduce their balance sheets, even though the average maturity of its bond holdings is similar (Figure 3). The more modest pace is consistent with expectations of a gradual and limited pace of policy rate tightening in Japan compared to 4-5 percentage point rises in other central banks that have engaged in QT (Figure 4).

Figure 3. One-Year Reduction in Bond Holdings after QT Announcement
(Percent/percentage points)



Sources: Haver Analytics, IMF staff calculations, and National Central Banks.
Note: Estimated for Japan.

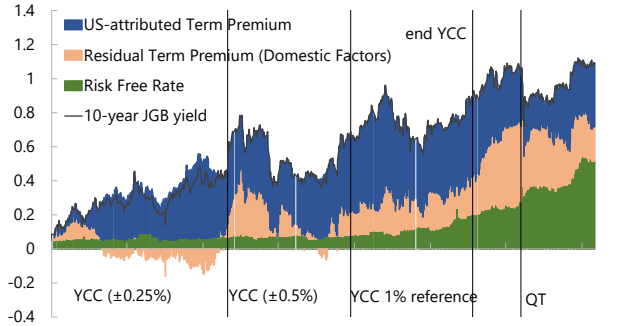
Figure 4. Overnight Index Swaps (OIS) Curves (Dashed line represents the path of the risk free rates)



Source: Refinitiv Eikon.
Note: Risk Free OIS is from the ACM decomposition of yields into Risk Free component and Term Premium.

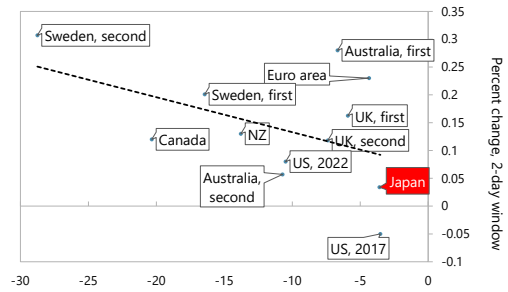
4. Bond yields in Japan have risen steadily following the BoJ's exit from YCC, the negative interest rate policy (NIRP), and the start of balance sheet reduction. JGB yields at a range of maturities have risen since late-2022 as the target range for 10-year JGBs was gradually raised under the YCC framework and expectations for the future policy rate increased (Figure 5). Term premia and risk-free interest rate expectations—estimated using the methodology of Adrian, Crump, and Moench (2013)—have both increased over this period, as expected following a decline in balance-sheet stimulus and the start of the hiking cycle. External factors have played a more prominent role in JGB price movements as YCC constraints were relaxed. Declines in UST yields played a role in compressing JGB term premia in August and September after the commencement of QT. Excluding the estimated effects of external factors, term premia were about 20-30bps higher than their level in 2022 at the end of 2024.

Figure 5. 10-Year JGB Yield ACM Decomposition (Term premium decomposed into US-attributed and residual by OLS regression)



Sources: Refinitiv Eikon and IMF Staff calculations.

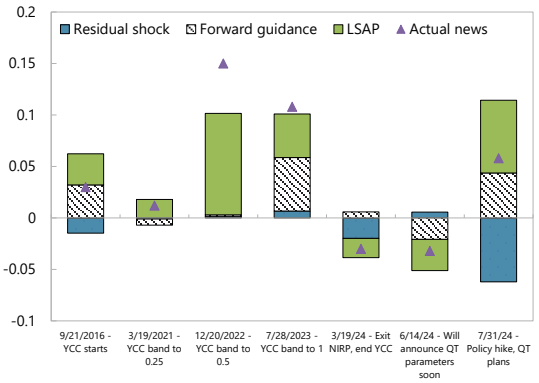
Figure 6. Bond Yield Reactions vs One Year Fall in Bond Holdings



Sources: Haver Analytics, IMF staff calculations, and National Central Banks.
Note: Change in 10-year yields around QT announcements where the pace of reduction was given. Several CBs have made several announcements on the pace of reduction ('first', 'second'), while US instances also include a pre-COVID episodes (2017).

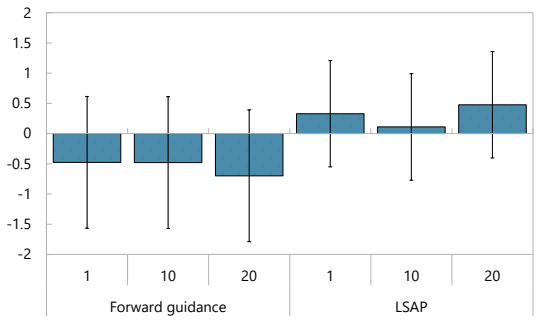
5. The market reaction to QT announcements has been small, reflecting a well-executed communication strategy and modest size of balance sheet reduction. Alongside the announcement of QT on July 31, the BoJ also increased the policy rate, while some market participants had expected the policy rate to remain on hold. Despite these two policy changes, the 10-year JGB yield increased by only 6bps following the meeting. This was small in comparison to the average 8bps increase following QT announcements by other central banks. This partly reflected prior communication that QT would soon commence. In addition, the FOMC also had a policy meeting and press conference on the same day that led markets to revise down US policy rate expectations, which may have had negative spillovers to JGB yields. The scale of the reduction in bond holdings is correlated with the initial response of bond yields across countries (Figure 6). However, there may be other factors which offset the positive impact of the QT announcement that are not well captured by the simple event-study methodology, and we next extend our analysis to a more sophisticated structural analysis of asset price news.

Figure 7. Monetary Policy Shocks Contribution to 10-Year Yields (Percent)



Source: IMF staff calculations.

Figure 8. Exchange Rate Effects of Contractionary Policy Shock (Percent)



Source: IMF staff calculations,
Note: Local projection estimates with 90% error bands shown (Newey West errors). One standard deviation shock effect. Time horizon in days. Positive effect is an appreciation of the yen-dollar exchange rate.

6. A structural decomposition of monetary policy news suggests that the QT announcement has had modest impacts on bond yields that were similar to other recent balance sheet policy changes. Policy meetings often produce news about multiple aspects of monetary policy, a modification of the methodology of Swanson (2021) decomposes the news to asset prices into three factors: measures related to forward guidance, large-scale asset purchase (LSAP) program news and a residual factor, which also incorporates policy rate news. The methodology imposes several restrictions on three common factors estimated on 1-day asset price news following BoJ meetings since 2010 to identify these shocks.[4] The announcement effect of QT (an LSAP policy change) has resulted in a similar bond yield response to those at the time of the withdrawal of other unconventional balance sheet policies, such as widening YCC target bands in 2023 (Figure 7). Some of the asset price reaction is also identified as reflecting forward guidance (for example, from the new macroeconomic forecasts and statements at the July meeting), although price moves were dampened by the unexplained residual factor.

