INTERNATIONAL MONETARY FUND

IMF Country Report No. 22/99

JAPAN

April 2022

2022 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR JAPAN

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 2022 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 April 1, 2022 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 April 1, 2022, following discussions that ended on January 26, 2022, 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 16, 2022.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Japan.

The document listed below has been or will be separately released.

Selected Issues

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

PR22/106

IMF Executive Board Concludes 2022 Article IV Consultation with Japan

FOR IMMEDIATE RELEASE

On April 1, 2022, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Japan.

The Japanese economy is recovering from the pandemic amid strong policy support and high vaccination levels. Japan had much lower rates of COVID-related infections and deaths than most advanced economies, including due to containment measures. Following a contraction of 4.5 percent in 2020, real GDP growth is estimated to have grown by 1.6 percent in 2021. Reflecting high energy prices, inflation has risen gradually during 2021 but remains well below the 2 percent inflation target. The current account surplus was 2.9 percent of GDP in 2021, and, on a preliminary basis, the external position is assessed as broadly in line with medium-term fundamentals and desirable policies. Business bankruptcies and non-performing loans are at historical lows due to strong fiscal and monetary support as well as liquidity and credit supply facilitated by regulatory easing measures. The banking system remains well-capitalized and liquid, and near-term vulnerabilities are contained.

GDP growth is projected at 2.4 percent in 2022 amid continued strong policy support, the high vaccination rate, and easing global supply constraints. Consumption will lead the recovery, with pent-up demand being unwound. As pandemic-related uncertainty and supply constraints subside, investment is seen to bounce back. The pace of recovery for domestic demand will be slowed by higher commodity prices and elevated uncertainty related to the Ukraine conflict. External demand will also be affected by the geopolitical tensions, mainly due to an expected slowdown in Europe. Inflation is expected to pick up, spurred by higher import prices and stronger domestic demand, with headline CPI inflation projected at 1.0 percent in 2022. An ageing and declining population will continue to weigh in the medium to long term. Significant scarring effects are unlikely, as the strong policy support has kept unemployment low. Fiscal buffers should be rebuilt gradually over the medium and long term in a growth-friendly manner to preserve the ability to respond to shocks. Monetary policy accommodation is warranted while taking further measures to make that stance more sustainable. Digital and green transformation could be leveraged to promote strong, sustainable, and inclusive growth after the pandemic. Reinvigorating reforms to increase labor supply, boost productivity, and support investment would lift potential growth and facilitate reflation.

Executive Board Assessment[2]

Executive Directors commended the authorities' strong policy support and steady progress on the vaccine rollout, which are supporting the recovery from the pandemic. Directors noted that

[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.

[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.

uncertainty around the pandemic and the war in Ukraine pose significant downside risks. They stressed the importance of efforts to increase productivity and achieve inclusive and sustainable growth.

Directors emphasized that near-term fiscal policy should remain flexible and supportive, until the recovery becomes entrenched, while increasingly shifting toward more targeted measures. They underscored the need for a well-specified medium-term fiscal consolidation strategy that preserves growth to put public debt on a downward path and strengthen the ability to respond to shocks.

Directors agreed that accommodative monetary policy remains appropriate. A number of Directors expressed the view that further refinements to the monetary policy framework could help to safeguard financial stability, while some took note of the authorities' view that the current framework is effective and flexible. Directors emphasized that clear communication would help to enhance monetary policy effectiveness. Given that the effective lower bound is a constraint for Japan, most Directors considered that comprehensive and mutually reinforcing fiscal, monetary, and structural policies are essential to provide the necessary support to lift inflation durably to its target.

Directors welcomed that financial stability has been maintained and underscored that financial supervision should remain vigilant to contain vulnerabilities. They agreed that pandemic-related financial support should be scaled down as the pandemic recedes. Noting the challenges associated with prolonged low interest rates and rising demographic pressures, Directors urged the authorities to further strengthen financial supervision and regulation, broaden the scope of the systemic risk assessment, and enhance the macroprudential policy toolkit.

Directors encouraged the authorities to leverage the planned digital and green transformation to promote strong, sustainable, and inclusive growth. They welcomed Japan's carbon neutrality commitment, noting the important role that carbon pricing could play, and highlighted the need for further efforts to deliver on related targets. Directors noted that recent initiatives to promote digitalization in the private sector and establish the centralized Digital Agency should help to accelerate digitalization. They recommended avoiding job displacement of unskilled workers to ensure an inclusive digital transition.

Against the backdrop of an aging and shrinking population, Directors called for an acceleration of reforms to increase labor supply, productivity, and wages, particularly of female and older workers. They stressed that corporate governance and regulatory reforms should be broadened and deepened to improve business dynamism and spur investment. Directors welcomed Japan's continued multilateral and regional efforts to promote open, stable, and transparent trade policies.

Table 1. Japan: Selected Economic Indicators, 2018-23

Nominal GDP: US$ 4,937 Billion (2021) | GDP per capita: US$ 39,340 (2021)
Population: 126 Million (2021) | Quota: SDR 30.8 billion (2021)

	2017	2018	2019	2020	2021	2022	2023
						Proj.	
			(In percent change)				
Growth							
Real GDP	1.7	0.6	-0.2	-4.5	1.6	2.4	2.3
Domestic demand	1.1	0.6	0.2	-3.7	0.6	2.0	2.1
Private consumption	1.1	0.2	-0.5	-5.2	1.3	2.2	2.7
Gross Private Fixed Investment	2.0	0.3	0.8	-6.7	-0.9	1.5	4.2
Business investment	2.4	1.9	0.1	-6.5	-0.7	1.9	4.6
Residential investment	0.5	-6.4	4.1	-7.9	-1.9	-0.1	2.3
Government consumption	0.1	1.0	1.9	2.3	2.1	3.0	0.4
Public investment	0.1	0.6	1.7	3.9	-3.7	-3.4	-4.7
Stockbuilding	0.1	0.2	-0.1	-0.1	-0.2	0.0	0.0
Net exports	0.6	0.0	-0.5	-0.9	1.1	0.5	0.2
Exports of goods and services	6.6	3.8	-1.5	-11.8	11.6	5.7	5.6
Imports of goods and services	3.3	3.8	1.0	-7.2	5.2	3.2	4.7
Output Gap	-0.5	-0.7	-1.4	-2.7	-2.6	-1.7	-0.4
			(In annual average)				
Inflation							
Headline CPI	0.5	1.0	0.5	0.0	-0.3	1.0	0.8
GDP deflator	-0.1	0.0	0.6	0.9	-0.9	0.4	0.4
			(In percent of GDP)				
General government							
Revenue	33.6	34.3	34.2	35.6	35.5	35.0	35.0
Expenditure	36.7	36.8	37.2	44.5	43.2	42.8	38.5
Overall Balance	-3.1	-2.5	-3.0	-9.0	-7.6	-7.8	-3.5
Primary balance	-2.2	-1.7	-2.4	-8.3	-7.0	-7.4	-3.3
Structural primary balance	-2.4	-1.7	-1.9	-7.5	-6.4	-6.9	-3.2
Public debt, gross	231.4	232.5	236.1	259.0	263.1	262.5	258.3
			(In percent change, end-period)				
Macro-financial							
Base money	9.7	5.0	2.8	19.2	8.6	2.9	3.6
Broad money	3.5	2.3	2.1	7.3	3.0	3.4	3.4
Credit to the private sector	4.0	0.8	2.9	6.3	1.3	0.9	2.3
Non-financial corporate debt in percent of GDP	134.2	136.2	138.5	151.9	153.2	152.3	150.9
			(In percent)				
Interest rate							
Overnight call rate, uncollateralized (end-period)	-0.1	-0.1	-0.1	0.0	...	...	...
Three-month CD rate (annual average)	0.0	0.0	0.0	0.0	...	...	...
Official discount rate (end-period)	0.3	0.3	0.3	0.3	...	...	...
10-year JGB yield (e.o.p.)	0.1	0.1	-0.1	0.0	...	...	...
			(In billions of USD)				
Balance of payments							
Current account balance	203.5	177.8	176.0	148.8	141.7	117.2	142.2
Percent of GDP	4.1	3.5	3.4	3.0	2.9	2.4	2.7
Trade balance	44.1	11.0	1.4	28.8	16.4	-29.8	-21.9
Percent of GDP	0.9	0.2	0.0	0.6	0.3	-0.6	-0.4
Exports of goods, f.o.b.	689.1	735.9	695.0	631.5	748.5	806.8	856.2
Imports of goods, f.o.b.	645.0	724.9	693.6	602.8	732.1	836.6	878.1
Energy imports	117.8	148.5	131.9	89.1	127.7	195.9	168.5
			(In percent of GDP)				
FDI, net	3.1	2.7	4.3	1.8	2.4	2.9	2.8
Portfolio Investment	-1.0	1.8	1.7	0.7	-4.0	0.5	0.9
			(In billions of USD)				
Change in reserves	23.6	24.0	25.5	10.9	62.8	11.5	11.5
Total reserves minus gold (in billions of US$)	1232.4	1239.4	1286.3	1348.2	...	...	...
			(In annual average)				
Exchange rates							
Yen/dollar rate	112.2	110.4	109.0	106.8	...	...	...
Yen/euro rate	126.7	130.5	122.0	121.9	...	...	...
Real effective exchange rate (ULC-based, 2010=100)	76.5	74.6	75.4	74.7	...	...	...
Real effective exchange rate (CPI-based, 2010=100)	75.0	74.4	76.5	77.2	...	...	...
			(In percent)				
Demographic Indicators							
Population Growth	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4
Old-age dependency	46.0	46.9	47.6	48.3	48.7	48.9	49.3

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

INTERNATIONAL MONETARY FUND

JAPAN

STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION

March 16, 2022

KEY ISSUES

Context. Pre-COVID-19, economic policies under "Abenomics" helped ease financial conditions, exit deflation, and raise labor market participation, but fell short on the deep reforms needed to raise productivity and achieve inclusive and sustainable growth. The Japanese economy is now recovering from the pandemic amid strong policy support that has helped to mitigate the downturn. Japan had substantially lower rates of COVID-related infections and deaths than most advanced economies.

Outlook and risks. The recovery is expected to continue in 2022 underpinned by sustained strong policy support and steady progress on the vaccine rollout. Consumption will lead the recovery, with pent-up demand being unwound. There is significant uncertainty around the outlook, including from the Russia-Ukraine conflict, however, with the balance of risks tilted to the downside.

Near-term policy support to underpin the recovery. In line with IMF staff advice, an additional fiscal package announced in November 2021 will provide support for health systems and affected workers and firms. As the economy normalizes, fiscal policies should shift towards facilitating resource reallocation. The Bank of Japan (BoJ) should maintain monetary accommodation, while continuing to support balance sheets of smaller firms until uncertainty about the pandemic fades. Care should be taken to ensure that these policies do not mask vulnerabilities while the pandemic is still evolving.

Medium- and longer-term policies to build back better after the pandemic.

- Fiscal buffers should be rebuilt gradually over the medium and long term to preserve the ability to respond to shocks. The transition to a sustainable fiscal position should be guided by a medium-term fiscal framework balancing short-term stabilization and fiscal sustainability and underpinned by concrete policy plans.
- The BoJ should maintain monetary policy accommodation while taking further measures to make that stance more sustainable. The Financial Services Agency should continue to strengthen supervision and regulation, broaden the scope of systemic risk assessment, and enhance its macroprudential toolkit, while facilitating business model adjustment and consolidation of regional banks.
- Digital and green transformation could be leveraged to promote strong, sustainable, and inclusive growth after the pandemic. Reinvigorating reforms to increase labor supply, boost productivity, and support investment would lift potential growth and facilitate reflation.

Approved By
Odd Per Brekk and Uma Ramakrishnan

Discussions with officials took place virtually between January 3 and 26, 2022. The team comprised R. Salgado (mission chief), T. Hisanaga, P. Khera, P. Lopez Murphy, P. Sodsriwiboon, R. Xu (all APD), S. Fendoglu (MCM), E. Van Heuvelen (SPR), J. Schmittmann, and H. Seitani (both OAP). Executive Director T. Tanaka, Alternate Executive Director M. Kashima, O.P. Brekk (APD), and C. Sumi (OAP) joined some meetings. The mission met with Vice-Minister of Finance for International Affairs Kanda and Bank of Japan Governor Kuroda. The First Deputy Managing Director joined the concluding meeting. S. Abebe and B. Zhu (both APD) assisted in the preparation of this report.

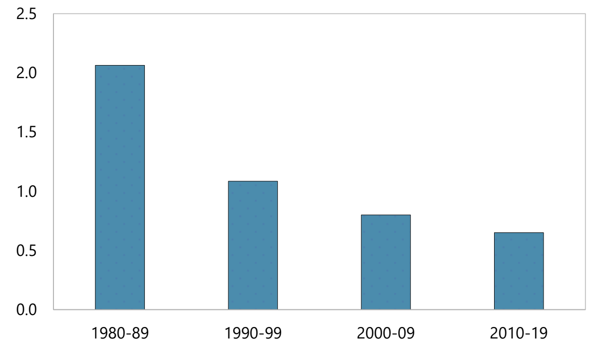
CONTENTS

ANNEXES

CONTEXT

1. **Before COVID-19, Japan's economic policies aimed at overcoming deflation, accelerating economic growth, and mitigating the adverse impact of demographic forces**. Since 2012, "Abenomics" policies have been pursued with "three arrows" —monetary easing, flexible fiscal policy, and structural reforms, broadly consistent with Fund policy recommendations. These policies have helped ease financial conditions, exit deflation, and raise female and senior labor participation, but have fallen short of achieving the deep reforms needed to raise productivity growth in a sustainable manner.

Japan: Total Factor Productivity Contribution to Potential Growth
(In percent)

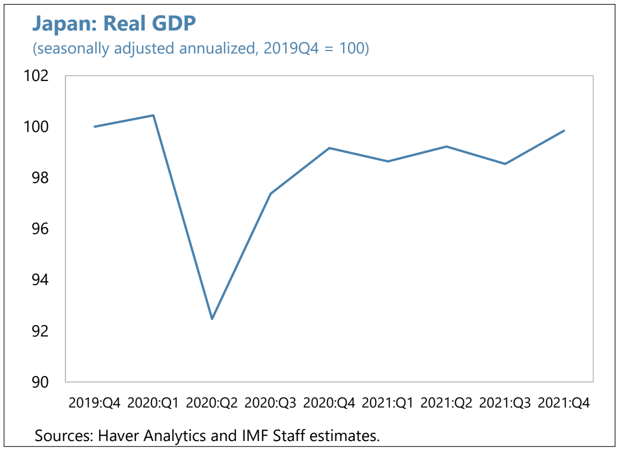


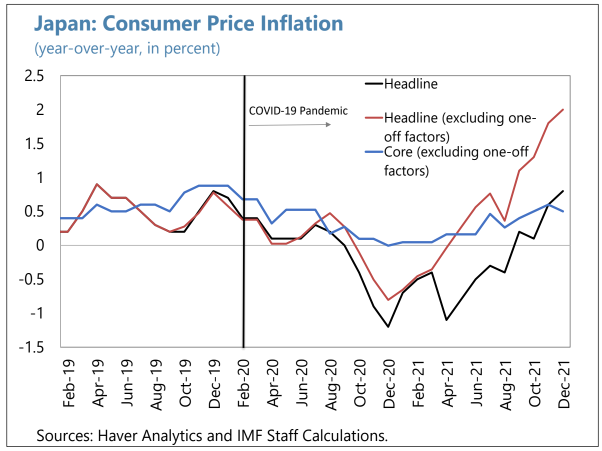
Sources: Cabinet Office of Japan; Haver Analytics

2. **Fumio Kishida led the ruling Liberal Democratic Party (LDP) to victory in lower house elections in October 2021**. The Kishida government's economic policy agenda is centered on sustainable and inclusive growth. This is aligned with the broad strategy of "Abenomics" but with more emphasis on income distribution. The PM has appointed an expert panel—the Council for New Form of Capitalism—to develop specific policy proposals. The broader policies to raise economic growth include the promotion of digital transformation and green investment, support for start-ups, regional revitalization through digitalization, and enhancement of economic security. The income distribution strategy aims to raise the share of labor income by promoting wage hikes including through corporate tax credits, narrow wage gaps between genders and between regular and non-regular workers, support human capital investment, enhance labor mobility, and facilitate the restructuring of small and medium sized enterprises (SMEs). The Council will publish a detailed plan in Spring 2022.

COVID-19: IMPACT AND POLICY RESPONSES

3. **Repeated waves of COVID-19 infections and global supply chain disruptions have slowed the recovery**. Japan has experienced much lower rates of COVID-related infections and deaths than most advanced economies (Annex I). Economic activity picked up in the last quarter of 2021 amid the high vaccination rate and easing supply chain constraints. However, the rebound was short-lived as mobility plunged again in the first quarter of 2022 due to the omicron variant. While recurring health-related containment measures helped save lives, they appear to have slowed the recovery including in the labor market. Unlike in many other economies, inflation pressures in Japan remain contained. Average CPI inflation was -0.3 percent in 2021, partly reflecting one-off factors, such as a policy-driven sharp drop in mobile phone charges. Excluding those one-off factors, headline inflation has risen throughout 2021 mainly driven by energy and food prices. The underlying core inflation remains well below the BoJ's 2 percent target. Inflation expectations have moved in tandem with actual inflation.



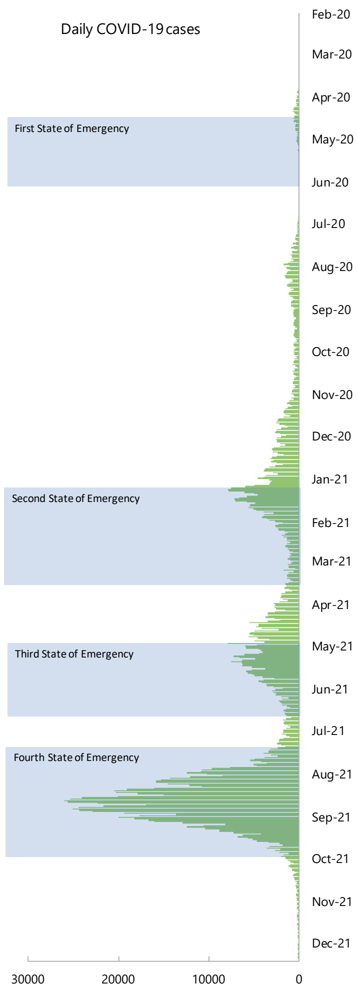


4. The current account (CA) surplus narrowed due to the transitory effects of the COVID-19 crisis. The CA surplus fell to around 3 percent of GDP in 2020 and 2021, from an average of 3.8 percent during 2016-19. This was led by a sharp decline in public saving that more than offset an increase in private saving amid broadly unchanged investment. While the services balance declined due to international travel restrictions, the goods balance remained in surplus. The income balance continued to be the main contributor to the CA surplus in both 2020 and 2021. An increase in reserve assets in 2021 reflected the newly allocated Special Drawing Rights (SDRs) of 29.5 billion (about US$42.1 billion or 0.9 percent of GDP). Japan may channel some of its SDR allocation to support vulnerable countries particularly low-income ones. On a preliminary basis, the external position in 2021 is assessed as broadly in line with medium-term fundamentals and desirable policies (Annex II). This assessment is uncertain, especially given the COVID-19 crisis, and a fuller analysis will be provided in the 2022 External Sector Report.

5. Japan's fiscal policy response to the pandemic has been exceptionally strong, helping mitigate the downturn. The Government of Japan adopted three large supplementary budgets in FY2020 (April 2020-March 2021), leading to a jump in the primary deficit from 2.4 percent of GDP in 2019 to 8.3 percent of GDP in 2020 and 7 percent of GDP in 2021. Measures were aimed to provide relief to households, maintain employment, and provide credit lines for firms (Annex III). While the policy support prevented a spike in bankruptcies and unemployment, it had limited impact on private consumption and investment as transfers were largely saved. Under the new Kishida administration, another fiscal package was announced in November 2021 (see paragraph 13). In March 2022, the government expanded the fuel subsidy in response to surging oil prices triggered by the conflict in Ukraine.[1]

[1] The package included a subsidy for wholesalers of gasoline and other fuels, with a ceiling of 5 JPY per liter, which was activated in January 2022 as oil prices increased. The ceiling was increased in March to 25 JPY per liter, and the increase will be financed by the Reserve Fund.

Text Table. Japan: Macroeconomic Policy Response to the COVID-19 Pandemic



Monetary and Financial Policy Measures

Feb 2020: Public credit guarantee scheme and concessional loan facilities were expanded primarily targeting SMEs. The measure has subsequently been extended till December 2021.

March 2020: The BoJ announced measures to ease financial conditions, including via the standing U.S. dollar liquidity swap arrangements with other major central banks, expansion of ETFs/JREITs (upper limit of ¥12 trillion/180 billion), commercial papers, corporate bonds purchases, and special funds-supplying operation for corporate financing.

March 2020: The FSA clarified that loans guaranteed under public guarantee schemes could be assigned zero risk weights; capital buffers could be released to support credit; and the stock of high-quality liquid assets could be drawn down to below the minimum requirement.

April 2020: The BoJ announced measures to maintain stability in financial markets and support credit provision, including the removal of quantity guidance for JGB purchases, additional purchases of commercial papers and corporate bonds (¥20 trillion), and expanding the special funds-supplying operations to support corporate financing (¥25 trillion).

May 2020: The BoJ introduced a new fund-provisioning measure to support financing of mainly SMEs (¥30 trillion), and extended the COVID-19 corporate credit support measures by 6 months until March 2021.

June 2020: The Diet approved an amendment of the Act on Special Measures for Strengthening Financial Functions, easing the conditions for regional banks affected by COVID-19 to request government capital injections and extending the application deadline by four years through March 2026.

December 2020: The BoJ extended the COVID-19 corporate credit support measures by 6 months until September 2021.

March 2021: Revisions to monetary policy measures to make it more sustainable and effective following the BoJ's assessment (see Annex IV).

June 2021: The BoJ extended the COVID-19 corporate credit support measures by an initial 6 months until March 2022.

Fiscal Policy Measures

April 2020: The government announced the first stimulus package, which was partly revised on April 20 (¥117 trillion after revision). The measures included cash transfers to every individual and affected firms, deferral of payment of taxes and social security contributions, and concessional loans from public and private financial institutions.

May 2020: The second FY2020 supplementary budget was announced (¥117 trillion). The budget covered health-related measures, the job-retention subsidy, and expansion of concessional loans, among others.

December 2020: The second stimulus package was announced (¥74 trillion). The package included extension of the travel subsidy ("Go-To" program), public investments on climate-resilient infrastructure and incentives for firms' digital and green investments.

November 2021: The third stimulus package was announced (¥79 trillion). The package included cash transfers to child-rearing households, a wage hike for nurses and long-term care workers, and subsidies to affected SMEs.

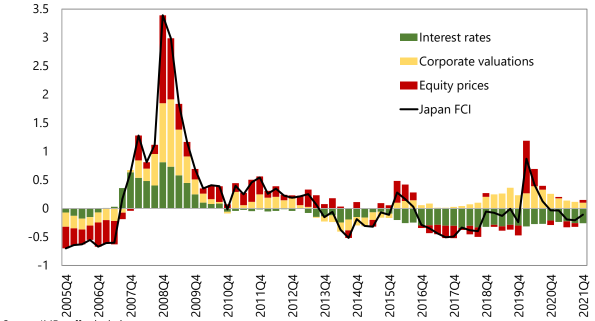
Note: The announced sizes of stimulus packages and a supplementary budget includes off-budget measures, allocation to the COVID-19 Reserve Fund, and private-sector financing.