7. News to balance sheet policies has had limited effects on the exchange rate, although QT and other balance sheet policy announcements in Japan can have important financial market spillovers abroad. Policy surprises in Japan are likely to have had broader impacts than just domestic bond prices. A local projection estimate is used to assess the impact of these surprises on the exchange rate and abroad using the following equation:

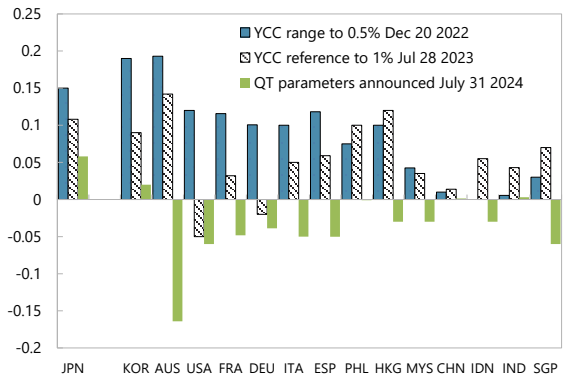
$$y_{i,t+h} - y_{i,t-1} = \alpha_i + \beta^h_{lsap}\delta\epsilon^{LSAP\ shock}_t + \beta^h_{FG}\delta\epsilon^{FG\ shock}_t + \beta^h_{resid}\delta\epsilon^{resid\ shock}_t + \sum_{i=1}^{j}\beta^i_{lag}\Delta y_{t-1-i}$$

Where y reflects the dependent variable of interest, h measures the horizon of interest in days, δ is a dummy variable that can filter for contractionary or expansionary shocks. Using the local projection framework, it is found that contractionary LSAP shocks such as QT are estimated to have had only a small and statistically insignificant impacts on exchange rates (Figure 8). This contrasts with findings for the US, where LSAP policy shocks have been found to have large impacts on the exchange rate, even as policy shocks do not (Erceg et. al, 2024). Reduced form evidence suggests that LSAP shocks have been more important for spillovers abroad however. On the dates of major balance sheet policy changes, including adjustments to YCC reference bands, foreign bond yields have moved sharply higher alongside JGB yields (Figure 9). However, following the announcement of QT in July 2024, foreign bond yields in Asia and the US reacted little, and in many cases fell. This partly reflects the offsetting effect of the FOMC policy meeting on the same day that led markets to price in a lower path for the Federal Funds rate. To assess "typical" spillovers following news to LSAP policies

[4] Using a dataset consisting of Japanese shorter-maturity OIS rates, medium and long-term bond yields, the 10-year term premium, and equities and exchange rates, daily price changes in these asset prices are computed on the days of BoJ policy announcements. These are then purged of effects that may be driven from overseas factors (US yield changes) and economic data releases (Citi economic surprise index). 3 common factors for these changes are identified (which together explain over 80% of their variance). These factors are rotated to establish structural drivers using the following restrictions: 1) the forward guidance and LSAP news shocks cannot impact the 1-week OIS news. 2) The LSAP shock is identified as the shock which maximizes the variance on the 10-year term premium, but cannot drive more variation of the 1-year OIS rate than the forward guidance shock (given purchases have tended to be for longer maturities). The latter restriction is similar to that used by Lewis (2023) in an extension of Swanson (2021). The final shock is a residual shock, which also captures policy rate news (where there have only been three changes since 2010).

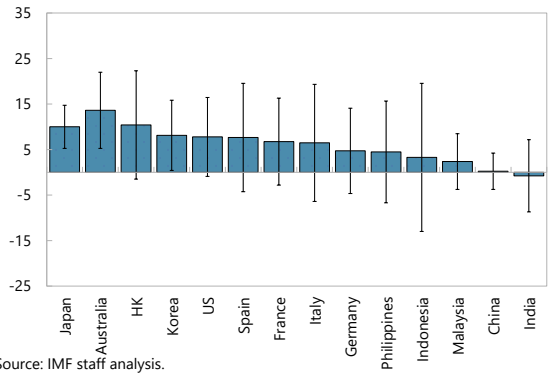
by the BoJ, we use the same local projection model used to assess exchange rate impacts, replacing the dependent variable with foreign bond yields. Results show large and sometimes statistically significant spillovers to Australian bonds and some other major Asian economies, although identification is challenged by the limitations of daily data (Figure 10).

Figure 9. Government 10-Year Bond Yield Changes Following BoJ Policy Announcements (One Day) (Percentage points)



Source: Haver Analytics.

Figure 10. 10-Year Government Bond Spillovers from LSAP Policy Shocks in Japan (Basis points)



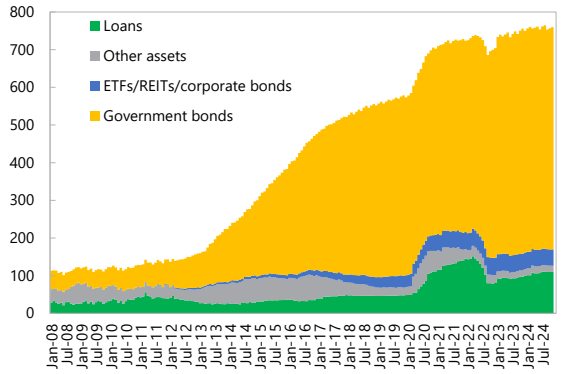
Source: IMF staff analysis.
Note: LSAP policy shock scaled to be consistent with a 10bps rise in JGB yields. Average impact over 10 days reported. One-standard deviation errors shown.

8. Despite the mild reaction of the markets so far, caution is needed, particularly if the pace of balance sheet reduction needs to adjust to changing macroeconomic or financial market conditions. While the BoJ has begun to reduce its holdings of JGBs through QT, it has concurrently expanded lending to financial institutions to support climate change mitigation and adaptation efforts, among other things, explaining most of the increase in loans since 2023 (Figure 11). This expansion in lending injects additional liquidity into the financial system, offsetting the absorption achieved through the net reduction of JGB holdings. As a result, the balance sheet's size remains elevated. This contrasts with other central banks that have engaged in QT, where collateralized lending has declined significantly. The effects of QT on bond yields are likely to be more pronounced when central bank reserves are low, for example, following a decline in central bank lending (Du and others 2024). In October 2019, the Federal Reserve had to restart its purchases of short-term Treasury bills shortly after concluding QT, as short-term funding market volatility increased due to a shortage of central bank reserves. In addition, a more rapid reduction of bond holdings may be necessary if the monetary policy stance is deemed too expansionary. The reaction of bond yields may exhibit non-linearity to a changed pace of balance sheet reduction, and existing market reactions to QT may not be a good guide to the future where reserves are less abundant.

9. Risks to the absorption of JGB issuance are elevated if a higher-for-long environment persists abroad or in the event of adverse reactions to government policies. The BoJ has drastically increased its share of JGB holdings since the start of QQE in 2013, largely in place of the domestic financial sector (Figure 12). As the BoJ reduces its balance sheet, other sectors must be willing to compensate for this decline without a spike in yields. The experience of other countries that have engaged in QT suggests that the domestic non-bank sector is the most likely to increase

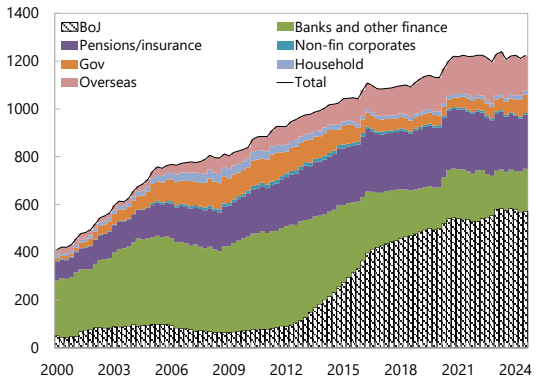
its share of holdings as the BoJ reduces its footprint (Du and others, 2024). A key risk is if overseas interest rate differentials with JGBs remain elevated—domestic and overseas buyers may require increasingly high yields to compensate for the BoJ's balance sheet contraction. A second risk is if investor concerns about fiscal policy and inflation in Japan weigh on market sentiment and lead to higher yields and rapid bond sales by certain sectors. Following the September 2022 "Mini budget" announcement in the UK, government bond yields rose sharply, and the Bank of England intervened to purchase gilts after domestic pension funds with levered positions began selling in high volume. The Bank of England also delayed plans to begin active sales of UK gilts in light of this turbulence. The BoJ should stand ready to adjust the pace of balance sheet reduction as similar risks cannot be ruled out.

Figure 11. Bank of Japan Accounts: Assets
(Trillion yen)



Sources: Bank of Japan and Haver Analytics.

Figure 12. JGB Holdings by Sector
(Trillion yen)



Sources: Bank of Japan and Haver Analytics.

Annex IX. Aging, Labor Markets, and Artificial Intelligence[1]

1. Japan's labor market is expected to witness a significant transformation in the medium-to-long term driven by population aging and advances in Artificial Intelligence (AI). Japan is aging rapidly, with 29 percent of its population over 65 and about 10 percent over 80. These trends are expected to continue with close to 40 percent of the population over 65 by 2065. Aging has already had a sizable impact on Japan's labor market, with more than 25 percent of seniors (aged 65 and over) working. At the same time, Japan has been at the forefront in automation (IMF, 2018) and the rapid development in AI has the potential to reshape the labor market in Japan (IMF, 2024).

2. Japan's seniors have a relatively high labor force participation rate, but with a concentration in non-regular employment. Compared with other OECD countries, Japan's labor force participation among senior workers is one of the highest.[2] Government policies to increase public pension eligibility age from 60 to 65 starting in 2001 and mandate employers to offer employment opportunities for workers aged 60-65 since 2006 have contributed to this outcome. However, 45 percent of employees aged 60 and older —and 53 percent of those ages 65 and older—work in non-regular positions. While a survey by the Ministry of Health, Labor and Welfare (MHLW) shows that seniors proactively choose non-regular positions to take advantage of the flexibility, this may be also influenced by current policies. First, as discussed in literature including Hagiwara (2021), pension benefits are cut if seniors earn more than certain income threshold,[3] which creates incentives for seniors to opt for non-regular jobs and adjust their working hours and incomes. Second, under current policies,[4] corporates can maintain the retirement age at 60, giving them the flexibility to employ the senior workforce through non-regular contracts at a lower cost. In such companies, employees retire at age 60 and typically enter reemployment contracts. This allows corporates to offer senior workers non-regular jobs with less stringent employment protection rules and lower salaries.

3. Japan's seniors are an important source of labor supply across all industries and have witnessed an increase in labor mobility. While seniors' share in employment is considerable in all industries, the workers aged 60 and older are overrepresented in service-related and construction industries. Manufacturing and wholesale/retail are major industries for both men and women, but a

[1] Prepared by Kohei Asao (APD), Haruki Seitani (OAP), Ara Stepanyan (APD), and TengTeng Xu (MCM).

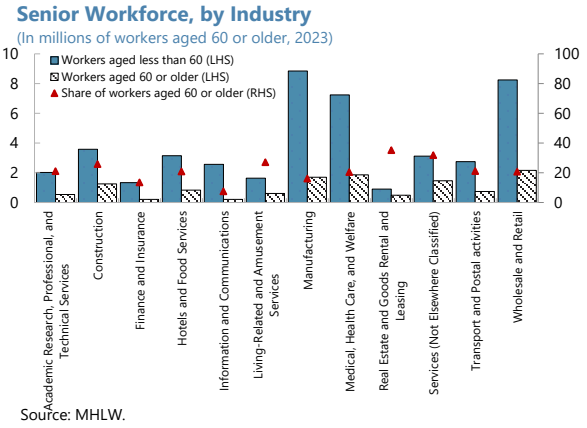
[2] The forthcoming April 2025 *World Economic Outlook* Chapter 2 indicates that recent evidence of healthy aging might offer opportunities for seniors to work longer.

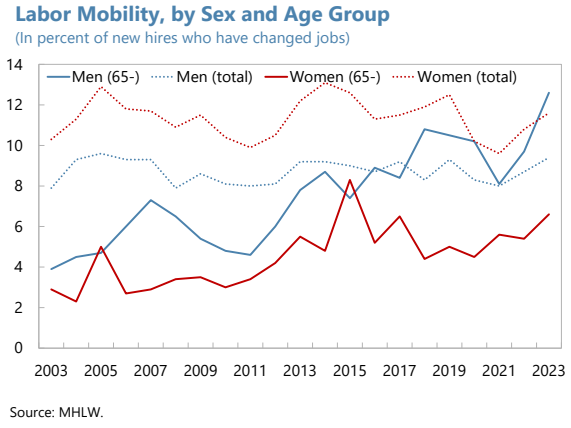
[3] If the total amount of wages and the pension (received from the Employees' Pension Insurance) of employees aged 65 and over exceeds 500,000 yen (FY24 threshold) per month, part or all of the pension benefits will be cut. As of November 2024, this measure affects 16 percent of the pension recipients.

[4] Employers are obliged to ensure employment for employees aged 60-65 by implementing one of the following options: (1) raising the retirement age from 60 (the legally allowed minimum) to 65, (2) offering continuous employment to those interested, or (3) abolishing the retirement age. Additionally, for employees aged 65-70, employers are obliged to make efforts to ensure employment by implementing one of the authorized options (e.g., offering continuous employment for those interested). In 2023, 66 percent of companies set the retirement age at 60.

relatively large share of senior men work in construction, whereas senior women are more likely to be employed in the medical-related services sectors. Seniors also demonstrate an increase in labor mobility. Mobility (measured by the share of new hires that have changed jobs) has been trending upwards for workers ages above 65 from early 2000s, while that for the total workforce has been flat. By gender and age cohort, men ages above 65 have the highest rise in mobility rate over the past decades. By sector, service-related occupations such as hotels and food services have relatively high labor mobility, particularly for part-time workers.