Source: *Our World in Data* COVID-19 Dataset.

6. **The Bank of Japan's (BoJ) swift monetary policy measures have helped ease financial conditions and preserve financial stability**. The BoJ facilitated financing for firms,[2] maintained stability in financial markets by providing ample liquidity (in JPY and USD), and expanded its scale of asset purchases, containing risk premia in asset markets. The BoJ's balance sheet increased by 22 percent y/y in 2020 driven by loans to firms (Figure 3). Private sector credit growth increased sharply in 2020 (reaching 6.3 percent y/y by end-2020), propelled by precautionary private sector borrowing and facilitated by regulatory measures and accommodative lending standards by banks (Figure 2). The pace of credit and deposit expansion slowed significantly during 2021, with larger firms starting to repay as corporate funding strains eased; the BoJ's asset purchases have gone back in line with the pre-COVID pace.

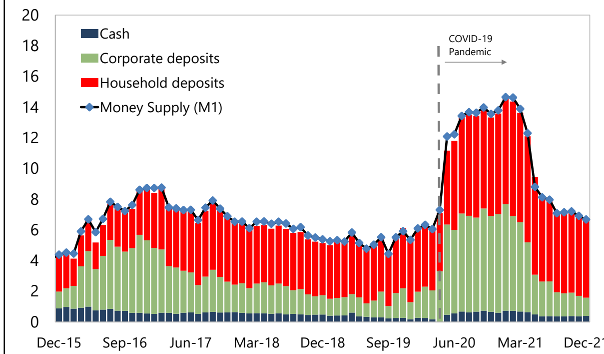
[2] Includes support to firm financing by: (i) expanding its purchases of commercial paper and corporate bonds from 5 to 20 trillion yen and (ii) providing liquidity and reserve renumeration incentives to banks to lend to corporates.

Japan: Financial Conditions Index
(Standard deviations from mean, 1996:Q1-2021:Q4)



Source: IMF staff calculations.
Note: the weights of the sub-components are derived from PCA. Less than zero represent financial conditions that are loose relative to the historical average of 1996 through 2021; the interest rates includes the real short-term rate and the interbank spread; the corporate valuations includes the local currency corporate debt spread; equity prices includes equity market price-to-book ratio and the impled volatility index.

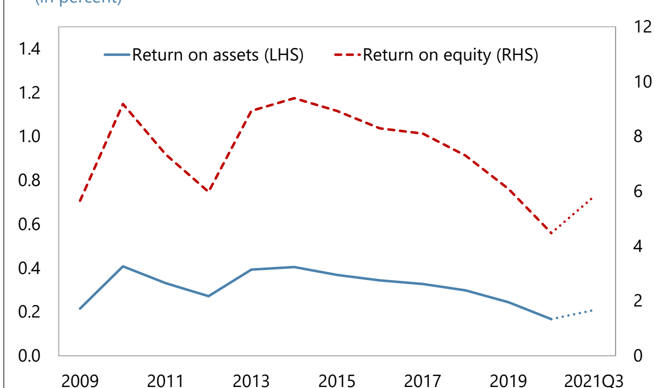
Japan: Increase in Precautionary Savings
(in percent, yoy)



Sources: Bank of Japan and IMF staff estimates.

7. The impact of the pandemic on financial sector health has been moderate, in part reflecting the easing of macroprudential and financial regulations.[3] The Financial Services Agency (FSA), using regulatory flexibility, allowed banks to assign zero risk weights to loans with public guarantees, draw down their regulatory capital, and reduce their liquid assets below the minimum liquidity coverage ratio requirement. Financial support programs to firms avoided potential adverse spillover effects on the financial sector. Non-performing loans (NPLs) have increased only marginally since March 2020 (ticking up to 0.73 percent for major banks and 1.81 percent for regional banks, as of end-September 2021). Capital adequacy ratios remained largely unchanged (total capital ratio ranging from 9.9 percent for domestically-active regional banks to 17.5 percent for internationally-active large banks, as of end-September 2021). Overall, the banking system remains well capitalized and liquid, and near-term vulnerabilities appear contained. However, structural headwinds continue to weigh on profitability. The sharp decline in return on assets/equity in 2020 is largely moderated, and profitability levels are close to the pre-pandemic levels as of end-September 2021.

Japan: Bank Profitability
(in percent)



Sources: IMF Financial Soundness Indicators database and staff estimates for end-September 2021.

8. Japan, the world's sixth-largest emitter of carbon dioxide, committed in October 2020 to reduce net greenhouse gas emissions to zero by 2050. This goal is in line with targets set by the European Union and the United States. In April 2021, Japan raised its medium-term target to a more ambitious emissions reduction of 46 percent relative to fiscal year 2013 levels in fiscal year 2030, up from its earlier goal of 26 percent. The government's green growth strategy includes public funding, tax incentives, changes in regulations and standards, technological innovation, green finance, and international

[3] The growing stress in wholesale US dollar funding conditions at the outset of the pandemic has also been alleviated by coordinated swap line arrangements between the Federal Reserve and major advanced economy central banks, including the Bank of Japan (GFSN, 2020; FSB, 2020).

collaboration. In July 2021, the BoJ released its climate strategy aimed at managing climate financial risks and supporting green financial markets.

OUTLOOK AND RISKS

9. Growth is projected at 2.4 percent in 2022 amid continued strong policy support and a high vaccination rate. This reflects a contraction in the first quarter and incorporates the direct and spillover effects of the ongoing Russia-Ukraine conflict, primarily through commodity price, trade, and financial channels. Consumption will lead the recovery after the second quarter, with pent-up demand being unwound. As pandemic-related uncertainty and supply constraints subside, investment is seen to bounce back gradually. The pace of recovery for domestic demand will be slowed by high commodity prices and elevated uncertainty relating to the Ukraine conflict. External demand will be affected by the geopolitical tensions, mainly due to an expected slowdown in Europe. Inflation momentum is expected to pick up, spurred by higher commodity prices and domestic demand. Headline CPI inflation is projected at 1.0 percent in 2022. The current account surplus is projected to narrow further to 2.4 percent of GDP driven by higher commodity import bills.

10. An ageing and declining population will continue to weigh on growth in the medium to long term. Significant scarring effects are unlikely, as the strong policy support has kept unemployment low. Over the medium term, real GDP growth is projected to converge to its potential of 0.5 percent. Accordingly, medium-term output is projected broadly at the same level as envisaged before the pandemic. On current policies, inflation is projected to remain around 1 percent in the medium term, below the BoJ's 2 percent inflation target, while the output gap is projected to close by 2024. The current account surplus is projected to remain around 3 percent of GDP, broadly corresponding to the income surplus arising from Japan's large positive net international investment position and high net returns.

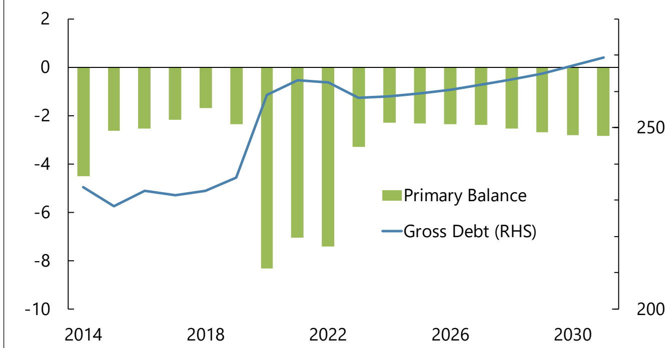
11. The unusual uncertainty around the pandemic and the conflict in Ukraine poses downside risks. Fund staff sees the following major risks (see Annex IV):

- Near-term risks largely stem from the uncertainty around the coronavirus and the Ukraine conflict. Outbreaks of new lethal and highly contagious Covid-19 variants could derail the recovery of services consumption and reduce external demand. Escalation of the Ukraine conflict poses significant downside risks to the Japanese economy through commodity prices, financial and trade spillovers, supply-chain disruptions including through potential cyber-attacks, and business sentiment. Given Japan's close trade ties with China, a sharper-than-expected slowdown in China poses downside risk to external demand.

- Uneven and uncertain recoveries and potential policy divergence across major economies would have significant spillovers. On the one hand, faster-than-expected monetary policy tightening abroad, combined with the BoJ's yield curve control, could weaken the yen further and raise inflation towards the BoJ's target. On the other hand, a sharp tightening of global financial conditions and a global economic slowdown could weigh on Japan's economic recovery and crystalize macro-financial risks. A retrenchment of Japanese financial institutions could have spillovers across global markets, given Japan's large foreign portfolio investment position and banking flows. Major asset and funding markets could see a tightening of financial conditions if Japanese financial institutions scale back exposures.

- Medium-term risks. The reallocation of resources could be impeded by labor market rigidities and delayed exit of unviable firms. Debt sustainability concerns and excessive risk taking by financial institutions under the low-yield environment could undermine financial stability.

Japan: Gross Public Debt and Primary Balance 1/
(In percent of GDP)



Sources: Cabinet Office; and IMF staff estimates and projections.
1/ Gross debt of the general government including the social security fund.

Authorities' Views

12. The authorities broadly agreed with Fund staff's assessment of the near-term outlook and risks that staff presented during the mission.[4] Like staff, they projected a rebound of economic activity in 2022, underpinned by fiscal support and pent-up demand, while their medium-term growth projection in the Economic Growth Achieved Case has projected higher growth than that of staff as they assumed higher TFP growth. On inflation, the authorities agreed that the recent increase mainly reflected rising commodity prices while the underlying price pressures remained weaker than in other advanced economies. They concurred with the preliminary assessment that Japan's 2021 external position was broadly in line with medium-term fundamentals and desirable policies. However, they underscored that the external balance assessment methodology is not well suited for a country with a large income surplus such as Japan.

ECONOMIC POLICIES

Against the backdrop of pandemic uncertainty and demographic transition, policy discussions focused on three priorities: (i) maintaining supportive and flexible policies and standing ready to act nimbly given the rapidly evolving Ukraine conflict and until the pandemic is brought under control; (ii) addressing challenges from demographic headwinds; and (iii) leveraging digital and green investment to promote strong, sustainable, and inclusive growth after the pandemic.

[4] Fund staff projections during the January mission were the same as in the January 2022 *World Economic Outlook Update*. Projections were subsequently revised including due to the impact of the war in Ukraine.

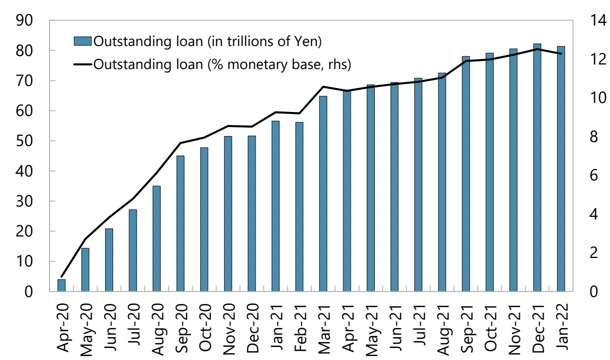
A. Policies to Support the Recovery

13. The fiscal stimulus package announced in November 2021 will provide needed support in the near term. The package aims to contain COVID-19, reinvigorate social and economic activities, create a virtuous cycle between growth and distribution, and enhance resilience and security. Under current policies, IMF staff projects the primary deficit at 7.4 percent of GDP in 2022. Until the recovery is firmly underway, continued policy support is warranted to prevent permanent economic damage from the pandemic.

14. The November package could have been better targeted and put more focus on facilitating economic transformation. While its size was largely appropriate (Annex III), some measures could have been better targeted. For example, the eligibility criteria for the cash transfer to child-rearing households could have been tighter with a lower income threshold. Moreover, the package could have included further measures to facilitate resource allocation towards sectors with high growth potential and to promote a digital and green recovery. Looking ahead, given the large uncertainty surrounding the pandemic and the war in Ukraine, near-term fiscal policy should be nimble and flexible—including through contingency planning in case of escalation of the Russia-Ukraine conflict—adjusting the scale and the composition of support in response to epidemiological, economic, and geopolitical developments.

15. The accommodative monetary policy stance and the shift towards more targeted financial support to nonfinancial corporates is appropriate. Given that inflation is projected to remain below the 2 percent target in the medium term, an accommodative monetary policy stance remains appropriate. Funding strains for larger firms have eased significantly, allowing the BoJ to unwind its exceptional support and lower the ceiling of its corporate debt purchases to its pre-crisis level starting in April 2022. At the same time, the BoJ extended its special program to support financing of SMEs by six months, until September 2022, given the weak financial position of SMEs, especially in the face-to-face services sector. This shift towards more targeted pandemic-related financial support is welcome as it would help mitigate downside risks to the economy and mitigate the risk of new zombie firms.

Japan: BoJ Outstanding COVID-19 Emergency Scheme Loan



Source: Bank of Japan.

16. Financial supervision should remain vigilant to contain vulnerabilities. Policy support to firms, including interest-free and fully-guaranteed loans, helped prevent spikes in unemployment and bankruptcy rates and mitigated credit risks for financial institutions in the near term.[5] However,

[5] BOJ's Financial System Report (April and October 2021) estimates that the probability of default of SMEs to be subdued for the next three years thanks to policy support, although face-to-face services may see a rise as policy measures are phased out.

untargeted measures may have prolonged the lives of zombie firms or may create new zombies, and credit risks may arise if the shock to contact-intensive industries persists. While systemic implications may be limited, close monitoring and adequate provisioning of loans are warranted to safeguard financial stability amid high uncertainty. Loan-losses should be provisioned for in a forward-looking manner and NPLs proactively recognized and resolved, to avoid resources getting locked in zombie firms, which could hinder banks' ability to support the recovery.

17. Pandemic-related financial support should be gradually phased out as the pandemic recedes. Once the pandemic-related uncertainty subsides, measures should shift to targeting viable but illiquid firms.[6] The timing and the pace of the policy shift should be designed not to jeopardize the recovery and entrench scarring. The government loan guarantee and concessional loan programs should be scaled down once the recovery takes hold, and the public credit guarantee ratio should be lowered further from the current 80-100 percent. Some risk sharing would encourage proper risk assessment by banks and could incentivize productive investment by healthy firms and necessary restructuring by unprofitable ones.

Authorities' Views

18. The authorities emphasized that policy support is becoming more targeted as the pandemic dissipates, in line with IMF staff advice. To make fiscal transfers more timely and better targeted, enhanced data is needed, including information sharing between the central government and municipalities. The authorities noted that significant funding for promotion of science and technology and digitalization are included in the FY2022 budget. They acknowledged the risk of prolonging the lives of zombie firms due to various support programs, but emphasized the need to maintain the support while the pandemic still lingers. Once the pandemic dissipates, the support programs will be wound down, including by reducing the public credit guarantee ratio.

B. Building Back Better After the Pandemic

19. Comprehensive and mutually reinforcing policies will be needed to promote inclusive and sustainable growth and to reflate the economy. The main elements are: (i) fiscal consolidation to reduce debt sustainability risks while preserving growth; (ii) further measures to enhance the sustainability of monetary accommodation; (iii) strengthened financial sector policies to contain build-up of systemic risks; and (iv) reforms to increase labor supply, productivity, and investment, including a shift to a low-carbon economy.

Fiscal Consolidation: Dealing with the Demographic Transition and Ensuring Sustainability

20. It will be important, once the recovery is firmly in place, to rebuild fiscal buffers gradually and ensure debt sustainability over the medium to long term. The exceptional fiscal

[6] Some of the measures are already being scaled down, e.g., the expiration of the concessional lending scheme through private financial institutions, and large firms have begun to repay precautionary borrowings.

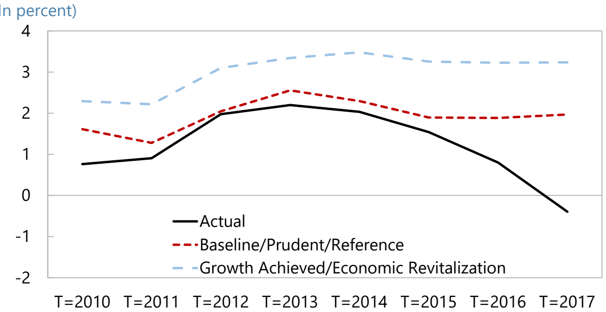
support and the sharp output drop in 2020 and 2021 raised the debt-to-GDP ratio from 236 percent in 2019 to 263 percent in 2021. Debt rollover and issuance risks are low in the near term, helped by a large domestic savings base, home bias, and a debt profile with no foreign currency debt. However, debt sustainability risks will rise as demographic trends weigh in the medium and long term (Annex V). These risks call for medium-term fiscal consolidation to put public debt on a downward path and strengthen the ability to respond to shocks.

21. The transition to a sustainable fiscal position should be guided by a fiscal framework balancing short-term stabilization and medium-term fiscal sustainability. The framework should be:

- **Well-specified**. The consolidation strategy should be underpinned by well-specified fiscal measures. The framework could helpfully include contingency plans in case a large downside risk materializes. Such risks include a pandemic outbreak, a natural disaster, and an increase in the sovereign risk premium (Annex IV).

- **Based on conservative projections**. Projected GDP growth rates in the Cabinet Office's bi-annual medium-term projections often overshoot actual outturns, particularly those under the high-growth scenarios. To safeguard the credibility of fiscal plans, the underlying macro-fiscal projections should be prudent and balanced. As an initial step, adding a downside scenario to the baseline and high-growth scenarios could help anchor policy discussions around the baseline. Projections made by an independent fiscal institution—provided that it has operational independence and adequate resources commensurate to its remit—could further enhance the credibility of the framework.

Japan: Cabinet Office's Nominal GDP Growth Projections 1/
(In percent)



Sources: Cabinet Office and IMF Staff estimates
1/ Compound average growth rate of nominal GDP of 3-year ahead (T+3) over that of the previous year (T-1). Fiscal-year basis. Projections are as of January each year except 2010 (June), 2013 (August) and 2015 (February).

- **Aimed at sustaining the growth momentum**. Fiscal consolidation should consider economic conditions and be underpinned by measures conducive to an expansion in private demand. The authorities should continue to assess the progress towards the FY2025 fiscal target, weighing fiscal consolidation against the need to provide fiscal support in case of downside shocks and preserve growth momentum (see *2022 Japan: Selected Issues* paper "Post-Pandemic Fiscal Policy: Implications from the Buffer-Stock Model of Government").

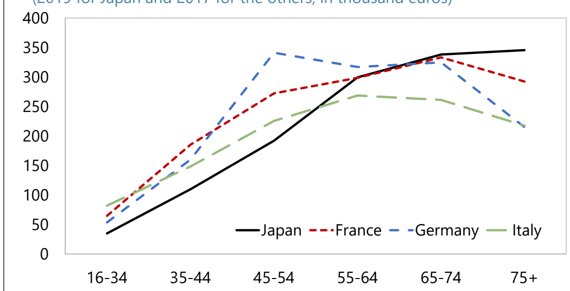
- **Predictable**. Sizeable supplementary budgets have been assembled with frequency, leading to upward revisions of expenditures from initial budgets. Additional appropriations in supplementary budgets should be limited to responses to large and unexpected shocks. An independent fiscal institution could issue opinions on these matters, enhancing predictability of the budgetary framework and reducing policy uncertainty among households and firms.

22. **Fiscal adjustment will require policy initiatives both on the expenditure and revenue sides**. On the expenditure side, the focus needs to be on containing age-related spending, given that non-age-related spending in Japan is low compared to peers. On the revenue side, there is room for revenue mobilization, as Japan's tax revenues are relatively low. Options to these ends include:

- **Containing age-related expenditures**. Healthcare and long-term care spending is projected to grow in the long run, driven by ageing and the use of new technology. There is room for efficiency gains by promoting generic drugs, limiting the scope of covered services and drugs, and shortening the duration of in-patient care. Out-of-pocket spending by the non-poor elderly should be raised. The government's decision to raise the copayment ratio from 10 to 20 percent for those over 75 years old whose incomes surpass the threshold is a step in the right direction. Building on this, there is room to raise the copayment ratio further or lower the income threshold, considering the elderly's large wealth.

Average Net Wealth by Age Groups

(2019 for Japan and 2017 for the others, in thousand euros)



Sources: National Household Structure Survey 2019 (Japan), and the Household Finance and Consumption Survey, wave 2017 (other countries).
Note: Net wealth for Japan is financial assets (savings less liabilities) and real assets, converted to euros with 1 euro =122.1 (average of 2019 from Bank of Japan data).

- **Mobilizing revenues**. Options for raising tax revenues (see *2022 Japan: Selected Issues* paper "Options for Revenue Mobilization") include: increasing the consumption tax standard rate; strengthening property taxation by removing the preferential treatment of residential land; rationalizing allowances and deductions in personal income taxation; and increasing the capital income tax rate. Revenue mobilization should be accompanied by countermeasures to mitigate its adverse distributional impact. In order to identify and reach households in need in a timely manner, it is essential to facilitate inter-governmental information flows with the help of digitalization and the My-Number system.

Authorities' Views

23. **The authorities were committed to keeping their medium-term fiscal target of achieving primary balance in FY2025 unchanged**. The Economic and Fiscal Projections for Medium to Long Term Analysis of January 14, 2022, suggest that, with expenditure reforms and favorable growth dynamics, the target would be feasible, and they considered the target to serve as reasonable basis for guidance in the annual budget preparation process. They explained that a sustained expansion in private demand is warranted for successful medium-term fiscal consolidation.

24. **The authorities saw little benefit in altering the policy framework, as they can respond flexibly to downside risks without contingency plans**. Their projections are based on the assumptions along with the past performance and current trend, and they are informed by

discussions at the Council on Economic and Fiscal Policy (CEFP), which includes outside private sector experts. Two scenarios—the Economic Growth Achieved Case and the Baseline Case—provide information for the CEFP to compare and examine the economic situation and risks, assess progress of economic revitalization and fiscal consolidation towards the target, and consider a desirable path for the primary balance.

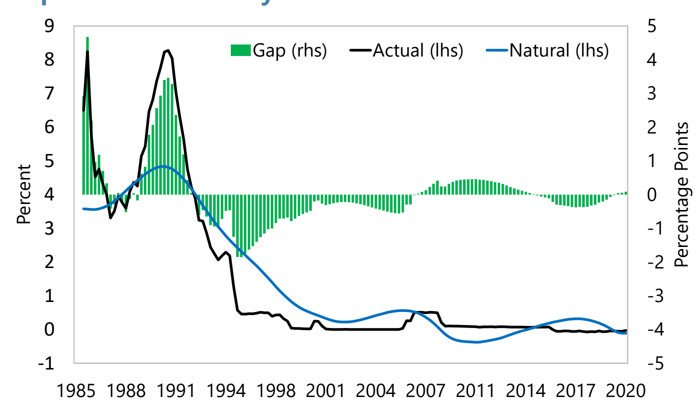
25. The authorities underscored that several expenditure reforms are underway. For example, they aim to raise the volume share of generic drugs to over 80 percent in all prefectures by end-FY2023. Moreover, the out-of-pocket healthcare spending ratio for the elderly with sufficient incomes will be increased in October 2022. The authorities agreed on the importance of considering equity implications of tax policy, taking into account taxpayer wealth.