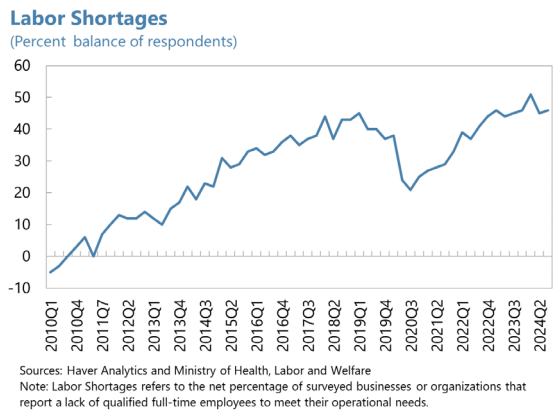
Aging and Labor Market Outcomes

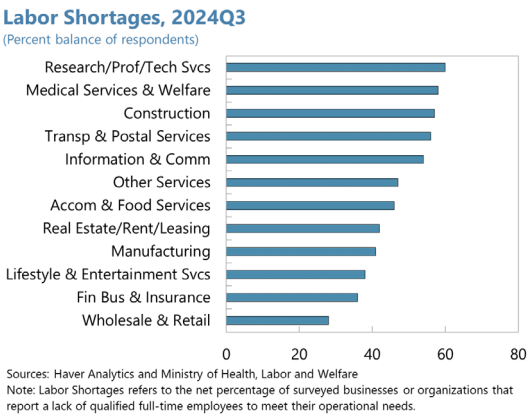




Sources: Japan Labor Force Survey, Ministry of Health, Labor and Welfare, Haver Analytics, and IMF staff calculations.

Labor Shortages





Sources: Japan Labor Force Survey, Ministry of Health, Labor and Welfare, Haver Analytics, and IMF staff calculations.

Note: Labor shortages refers to the net percentage of surveyed business or organizations that report a lack of qualified full-time employees to meet their operational needs.

4. Despite high labor force participation and increasing labor mobility among seniors, aging has contributed to labor shortages. Labor shortages in Japan have intensified over the last decade reaching a record high in 2024. In 2024, around half of Japanese firms reported labor

shortages. Construction, ICT, and medical services are sectors facing the most severe labor shortages. Staff analysis based on a cross-sectoral panel regression, which controls for new job openings, sectoral labor force growth, sectoral value-added growth, wage growth, change in average hours worked as well as sector and time fixed effects suggests a statistically significant and negative association between the share of firms reporting labor shortages and the 5-year lag of the share of employees ages 15-34.[5] Given the current demographic trends, this might suggest that labor shortages are likely to intensify further going forward.

5. Aging seems to have also weighed on labor productivity in Japan. Using the Japan Industrial Productivity data that covers about 100 sectors, panel regression results suggest that aging in the labor force (measured by the share of workers aged 55 and older) is negatively associated with labor productivity growth.[6] This finding is in line with the literature that identified negative link between aging and productivity (Westelius and Liu (2016) and Maestas, Mullen, and Powell (2023)).

6. Automation has been Japan's natural response to aging-induced labor shortages, strongly supported by the government. Embracing automation as a pillar of economic revitalization, the government aims to address demographic challenges. Japan's software investments—an essential aspect of automation—are negatively correlated with the share of workers aged 34 and younger, suggesting that an aging population may have accelerated automation. Japan leads in the adoption of industrial robots, boasting one of the highest robot densities in the manufacturing industry in 2022. It also ranks among the top globally for annual installations of industrial robots and is one of the world's leading producers of robots.[7] Intensive automation has significantly reduced the share of routine occupations in employment since 2000. The literature indicates that automation has not impacted Japan's overall employment, as the displacement of routine manufacturing jobs has been offset by increased employment in the service sector. On a more granular level, prefectures with higher exposure to robots have experienced greater productivity and employment growth, although low-skilled and female workers may have been adversely affected as they tend to work in highly automatable occupations.

7. Japan's workers are less exposed to the next wave of innovation, AI. To examine the impact of the next wave of innovation, AI, on the labor market, staff examines the exposure and complementarity of occupations to AI, based on the approach in IMF (2024). Compared with other G7 economies, Japan has a larger share of workers with low exposure to AI, driven by a relatively sizable share of service workers compared with other countries, possibly due to Japan's aging population. At the same time, the share of workers that have high exposure and low

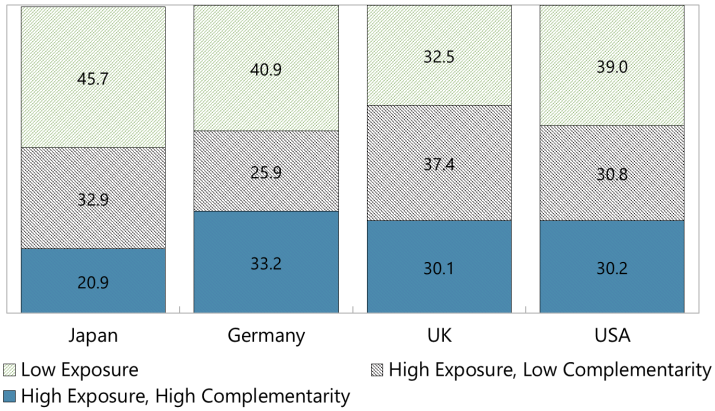
[5] As a robustness check, we also used the share of seniors (ages 55 and above) in employment instead of young workers with similar qualitative results.

[6] The analysis also controls for the share of part-time and female workers, which did not have a significant impact on productivity.

[7] Over recent years, the export value of robots has been approximately three times that of domestic shipments.

complementarity to AI is larger compared with the United States or Germany.[8] By gender, women tend to concentrate in high exposure and low complementarity occupations, with great risks of being displaced. By age group, the cohort of 65 years old and above is least exposed to AI, as most of this age group concentrates in service-related occupations that cannot be easily replaced by AI. However, the 55 to 64 age cohorts are vulnerable to the introduction of AI, as they tend to work in clerical and sales-related occupations with greater risks of being displaced. Although their vulnerability to AI is not higher compared with younger cohorts.