Reflating the Economy while Preserving Financial Stability

26. Given low underlying inflation, the BoJ's commitment to maintaining prolonged monetary accommodation remains appropriate. Since its introduction in September 2016, the BoJ's Quantitative and Qualitative Easing with Yield Curve Control framework has helped ease financial conditions and enhance the sustainability of monetary accommodation, but the inflation target has nevertheless been undershot. Even with a projected increase in consumption from unwinding of pent-up demand and with the rise in commodity prices, a prolonged period of monetary policy accommodation will be required to lift inflation sustainably to the target. Indeed, IMF staff expects that a well-coordinated policy mix (paragraph 20), including flexible fiscal policy, and inclusive growth-oriented reforms will be required to support the reflation efforts and durably lift inflation expectations towards the target.

27. Recent adjustments to the monetary policy measures have helped make monetary support more effective and sustainable. Following an assessment of options to make monetary easing more effective and sustainable, the BoJ in March 2021 adopted incremental changes to its monetary policy framework. These included more flexibility in its purchases of exchange traded funds (ETFs), a clarified fluctuation band around the 10-year Japanese Government Bonds (JGBs) yield target, and a new interest rate scheme to promote lending that can reduce adverse side effects of negative interest rates (Annex VI). These changes help increase the monetary policy space available to respond to changing economic and financial conditions while alleviating side effects on market functioning and financial system stability. The changes in the monetary policy measures will *per se* likely not be enough to achieve the 2 percent inflation target. The low natural rate of interest and persistently

Japan: Nominal Policy Interest Rate

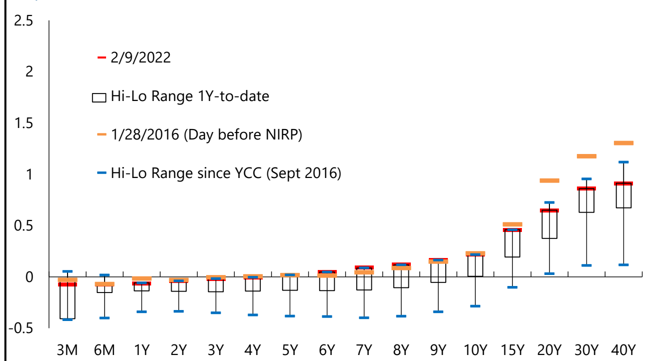


Source: IMF Staff estimates.
Note: Generalized Multivariate Linear Filter is used to jointly estimate potential output, the natural rate of unemployment and the natural rate of interest, conditional on selected equilibrium conditions from a calibrated New Keynesian model. See IMF WP/18/275.

subdued inflation expectations[7] have limited the effective monetary accommodation, as evidenced by the gap between the actual and the natural real interest rate.

28. Further refinements to the monetary policy framework could be considered to safeguard financial stability. Further steepening the JGB yield curve by shifting the zero percent JGB yield target from the 10-year to a shorter maturity would help mitigate the impact of BoJ's prolonged monetary accommodation on financial institutions' profitability by raising their income from maturity transformation. A shorter-maturity yield target—if well communicated and implemented in conjunction with a deeper negative interest rate to avoid market perception of normalizing monetary policy—would help keep down the short- to medium-term yield curve, which matters most for economic activity (see the 2019 Japan Article IV Staff Report).

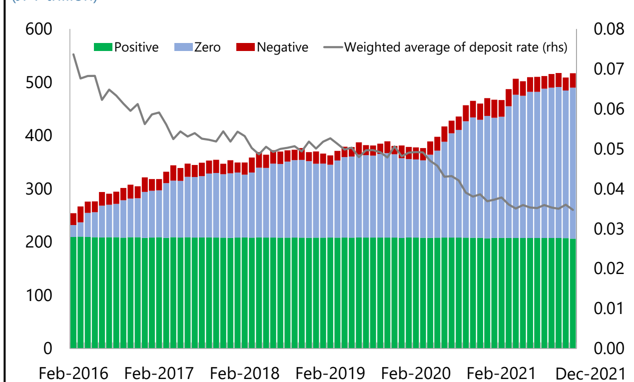
Japan: JGB Yield Curve and Range 1/
(In percent)



Source: Bloomberg L.P.
1/ Range indicates max & min yields per maturity per indicated period.

29. If the underlying inflation momentum remains weak, there is room to reduce the policy interest rate, combined with a strengthening of the transmission mechanism. The impact of further interest rate cuts could be constrained by the small share of bank reserves subject to negative rates (around 4 percent as of December 2021),[8] and banks are reluctant to lower deposit rates below zero. In Europe, where more than 60 percent of bank reserves are subject to negative rates, transmission of deeper negative rates to corporate depositors have encouraged firms to decrease their cash holdings and invest more (Annex VII). Increasing the fraction of bank reserves subject to negative rates could help strengthen transmission of the BoJ's negative policy rate to money markets and to deposit rates, particularly those of corporates. This could help decrease corporate net savings and increase private investment, in turn facilitating medium-term fiscal consolidation.

Japan: BoJ Current Account Balances and Average Renumeration Rate
(JPY trillion)



Sources: Bank of Japan and IMF staff estimates

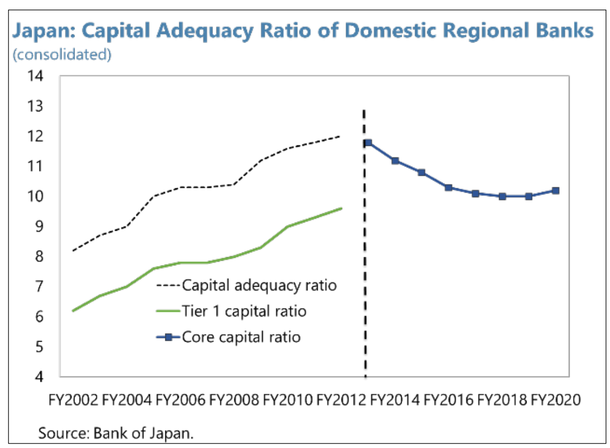
[7] See IMF Working Paper No. 19/31.

[8] Under this framework, financial institutions' outstanding reserves at the BoJ consist of three categories of reserves to which interest rates of positive 0.1 percent (Basic Balance), zero percent (Macro Add-on Balance), and -0.1 percent (Policy-Rate Balance) are applied.

30. Measures to reduce the effective lower bound (ELB) on interest rates could enhance the stimulative impact of monetary policy. Several factors point to a higher ELB in Japan than in other countries, including more persistent low interest rates, entrenched preference for cash, prevalence of high denomination notes, low usage of digital payments, and high reliance of banks on deposits for their funding.[9] Initiatives to support a gradual move towards a less cash-based economy could be beneficial to reduce the ELB. These include measures to increase the relative cost of cash payments versus safe and inclusive electronic payments, reducing the issuance of the highest denomination note, requiring commercial banks to cover the full cost of transport of cash, expanding the cashless rebate program, and addressing demand side constraints to adoption (see paragraph 47).[10] These measures could help reduce the risk of cash substitution under negative policy rates.[11]

31. Improving communication would further help enhance monetary policy effectiveness. Policy normalization by other major central banks could risk complicating BoJ's reflation efforts and communication, by fueling recurrent speculation of a premature policy normalization. Committing to maintain accommodative monetary policy for a prolonged period by linking forward guidance for the policy interest rates to the price stability target could help reinforce yield curve control, encourage households to spend more today, and increase the stimulative impact of rate cuts. In the same vein, delinking the overshooting commitment from the expansion in the monetary base could simplify communication (see the 2019 Japan Article IV Staff Report). In this regard, the BoJ's removal of the quantity guidance on JGB purchases in April 2020 was in line with past Fund advice.

32. The prolonged low-interest rate environment and demographic headwinds remain important sources of risks to financial stability. The pandemic could intensify long-standing financial vulnerabilities stemming from low profitability (see *2022 Japan: Selected Issues* paper "Low-For-Long Interest Rates and Bank Profitability in Japan") and declining capital adequacy ratios, especially for regional banks, which account for 40 percent of the banking system. Against this backdrop, the policy focus on regional banks is welcome. The authorities have taken several measures to incentivize the banks to improve profitability and explore business diversification, including: (i) BoJ's special deposit facility for regional banks that commit to mergers or streamlining their overheads; (ii) government subsidies for merger and business integration; and (iii) exemptions to the anti-monopoly law. Furthermore, amendments to the Banking Act that came into effect in late 2021 allow banks



[9] See IMF Working Paper No. 18/131.

[10] The government offered reward points for using cashless payment instruments and subsidized retail stores to install cashless payment equipment (up to March 2020) following the consumption tax hike in October 2019.

[11] Other options include making cash as costly as bank deposits under negative interest rates by charging a conversion rate between cash and electronic money, as proposed by IMF Working Paper No. 18/191.

to (i) diversify operations into areas that support revitalization of regional economies and digitalization, and (ii) fully own unlisted companies in the local economy (compared with a current cap of 50 percent).

33. The FSA's continued efforts to strengthen supervision and regulation in line with the 2017 FSAP recommendations are welcome (Annex X):

- *Microprudential supervision and regulation.* The policy support during the pandemic will likely delay the materialization of credit costs. In the meantime, the FSA should continue to encourage banks to enhance monitoring of credit quality. Banks should also enhance risk management and capacity in new business areas, including those allowed under the amendments to the Banking Act, as they adjust their business model post-pandemic and in response to medium-term structural challenges. Once uncertainties subside, viability assessments of borrowers should be strengthened.

- *Macroprudential supervision and regulation.* The prospect of a prolonged low interest rate environment could increase macro-financial risks. In this regard, regular briefings by the BoJ's Financial System and Bank Examination Department at Monetary Policy Meetings, introduced as part of the March 2021 assessment of the monetary policy framework, are welcome. The FSA should continue to broaden the scope of systemic risk assessment and enhance its macroprudential toolkit available to address risks as they emerge.

- *Facilitating business model adjustment and consolidation of regional banks.* Given the intensified pressures from the structural challenges on regional banks' profitability, the FSA should leverage its Early Warning Mechanism and continue to encourage banks to upgrade their business models through revenue diversification, better utilization of IT/Fintech, and consolidation. Adoption of IT/Fintech should be complemented by efforts to strengthen operational resilience and risk management, to minimize the risk associated with greater reliance on technology.

Authorities' Views

34. The authorities assessed the financial system as stable. The FSA expected no significant impact on banks in case shocks to pandemic-hit sectors prevail for longer. The authorities also noted that an increasing number of regional banks is doing additional provisioning including from a forward-looking perspective. The FSA indicated that they leverage on the Early Warning System and guide regional banks to improve their business foundations. The BoJ assessed the special deposit facility for regional banks as successful, as evidenced by improved cost efficiencies of regional banks under the scheme. The authorities are also continuing dialogue with financial institutions in order to secure stable and well-diversified financing from overseas.

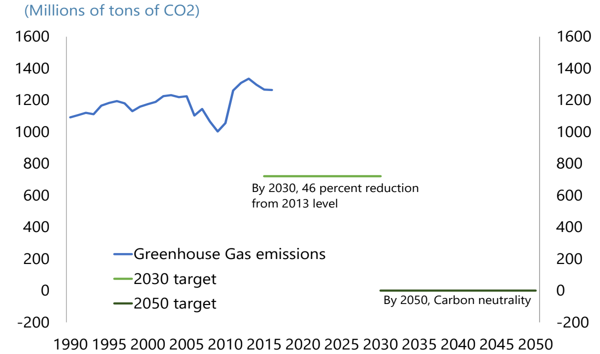
35. The BoJ did not see a need to adjust its current monetary framework and underscored its effectiveness and flexibility. They expressed concern with Fund staff's recommendation to shorten the yield curve target and emphasized that the current framework was working well by striking an appropriate balance between controlling interest rates and managing side effects. They noted that when inflation approaches the 2 percent target in a stable manner, exit strategies and policies would be discussed at the BoJ's Monetary Policy Meeting and appropriately communicated. Although they saw scope for further reducing policy interest rates if needed, under the new interest scheme to promote lending, they did not see the Fund's recommendation to increase the fraction of bank reserves subject to the negative policy rate as an effective easing measure as it could have an adverse impact on bank profits and hinder the financial intermediation function. They noted that if negative interest rates were imposed on corporate and retail deposits in a broader manner as a result of the Fund's such recommendation, it could undermine public confidence and hamper private spending. On forward guidance, they emphasized that the existing framework—keeping both the short- and long-term interest rate targets at extremely low levels—itself provides a strong commitment to maintaining accommodative monetary policy stance. They noted that delinking the overshooting commitment from the monetary base would not be helpful in simplifying communication, as market participants well understand that the BoJ commits to expansion of the monetary base over the long run as a trend. They did not concur with Fund staff's view that a gradual move towards a less-cash economy could further lower the effective lower bound, as demand for cash by the public is likely to remain.

Shifting to a Low-Carbon Economy

36. Japan's renewed impetus towards reducing carbon emissions is an important and positive step towards mitigating climate change. Policies to achieve the new climate target are being developed. At present, Japan's climate change strategy focuses on technological innovation and green finance, while making welcome contributions to regional and global decarbonization. Reducing emissions will be especially challenging, given the heavy reliance on fossil fuels following the shutdown of nuclear power plants in the wake of the 2011 earthquake and tsunami. The share of renewables remains relatively small.

37. Reaching the goal of zero net emissions by 2050 will require scaling up carbon pricing. Several policy initiatives aim to facilitate the climate transition through green supply policies, including a JPY2 trillion Green Innovation Fund, the BoJ's credit facility to support green investment (see paragraph 39), and the initiatives to support private climate finance. A significant rise in the supply of green energy without much higher carbon pricing would lower energy costs and thereby increase energy demand, but may not be sufficient to induce a switch away from the use of high carbon energy. Stronger price signals could also lead to efficiency gains and better capital allocation.

Japan: Greenhouse Gas Emissions Targets
(Millions of tons of CO_2)



Sources: Our World in Data; IMF staff calculations.

38. The carbon neutrality objective could be achieved in a growth-friendly way while protecting the most vulnerable. Fund staff analysis finds that a comprehensive policy package—including green energy investment combined with a gradual rise in carbon prices—would have net positive impacts on growth, employment, and investment (see *2022 Japan: Selected Issues* paper "Japan: Climate Change Policy Options"). To this end:

- Near-term fiscal stimulus measures could be better aligned with climate change policies, catalyzing a green recovery. For example, climate-resilient infrastructure and green energy investment could be prioritized in additional public investment, and the support measures for the hard-hit airline industry—such as a temporary cut in the Aircraft Fuel Tax—could be conditioned on airlines' commitment to reduce emissions.

- Relying on carbon pricing could be considered, given that it would help amplify incentives for green private investment, accelerate a shift from high- to low-carbon energy sources, and underpin the emissions reduction target. Compensatory transfers financed partly by carbon revenues could be provided for affected households, helping maintain their purchasing power and consumption levels.

- Japan could increase its welcome contributions to regional and global decarbonization. Looking ahead, further efforts to enhance carbon pricing in Japan and climate finance in less-developed economies would help contribute to the global efforts on climate policy.

39. Japan is making progress on developing green financial markets and managing climate change related financial risks (see *2022 Japan: Selected Issues* paper "Climate Finance in Japan"). Sustainable and green bond issuance by Japanese entities is growing fast, supported by national standards for green financial products and a subsidy scheme to defray the costs of issuing green debt. Corporate climate disclosures are limited but improving. The revised Corporate Governance Code is expected to enhance climate disclosures of companies listed on the Prime Market. The BoJ and FSA are studying the role of climate change for financial stability, and a pilot on climate scenario analysis is underway. Financial institutions and other companies are encouraged to publish climate change exposures and conduct scenario analysis guided by the Task Force on Climate-Related Financial Disclosures (TCFD) principles.

40. The BoJ released a strategy on climate change, including a new fund-provisioning measure to support private banks' move towards climate finance, in July 2021. The BoJ's strategic priorities include integration of climate risks into financial monitoring and supervision, enhancement of climate-related disclosures by financial institutions, purchases of green government bonds as part of its foreign currency reserve management, and promotion of climate research and international cooperation. Under the fund-provisioning measure, launched in December 2021, the BoJ offers zero interest loans to financial institutions for climate-related loans and investments and exempts their reserves from its negative interest rate corresponding to twice the amount of funding provided through this measure. While the duration of such loans is one year, rollover is permitted, effectively providing long-term funding for climate-related purposes.

41. Further policy efforts would strengthen Japan's capacity to manage climate-related financial risks and help develop green financial markets. Better climate data and disclosures will be crucial, and consideration should be given to mandatory minimum standards for financial institutions, corporates, and investment funds. Using green taxonomies would be one of the ways to reduce greenwashing risks and provide certainty to market participants. Efforts to build expertise on climate finance among financial institutions, to develop risk measurement and management approaches including scenario analysis, and to publish supervisory guidance on climate financial risks to financial institutions are important and welcome.

Authorities' Views

42. The authorities reaffirmed their climate commitments and green growth strategy. They noted that Japan continues to face challenges relating to the energy supply-demand structure. Hence, they underscored the need to safeguard energy security and mitigate adverse economic consequences during the transition to low carbon. The authorities emphasized that climate finance is crucial, as they expect that private investment could play an important role in supporting the transition to a decarbonized society. They acknowledged the importance of carbon pricing that contributes to growth as part of climate change policies. A pilot experiment for a voluntary corporate carbon emissions trading market was recently launched.

43. The authorities are committed to developing green financial markets and climate financial risk management. They have published guidelines for climate finance, while enhancing climate disclosures and supporting efforts toward global minimum standards. The authorities are carrying out a pilot scenario analysis with major banks and insurers to identify challenges in the practical use of scenario analysis for assessing climate-related financial risks. They also plan to publish supervisory guidance this year for banks and insurers on climate risk management, including active engagement with clients. The BoJ emphasized the need to act in line with its mandate and consider market neutrality, reflected in the design of its climate funding measure.

44. The authorities urged stronger international efforts to tackle climate change. They noted that Japan aims at leading global decarbonization efforts by advancing its decarbonization technology and innovation and contributing to the international effort through technology transfer and climate finance, including the government of Japan's commitment to provide US$10 billion over five years for adaptation investment in less-developed countries, made at the United Nations' Climate Change Conference (COP26). The authorities called for further discussion in the WTO to clarify WTO rules as they apply to border carbon adjustments.

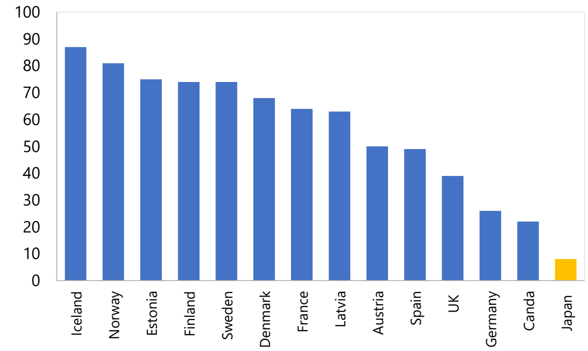
Harnessing the Gains from Digitalization

45. The pandemic has highlighted Japan's uneven state of digitalization. While Japan has one of the highest numbers of industrial robots in the world, it continues to lag in digital adoption by businesses, government, and the financial sector. Uptake of online government services stands below 10 percent in Japan, the lowest level among OECD countries. This has hindered the government's response to the COVID-19 shock, highlighted by delays in the 2020 emergency cash handout program. Digital transformation has also lagged among private firms, including e-commerce. A major contributing factor has been insufficient investment in Information and Communications Technology (ICT), which led to legacy IT systems that prevent modernization.

46. The government's digital transformation strategy would help boost productivity. Initiatives underway include the setting up of the Digital Agency tasked to accelerate digitalization of the central and local governments, as well as the promotion of digitalization in the private sector. Priority areas include (i) improving online administrative procedures and reducing reliance on hand-stamping paperwork; (ii) promoting the use of 'My Number' digital ID cards and linking it to bank accounts; (iii) advancing deregulation to allow online medical services and education; and (iv) incentivizing digital transformation by businesses through tax credits. Fund staff analysis finds that these measures would incentivize ICT investment and help boost labor productivity and GDP over the medium term through capital deepening and TFP growth (see *2022 Japan: Selected Issues* paper "Digitalizing the Japanese Economy"). Carefully designed policy support would be needed to ensure a safe and inclusive transition to address job displacement of unskilled workers, including enhanced labor training especially on IT skills.

Uptake of Digital Government Services, 2020

(share of individuals sending filled forms via public authorities website; in percent)

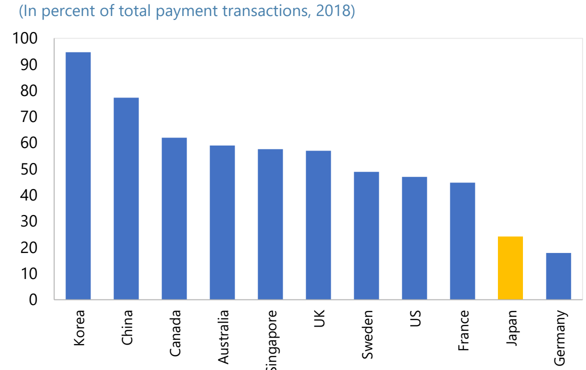


Source: OECD Going Digital Toolkit

47. The authorities' efforts to expand digital innovation in the financial services sector are expected to increase the sector's efficiency and promote inclusion. While the pandemic has accelerated the usage of cashless payments, the popularity of such payments remains significantly lower than comparator countries and well below the government's target of raising the share of cashless payments to 40 percent by 2025. The FSA has initiated various measures to promote digital technological innovation in the financial system which include among others: the adoption of the Financial Digitalization Strategy in 2018; the setting up of a Fintech Innovation Hub to enhance information sharing; and the introduction of a fintech proof-of-concept hub and regulatory sandbox regime to support new technologies. Moreover, the recent amendment of the Payment Services Act, lifting the transfer cap on fund transfer services by nonbank institutions and reducing the inter-bank fund transmission fees starting October 2021, will help promote the usage of digital financial services.

Cashless Payments

(In percent of total payment transactions, 2018)



Sources: Payments Japan, BIS, Euromonitor International

Low Digital Security in Japan

(Percent of who have experiences online security incidents, 2018-19)

Source: OECD Digital Economy Papers No. 283 (June, 2019)

48. Further lowering of barriers to the adoption of digital financial services is essential. Faced with a rapidly ageing society and entrenched usage of cash, the authorities need to build the public's trust in the digital economy by improving financial and digital literacy, enhancing the interoperability between different cashless payment platforms, and strengthening data privacy, consumer protection, and cybersecurity related regulations.

49. An evaluation of central bank digital currency issuance is underway. The BoJ has no immediate plan to issue a central bank digital currency (CBDC). However, preparations and research are ongoing to issue a general purpose CBDC alongside cash, indirectly through financial intermediaries, in case future needs arise.

Authorities' Views

50. The authorities acknowledged the need to close the considerable gaps in Japan's digital economy. They broadly agreed with staff recommendations on digitalization to enhance productivity, while flagging the need for labor market reforms and enhanced training to mitigate adverse impacts on low-skilled workers. The newly established Digital Agency is coordinating with other agencies to enhance financial and digital literacy including in IT skills; improve the interoperability between different platforms; and strengthen data privacy, consumer protection, and cybersecurity.