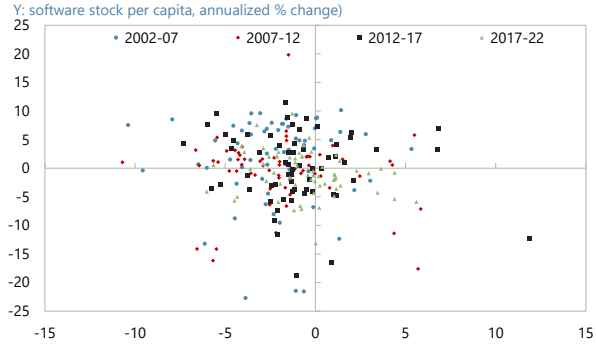
Select G7 Economies: AI Exposure and Complementarity
(In percent share)



Note: Data for Japan, UK and USA as of 2023; DEU as of 2022.
Source: Japan Labor Force Survey, ILO, and IMF staff estimates.

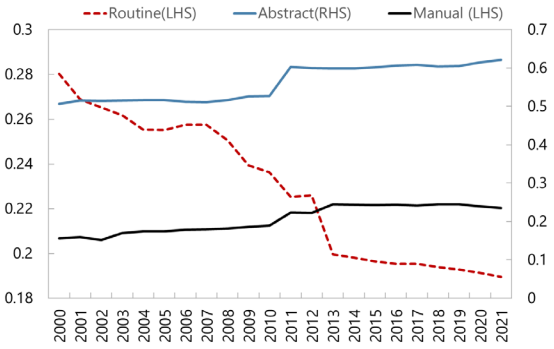
Aging, Automation, and Labor Market

Employment and Software Investment
(X: workers aged 15-34 relative to total employment,
Y: software stock per capita, annualized % change)



Sources: MIAC and RIETI.

Employment Share by Occupation in Japan



Sources: ILO and IMF Staff Calculations

8. Advances in AI may help address Japan's labor shortages only to a limited extent. In 2023, 14 percent of all workers were seniors (65 and older). The share of seniors in top five sectors that report most severe labor shortages ranges from 2.5 percent (ICT) to 17 (construction) percent. Construction and transportation services sectors have more seniors in low AI exposed occupations, limiting AI's ability to replace them. In scientific research and technical services, seniors are concentrated in professional and clerical occupations. While both face high AI exposure, clerical workers have low complementarity, allowing AI to mitigate aging-induced labor shortages. In

[8] "Exposure" to AI is defined as the degree of overlap between AI applications and required human abilities each occupation (Felten, Raj and Seamans, 2021, 2023). "Complementarity" reflects an occupation's likely degree of shielding from AI-driven job displacement but with high complementarity potential (Cazzaniga and others, 2024).

medical and healthcare services, AI can't address aging-induced labor shortages because seniors work in occupations with either low AI exposure or high AI exposure and high complementarity.

9. The confluence of an aging population and AI adoption will likely heighten the importance of skill transferability between occupations, crucial for labor mobility. Population aging will worsen labor shortages, while AI could displace jobs with high AI exposure and low complementarity. The literature suggests that the likelihood and cost of labor mobility across occupations depend on the similarity of skill sets between occupations. Following Gathmann and Schönberg (2010), we construct a measure of skill distance between occupation pairs using skill content data from Occupational Information Network of Japan (Table 2). The results suggest high task similarities between managerial and professional workers, both of which are highly exposed to AI and have high complementarity, though their knowledge requirements are somewhat further apart. Conversely, occupations with low AI exposure have very different task and knowledge requirements compared to those with high AI exposure, limiting labor mobility between them. While differences in task requirements between low and high complementarity occupations with high AI exposure are moderate, their knowledge requirements differ more. Task and knowledge requirement differences across occupations highlight the importance of targeted occupation-oriented active labor market policies to reskill the labore force to help displaced workers move to occupations in demand.

Table 1. Japan: Share of Workers 65+ in Employment by Sectors and Occupation, 2023

	Total	Administrative and managerial workers	Professional and engineering workers	Clerical workers	Sales workers	Service workers	Security workers	Agricultural, forestry and fishery workers	Manufacturing process workers	Transport and machine operation workers	Construction and mining workers	Carrying, cleaning, packaging, and related workers
All industries	14	32	8	7	11	17	17	52	11	20	16	24
Mining and quarrying of stone and gravel	0	0	0	0	0	0	0	0	0	0	0	0
Construction	**17**	**35**	**13**	**15**	**13**	**100**	**100**	**33**	**13**	**27**	**16**	**43**
Manufacturing	8	29	3	6	6	0	0		9	20	33	16
Information and communications	**3**	**20**	**2**	**3**	**5**	0	0	0	**20**	0	**0**	**0**
Transport and postal activities	**12**	**33**	**0**	**8**	**0**	**0**	**50**	0	**0**	**16**	**0**	**9**
Wholesale and retail trade	13	33	10	9	11	0	100	0	17	20	17	19
Finance and insurance	5	0	0	2	9	0	0	0	0	0	0	0
Real estate and goods rental and leasing	27	50	33	13	27	40	0	0	0	50	0	43
Scientific research, professional and technical services	**13**	**20**	**15**	**9**	**10**	**0**	0	**0**	**7**	**0**	**13**	**0**
Accommodations, eating and drinking services	14	25	25	8	5	14	0	0	0	0	0	30
Living-related and personal services and amusement ser	20	33	7	9	14	20	0	33	20	0	0	35
Education, learning support	10	33	9	8	0	13	0	0	0	67	0	43
Medical, health care and welfare	**12**	**33**	**7**	**7**	**0**	**16**	**50**	0	**14**	**67**	0	**43**
Compound services	4	0	0	3	0	0	0	100	0	0	0	14
Services, N.E.C.	22	33	19	10	6	38	38	100	14	20	0	37

Sources: Ministry of Health, Labor, and Welfare and IMF staff Calculations.
Note: The table shows the share of workers age 65+ for each occupation in each sector. Occupations marked red are those that have high AI exposure and complementarity, blue occupations are the ones with high AI exposure but low complementarity, while the black colored occupations are the ones with low AI exposure. Top five sectors with the most labor shortages are marked green.

10. Our results highlight important implications of aging and AI for Japan's labor market. Japan's senior workers have a relatively high labor force participation rate and more mobility, but they tend to concentrate in non-regular positions with shorter working hours. Despite the government's initiatives to promote more employment among seniors, aging is negatively associated with labor shortages and with labor productivity. While Japan's senior workers are less exposed to AI compared with younger cohorts, certain occupations where seniors tend to work such as clerical and sales work tend to be vulnerable. Skill transferability between different occupations vary considerably highlighting the role for labor market policies to facilitate labor mobility.

Table 2. Japan: Skill Distance Across Occupations

Tasks \ Knowledge	Administrative and managerial workers	Professional and engineering workers	Clerical workers	Sales workers	Service workers	Security workers	Agricultural, forestry and fishery workers	Manufacturing process workers	Transport and machine operation workers	Construction and mining workers	Carrying, cleaning, packaging, and related workers
Administrative and managerial workers	0.00	0.27	0.20	0.16	0.53	0.42	0.64	0.71	0.80	0.57	0.90
Professional and engineering workers	0.08	0.00	0.46	0.46	0.52	0.21	0.64	0.64	0.75	0.55	0.91
Clerical workers	0.17	0.18	0.00	0.23	0.43	0.38	0.69	0.80	0.68	0.68	0.65
Sales workers	0.22	0.33	0.09	0.00	0.33	0.64	0.58	0.79	0.73	0.69	0.72
Service workers	0.80	0.82	0.51	0.42	0.00	0.53	0.58	0.87	0.57	0.81	0.41
Security workers	0.14	0.07	0.22	0.39	0.76	0.00	0.65	0.65	0.48	0.54	0.66
Agricultural, forestry and fishery workers	0.71	0.74	0.94	0.85	0.58	0.71	0.00	0.38	0.39	0.42	0.35
Manufacturing process workers	0.64	0.61	0.90	0.90	0.76	0.61	0.12	0.00	0.36	0.21	0.38
Transport and machine operation workers	0.91	0.90	0.92	0.85	0.35	0.78	0.15	0.24	0.00	0.37	0.17
Construction and mining workers	0.43	0.48	0.78	0.71	0.81	0.50	0.17	0.13	0.41	0.00	0.49
Carrying, cleaning, packaging, and related workers	0.95	0.99	0.80	0.69	0.15	0.92	0.29	0.43	0.11	0.58	0.00

Source: Occupational Information Network of Japan and IMF staff calculations.
Note: Skill distance index measures the degree of skill dissimilarity required by two occupations. Skill distance=0 if two occupations require the same skill set and =1 if two occupations require entirely different skill sets. Occupations marked red are those that have high AI exposure and complementarity, blue occupations are the ones with high AI exposure but low complementarity, while the black colored occupations are the ones with low AI exposure.

11. These results point to several important policy implications for the labor market. First, they highlight the importance of introducing active labor market policies to expand employment opportunities for seniors. In addition, removing the disincentives caused by the income cap to remain eligible for pension benefits could boost seniors' participation in the labor market. Second, training programs with an emphasis on IT and AI-related skills are crucial to improve the complementarity of AI on the labor force and to improve the productivity of senior workers. Third, attracting foreign workers to close the gap of labor shortages may be needed, against the backdrop of a rapidly declining working age population, particularly for occupations that cannot be addressed by AI or automation. Fourth, improving labor market mobility and reducing barriers to job switching would help address the labor shortages due to aging and the potential job displacement impact of AI. Subsidized occupation-oriented on-the-job training programs could help reskill/upskill the labor force and facilitate labor mobility.

Annex X. Data Issues

Table 1. Japan: Data Adequacy Assessment for Surveillance

Data Adequacy Assessment Rating 1/							
A							
Questionnaire Results 2/							
Assessment	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-sectoral Consistency	Median Rating
	A	A	A	A	A	A	A
Detailed Questionnaire Results							
Data Quality Characteristics							
Coverage	A	A	A	A	A		
Granularity 3/	A		A	A	A		
			A		B		
Consistency			A	A		A	
Frequency and Timeliness	A	A	B	A	A		

Note: When the questionnaire does not include a question on a specific dimension of data quality for a sector, the corresponding cell is blank.
1/ The overall data adequacy assessment is based on staff's assessment of the adequacy of the country's data for conducting analysis and formulating policy advice, and takes into consideration country-specific characteristics.
2/ The overall questionnaire assessment and the assessments for individual sectors reported in the heatmap are based on a standardized questionnaire and scoring system (see IMF *Review of the Framework for Data Adequacy Assessment for Surveillance* , January 2024, Appendix I).
3/ The top cell for "Granularity" of Government Finance Statistics shows staff's assessment of the granularity of the reported government operations data, while the bottom cell shows that of public debt statistics. The top cell for "Granularity" of Monetary and Financial Statistics shows staff's assessment of the granularity of the reported Monetary and Financial Statistics data, while the bottom cell shows that of the Financial Soundness indicators.

A	The data provided to the Fund are adequate for surveillance.
B	The data provided to the Fund have some shortcomings but are broadly adequate for surveillance.
C	The data provided to the Fund have some shortcomings that somewhat hamper surveillance.
D	The data provided to the Fund have serious shortcomings that significantly hamper surveillance.

Rationale for staff assessment. Japan's economic and financial sector databases are generally comprehensive and high quality. Data provision is adequate for surveillance. For Government Finance Statistics, there is room for improvement in the timeliness of disseminating quarterly general government operations data; while data on financial transactions is provided four months after the end of the reporting period, data on revenue and expenditure are released within 12 months of the end of the reporting period (precise timing depending on the particular quarter). For Financial Soundness Indicators, although Japan satisfies the SDDS Plus requirements, it lags behind other G7 economies in terms of the number of indicators submitted to the IMF. The granularity of data in "Balance Sheets and Income Statements" could be further improved to align with the coverage by peer economies. For instance, real estate-related loans data (including a breakdown between residential and commercial real estate exposures) should be disseminated or submitted, as it is highlighted as a potential source of vulnerability in the IMF's Financial Sector Assessment Program. Data gaps in systemic risk monitoring also remain in capturing non-bank and corporate hedging activity.

Changes since the last Article IV consultation. In June 2024, Ministry of Internal Affairs and Communications updated the input-output table from 2015 to 2020. In October 2024, the Ministry of Internal Affairs and Communications launched a task force to prepare for the quinquennial national census survey scheduled for October 2025.

Corrective actions and capacity development priorities. The authorities remain committed to engaging with staff to improve data dissemination. The Cabinet Office plans to adopt the 2025 SNA at the earliest opportunity following its expected approval by the United Nations Statistics Division, currently scheduled for March 2025 (SNA is the basis of fiscal accounting for the IMF).

Use of data and/or estimates in Article IV consultations in lieu of official statistics available to staff. Staff also uses international resources (such as BIS, FSB, and World Bank) and data from private sector (such as Bloomberg) to supplement its analysis on the financial sector and cross-country comparisons.

Other data gaps. No relevant for Japan.