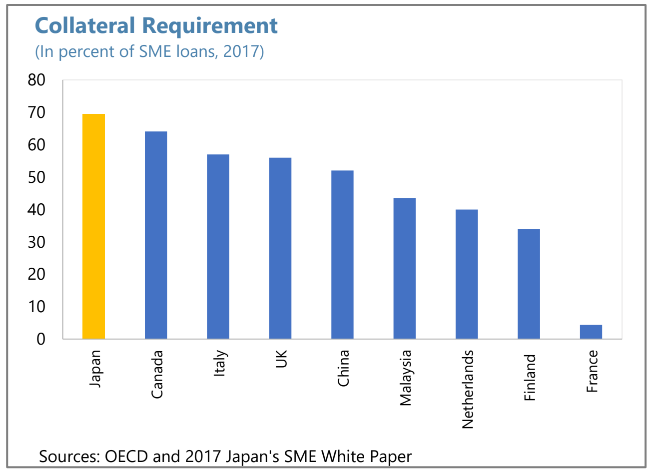
Building a Virtuous Cycle with Priority Reforms

51. Accelerating structural reforms will be critical to boost productivity and wages and improve income distribution. Beyond the pandemic, Japan's ageing and shrinking population will continue to depress productivity, investment, and real GDP growth. To ease the demographic-driven growth slowdown and reflate the economy, Fund staff analysis suggests that implementing a mutually supportive set of structural reforms complemented by accommodative monetary policy could over the medium term boost GDP by as much as 11 percent and raise prices by 3 percent compared to the baseline (Annex VIII).

52. The reform agenda should prioritize comprehensive reforms to increase labor supply and productivity, accompanied by regulatory and corporate reforms to support investment:

- *Increase labor supply*: Further expanding access to affordable and high-quality childcare, while enhancing flexible work arrangements as part of the existing *Work Style Reform* (WSR) program, would help sustain the increase in labor force participation by women and the elderly (Annex IX). To reduce gender gaps, further efforts are warranted to incentivize gender-balanced management in the private and public sectors, remove discriminatory workplace regulations, and narrow gender wage gaps. In addition, policies promoting the employment of foreign skilled professionals and workers in sectors with severe labor shortages could be enhanced.

- *Boost labor productivity and wages*: The recently expanded corporate tax credit for wage increases will mainly benefit regular workers and large firms, and as such could be complemented by further reforms. In particular, following up on the implementation of the WSR strategy would help towards eliminating productivity and wage gaps between regular and non-regular workers. The authorities' welcome programs to increase skill training could be complemented by a shift to flexible employment and wage systems based on ability rather than seniority. Reforms to reduce labor market duality would help enhance career opportunities for non-regular workers, raising productivity and real wages.



- *Improve corporate governance*: The Corporate Governance Code was revised in June 2021 to enhance board independence, promote diversity (including hiring targets for women and foreigners), and focus on sustainability and Environment, Social, and Governance (ESG). Building on recent progress, corporate governance reforms could be further strengthened by setting more ambitious requirements for outside directors and by adopting explicit limits on cross-shareholdings. These measures would allow firms to deploy their substantial cash reserves and boost investment and productivity.

- *Foster investment*: In the context of a rapidly ageing society, the policies to support orderly exit of firms and incentivize non-family succession are steps in the right direction. Further efforts could focus on facilitating the exit of non-viable SMEs and the entry of firms with stronger potential, and incentivizing alternative financing of SMEs and business startups, such as through asset-based lending and venture capital. To improve the business environment, deregulation (e.g., of professional services, land use, barriers to entry, and protection of incumbents) and R&D investment could be enhanced. Further efforts to address potential impediments to inward FDI, such as simplified procedures and speedy processes to allow the use of foreign labor would also help facilitate FDI flows. Shifting corporate income taxation to a cash-flow based tax, with a higher statutory rate, could help increase investment in a revenue neutral way.

53. **Japan has taken a welcome lead globally and regionally to promote more open, stable, and transparent trade policies**. Japan's trade and FDI regimes are broadly open, although agricultural support policies remain relatively restrictive and revisions to the Foreign Exchange and Foreign Trade Act, which took effect in 2020, subject foreign investment in national security-related industries to greater scrutiny. Japan continued to strengthen trade relations, including the recent entry into force of the Regional Comprehensive Economic Partnership Agreement and the Japan-UK trade agreement, which are expected to promote trade and supply chain efficiency, and is leading

discussions on the potential expansion of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership to new members. Japan is committed to WTO reform, has been actively involved in negotiations for plurilateral WTO agreements ("Joint Statement Initiatives") on e-commerce and investment facilitation, and is an important participant in the newly concluded plurilateral WTO agreement on Services Domestic Regulation, which is expected to reduce service trade costs and benefit Japan and the global economy. Japan should continue efforts to work actively with international partners to strengthen the rules-based multilateral trading system, including ensuring effective WTO dispute settlement.

54. The subsidy programs to strengthen supply chain resilience should bolster the efficiency of global value chains. Amid the supply chain disruptions caused by the COVID-19 pandemic, two programs were introduced in 2020 to strengthen the domestic production base and diversify supply chains in Asia, particularly among ASEAN countries.[12] While global value chains continue to change along with the economic circumstances, it is important to guard against the potential for such subsidies to inadvertently weaken supply resilience by fragmenting existing investment and trading relationships.

55. Japan is assessed as moderately effective in investigating and prosecuting money laundering (ML) and cooperates well with foreign counterparts, but should further prevent foreign public officials concealing proceeds of corruption in its economy.[13] The Financial Action Task Force recently found[14] that the Japanese authorities have well developed financial investigation and prosecution capacity and provide constructive international cooperation. But they face challenges in investigating complex, larger-scale ML cases of cross-border and domestic drug trafficking and could make further improvements including deepening the understanding of cross-border risks. The authorities should prioritize the pursuit of ML associated with foreign predicate offenses including corruption where relevant. Requirements on financial institutions and most non-financial obligated entities to identify and verify beneficial ownership (BO) and monitor business relationships, including with respect to foreign politically exposed persons, have recently been strengthened. The authorities should ensure timely and effective implementation of these measures, including by developing guidance for non-financial obligated entities. These actions should be complemented by enabling centralized public notaries' databases on accurate BO information of legal persons and arrangements that are accessible by law enforcement agencies in a timely manner.

[12] These include the "Program for Promoting Investment in Japan to Strengthen Supply Chains" which targets semiconductors, electric vehicles, wind power turbines, aircraft, storage batters, and medical supplies and the "Program for Supply Chain Resilience in the Indo-Pacific Region".

[13] In line with the Framework for Enhanced Engagement on Governance, Japan's measures against supply-side transnational corruption were discussed in the 2019 Staff Report. In the same context, this section provides an overview of Japan's efforts to prevent foreign public officials from concealing the proceeds of corruption in the Japanese economy.

[14] See: https://www.fatf-gafi.org/media/fatf/documents/reports/mer4/Mutual-Evaluation-Report-Japan-2021.pdf.

Authorities' Views

56. The authorities broadly agreed with reforms recommended by staff to increase labor supply and productivity and improve corporate governance. They stressed that initiatives to increase female and elderly worker participation continue to bear fruit and that the early experience with the WSR has shown a reduction in aggregate and overtime working hours. The authorities noted that the Equal Pay for Equal Work pillar of the WSR should enable fair evaluation and improve pay equality among workers. They reiterated that these reforms remain a priority, while adding further emphasis on wage increases and investment in people. In this regard, a Council for the New Form of Capitalism will present the details of the "New Form of Capitalism" growth and distribution strategy in Spring 2022.

57. The authorities highlighted Japan's global leadership role in advancing regional and multilateral trade agreements. They want to ensure an effective WTO dispute settlement mechanism and are keen to advance WTO reforms that will modernize trade rules and enhance the WTO's monitoring and enforcement function.

STAFF APPRAISAL

58. The Japanese economy is recovering from the pandemic. The authorities' broad-based policy support to counter the adverse impacts of the pandemic has been appropriate. Thanks to this strong and timely support, financial stability has been maintained and scarring is expected to be limited. On a preliminary basis and adjusting for transitory pandemic-related factors, the external position in 2021 is assessed as broadly in line with medium-term fundamentals and desirable policies.

59. The recovery is set to continue in the near term, but the unusual uncertainty around the pandemic and the conflict in Ukraine poses downside risks. After the Omicron wave passes, growth is expected to rebound strongly amid an unwinding of pent-up demand, easing supply constraints, and continued policy support. Nevertheless, new COVID-19 waves and the conflict in Ukraine present risks, alongside potential macro-financial risks from a sharp tightening of global financial conditions. Inflation momentum is expected to pick up but on current policies inflation would stay below the BoJ's 2 percent target. An ageing and declining population will continue to weigh on Japan's growth potential and fiscal positions in the medium to longer term.

60. Near-term fiscal policy should be nimble and flexible , including through contingency planning in case of escalation of the Russia-Ukraine conflict, followed by a medium-term adjustment. Near-term policy should remain supportive, but increasingly shift toward more targeted measures and the scale and composition of support should be adjusted in response to epidemiological, economic, and geopolitical developments. A well-specified medium-term fiscal framework is needed to put public debt on a downward path while preserving growth and strengthening the ability to respond to future shocks.

61. The BoJ's commitment to maintaining prolonged monetary accommodation is appropriate. Further refinements to the monetary policy framework could be considered to safeguard financial stability, including, a steepening of the yield curve by shifting the yield target from 10 years to a shorter maturity. Communication could be further strengthened to help enhance monetary policy effectiveness. Comprehensive and mutually reinforcing fiscal, monetary, and structural policies are essential to provide the necessary support to lift inflation durably to its target.

62. Financial supervision should remain vigilant to contain vulnerabilities. As the pandemic recedes, the pandemic-related financial support should be scaled down, by shifting towards viable but liquidity-constrained firms and reducing loan guarantee and concessional loan programs. The financial authorities should further strengthen financial sector supervision and regulation, broaden the scope of the systemic risk assessment, and enhance the macroprudential toolkit to address risks as they emerge. Authorities should continue to engage with regional banks to facilitate upgrading their business models, better utilization of IT/Fintech, streamlining costs, and consolidation amid structural headwinds.

63. Japan's carbon neutrality commitment is welcome, and further efforts to execute it could be considered. The authorities' green growth strategy could be complemented by carbon pricing along with compensatory transfers to vulnerable groups to engineer the green transition in a growth-friendly way. Improved climate disclosures, green taxonomies or equivalent approaches, and supervisory guidance on climate risk management and climate risk scenarios would help manage climate financial risks and green financial markets.

64. Progress toward digital transformation would help boost productivity. The centralized Digital Agency has the potential to accelerate digitalization in the public sector, and incentives to encourage digitalization in the private sector could catalyze digital investment. To ensure an inclusive transition, supportive measures would be needed to avoid job displacement of unskilled workers. Further improving financial and digital literacy and strengthening data privacy, customer protection, and cybersecurity are important to accelerate digital adoption.

65. Accelerating reforms will be critical to improve growth potential and income distribution. The reform agenda should prioritize comprehensive reforms to increase labor supply, productivity, and wages, including for female and older workers. Broadening and deepening of corporate governance and regulatory reforms will improve business dynamism and spur investment. Japan should continue multilateral and regional efforts to promote more open, stable, and transparent trade policies, including through advancing WTO reform.

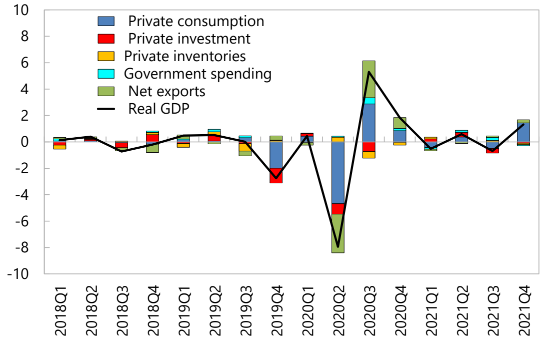
66. It is recommended that the next Article IV consultation take place on the standard 12-month cycle.

Figure 1. Japan: Recent Economic Developments

After a strong rebound in the second half of 2020, growth slowed in 2021 due to resurgence of COVID-19 infections.

Contributions to Real GDP Growth

(QoQ growth in percent, SA)

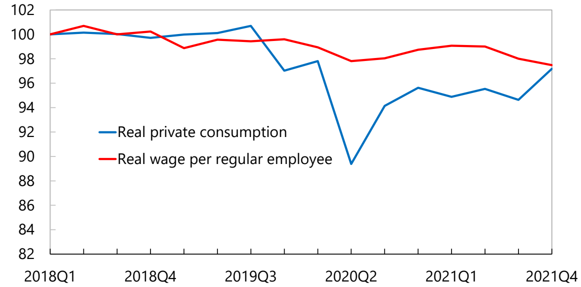


Sources: Haver Analytics, IMF staff estimates.

As a result, real consumption and wages are still below pre-pandemic level.

Real Wage and Real Consumption Growth

(2018Q1=100)

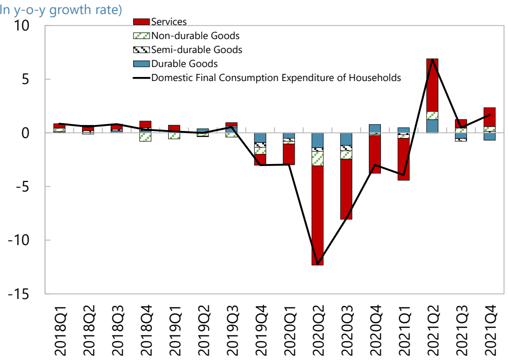


Sources: Haver Analytics, IMF staff estimates.
Note: Wage includes scheduled earnings.

Private consumption is recovering, led by services...

Domestic Final Household Consumption Expenditure by Type

(In y-o-y growth rate)

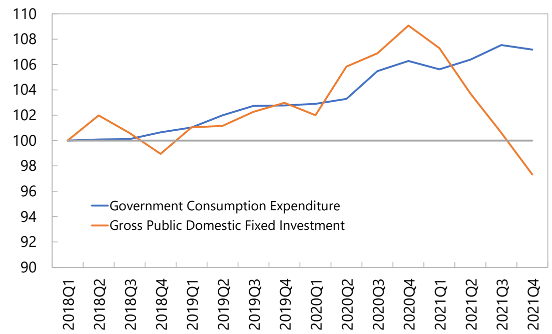


Sources: Haver Analytics and IMF staff estimates.

...while public spending has risen during the pandemic.

Government Consumption and Investment

(2018Q1=100)

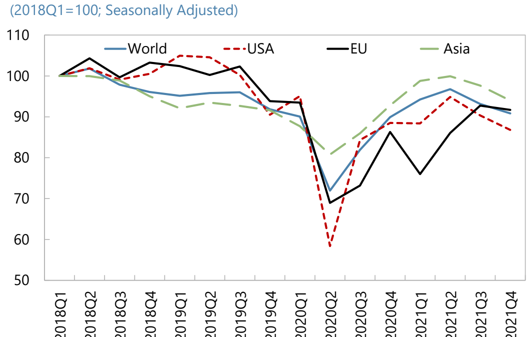


Sources: Haver Analytics and IMF staff estimates.

Exports have slowed recently due to supply constraints.

Real Export by Destination

(2018Q1=100; Seasonally Adjusted)

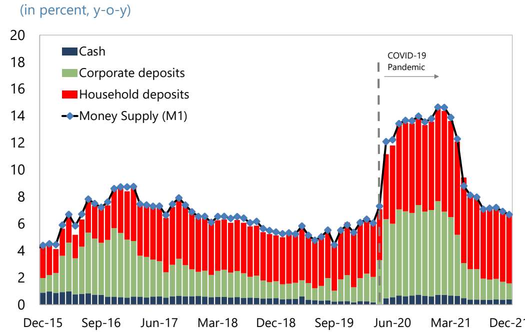


Source: Haver Analytics.

Savings rose sharply during the pandemic.

Increase in Precautionary Savings

(in percent, y-o-y)

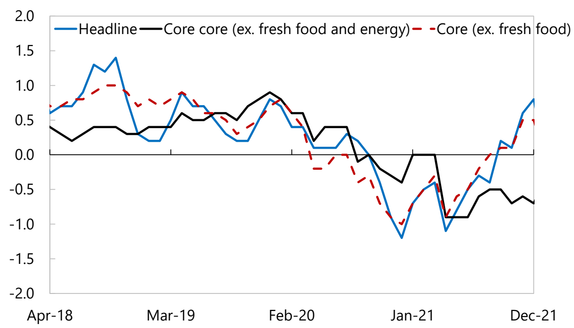


Sources: Bank of Japan and IMF staff estimates.

Figure 2. Japan: Inflation Developments

Headline inflation has risen in 2021…

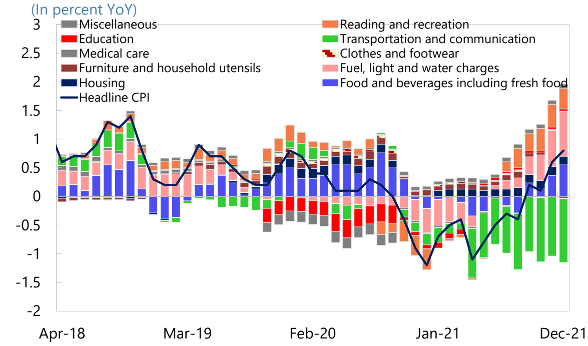
Inflation
(In percent YoY)



Sources: Haver Analytics; IMF staff estimates.

…driven by temporary factors such as oil and food prices.

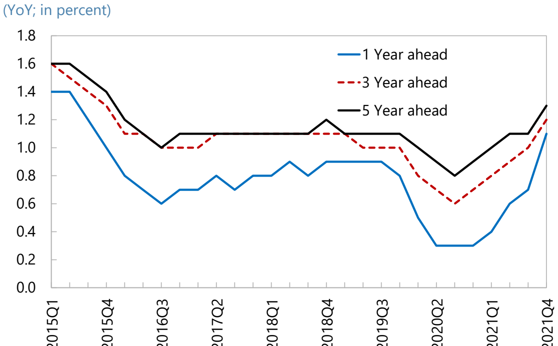
Headline CPI Inflation Contribution
(In percent YoY)



Sources: Haver Analytics; and IMF staff calculations.

Survey-based inflation outlook has recovered…

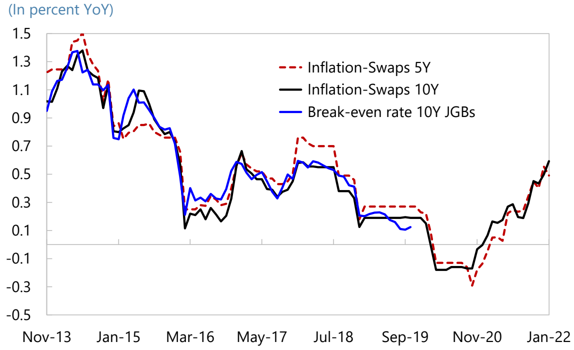
Tankan Survey: Inflation Outlook
(YoY; in percent)



Source: Haver Analytics.

…and so have market-based inflation expectations.

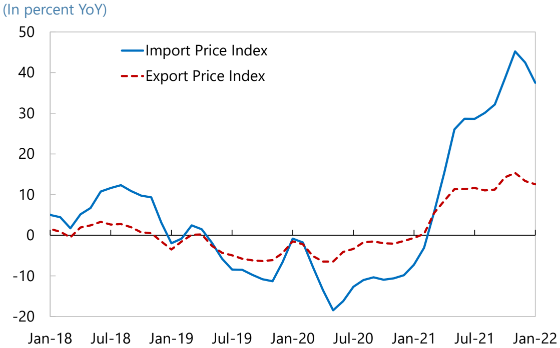
Inflation Expectations
(In percent YoY)



Sources: Bloomberg L.P.; and IMF staff estimates.

The recent recovery of inflation is driven by import prices…

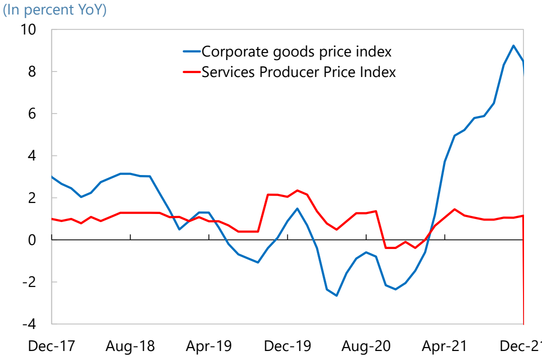
Export and Import Price Indices
(In percent YoY)



Sources: Haver Analytics; IMF staff estimates.

…while price of services remains weak.

Producer Price Index
(In percent YoY)

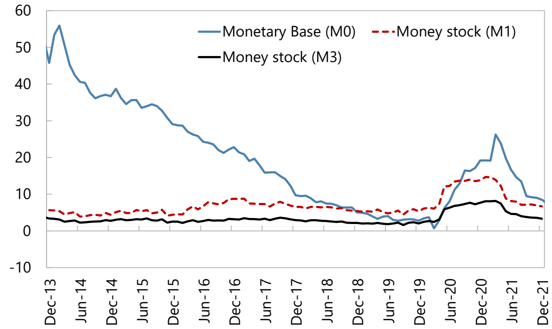


Sources: Haver Analytics; IMF staff estimates.

Figure 3. Japan: Monetary and Credit Conditions

Money supply increased significantly at the onset of the pandemic, but growth has slowed down recently.

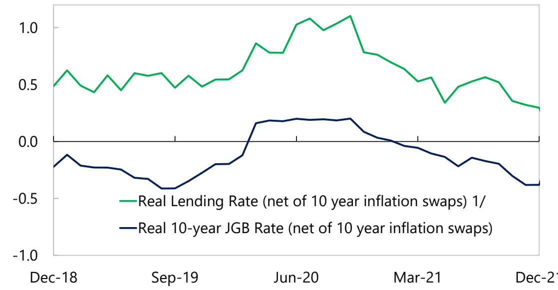
Money Stock
(Y-o-Y percent change)



Sources: Haver Analytics; IMF staff estimates.

Real lending rates and real 10-year Japanese government bond yields have been declining.

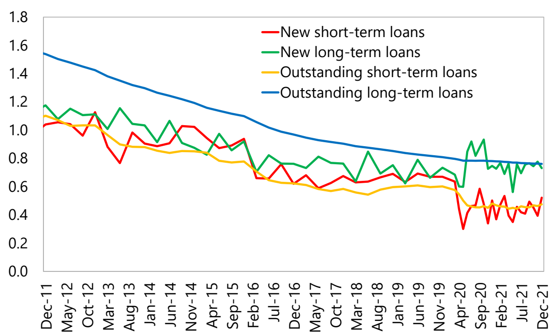
Real Interest Rate
(In percent)



Sources: CEIC; Haver Analytics.
1/ Based on average long-term bank-loan rate.

Bank lending rates declined for new short-term loans.

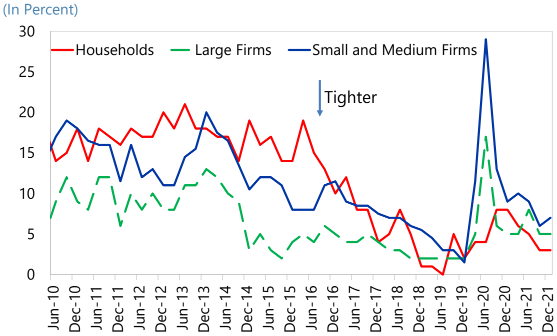
Bank Lending Rates
(In percent)



Source: CEIC.

After significant easing in 2020Q2, bank lending standards have been less accommodative more recently.

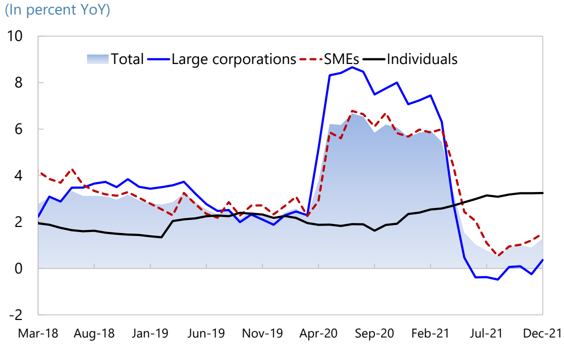
Bank Lending Standards
(In Percent)



Source: CEIC.

Bank lending rose sharply for both large and small firms, but has been increasing at a much slower pace recently.

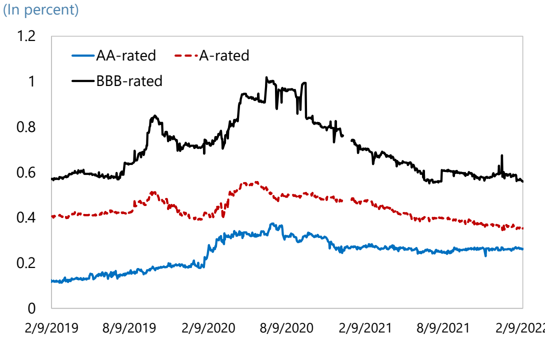
Growth in Bank Lending
(In percent YoY)



Source: CEIC.

Corporate bond spreads increased after the COVID shock but are now back to pre-COVID levels.

Corporate-Government Bonds Spreads (5Y)
(In percent)

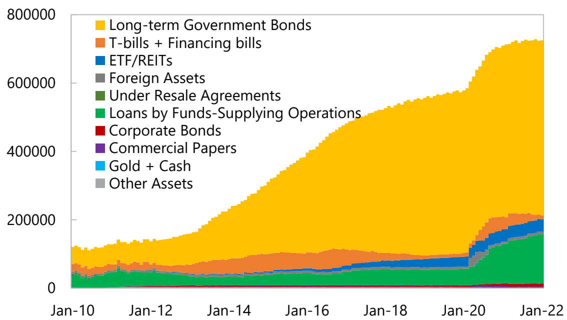


Source: Bloomberg L.P.

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

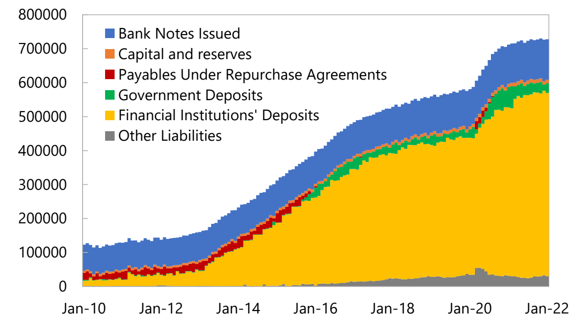
Amid its policy response to the COVID-19 pandemic, the BoJ's balance sheet expanded. More recently, with improvement in financial conditions, the BoJ's balance sheet expansion has been scaled down back in line with the pre-COVID pace

Bank of Japan Accounts: Assets
(In billions of Yen)



Source: Haver Analytics.

Bank of Japan Accounts: Liabilities
(In billions of Yen)

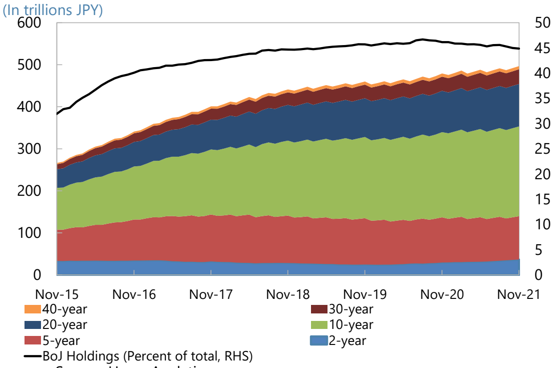


Source: Haver Analytics.

The BoJ's purchases of Japanese government bonds has slowed…

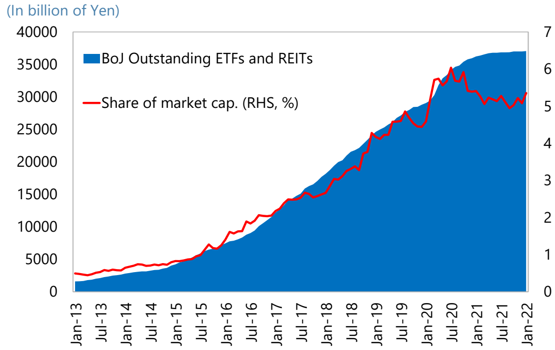
…and its purchases of ETFs and J-REITs have declined after rising sharply in response to the pandemic.

BoJ JGB Holdings by Maturity, 2015-2021
(In trillions JPY)



Source: Haver Analytics.

BoJ Outstanding ETFs and REITs
(In billion of Yen)

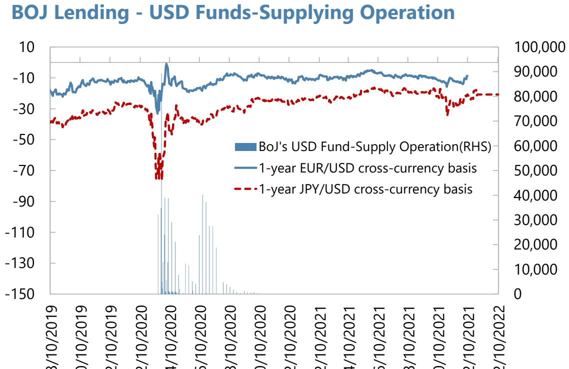


Source: Haver Analytics.

The BoJ's USD funds-supplying operation together with other major central banks has helped ease USD funding stress.

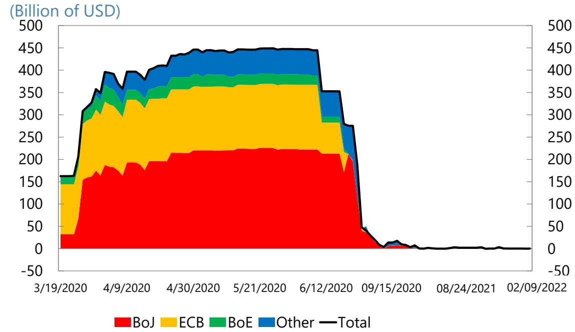
As USD funding stress has eased, the outstanding amounts of the BoJ-Fed USD swap line continued to decline.

BOJ Lending - USD Funds-Supplying Operation



Sources: Bloomberg; CEIC.

Fed Dollar Swap Line: Amounts Outstanding
(Billion of USD)



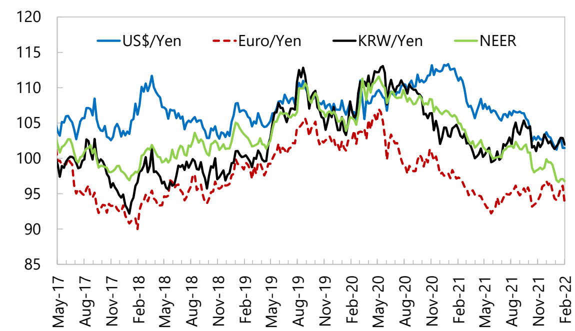
Source: Federal Reserve Bank of New York.

Figure 4. Japan: Financial Markets Developments

The yen has depreciated against most currencies since May 2020…

Selected Exchange Rates

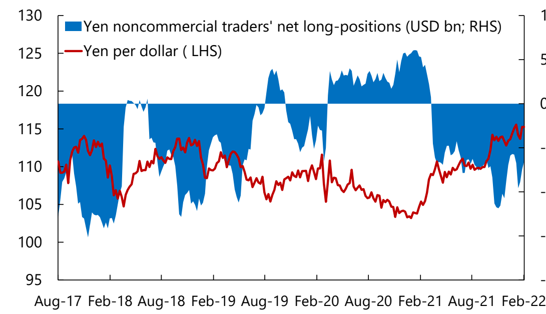
(Jan 3, 2017=100)



Source: Bloomberg L.P.
Note: Latest data as of February 4, 2022.

…and a net short-yen position emerged in early 2021.

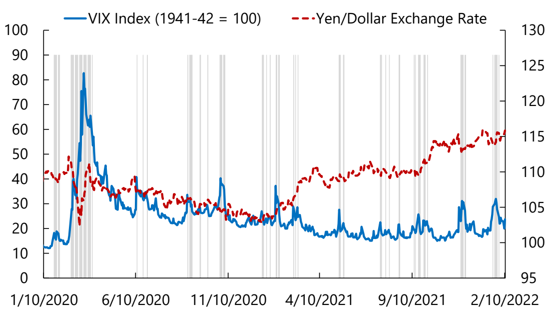
Chicago Mercantile Exchange Yen Position



Source: Bloomberg L.P.
Note: Latest data as of February 4, 2022.

Market uncertainty picked up in early 2022.

VIX Index and Exchange Rate 1/

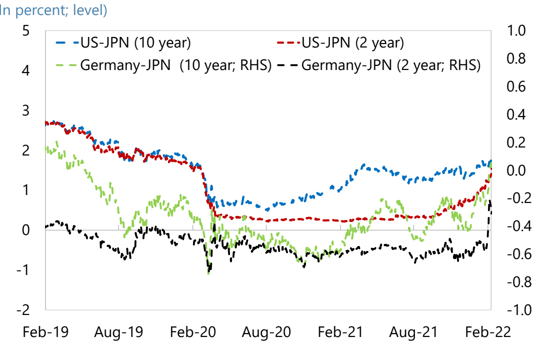


Source: Bloomberg L.P.
1/ Shaded areas refer to risk-off episodes with the VIX one standard deviation above the 60-day moving average.

The U.S.-Japan interest rate differentials widened as the U.S. inflation expectations rose

Interest Differential

(In percent; level)

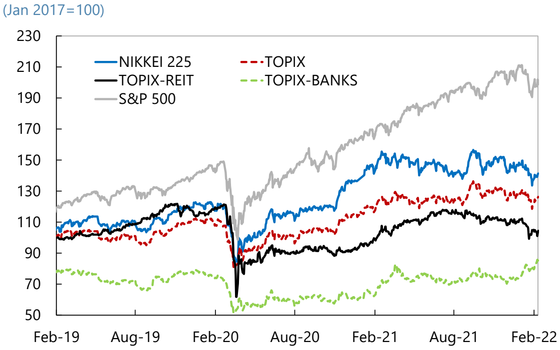


Source: Bloomberg L.P.

Equity indices have recovered to above pre-pandemic levels.

Equity Markets

(Jan 2017=100)

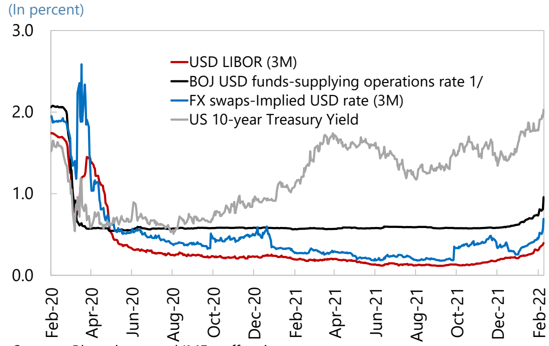


Source: Bloomberg L.P.

U.S. dollar funding costs spiked at the onset of the pandemic, stabilized at a low level subsequently, and have been increasing lately.

USD Funding Costs

(In percent)



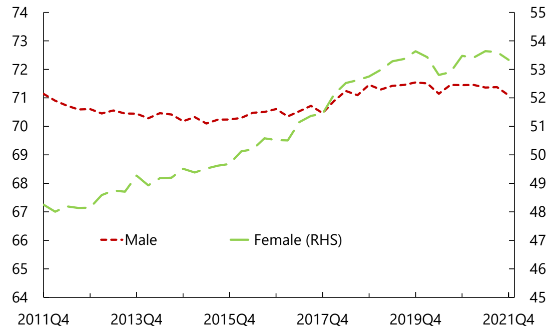
Sources: Bloomberg; and IMF staff estimates.
1/ Overnight Index Swap rate + 25 bps.

Figure 5. Japan: Labor Market and Wage Developments

Labor force participation rebounded after a drop at the onset of the pandemic.

Labor Force Participation Rate

(In percent)

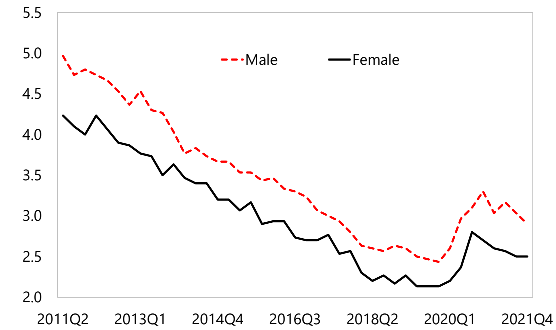


Source: Ministry of Internal Affairs and Communications.

The unemployment rate only rose modestly thanks to government support.

Unemployment Rate

(In percent of labor force, SA)

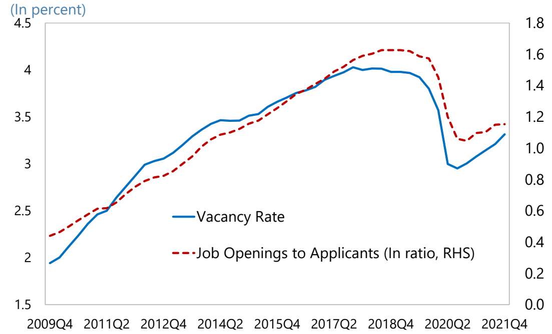


Sources: Haver Analytics, Ministry of Internal Affairs and Communications.

Job openings to applicants fell....

Vacancy Rate and Ratio of Job Openings to Applicants

(In percent)



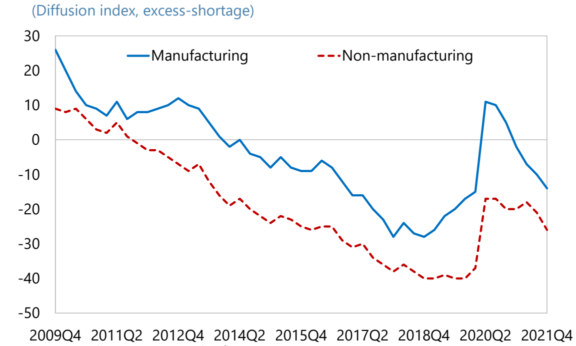
Source: Haver Analytics.

Note: Vacancy rate is the number of available jobs that remain unfilled as a percentage of the available labor force.

... as demand for labor remained weak particularly in non-manufacturing sectors.

Tankan Enterprise Survey: Employment Conditions

(Diffusion index, excess-shortage)



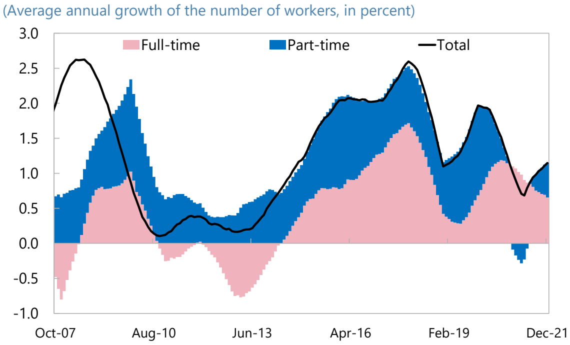
Source: Tankan Survey, Bank of Japan.

Note: Positive index represents the demand of hiring additional labor.

Part-time, potentially services-related, employment has gradually picked up.

Employment Growth Rate

(Average annual growth of the number of workers, in percent)

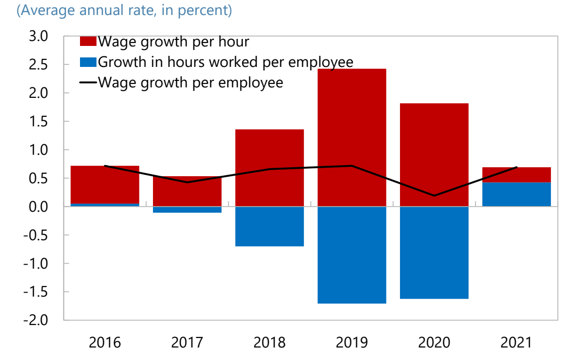


Source: Haver Analytics.

Wage growth remained weak.

Nominal Wage Growth per Full-Time Employee

(Average annual rate, in percent)

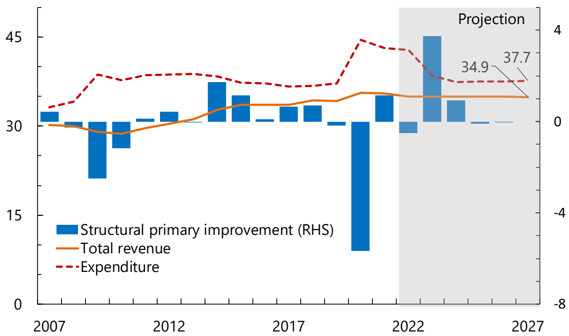


Source: Haver Analytics.

Figure 6. Japan: Fiscal Developments

The fiscal balance is projected to improve as the pandemic-related measures wind down.

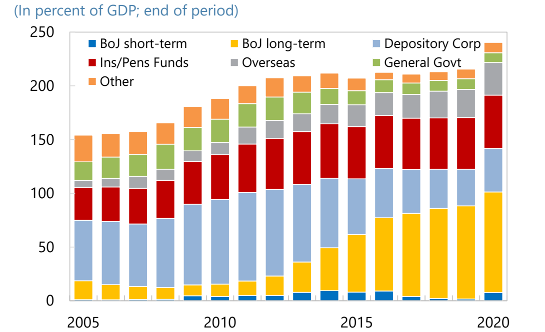
General Government Fiscal Balance
(In percent of GDP)



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

The current favorable funding environment is underpinned by the BoJ's JGB holdings and a stable domestic investor-base.

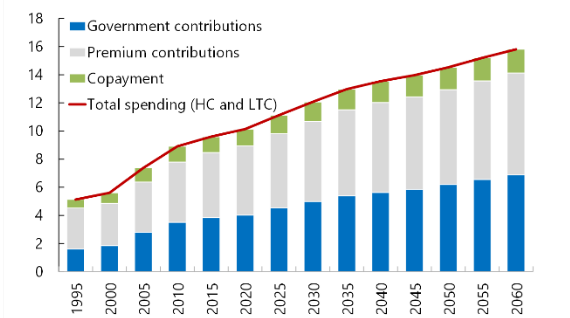
Public Debt Financing
(In percent of GDP; end of period)



Source: Flow of Funds (Bank of Japan).
Note: Includes both central and local governments' debt (including FLIP bonds)

Over the long-term, health care and long-term care costs are set to increase as the population ages...

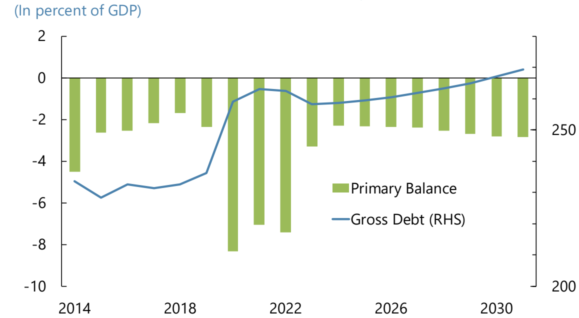
Financing of Health Care and Long-Term Care
(In percent of GDP)



Sources: Ministry of Health, Labor, and Welfare; IMF World Economic Outlook database; and IMF staff estimates.

...posing a growing threat to Japan's fiscal sustainability.

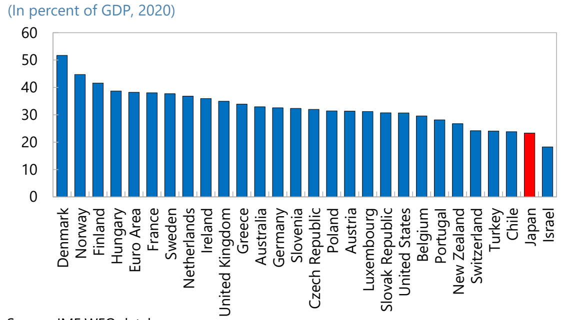
Japan: Gross Public Debt and Primary Balance 1/
(In percent of GDP)



Sources: Cabinet Office; and IMF staff estimates and projections.
1/ Gross debt of the general government including the social security fund.

Relative to peers, Japan's share of non-social security spending is low...

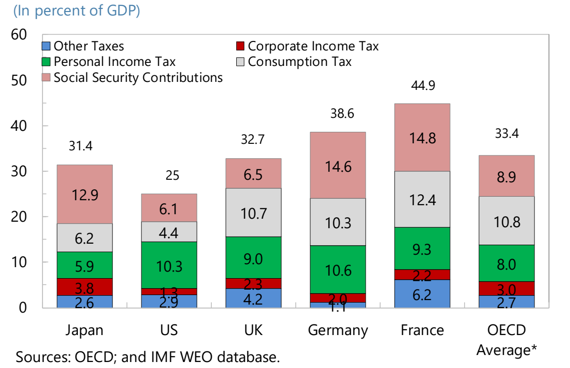
OECD: Spending Excluding Social Security and Interest 1/ 2/
(In percent of GDP, 2020)



Source: IMF WEO database.
1/ OECD countries with missing data (e.g., Canada, Italy and Spain) are not reported here.
2/ General government basis.

...while there is a room for increasing tax revenues.

General Government Tax and Social Security Revenue, 2019
(In percent of GDP)

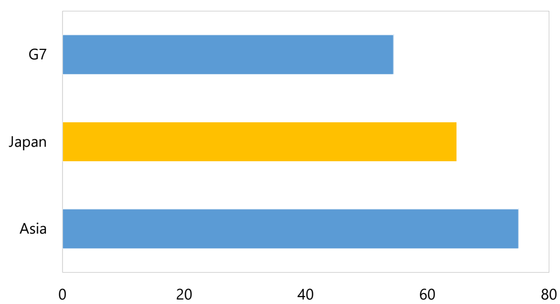


Sources: OECD; and IMF WEO database.
*OECD Average as of 2019

Figure 7. Japan: Climate Change

Japan is one of the countries with the highest climate change risks among G20 peers.

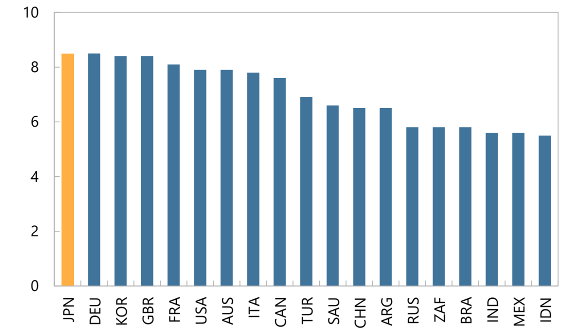
Global Climate Risk Index
(Average 2000-2019)



Source: German Watch, Global Climate Risk Index, 2021.