Table 2. Japan: Data Standards Initiative

Japan adheres to the Special Data Dissemination Standard (SDDS) Plus since April 2016 and publishes the data on its National Summary Data Page. The latest SDDS Plus Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Table 3. Japan: Table of Common Indicators Required for Surveillance
(As of March 3)

	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Expected Frequency[6,7]	Japan[8]	Expected Timeliness[6,7]	Japan[8]
Exchange Rates	Mar. 3, 2025	Mar. 3, 2025	D	D	D	D	...	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	Feb. 2025	Mar. 3, 2025	M	M	M	M	1W	NLT 7D
Reserve/Base Money	Feb. 2025	Mar. 3, 2025	M	M	M	M	2W	NLT2D
Broad Money	Feb. 2025	Mar. 3, 2025	M	M	M	M	1M	8D
Central Bank Balance Sheet	Feb. 2025	Mar. 3, 2025	M	M	M	M	2W	NLT2D
Consolidated Balance Sheet of the Banking System	Feb. 2025	Mar. 3, 2025	M	M	M	M	1M	8D
Interest Rates[2]	Mar. 3, 2025	Mar. 3, 2025	D	D	D	...	D	D
Consumer Price Index	Jan. 2025	Feb. 21, 2025	M	M	M	M	1M	1M
Revenue, Expenditure, Balance and Composition of Financing[3]–General Government[4]	2024Q1	Jan. 31, 2025	Q	Q	A/Q	A/Q	2Q/12M	9M/12M
Revenue, Expenditure, Balance and Composition of Financing[3]–Central Government	2024Q3	Dec. 20, 2024	Q	Q	M	Q	1M	1Q
Stocks of Central Government and Central Government-Guaranteed Debt[5]	2024Q4	Feb. 10, 2025	Q	Q	Q	Q	1Q	NLT 1Q
External Current Account Balance	Dec. 2024	Feb. 10, 2025	M	M	Q	M	1Q	6-7W
Exports and Imports of Goods and Services	Jan. 2025	Feb. 19, 2025	M	M	M	M	8W	1M
GDP/GNP	2024Q4	Feb. 17, 2025	Q	Q	Q	Q	1Q	6W
Gross External Debt	2024Q3	Dec. 9, 2024	Q	Q	Q	Q	1Q	11W
International Investment Position	2024Q3	Dec. 9, 2024	Q	Q	Q	Q	1Q	NLT 72D

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Frequency and timeliness: ("D") daily; ("W") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual.; ("SA") semiannual; ("I") irregular; ("NA") not available or not applicable; and ("NLT") not later than.
[7] Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.
[8] Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have a National Data Summary Page, the entries are shown as "..."

INTERNATIONAL MONETARY FUND

JAPAN

STAFF REPORT FOR THE 2025 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

March 11, 2025

Prepared By

Asia and Pacific Department (In consultation with other departments)

CONTENTS

FUND RELATIONS

(As of February 28, 2025)

Membership Status: Joined: August 13, 1952; Article VIII

General Resources Account:

	SDR Million	Percent Quota
Quota	30,820.50	100.00
IMF's Holdings of Currency (Holdings Rate)	23,100.85	74.95
Reserve Tranche Position	7,734.24	25.09
Lending to the Fund		

SDR Department:

	SDR Million	Percent Allocation
Net cumulative allocation	41,825.03	100.00
Holdings	44,040.45	105.30

Outstanding Purchases and Loans: None

Latest Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Millions)	Amount Drawn (SDR Millions)
Stand-By	Mar 11, 1964	Mar 10, 1965	305.00	0.00
Stand-By	Jan 19, 1962	Jan 18, 1963	305.00	0.00

Overdue Obligations and Projected Payments to Fund [1]

(SDR Million; based on existing use of resources and present holdings of SDRs):

		Forthcoming			
	2025	2026	2027	2028	2029
Principal					
Charges/Interest	**0.32**	**0.32**	**0.32**	**0.32**	**0.32**
Total	**0.32**	**0.32**	**0.32**	**0.32**	**0.32**

[1] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Rate Arrangements:

Japan's de jure and de facto exchange rate arrangements are classified as free-floating. Since July 2024, Japan has not conducted foreign exchange intervention. The Ministry of Finance publishes foreign exchange intervention information on its website. Japan has accepted the obligations under Article VIII, Sections 2(a), 3 and 4 of the IMF's Articles of Agreement, and maintains an exchange system that is free of multiple currency practices and of restrictions on the making of payments and transfers for current international transactions, with the exceptions of restrictions imposed solely for the preservation of national or international security that have been notified to the Fund pursuant to Executive Board Decision No. 144–(52/51).

Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) Framework:

Japan underwent an assessment of its AML/CFT framework against the AML/CFT standard by the Financial Action Task Force (FATF) and the Asia/Pacific Group (APG) in 2021. The assessment found significant improvements since the 2008 evaluation, including amendments to the AML/CFT legislative framework which introduced the obligation to identify and verify beneficial ownership (BO) information of legal persons, the extension of the scope of customer due diligence (CDD) measures, including with regards to politically exposed persons (PEPs), and the adoption of enforceable guidelines for financial institutions (FIs) by financial supervisors. Nevertheless, significant deficiencies were identified, including technical gaps affecting the reporting of suspicious transactions by Designated Non-Financial Businesses and Professions (DNFBPs), the dissuasiveness of sanctions for ML offenses, and the implementation of UN-imposed targeted financial sanctions. Japan's AML/CFT regime was found to be only moderately effective in eight of the 11 areas reviewed, including ML investigation and prosecution, confiscation of proceeds of crime, AML/CFT supervision of FIs and DNFBPs, and transparency of legal persons. Three follow-up reports published by the FATF in 2022, 2023, and 2024 noted that the country had taken several actions to strengthen its AML/CFT framework further and revised upward the ratings on all the recommendations previously rated as less than "largely compliant" to satisfactory grades. The FATF follow-up reports only assess technical compliance and do not reflect progress that Japan has made to improve its effectiveness. However, some of the measures adopted to strengthen the effectiveness of the regime, notably with regards to AML/CFT supervision of FIs, implementation of adequate CDD measures, including for PEPs, by FIs and DNFBPs, and BO transparency of legal persons, have been reflected in Japan's 2024 FSAP and in this Staff Report, as well as some of the remaining weaknesses. In view of its achievements since the 2021 assessment, Japan will no longer be monitored by the FATF for the current evaluation cycle. Its next assessment is scheduled for 2028.

Article IV Consultation:

The 2024 Article IV consultation discussions were held between January 25 and February 9, 2024, with follow up virtual meetings in mid-March and early April; the Executive Board discussed the Staff Report (IMF Country Report No. 24/118) and concluded the consultation on May 6, 2024. The concluding statement, staff report, selected issues paper, and press release were all published.

FSAP:

A mandatory financial stability assessment was conducted in time for the 2024 Article IV consultation, pursuant to Decision No. 14736-(10/92), 15495-(13/111), 16849-(20/77). The Financial System Stability Assessment (FSSA) report for the 2024 assessment has been published and is available on the IMF website.

Technical Assistance: None

Resident Representatives: None

Statement by Jun Mizuguchi, Executive Director for Japan,
Shuntaro Hara, Alternate Executive Director, and Motofumi Umemura, Senior Advisor to the Executive Director, Keigo Ando, Advisor to the Executive Director, and Yui Matsui, Advisor to the Executive Director
March 26, 2025

On behalf of Japan's authorities, we welcome the constructive policy discussions held from January to February and thank the Japan team led by Ms. Choueiri for their insightful report. We broadly concur with the staff's views on Japan's economy and their policy advice. We would like to emphasize the following specific points.