While Japan appears to have strong adaptive capacity to handle climate-related risks to physical exposures…

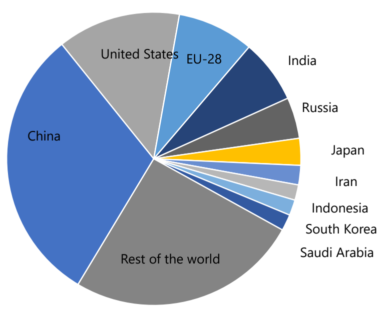
Climate Change Coping Capacity
(scale 0-10, higher score means more capacity to cope with climate change risk)



Source: INFORM Global Risk Index, Mid 2021.

…Japan is one of the largest carbon emitters in the world, exposing it to transition risks.

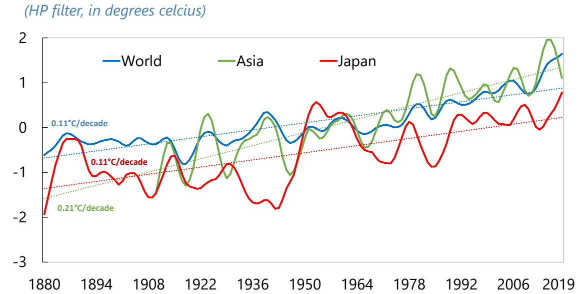
Annual CO2 Emissions by Country
(Percent of total, 2020 data)



Source: Our World in Data.

Strong climate change mitigation policy is needed to cope with global warming.

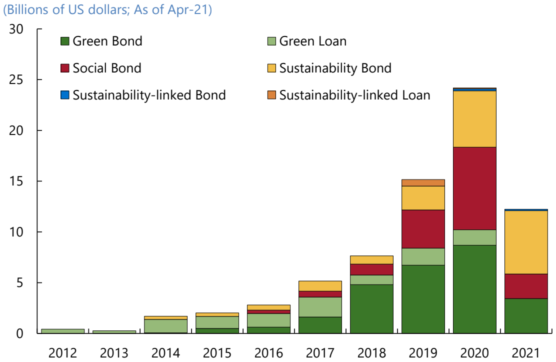
Temperature Anomalies, 1880-2019 1/
(HP filter, in degrees celcius)



Sources: NOAA - National Centers for Environmental information. IMF, forthcoming, "Fiscal Policies to Address Climate Change in Asia and the Pacific: Opportunities and Challenges."
1/ Departures from 20th century temperature average (1910-2000 for Asia) (1981 to 2010 for Japan). The series are filtered with a HP filter (lambda = 6.25). The dotted lines are the linear trend.

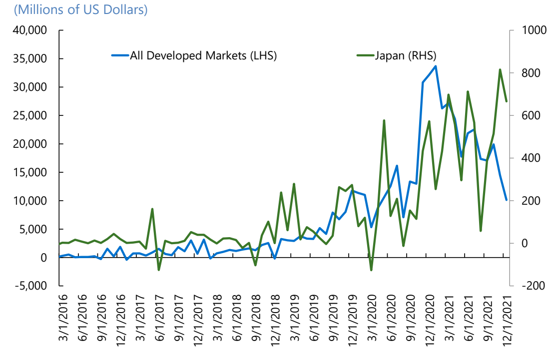
Green finance will help price climate related risks and facilitate large investment needs to mitigate and adapt to climate change. Green finance has grown quickly in Japan, but remains small relative to conventional finance.

Sustainable Debt Issuances by Japanese Entities
(Billions of US dollars; As of Apr-21)



Sources: BloombergNEF

ESG Equity Fund Flows
(Millions of US Dollars)



Sources: EPFR

Table 1. Japan: Selected Economic Indicators, 2018-23

Nominal GDP: US$ 4,937 Billion (2021) GDP per capita: US$ 39,340 (2021)
Population: 126 Million (2021) Quota: SDR 30.8 billion (2021)

	2017	2018	2019	2020	2021	2022	2023
						Proj.	
			(In percent change)				
Growth							
Real GDP	1.7	0.6	-0.2	-4.5	1.6	2.4	2.3
Domestic demand	1.1	0.6	0.2	-3.7	0.6	2.0	2.1
Private consumption	1.1	0.2	-0.5	-5.2	1.3	2.2	2.7
Gross Private Fixed Investment	2.0	0.3	0.8	-6.7	-0.9	1.5	4.2
Business investment	2.4	1.9	0.1	-6.5	-0.7	1.9	4.6
Residential investment	0.5	-6.4	4.1	-7.9	-1.9	-0.1	2.3
Government consumption	0.1	1.0	1.9	2.3	2.1	3.0	0.4
Public investment	0.1	0.6	1.7	3.9	-3.7	-3.4	-4.7
Stockbuilding	0.1	0.2	-0.1	-0.1	-0.2	0.0	0.0
Net exports	0.6	0.0	-0.5	-0.9	1.1	0.5	0.2
Exports of goods and services	6.6	3.8	-1.5	-11.8	11.6	5.7	5.6
Imports of goods and services	3.3	3.8	1.0	-7.2	5.2	3.2	4.7
Output Gap	-0.5	-0.7	-1.4	-2.7	-2.6	-1.7	-0.4
			(In annual average)				
Inflation							
Headline CPI	0.5	1.0	0.5	0.0	-0.3	1.0	0.8
GDP deflator	-0.1	0.0	0.6	0.9	-0.9	0.4	0.4
			(In percent of GDP)				
General government							
Revenue	33.6	34.3	34.2	35.6	35.5	35.0	35.0
Expenditure	36.7	36.8	37.2	44.5	43.2	42.8	38.5
Overall Balance	-3.1	-2.5	-3.0	-9.0	-7.6	-7.8	-3.5
Primary balance	-2.2	-1.7	-2.4	-8.3	-7.0	-7.4	-3.3
Structural primary balance	-2.4	-1.7	-1.9	-7.5	-6.4	-6.9	-3.2
Public debt, gross	231.4	232.5	236.1	259.0	263.1	262.5	258.3
			(In percent change, end-period)				
Macro-financial							
Base money	9.7	5.0	2.8	19.2	8.6	2.9	3.6
Broad money	3.5	2.3	2.1	7.3	3.0	3.4	3.4
Credit to the private sector	4.0	0.8	2.9	6.3	1.3	0.9	2.3
Non-financial corporate debt in percent of GDP	134.2	136.2	138.5	151.9	153.2	152.3	150.9
			(In percent)				
Interest rate							
Overnight call rate, uncollateralized (end-period)	-0.1	-0.1	-0.1	0.0	...	...	...
Three-month CD rate (annual average)	0.0	0.0	0.0	0.0	...	...	...
Official discount rate (end-period)	0.3	0.3	0.3	0.3	...	...	...
10-year JGB yield (e.o.p.)	0.1	0.1	-0.1	0.0	...	...	...
			(In billions of USD)				
Balance of payments							
Current account balance	203.5	177.8	176.0	148.8	141.7	117.2	142.2
Percent of GDP	4.1	3.5	3.4	3.0	2.9	2.4	2.7
Trade balance	44.1	11.0	1.4	28.8	16.4	-29.8	-21.9
Percent of GDP	0.9	0.2	0.0	0.6	0.3	-0.6	-0.4
Exports of goods, f.o.b.	689.1	735.9	695.0	631.5	748.5	806.8	856.2
Imports of goods, f.o.b.	645.0	724.9	693.6	602.8	732.1	836.6	878.1
Energy imports	117.8	148.5	131.9	89.1	127.7	195.9	168.5
			(In percent of GDP)				
FDI, net	3.1	2.7	4.3	1.8	2.4	2.9	2.8
Portfolio Investment	-1.0	1.8	1.7	0.7	-4.0	0.5	0.9
			(In billions of USD)				
Change in reserves	23.6	24.0	25.5	10.9	62.8	11.5	11.5
Total reserves minus gold (in billions of US$)	1232.4	1239.4	1286.3	1348.2	...	...	...
			(In annual average)				
Exchange rates							
Yen/dollar rate	112.2	110.4	109.0	106.8	...	...	...
Yen/euro rate	126.7	130.5	122.0	121.9	...	...	...
Real effective exchange rate (ULC-based, 2010=100)	76.5	74.6	75.4	74.7	...	...	...
Real effective exchange rate (CPI-based, 2010=100)	75.0	74.4	76.5	77.2	...	...	...
			(In percent)				
Demographic Indicators							
Population Growth	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4
Old-age dependency	46.0	46.9	47.6	48.3	48.7	48.9	49.3

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

Table 2. Japan: Monetary Authority Accounts and Monetary Survey, 2019-23

	2019	2020	2021	2022	2023
			Est.	Proj.	
	(In trillions of JPY)				
Monetary Authority					
Net foreign assets	-24.2	-19.5	-16.3	-20.9	-20.0
Net domestic assets	542.4	637.1	686.7	710.9	735.1
Net domestic credit	578.0	674.7	727.5	751.7	775.9
Net credit to non-financial public sector	433.0	437.4	449.1	469.1	489.1
Credit to the private sector	6.2	9.7	10.4	10.6	10.8
Net credit to financial corporations	138.8	227.6	268.1	272.1	276.1
Other items net	-35.6	-37.6	-40.8	-40.8	-40.8
Monetary base	518.2	617.6	670.4	690.0	715.1
Monetary Survey (Depository Corporations)					
Net foreign assets	79.7	93.0	107.0	108.9	109.4
Net domestic assets	1,347.3	1,438.3	1,480.2	1,502.5	1,556.9
Net domestic credit	1,466.4	1,562.1	1,597.7	1,632.1	1,681.4
Net credit to nonfinancial public sector	668.4	697.3	701.1	729.2	763.7
Credit to the private sector	607.9	646.2	654.8	661.1	676.0
Net credit to other financial institutions	190.2	218.6	241.7	241.7	241.7
Other items net	-119.1	-123.8	-117.6	-129.6	-124.6
Broad money	1,409.9	1,513.1	1,558.5	1,611.4	1,666.3
Currency in circulation	106.9	112.4	112.1	122.5	129.0
Current deposits	741.0	855.1	909.9	946.4	988.7
Other deposits	562.0	545.6	536.5	542.5	548.5
	(In percent of GDP)				
Net credit to other financial institutions	34.0	40.6	44.6	43.4	42.2
Credit to the private sector from depository corporations	108.8	120.1	120.8	118.7	118.1
Corporate debt (includes loans and securities other than shares)	138.5	151.9	153.2	152.3	150.9
Household debt in percent of disposable income	112.9	110.8	110.1	110.4	111.5
	(Y-o-Y growth in percent)				
Base money	2.8	19.2	8.6	2.9	3.6
Broad money	2.1	7.3	3.0	3.4	3.4
Credit to the private sector from depository corporations	2.9	6.3	1.3	0.9	2.3
Corporate loans by domestically licensed banks	1.9	10.6	-1.0	0.9	2.0
Housing loans	2.4	3.0	1.9	2.0	2.0
Credit to the private sector from all financial institutions	4.9	6.5	1.4	1.0	2.3
Memorandum items:					
Velocity of broad money	0.4	0.4	0.4	0.3	0.3
Money multiplier (broad money)	2.7	2.4	2.3	2.3	2.3
Loan-to-deposit ratio (percent) 1/	54.0	53.0	51.6	50.6	50.2

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, 2019-27

	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Proj.			
Balance of Payments				*(In billions of USD)*					
Current account balance	176.0	148.8	141.7	117.2	142.2	166.2	183.5	192.8	202.0
Trade balance (goods)	1.4	28.8	16.4	-29.8	-21.9	-5.6	4.0	5.0	6.6
Exports of goods	695.0	631.5	748.5	806.8	856.2	894.4	927.4	951.7	979.3
Imports of goods	693.6	602.8	732.1	836.6	878.1	900.0	923.3	946.7	972.7
Imports of goods, Oil	92.0	59.1	88.9	136.4	117.3	105.8	97.9	92.4	88.9
Services balance	-10.0	-35.0	-38.9	-24.1	-15.0	-16.0	-16.3	-17.0	-17.6
Credits	207.3	170.0	183.6	211.1	218.7	226.6	231.8	237.1	237.1
Debits	206.1	204.1	211.8	219.9	228.2	236.9	245.9	255.3	255.3
Income balance	197.2	179.0	186.3	190.0	201.0	210.6	219.7	229.7	235.9
Credits	313.2	277.0	283.7	295.1	312.1	325.6	340.3	356.1	365.5
Debits	116.0	97.9	97.3	105.1	111.1	115.0	120.6	126.4	129.6
Current net transfers	-12.6	-24.0	-22.1	-18.9	-21.9	-22.9	-23.9	-24.9	-22.9
Capital account	-3.8	-1.7	-3.8	-3.0	-3.4	-3.7	-3.4	-3.6	-3.9
Financial account	227.9	128.6	98.4	114.2	138.8	162.5	180.1	189.2	198.1
Direct investment, net	218.5	89.5	120.1	140.6	148.6	156.7	148.4	163.5	171.8
Portfolio investment, net	87.4	37.0	-198.6	27.0	49.1	68.0	86.3	103.1	118.4
Other investment, net	-106.7	-17.2	91.7	-87.3	-92.7	-96.0	-88.4	-111.3	-125.9
Financial derivatives, net	3.2	8.4	22.3	22.3	22.3	22.3	22.3	22.3	22.3
Reserve assets	25.5	10.9	62.8	11.5	11.5	11.5	11.5	11.5	11.5
Errors and omissions, net	55.7	-18.5	-39.5	0.0	0.0	0.0	0.0	0.0	0.0
				(In percent of GDP)					
Current account balance	3.4	3.0	2.9	2.4	2.7	3.0	3.2	3.2	3.2
Trade balance (goods)	0.0	0.6	0.3	-0.6	-0.4	-0.1	0.1	0.1	0.1
Exports of goods	13.6	12.5	15.2	16.4	16.2	16.2	15.9	15.7	15.6
Imports of goods	13.5	12.0	14.8	17.0	16.6	16.3	15.9	15.6	15.5
Services balance	-0.2	-0.7	-0.8	-0.5	-0.3	-0.3	-0.3	-0.3	-0.3
Income balance	3.8	3.6	3.8	3.9	3.8	3.8	3.8	3.8	3.8
Global Assumptions									
Oil prices (US$/barrel)	61.4	41.3	69.1	106.8	92.6	84.2	78.5	74.7	72.5
(Percent change)	-10.2	-32.7	67.3	54.7	-13.3	-9.1	-6.7	-4.9	-3.0
Memorandum items:									
Nominal GDP (US$ billion)	5,122.4	5,040.1	4,938.1	4,912.1	5,291.4	5,527.7	5,820.0	6,063.3	6,259.8
Net foreign assets (NFA)/GDP, US$ basis	63.9	68.2	71.6	74.3	71.6	71.5	71.0	71.2	72.2
Return on NFA (in percent), US$ basis	6.1	5.2	5.3	5.2	5.3	5.3	5.3	5.3	5.2
Net export contribution to growth	-0.5	-0.9	1.1	0.5	0.2	0.2	0.1	0.0	0.0

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

Table 4. Japan: General Government Operations, 2019-27

(In percent of GDP)

	2019	2020	2021	2022	2023	2024	2025	2026	2027
			Est.			Proj.			
Total revenue	34.2	35.6	35.5	35.0	35.0	35.0	34.9	34.9	34.9
Taxes 1/	18.8	19.8	19.8	19.5	19.4	19.4	19.4	19.4	19.4
Social contributions	13.3	13.7	13.7	13.4	13.4	13.4	13.4	13.4	13.4
o/w Social security contributions	12.8	13.3	13.2	12.9	13.0	13.0	13.0	13.0	13.0
Other revenue	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0
o/w interest income	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0
Total expenditure	37.2	44.5	43.2	42.8	38.5	37.5	37.5	37.6	37.7
Expense	36.5	43.6	42.3	42.0	37.9	37.1	37.1	37.2	37.4
Consumption	10.8	11.7	11.9	11.9	11.3	11.2	11.1	11.1	11.0
Social benefits	21.2	22.0	22.2	22.1	21.9	22.0	22.1	22.3	22.4
o/w Social security benefits	18.9	19.6	19.8	19.7	19.6	19.7	19.8	20.0	20.2
Interest	1.7	1.7	1.6	1.4	1.2	1.2	1.2	1.3	1.4
Other expense	2.8	8.2	6.7	6.6	3.4	2.6	2.6	2.5	2.5
(Memo) Compensation of employees 2/	5.2	5.3	…	…	…	…	…	…	…
(Memo) Use of goods and services 2/	3.4	4.0	…	…	…	…	…	…	…
Net investment in nonfinancial assets	0.8	0.9	0.8	0.8	0.6	0.4	0.4	0.4	0.3
Gross investment in nonfinancial assets	4.2	4.5	4.4	4.3	3.9	3.7	3.7	3.6	3.5
o/w public investment	3.9	4.3	4.2	4.0	3.7	3.5	3.5	3.4	3.3
o/w land acquisition	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
(less) Consumption of fixed capital	3.4	3.6	3.6	3.5	3.4	3.3	3.3	3.3	3.2
Net lending/borrowing (overall balance)	-3.0	-9.0	-7.6	-7.8	-3.5	-2.5	-2.5	-2.6	-2.8
Excluding social security fund	-3.8	-9.5	-8.0	-8.1	-3.7	-2.6	-2.6	-2.6	-2.8
Primary balance	-2.4	-8.3	-7.0	-7.4	-3.3	-2.3	-2.3	-2.4	-2.4
Structural balance 3/	-2.5	-8.1	-6.9	-7.3	-3.3	-2.4	-2.5	-2.6	-2.8
Structural primary balance 3/	-1.9	-7.5	-6.4	-6.9	-3.2	-2.2	-2.3	-2.4	-2.4
Stock positions 4/									
Debt									
Gross 5/	236.1	259.0	263.1	262.5	258.3	258.7	259.4	260.5	261.8
Net	151.4	162.4	168.8	172.1	171.0	171.4	172.1	173.2	174.5
Net worth	17.5	13.3	…	…	…	…	…	…	…
Nonfinancial assets	140.2	145.4	…	…	…	…	…	…	…
Produced assets	118.6	122.9	…	…	…	…	…	…	…
Non-produced assets	21.7	22.5	…	…	…	…	…	…	…
Net financial worth	-122.8	-132.1	…	…	…	…	…	…	…
Financial assets	116.4	130.1	…	…	…	…	…	…	…
Monetary Gold and SDR, etc.	0.4	0.4	…	…	…	…	…	…	…
Currency and deposits	15.3	22.9	…	…	…	…	…	…	…
Loans	4.0	3.5	…	…	…	…	…	…	…
Debt securities	13.3	12.3	…	…	…	…	…	…	…
Equity and investment fund shares	31.7	33.5	…	…	…	…	…	…	…
o/w shares	11.7	12.8	…	…	…	…	…	…	…
Insurance, pension and standardized guarantee schemes	0.0	0.0	…	…	…	…	…	…	…
Financial derivatives and employee stock options	0.0	0.0	…	…	…	…	…	…	…
Other financial assets	51.7	57.4	…	…	…	…	…	…	…
Liabilities	239.2	262.3	…	…	…	…	…	…	…
Monetary Gold and SDR, etc.	0.3	0.3	…	…	…	…	…	…	…
Currency and deposits	0.0	0.0	…	…	…	…	…	…	…
Loans	27.3	28.1	…	…	…	…	…	…	…
Debt securities	199.6	219.5	…	…	…	…	…	…	…
Equity and investment fund shares	3.0	3.3	…	…	…	…	…	…	…
Insurance, pension and standardized guarantee schemes	0.0	0.0	…	…	…	…	…	…	…
Financial derivatives and employee stock options	0.0	0.0	…	…	…	…	…	…	…
Other liabilities	8.9	11.1	…	…	…	…	…	…	…
Memorandum item:									
Nominal GDP (trillion yen)	558.5	538.2	542.0	557.0	572.4	579.3	585.8	591.0	596.0

Sources: Japan Cabinet Office; 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, 2019-27

	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Proj.			
				(In percent change)					
Real GDP	-0.2	-4.5	1.6	2.4	2.3	0.8	0.7	0.5	0.4
Private final consumption	-0.5	-5.2	1.3	2.3	2.7	0.7	0.4	0.3	0.2
Government consumption	1.9	2.3	2.1	3.0	0.4	0.9	1.3	1.2	1.2
Gross Private fixed investment	0.8	-6.7	-0.8	1.5	4.2	1.2	0.8	0.6	0.4
Public investment	1.7	3.9	-3.6	-3.4	-4.7	-4.4	-0.3	-0.4	-0.4
Stockbuilding (contribution to growth)	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Exports	-1.5	-11.8	11.7	5.7	5.6	3.2	2.6	1.8	1.8
Imports	1.0	-7.2	5.2	3.2	4.7	2.4	2.2	2.1	2.0
Total domestic demand	0.2	-3.7	0.6	2.0	2.1	0.6	0.6	0.5	0.4
Net exports (contribution)	-0.5	-0.9	1.1	0.5	0.2	0.2	0.1	0.0	0.0
Real GDP per Capita	0.0	-4.2	1.9	2.7	2.8	1.3	1.2	1.0	1.4
Private final consumption per Capita	-0.3	-5.0	1.6	2.5	3.2	1.2	0.8	0.8	1.3
Unemployment rate (percent)	2.4	2.8	2.8	2.6	2.4	2.4	2.4	2.4	2.4
Headline CPI inflation (average)	0.5	0.0	-0.3	1.0	0.8	0.9	1.0	1.0	1.0
Output gap (in percent of potential output)	-1.4	-2.7	-2.6	-1.7	-0.4	-0.2	0.0	0.0	0.0
				(In percent of GDP)					
Overall fiscal balance	-3.0	-9.0	-7.6	-7.8	-3.5	-2.5	-2.5	-2.6	-2.8
Primary balance	-2.4	-8.3	-7.0	-7.4	-3.3	-2.3	-2.3	-2.4	-2.4
General government debt									
Gross	236.1	259.0	263.1	262.5	258.3	258.7	259.4	260.5	261.8
Net	151.4	162.4	168.8	172.1	171.0	171.4	172.1	173.2	174.5
Current account balance	3.4	3.0	2.9	2.4	2.7	3.0	3.2	3.2	3.2
National savings	29.3	28.4	28.1	27.7	27.9	28.1	28.2	28.2	28.2
Private	27.7	32.7	31.1	31.1	27.2	26.6	26.7	26.9	27.1
Public	1.5	-4.3	-3.0	-3.3	0.7	1.5	1.4	1.3	1.1
National investment	25.8	25.4	25.3	25.4	25.2	25.1	25.0	25.0	25.0
Private	20.6	19.8	19.7	20.0	20.2	20.4	20.3	20.4	20.3
Public	5.2	5.7	5.5	5.4	5.0	4.7	4.7	4.6	4.6

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

Table 6. Japan: Financial Soundness Indicators, 2015-20 1/

	2015	2016	2017	2018	2019	2020
			(In percent)			
Capital Adequacy						
Regulatory capital to risk-weighted assets 2/3/	15.5	15.9	16.0	17.1	17.2	16.4
Regulatory tier 1 capital to risk-weighted assets	12.5	13.3	13.5	14.9	15.1	14.4
NPL net of provisions/capital 2/4/	12.8	11.5	9.0	7.6	7.6	8.2
Asset Quality						
Non-performing loans (NPL) to total loans ratio 2/4/	1.6	1.5	1.3	1.1	1.1	1.1
Sectoral distribution of loans 4/5/						
Residents	89.5	90.9	90.2	90.2	90.5	89.1
Deposit-takers	3.7	5.8	4.7	5.0	5.0	4.6
Central bank	0.0	0.0	0.0	0.0	0.0	2.2
Other financial corporations	9.0	9.3	9.7	9.6	10.2	10.0
General government	8.9	8.8	8.7	8.7	8.4	7.9
Non-financial corporations	37.0	36.7	36.8	36.1	36.4	35.3
Other domestic sectors	31.0	30.3	30.4	30.8	30.6	29.1
Non-residents	10.5	9.1	9.8	9.8	9.5	10.9
Earnings and Profitability						
Return on assets 2/4/	0.3	0.3	0.2	0.2	0.1	-0.1
Return on equity 2/4/	6.3	6.9	5.1	5.4	2.3	-1.3
Interest margin	1.2	1.1	1.1	1.1	1.1	1.0
Net interest income to gross income 2/4/	62.9	60.4	62.6	62.2	70.4	60.3
Non-interest expenses to gross income 2/4/	60.6	62.8	67.8	69.0	82.7	73.5
Personnel expenses to non-interest expenses 2/4/	44.1	60.2	59.6	44.2	43.7	43.0
Liquidity						
Liquid assets to total assets 2/4/	26.9	27.2	28.7	29.6	29.4	29.5
Liquid assets to short-term liabilities 2/4/	48.1	49.1	49.7	49.9	49.2	47.4
Non-interbank loans-to-customer-deposits 2/4/	75.7	74.9	73.3	71.7	71.7	71.8
Other						
Capital-to-total assets 2/3/	5.8	5.5	5.4	5.5	5.4	4.9
Gross derivative asset to capital 2/4/	47.4	53.0	37.0	30.7	30.0	45.9
Gross derivative liability to capital 2/4/	48.6	50.2	35.7	28.3	28.7	43.1

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.