Recent Economic Developments and Outlook

The Japanese economy is now at a critical juncture, transitioning from a long-standing cost-cutting model to a growth-oriented economy driven by wage increases and investments. The economy is recovering at a moderate pace, although it remains pausing in part. Growth for 2024 is estimated at 0.1 percent, with Q4 GDP increasing by 0.6 percent (q/q). Business investment and private consumption have been rising moderately. On the price front, the Consumer Price Index (CPI), excluding fresh food, has been picking up, rising by 3.2 percent (y/y) in January. Looking ahead, the economy is expected to continue recovering moderately, supported by an improving employment and income environment. The preliminary results of the annual spring wage negotiations, announced on March 14, showed a 5.5 percent increase in nominal terms, indicating a sustained trend of strong wage growth. The Bank of Japan (BOJ) projects CPI, excluding fresh food, to be in the range between 2.2 to 2.6 percent (y/y) in FY 2025, gradually falling to around 2 percent in FY 2026. At this juncture, it is essential to create an environment where wage growth consistently outpaces price increases, boosting private consumption, with steady corporate capital investment, and thereby ensuring a smooth transition to a growth-driven economy.

There remain downside risks to growth stemming particularly from external factors, as noted in the staff report. We remain vigilant regarding the risks posed by uncertainties surrounding economic downturns in major economies such as China and policy developments abroad. These external risks could affect consumer sentiment and, in turn, weigh on private consumption. Further, in light of the goal of achieving sustained real wage growth and the virtuous cycle of wage-price inflation, exchange rate pass-through to inflation has an important implication under the low-inflation environment as a factor that compresses real wage growth.

Monetary Policy

Since the last Article IV consultation, steady progress has been made toward achieving the BOJ's price stability target in a sustainable and stable manner, with a virtuous cycle between wages and prices gradually intensifying. The discontinuation of the negative interest rate policy

and yield curve control in March 2024 was followed by interest rate hikes in July 2024 and January 2025, bringing the current short-term policy interest rate to around 0.5 percent. The BOJ's balance sheet reduction is proceeding smoothly after announcing the plan to reduce its purchase amount of Japanese government bonds. These policy announcements are reflective of the BOJ's assessment that Japan's economic activity and prices have been developing generally in line with its outlook. On the price front, underlying CPI inflation has been increasing gradually towards 2 percent, as wages continue to rise.

The BOJ will continue to conduct monetary policy in a data-dependent manner, paying due attention to various risk factors at home and abroad. Real interest rates have started to increase but remain significantly negative, and the financial conditions remain accommodative. While the future conduct of monetary policy will depend on developments in economic activity and prices as well as financial conditions, the BOJ will continue to raise the policy rate and adjust the degree of monetary accommodation if its outlook is realized. The BOJ also strives for more effective communication on the conduct of monetary policy.

External Sector

The authorities remain committed to market-determined exchange rates while reiterating that excess volatility and disorderly movements in exchange rates can have adverse implications for households, firms, and the broader economy. We were concerned about the one-sided and rapid pace of yen depreciation, to which speculative trading had contributed, and will continue to closely monitor market movements including such speculative activities. As in the past, the authorities would take appropriate action against disorderly movement in line with the agreements, including in the IMFC, G20, and G7.

Fiscal Policy

We agree with staff on the need for further fiscal consolidation and are committed to addressing both revenue and spending reforms, while ensuring a transition to a growth-oriented economy. In doing so, the authorities have formulated the FY 2024 Comprehensive Economic Measures, with the FY 2024 supplementary budget, and the FY 2025 budget. The supplementary budget focuses on strengthening the supply side to boost potential growth while providing support to vulnerable groups affected by price increases. Given that the size of supplementary budgets has been elevated in the post-pandemic period, we agree that fiscal discipline is essential for supplementary budgets to normalize fiscal spending, while certain amount of operational adjustment should normally be included in supplementary budgets. Relatedly, we agree on the need for efficient spending, guided by cost-benefit analyses of fiscal support to certain sectors, given the limited fiscal space and the necessity to prepare for potential shocks. On fuel subsidies, the authorities are working toward phasing them out, as they are

temporary measures as one of the government's responses to address the non-negligible impacts of high prices on the economy.

Over the medium term, the authorities aim to achieve a primary surplus and make steady progress in reducing the public debt-to-GDP ratio. Given the rising trend in interest payments and the need to secure sufficient fiscal space to respond to shocks, it is crucial to work towards a stable reduction in the debt-to-GDP ratio to maintain market confidence in public finances. The authorities plan to present a fiscal consolidation approach, including early achievement of primary surplus, in the upcoming policy package (The Basic Policy on Economic and Fiscal Management and Reform 2025).″

Financial Sector

We view the financial system as remaining resilient, with systemic risks broadly unchanged since the last Article IV consultation. Credit costs and the non-performing loan ratio in the banking sector remain low, and bankruptcies among small and medium-sized enterprises are still at historically low levels. While gradually rising interest rates have thus far supported bank profitability, the authorities remain vigilant to sources of vulnerabilities in the financial sector. We encourage staff to place greater emphasis in the staff report on the government's initiative to boost economic growth, such as "Promoting Japan as a leading asset management center."

The authorities have made steady progress in implementing FSAP recommendations. The progress includes increasing staffing resources in several areas, enhancing cyber supervision/oversight, and strengthening the onsite supervisory approach.

Structural Agenda

The authorities are stepping up efforts to advance structural reforms under the comprehensive strategy, "*Grand Design and Action Plan for a New Form of Capitalism*," which was revised in June 2024. The strategy aims to create a virtuous cycle of growth and distribution as well as wage and prices, seeks to foster new public-private partnerships, addresses social challenges while supporting economic growth, and ensures that wage increases exceed price increases. In particular, it focuses on tackling structural issues that align with the priorities outlined in the staff report, including implementing labor market reforms, boosting the productivity of SMEs, and promoting investment to enhance growth potential. The priorities include:

- **Implementing labor market reforms:** Raising the minimum wage, strengthening enforcement of equal pay for equal work for non-regular workers, supporting skill development through re-skilling programs, promoting labor mobility to growth sectors and promoting job-based personnel management in companies.

- **Boosting the productivity of SMEs**: Supporting investment in automation and digitalization technologies to enhance productivity and address labor shortages in small and medium-sized enterprises.
- **Promoting investment to enhance growth potential**: Encouraging investment in the semiconductor sector to strengthen supply chain resilience, as well as in space, quantum technology, and medicine to drive innovation.

Japan highly values the importance of multilateral cooperation and is committed to advancing free trade and strengthening the rule-based multilateral trading system with the WTO at its core. In this context, the authorities will promote international rules and norms to facilitate trade and strengthen economic resilience. As such, Japan will also continue its efforts to make the global supply chain more resilient, sustainable, and reliable, with collaboration with partners.