Annex I. Health Responses to the Pandemic

Japan managed to minimize COVID-related mortality rate while avoiding strict lockdowns throughout the pandemic. Nonetheless, repeated waves of COVID-19 infections and related health measures dampened mobility and slowed recovery in 2021. More than three quarters of the population have been fully vaccinated and booster shots have been administered since December 2021.

1. **More than three quarters of the population has now been vaccinated, following a slow start**. Although progress was sluggish initially, vaccine supply constraints eased in late May, and the rollout accelerated through mass vaccination sites and corporate vaccination drives. By December 1, 78 percent of the population was fully vaccinated. The government started rolling out booster shots in December.

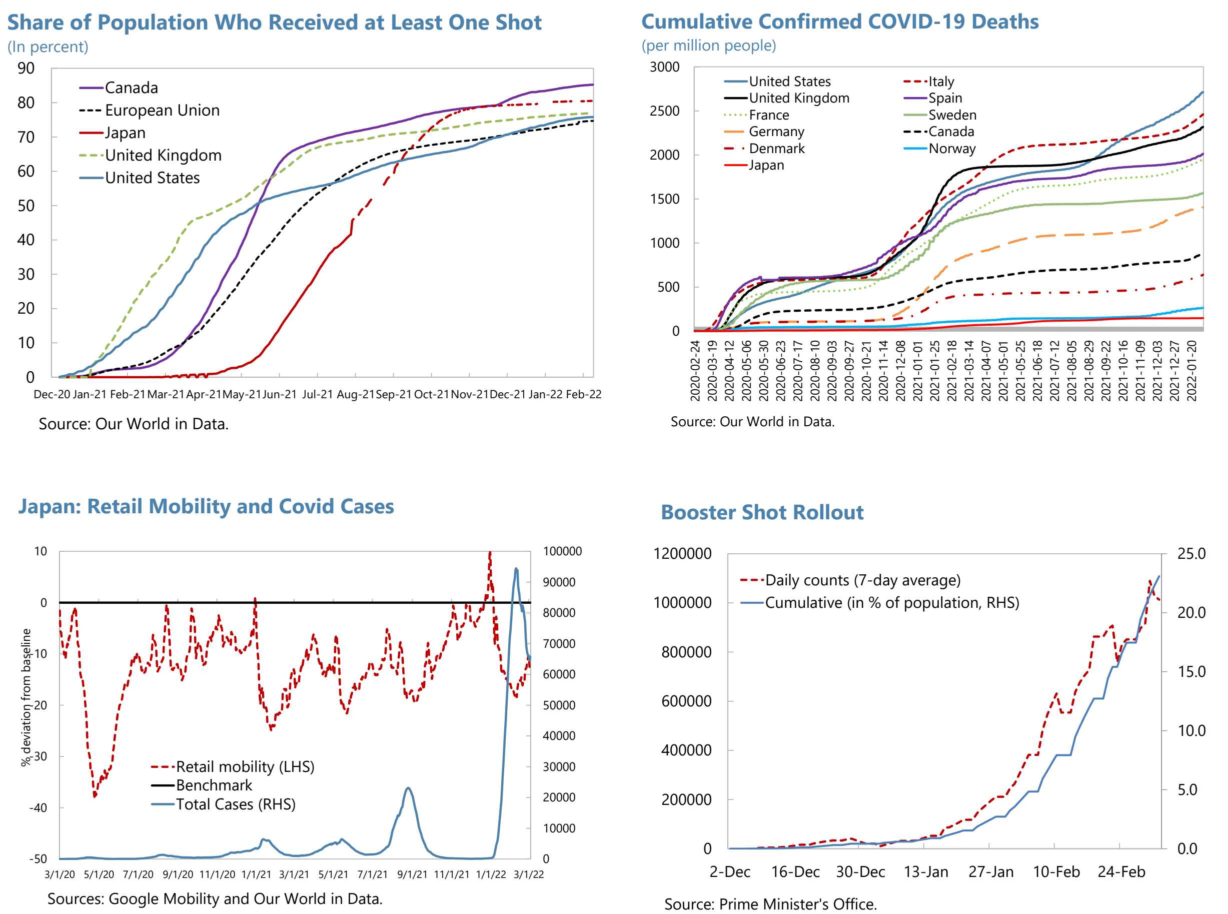
2. **Japan managed to minimize the COVID-related mortality rate while avoiding strict lockdowns throughout the pandemic**. The COVID-related mortality rate in Japan is one of the lowest among advanced economies. This could be attributed to a combination of factors, including timely declarations of States of Emergency (SoEs), habitual mask wearing, and relatively high hospital bed density. Containment measures under SoEs were much less restrictive than in other countries due to legal constraints on enforcing strict lockdowns. Accordingly, Japan's strategy relied heavily on voluntary compliance with recommended containment measures, combined with a targeted approach to identify clusters through contact-tracing. With relatively few cases to trace and a high level of self-restraint by its residents, Japan's strategy worked relatively well in containing the virus in 2020.

3. **The resurgence of COVID-19 infections led to three widespread SoEs and delayed economic recovery in 2021**. As people gradually adapted to the new normal and the government eased some recommendations, mobility recovered, and self-restraint declined significantly. The government reinstated a two-month-long SoE in January after the health system became increasingly stressed by COVID-19 infected patients. The second SoE brought down infections, but the effect was short-lived. Infections surged again in April which triggered a third SoE with more stringent measures. Unlike previous SoEs with non-mandatory requests, the government toughened a law on anti-virus measures and allowed prefectural governors to issue binding orders of short business hours and temporary business closures. On July 12, the government announced a fourth SoE in the Tokyo region covering the duration of the Olympic Games amid a new wave of infections related to the delta variant. The SoE was later expanded to cover 21 prefectures at the peak and extended to last until September 30. The health measures, combined with steady progress in vaccination, helped bring down infections in end-September. The SoEs are shown to discourage mobility and dampen consumption of services, although the effect has weakened over time.

4. **A new wave related to the omicron variant led to record infections in the first quarter of 2022**. The more transmissible variant pushed daily case counts above 100,000, and prompted the government to subsequently apply quasi-SoE measures in 35 prefectures that lasted until March 21 for 18 prefectures. Although measures under quasi-SoEs are less stringent than those under SoEs,

mobility fell significantly in January and February as people reduced outings voluntarily. The number of hospitalizations and deaths related to COVID-19 infections surpassed previous peaks amid a slow rollout of booster shots. The government had initially required an eight-month interval for the booster shot, and subsequently reduced it to six months for those above 64 and seven months for others. Both infections and hospitalization have peaked at end-February, and mobility has started to recover. The rollout of booster shots had also accelerated to above 1 million doses per day in early March and 23 percent of the population were boosted by March 3. Continued fast rollout of booster shots could help strengthen immunity against the omicron variant and avoid overwhelming the health sector.

Figure 1. Japan: COVID-19 Health Response



Annex II. External Sector Assessment

<table>
<tr><td colspan="8"> Overall Assessment: On a preliminary basis, and adjusting for transitory factors, recent developments suggest that the external position in 2021 was broadly in line with the level implied by medium-term fundamentals and desirable policies. This assessment is uncertain, given the uncertainty around the COVID-19 crisis, and a complete analysis will be provided in the 2022 External Sector Report. Japan's current account (CA) surplus is expected to continue over the medium term, mainly driven by its income surplus arising from a large positive net international investment position (NIIP) and high net returns. Potential Policy Responses: The policy response to the ongoing COVID-19 shock has appropriately prioritized support to affected households, workers, and firms while maintaining the smooth functioning of financial markets. As the recovery is entrenched, extraordinary policy support should gradually be withdrawn and reoriented. In particular, post-pandemic policies should shift toward structural reforms and fiscal sustainability. While fiscal consolidation should proceed in a gradual manner, it should be accompanied by a credible medium-term fiscal framework, accommodative monetary policy, and structural reforms that support domestic demand. Priority should be given to reforms to increase labor supply, boost productivity and wages, and deregulation. </td></tr>
<tr><td>Foreign Asset and Liability Position and Trajectory</td><td colspan="7"> Background. Japan's NIIP has risen since 2017, reaching 70.7 percent of GDP at end-September 2021, up from 59.5 percent in 2017 and 66.3 percent in 2020. This has been largely driven by an increase in foreign assets related to outward FDI and portfolio outflows. On the back of CA surpluses, the NIIP is projected to stabilize at around 72 percent of GDP in the medium term. Japan holds the world's largest stock of net foreign assets, valued at US$3.4 trillion at the end of September 2021. Assessment. Japan's foreign asset holdings are well diversified, both by geography and risk classes. As of September 2021, gross foreign assets largely comprise portfolio investment accounting for about 45 percent of the total. At end-2020, portfolio investment was about 21 percent yen-denominated and 51 percent U.S. dollar-denominated. In the event of yen appreciation against the U.S. dollar, the risk of negative valuation effects could materialize. Liabilities' vulnerabilities are contained, given that equity and direct investment account for a third of gross foreign liabilities. The NIIP generated net annual investment income of 3.8 percent of GDP in 2021. Japan's large positive NIIP is partly related to the asset accumulation for old-age consumption; a gradual deaccumulation of such assets is expected over the long term. </td></tr>
<tr><td>End-September 2021 (% GDP)</td><td colspan="2">NIIP: 70.7</td><td>Gross Assets: 226.6</td><td>Debt Assets: 87.2</td><td>Gross Liab.: 155.9</td><td colspan="2">Debt Liab.: 95.5</td></tr>
<tr><td>Current Account</td><td colspan="7"> Background. Japan's CA surplus reflects a sizable income balance, owing to its large net foreign asset position. From a savings-investment perspective, it reflects a high private sector saving-investment balance that more than compensates for the low government saving-investment balance. The CA surplus registered 2.9 percent of GDP in 2021, broadly unchanged from 3.0 percent in 2020, though remained well below the average of 3.8 percent during 2016–19. The narrowing in the 2020 and 2021 CA surplus was largely driven by a decline in the services trade balance amid international travel restrictions, while the goods trade balance remained in surplus. The income surplus continued to be the main contributor to the CA surplus, accounting for 3.8 percent of GDP in 2021. After the COVID-19 shock dissipates, the CA balance is projected to stabilize at a level slightly above 3 percent of GDP. Assessment. The 2021 CA assessment uses the EBA model, in which the estimated cyclically-adjusted CA is 3.0 percent of GDP and the cyclically-adjusted CA norm is estimated at 4.3 percent of GDP, with a standard error of 1.2 percent of GDP. The IMF staff estimates a 2021 CA norm range between 3.1 and 5.5 percent of GDP. After factoring in the transitory impacts of the COVID-19 crisis on the CA in relation to travel services (including tourism), transport balance, a household consumption composition shift, and medical goods sectors, the 2021 CA gap midpoint is assessed at −0.9 percent of GDP, with the CA gap range between −2.1 and 0.3 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. The overall gap is accounted for by the residual, potentially reflecting structural impediments and country-specific factors not included in the model, such as investment bottlenecks, including entrepreneurship entry barriers and corporate savings distortions. </td></tr>
<tr><td>2021 (% GDP)</td><td>CA: 2.9</td><td>Cycl. Adj. CA: 3.0</td><td>EBA Norm: 4.3</td><td>EBA Gap: −1.3</td><td>COVID-19 Adj.: 0.4</td><td>Other Adj.: 0.0</td><td>Staff Gap: −0.9</td></tr>
<tr><td>Real Exchange Rate</td><td colspan="7"> Background. The REER depreciated sharply by 8.6 percent in 2021, following a slight appreciation during 2017-2020. This reflects a sharp rise in inflation in Japan's major trading partners as well as changes in global risk aversion and the monetary policy stances of key central banks post-pandemic. Assessment. The IMF staff CA gap implies a REER gap of 6.2 percent in 2021 (applying an estimated elasticity of 0.14). The EBA REER level and index models deliver REER gaps of −16.9 and −25.5 percent, respectively, for the 2021 average REER. However, the EBA REER level and index models are not used for the assessment because they do not capture Japan-specific factors well. Consistent with the IMF staff CA gap, the IMF staff assesses the REER gap to be in the range of −2.4 to 14.7 percent, with a midpoint of 6.2 percent. </td></tr>
<tr><td>Capital and Financial Accounts: Flows and Policy Measures</td><td colspan="7"> Background. The CA surplus in 2021 is mirrored by an increase in net FDI outflows to about 2.9 percent of GDP, from 1.8 percent in 2020, primarily driven by outward FDI flows to North America. Supported by portfolio inflows from Europe and Oceania, portfolio investment is expected to record net inflows of 0.1 percent of GDP in 2021, as opposed to net outflows of 0.7 percent in 2020. Net short yen positions have emerged since early 2021, due to the relative strength of the U.S. dollar amid changes in monetary policy stances. An increase in reserve assets in 2021 reflects the SDR allocation of SDR 29.5 billion (about US$42.1 billion or 0.9 percent of GDP). Assessment. Vulnerabilities are limited. Inward investment tends to be equity-based, and the home bias of Japanese investors remains strong. So far, outward spillovers from Japan's policies to financial conditions in other economies (interest rates, credit growth) are contained. </td></tr>
<tr><td>FX Intervention and Reserves Level</td><td colspan="7"> Background. Reflecting legacy accumulation, reserves stood at US$1.4 trillion or 29 percent of GDP at end-2021. There has been no FX intervention in recent years. Assessment. The exchange rate is free floating. Interventions are isolated (last occurring in 2011) and intended to reduce short-term volatility and disorderly exchange rate movements. </td></tr>
</table>

Annex III. Fiscal Response to the Pandemic

The size of the above-the-line measures included in Japan's fiscal responses to the pandemic has amounted to nearly 18 ½ percent of GDP, while their impact on output is estimated to be modest. Automatic stabilizers worked mainly through the job retention subsidies.

1. **The authorities have rolled out massive fiscal responses during the pandemic**. According to the staff estimate, the total size of the above-the-line measures has amounted to nearly 18½ percent of GDP.

Text Table. Japan: Size of Fiscal Responses to the COVID-19
(In trillion JPY)

	April 2020 package	FY2020 second suppl. budget (May 2020)	December 2020 package	November 2021 package	COVID-19 Reserve Fund
The total size announced by the government (A)	117.1	117.1	73.6	78.9	-
Private sector financing, etc. (A1)	42.7	44.4	33.7	23.2	-
Fiscal measures (B)=(A)-(A1)	74.4	72.7	40.0	55.7	-
Fiscal Investment and Loan Program (B1)	12.5	39.4	7.7	6.0	-
Capital injection to public corporations (B2)	2.4	9.6	3.1	0.8	-
Deferred revenues (B3)	26.0	-	-	-	-
Above-the-line (ABL) measures (C) =(B)-(B1)-(B2)-(B3)	33.5	23.8	29.2	48.8	-
Allocation to the COVID-19 Reserve Fund (C1)	1.5	10.0	5.0	5.0	-
Measures contingent on future health/economic developments (C2)	-	-	-	9.3	-
Recounting of, or intra-governmental compensation for, previously-announced measures (carry-over from the previous fiscal year, etc.) (C3)	-	-	5.0	7.5	-
Usage of the COVID-19 Reserve Fund (C4)	-	0.2	0.4	0.7	-
ABL measures after adjustment (D)= (C)- (C1)-(C2)- (C3) - (C4)	**32.0**	**13.6**	**18.8**	**26.3**	**12.3**
Total amount of ABL measures (Sum of (D))	**103.0**	**(18.5 percent of 2022 GDP)**			

Sources: Ministry of Finance, the Cabinet Office, IMF staff estimates.
Notes: The table does not reflect unused amounts recorded in supplementary budgets and FY2020 settled account.
(B2) The amounts refer to those of capital injection financed by Construction Bonds in each supplementary budget. Capital injection is excluded because they are considered as below-the-line measures.
(C2) Measures in the Nov. 2021 package are the Local Revitalization Grant, and the Local Allocation Tax Grant. From the budgeted amount for the Local Revitalization Grant (6.5 trillion JPY), 1.5 trillion JPY is subtracted as an expenditure that is likely to be disbursed to restaurants and other businesses who scale down operations during the Omicron outbreak in early 2022.
(C3) A measure in the Dec. 2020 package is allocation to the COVID-19 Reserve Fund for FY2020. The amount for the Nov. 2021 package is a sum of major applicable items, namely carry-over from FY2020, transfer to the Labor Insurance Special Account, and allocation to the COVID-19 Reserve Fund for FY2021. Carry-over from FY2020 is a sum of three measures (Go-to-Travel, a financing support, and a measure to alleviate burden of fuel for transportation.) that were referred to in the explanatory document of FY2021 Supplementary Budget.
(D) Total amount is a simple sum and includes overlaps between packages.

2. The response prioritized support to firms and households. About 60 percent of the amount has been or will be spent on assistance to firms and households including through job retention programs, cash transfers, and subsidies. About 15 percent is on health-related measures (a table below).

Text Table. Japan: Composition and Impact of the Fiscal Responses
(In trillion JPY unless otherwise noted)

	April 2020	May 2020	Dec. 2020	Nov. 2021	Reserve Fund	Total (A)	Multiplier (B)	Impact on output (A)*(B)	Year-by-year allocation of impact				
									2020	2021	2022	2023	2024~
Health-related measures	1.2	3.0	2.9	4.2	4.2	15.5	0.3	4.6	1.2	1.5	1.5	0.3	-
Support to households	15.4	0.6	2.4	8.2	2.4	28.9	0.2	5.8	2.6	0.8	2.0	0.3	-
Job retention programs	0.9	1.3	1.5	1.0	0.5	5.2	0.2	1.0	0.4	0.4	0.2	-	-
Support to firms	6.2	6.5	6.2	6.4	1.4	26.7	0.15	4.0	1.5	1.2	0.9	0.3	0.2
Public investments	6.3	-	3.4	3.2	-	13.0	1.0	13.0	3.2	4.6	4.2	1.1	-
Others/ Unallocated	2.0	2.2	2.4	3.2	3.9	13.7	0.2	2.7	0.8	0.8	0.8	0.2	0.0
Total	**32.0**	**13.6**	**18.8**	**26.3**	**12.3**	**103.0**	**0.3**	**31.2**	**9.7**	**9.4**	**9.6**	**2.3**	**0.2**
Total (in % of GDP)	**5.7**	**2.4**	**3.4**	**4.7**	**2.2**	**18.5**		**5.6**	**1.8**	**1.7**	**1.7**	**0.4**	**0.0**

Sources: IMF staff estimates.
Notes: Only impact of the avove-the-line measures is considered. Nominal GDP in 2022 is used as a denominator in the left-half of the last row, while nominal GDP in each corresponding year is used in the right-half of the last row (Year-by-year allocation of impact).

3. The estimated impact of the fiscal measures on output is modest. The weighted average of estimated multipliers for each measure is about 0.3, suggesting that the cumulative impact on output relative to a counterfactual where no fiscal measures had been taken is about 31 trillion JPY (about 5 ½ percent of 2022 GDP). The rationale for each multiplier estimate is given in the last table of this Annex.

4. Automatic stabilizers worked mainly through the job retention subsidies. The disbursed amount of the Employment Adjustment Subsidy increased by about ½ percent of GDP both in 2020 and 2021, relative to 2019. However, this increase reflects the enhanced benefit and the broader coverage (of non-regular workers) during the pandemic, making it difficult to single out automatic stabilizer effect. Take-up for the other stabilizing instruments such as the unemployment insurance and the public assistance has not risen sharply. Tax and social security revenues remained stable in 2020, thanks largely to buoyant corporate income taxes and the consumption tax rate increase in October 2019.

Text Table. Japan: Estimated Multiplier for Each Measure

Measure	Multiplier	Rationale
Health-related measures	0.3	It is assumed that about a quarter of the budgeted amount was spent on medical services (government consumption) for rollout of vaccines, testing, treatment of patients, etc. with a multiplier of 1, and that the rest is comprised of low-multiplier items such as cash transfer to medical practitioners, subsidies for hospitals who reserve beds for COVID-19 patients, imports of vaccines/drugs/testing kits, with a multiplier of 0.1.
Support to households	0.2	Marginal propensity to consume (MPC) of 0.1 is assumed for untargeted transfers, while 0.25 is assumed for the others. 0.1 is based on Hattori et al. (2021), while 0.25 is based on Kaneda et al. (2021) (a cumulative increase in expenditures and ATM withdrawal for liquidity constrained households). It is estimated that untargeted transfers account for about 60 percent of the total amount, leading to a weighted-average MPC of 0.16, and multiplier of 0.2 (0.16/(1-0.16)=0.19). Multiplier could be lower if leakage to imports is taken into account, but higher if pent-up consumption is considered.
Job retention scheme	0.2	According to the Cabinet Office (2021), the unemployment rate between April and December 2020 could have been higher by 1.5~3 ppt without the Employment Adjustment Subsidy (EAS). Comparing this analysis against the number of employees who were not at work during the same period (from monthly Labour Force Survey), it is estimated that about a half of the beneficiaries would have lost their jobs and significantly curtailed consumption without EAS. MPC of 0.25 is assigned to those individuals(see Support to households), while MPC of 0.1 is assigned to the rest of beneficiaries. As a result, multiplier is estimated to be 0.2.
Support to firms	0.15	It is estimated that about a half of the budgeted amount is lifeline support mainly for SMEs suffering under the pandemic with a multiplier of 0.05, while the other half is largely comprised of subsidies to firms (e.g. subsidies for SMEs' business transformation) with a multiplier of 0.24. 1. Impact of the former could be measured by the extent to which fiscal support prevented exits of firms. Assuming that firm exits would have been higher by 20 percent in 2020 without the support (Miyakawa et al. (2020)), and that exits are concentrated in the accommodation and dining industry, the pandemic could have forced about 2 percent of total firms in the industry to exit. This could be translated into output loss of 0.2 trillion JPY (using the share of the industry in GDP), which suggests that a multiplier is estimated to be up to 0.05. 2. Multiplier of the latter is estimated to be 0.24, which is the first-year multiplier of a corporate income tax rate increase in the Cabinet Office's Economic and Fiscal Model (2018).
Public investment	1.0	An estimated multiplier is 1, with the first-year multiplier of one-off change in public fixed-capital formation (1.15) from the Cabinet Office's Economic and Fiscal Model (2010) and an assumption that about 10 percent of the budget is spent on land-acquisition.
Others	0.2	A majority is accounted for by the Local Revitalization Grant which is loosely-earmarked grants to local governments. Estimated multiplier is 0.2, assuming that the local governments will spend a half of the Grant on support to firms including compensation to restaurants who scale down operations to prevent infections (a multiplier of 0.05), a quarter on health-related measures (a multiplier of 0.3), and a quarter on other miscelleneous measures (a multiplier of 0.3).

Source: IMF staff estimates.

References:

Cabinet Office, 2010, Documents on Economic and Fiscal Model (FY2010)
Cabinet Office, 2018, Documents on Economic and Fiscal Model (FY2018)
Cabinet Office, 2021, "Changes in Employment and Households in Response to the Pandemic" *Japanese Economy 2020-2021* , Ch. 2. (in Japanese)
Hattori, T., N. Komura, T. Unayama, 2021, "Impact of cash transfers on consumption during the COVID-19 pandemic: Evidence from Japanese special cash payments" *RIETI Discussion Paper Series* 21-E-043.
Kaneda, M., S. Kubota, S. Tanaka, 2021, "Who spent their COVID-19 stimulus payment? Evidence from personal finance software in Japan" *The Japanese Economic Review* Vol. 72, Issue 3.
Miyakawa, D., K. Oikawa, K. Ueda, 2021, "Firm exit during the COVID-19 pandemic: evidence from Japan" *Journal of the Japanese and International Economies* , Vol. 59, 101118.

Annex IV. Risk Assessment Matrix[1]

Source of Risk	Likelihood	Source	Time Horizon	Expected Impact	Direction of Impact	Main Impacts → Recommended Policy Actions
Extended global supply chain disruptions	High	External	ST, MT	High	↓	Shortages of intermediate and final consumer goods, growth slowdowns, and price surges. → contain the spread of the virus through vaccination and testing; and enhance supply chain resilience.
Outbreaks of lethal and highly contagious Covid-19 variants lead to subpar/volatile growth, with increased divergence across countries.	High	External	ST	High	↓	A global resurgence, possibly due to vaccine-resistant variants, requires costly containment efforts and prompts persistent changes. → Provide relief to affected workers and firms, and support to the health systems.
Geopolitical tensions and de-globalization	High	External	ST, MT	Medium	↓	Economic/political disruption with spillovers to Japan. → Continue to pursue open market policies.
De-anchoring of inflation expectations in the United States lead to rising core yields and risk premia	Medium	External	MT	Medium	↓ ↑	The interest rate differential could weaken the JPY and raise inflation to the target. But an abrupt deterioration of market sentiment could trigger safe haven JPY appreciation, deflationary pressures, and macro-financial risks. → Maintain monetary accommodation until inflation is sustainably at or above the target.
Rising and volatile energy and food prices	High	External	ST, MT	Medium	↓	This would hurt the profitability of service sector firms and SMEs by raising the cost of inputs. → Provide targeted fiscal support to affected firms.
Higher frequency and severity of natural disasters related to climate change	Medium	External	MT	High	↓	Climate-related losses could reduce real GDP and increase fiscal costs. Transition risks resulting in shifts in asset values could undermine investor confidence. → Strengthen climate adaptation and mitigation efforts and provide relief to affected households.
Abrupt growth slowdown in China	Medium	External	ST, MT	Medium	↓	Negative spillovers through financial, trade, and commodity-price channels. → Continue to strengthen trade ties with other trading partners.
Disorderly transformations due to labor market rigidities and untargeted support	Medium	Domestic	MT	High	↓	The number of zombie firms may increase if the untargeted pandemic-related supports remain. → Once the pandemic subsides, measures should shift to targeting viable but illiquid firms with a combination of fiscal and financial policies.
Bond market stress from a reassessment of sovereign risk	Low	Domestic	ST, MT	High	↓	An increase in the sovereign risk premium would worsen public debt dynamics and cause distress in the financial sector. → Adopt a well-defined fiscal framework to anchor the medium-and long-term debt trajectory.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding the baseline ("L" (low) is meant to indicate a probability below 10 percent, "M" (medium) a probability between 10 percent and 30 percent, and "H" (high) a probability of 30 percent or more). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

Annex V. Debt Sustainability Analysis

Japan's public debt is projected to be on an upward long-term path under current policies. Although risk of debt distress in the near term is low, also after the November 2021 fiscal package is taken into account, due to the favorable domestic investor base and debt profile, there are higher risks over the longer-term horizon. A specified and credible medium-term fiscal framework that curtails social security spending and boosts revenue through reform of underlying policies is needed to put public debt on a downward path.

1. Assumptions. Macroeconomic projections and policy assumptions up to 2027 incorporates the new fiscal package announced in November 2021. In the longer run, Japan's demographic headwinds will weigh on both the macroeconomic and fiscal outlook. To better analyze the implications, the time horizon for the DSA exercise is extended to 2031:

- *Growth.* After a strong recovery from the pandemic in the near term, real GDP growth will gradually converge to the estimated potential growth of around 0.5 percent over the medium term. This scenario assumes that significant scarring effects are avoided due to the strong policy support. In the long run, potential growth gradually declines to 0.3 percent by 2030, mainly due to a declining contribution from labor.

- *Fiscal policy.* The primary deficit is projected to remain high at 7½ percent of GDP in 2022, incorporating the November 2021 package. Thereafter, it is expected to decline to its pre-COVID-19 level of around 2 percent in 2024, driven by a phasing out of pandemic support measures. In the long run, health and long-term care expenditures will increase as a share of GDP, reflecting Japan's ageing population. As a result, the primary deficit would increase over the medium term, reaching about 3 percent of GDP in 2031.

- *Monetary and interest rate policy.* Monetary policy is assumed to remain accommodative over the medium term, in line with market expectations. Inflation (GDP deflator) is assumed to rise gradually to around 1 percent. In the longer run, interest rates on Japanese Government Bonds (JGBs) are assumed to increase gradually (nominal interest rate on 10-year JGBs is assumed to reach 2 percent by 2030).[1] However, the nominal effective interest rate will increase only to 1.1 percent in 2031 (implying an interest rate-growth differential of -0.2 percent), helped by the long maturity of government bonds.

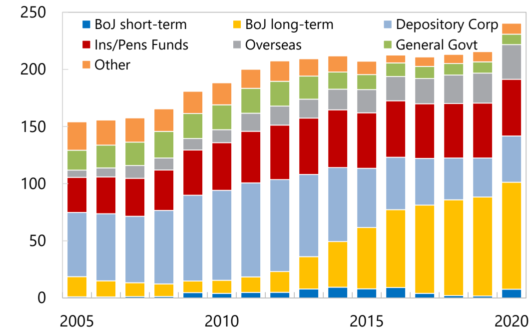
2. Debt profile. Though the share of short-term debt in total public debt fell in 2021 by 2.5 percentage points[2], it remains high relative to the pre-COVID level, reflecting a large increase in the share (by 5.3 ppt) in 2020. The 10-year bond yield has been at an extremely low level, with a

[1] This assumption does not reflect staff's views on monetary policy, but rather provides prudent fiscal projections for assessing debt sustainability risks.

[2] Staff estimate based on the latest available Flow-of-Funds data (up to third quarter of 2021).

negative spread against U.S. Treasuries. There are no direct exchange rate risks as all JGBs are denominated in yen, which is expected to remain the case in the future.

Japan: Public Debt Financing
(In percent of GDP; end of period)



Source: Flow of Funds (Bank of Japan).
Note: Includes both central and local governments' debt (including FLIP bonds)

3. Debt composition. Japan's public debt is dominantly held by domestic creditors (text chart on the right). Among domestic creditors, the share of the Bank of Japan increased over the last decade, reaching about 100 percent of GDP in 2020, while that of depository corporations declined. The share of JGBs held by foreign investors gradually increased, but remains low at about 13 percent in 2021. Reflecting this low share of foreign investors, the external financing requirement was 16 percent of GDP in 2021, below the early warning threshold.

4. Debt coverage. Debt coverage is general government. While gross debt is reported as 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 or easy to liquidate. The holdings include, for example, social security assets for future obligations. Assuming that a rise in the financial-assets-to-GDP ratio to 97 percent in 2020 (from 85 percent in 2019) reflects urgent cash management needs and a decline in GDP, it is projected to decline in the near-term to 87 percent and be stable thereafter.

5. Financing needs. It is assumed that additional bonds worth about 4 percent of GDP will be issued in 2022 to finance the November 2021 package, with the maturity structure broadly following the authorities' FY2022 debt issuance plan. As a result, Japan's gross financing needs (GFN) (defined as the sum of the fiscal deficit and maturing debt) is expected to remain elevated at 62 percent of GDP in 2022, before falling below 55 percent of GDP over the medium term. The share of short-term debt increased during the COVID-19 pandemic, possibly raising rollover risks in the long-run.

6. Realism of baseline assumptions.

- Forecast errors for real growth, the primary balance, and inflation have generally remained within the inter-quantile range (25-75) of all countries.

- The projected three-year adjustment in the cyclically-adjusted primary balance (CAPB) is in the higher range—a percentile rank of 11 percent compared to the historical experience for high-debt market access countries, while three-year average level of CAPB is in the lowest quartile. This contrast should be considered in the context of the unwinding of the large-scale measures rolled out during the pandemic.

Shocks and Stress Tests

7. Fan chart. The fan chart, which incorporates feedback effects between macroeconomic variables and relies on historical data to calibrate shocks, signals considerable uncertainty around the baseline. Under the worst quartile case, the debt-to-GDP ratio could be close to 282 percent of GDP in 2027—about 20 percentage points higher than in the baseline.

8. Stress tests illustrate the vulnerabilities of Japan's public debt position to various shocks and changes in market perceptions, given the unprecedented level of debt and high financing needs:

- *Primary balance shock.* The impact is estimated to be modest relative to other shocks. The assumed shock is that only half of the planned fiscal adjustment (in 2023 and 2024) is implemented. It is further assumed that additional borrowing leads to an increase in the interest rate of 25 basis points for every 1 percentage point of GDP worsening of the primary deficit. In this case, the gross debt-to-GDP ratio would be higher by around 3 percent of GDP in 2027 compared to the baseline. Gross financing needs in 2027 would be about 1 percentage points higher than in the baseline.

- *Growth shock.* Real output growth rates for 2023 and 2024 are reduced by one standard deviation of the 10-year historical changes in growth. As a result, the primary balance deteriorates, leading to higher interest rates as in the primary balance shock scenario. Also, a decline in inflation is assumed at a rate of 0.25 percentage point per 1-point decrease in growth. The shock immediately results in worsening debt dynamics with the second largest impact among the scenarios. The impact is significant, bringing the debt ratio to about 277 percent of GDP in 2027—around 15 percentage points higher than the baseline. This scenario highlights the importance of avoiding premature withdrawal of the pandemic measures. Gross financing needs in 2027 would be about 3 percentage points higher than in the baseline.

- *Interest rate shock.* A spike in JGB yields is an important tail risk. A shock of a 2 percentage point interest rate increase is assumed to occur in 2023 and remain for the rest of the period. The debt-to-GDP ratio would be higher than the baseline by around 6 percentage points in 2027, while gross financing needs would be about 4 percentage points higher. It is noteworthy that both debt and gross financing needs would enter an explosive path, as the impact accelerates as existing long-term bonds come to maturity and are refinanced at higher interest rates. In addition, such a shock could adversely affect financial sector liquidity and solvency positions, with possible knock-on effects on the debt ratio (see next shock).

- *Interest rate and contingent liability shock.* A one-time capital injection equivalent to about 10 percent of regional banks' assets will increase government spending by 5.9 percent of GDP. The interest rate is assumed to rise by 25 basis points for each percentage point increase in the primary deficit. This is also combined with the real GDP growth shock. The impact is by far the largest among the scenarios. The debt ratio would increase to around 284 percent of GDP in 2027, about 22 percentage points higher than in the baseline. Gross financing needs in 2027 would be about 7 percentage points higher than in the baseline.

Policy Implications

9. **The analysis reveals heightened uncertainty over Japan's debt projections, calling for a strengthened fiscal policy framework**. The higher level of public debt post-pandemic makes the path of the debt-to-GDP ratio highly susceptible to relative changes in interest rates and growth rates. As the shock scenarios illustrate, the debt-to-GDP ratio could jump significantly if growth slumps. It would rise gradually but persistently if the interest rate increases. The current favorable interest-growth differential hinges largely on domestic investors' home bias with high domestic saving, as well as the Bank of Japan's accommodative monetary policy. However, the tide could turn during the recovery from the pandemic or in the event of an exogeneous shock, including a natural disaster. Furthermore, deteriorating primary balances due to rising age-related expenditures could raise debt sustainability concerns among investors, leading to an increase in the interest-growth differential. A credible, well-specified medium-term fiscal framework could help protect investors' confidence in the sustainability of debt, and promote growth through greater predictability. Lastly, in view of elevated uncertainty including from the pandemic and the conflict in Ukraine, the authorities could consider preparing a contingency plan that is readily implementable in case of unfavorable macro-financial developments (e.g., a negative shock to growth and/or a rise in risk premium).

Figure 1. Japan: Public Debt Sustainability Analysis Risk Assessment

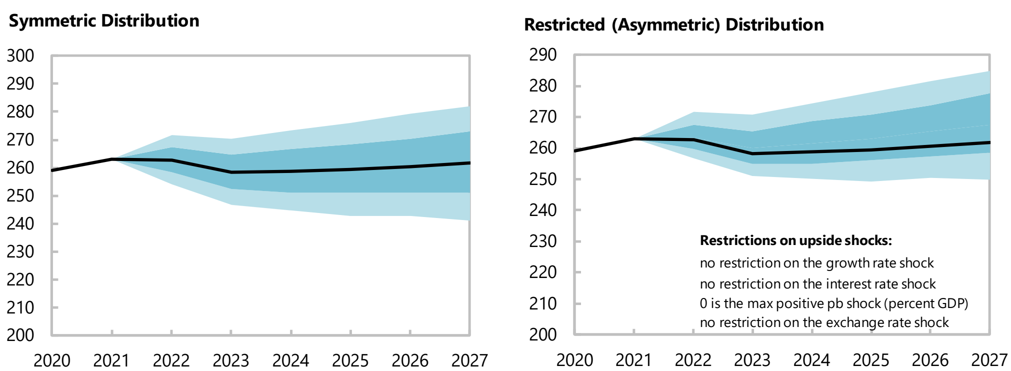
Heat Map

Debt level [1/]	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs [2/]	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile [3/]	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)

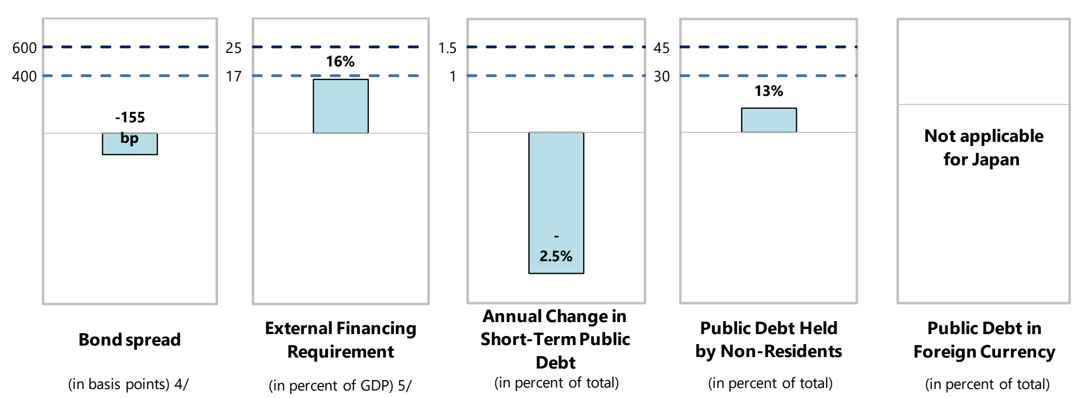
Baseline Percentiles: 10th-25th 25th-75th 75th-90th



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2021)

Japan Lower early warning Upper early warning



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

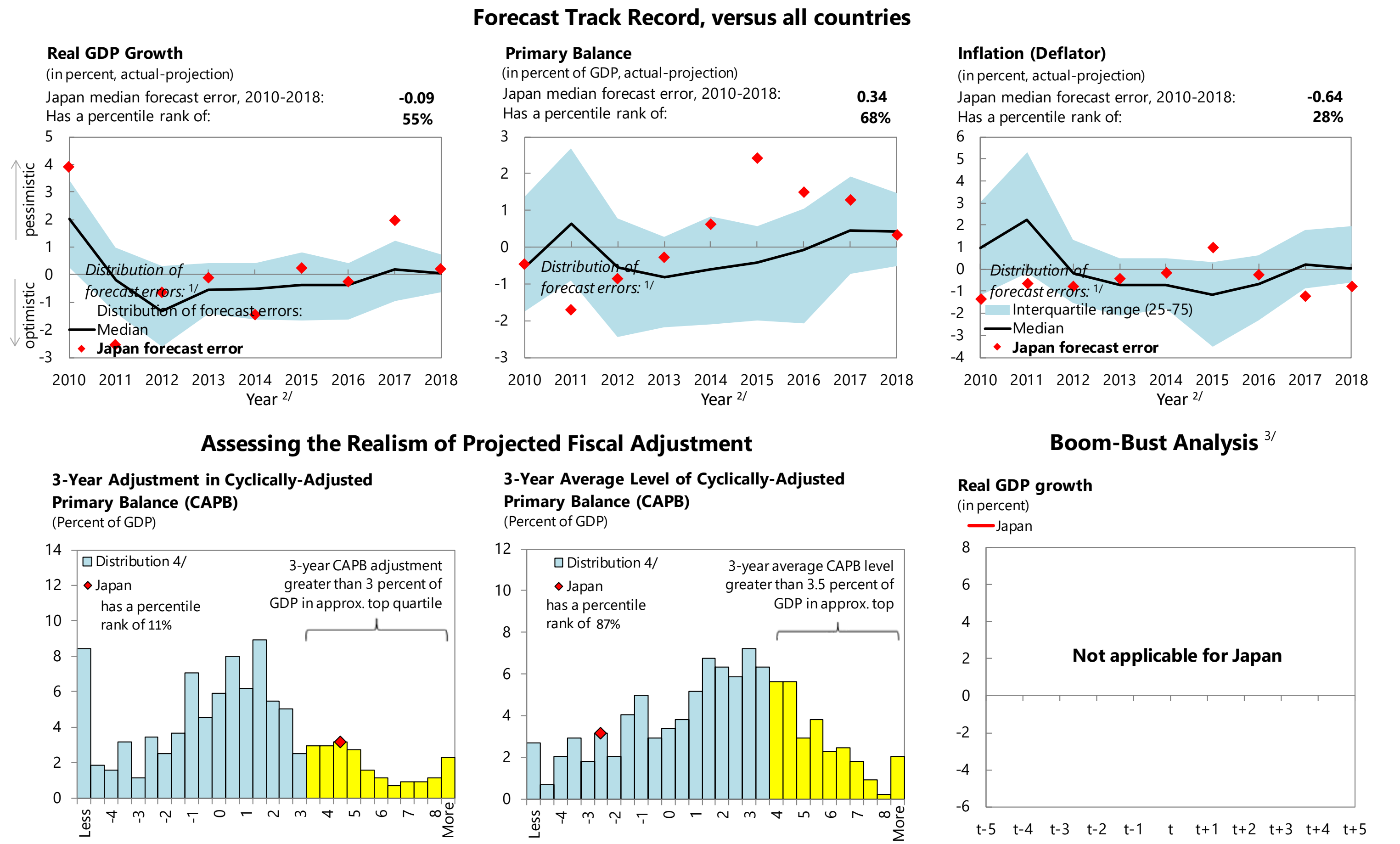
3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 17-Nov-21 through 15-Feb-22.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Figure 2. Japan: Public Debt Sustainability Analysis – Realism of Baseline Assumptions



Source : IMF Staff.

1/ Plotted distribution includes all countries, percentile rank refers to all countries.

2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for Japan, as it meets neither the positive output gap criterion nor the private credit growth criterion.

4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure 3. Japan: Public Sector Debt Sustainability Analysis – Baseline Scenario

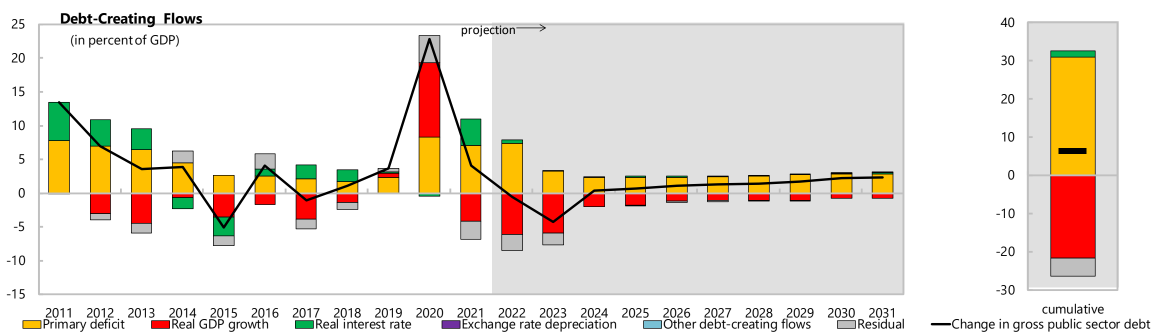
(in percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators [1/]

	Actual			Projections										As of February 15, 2022		
	2011-2019 [2/]	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Sovereign Spreads		
Nominal gross public debt	229.9	259.0	263.1	262.5	258.3	258.7	259.4	260.5	261.8	263.2	264.8	267.0	269.3	EMBIG (bp) 3/		-179
Public gross financing needs		55.5	70.3	62.0	55.5	55.3	53.5	52.9	53.8	54.0	54.2	53.0	52.2	5Y CDS (bp)		17
Net public debt	146.3	162.4	168.8	172.1	171.0	171.4	172.1	173.2	174.5	175.9	177.6	179.7	182.1			
Real GDP growth (in percent)	0.9	-4.5	1.6	2.4	2.3	0.8	0.7	0.5	0.4	0.4	0.4	0.3	0.3	Ratings	Foreign	Local
Inflation (GDP deflator, in percent)	0.2	0.9	-0.9	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	Moody's	A1	A1
Nominal GDP growth (in percent)	1.1	-3.6	0.7	2.8	2.8	1.2	1.1	0.9	0.9	1.0	1.1	1.2	1.3	S&Ps	A+u	A+u
Effective interest rate (in percent) [4/]	0.9	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.9	1.1	Fitch	A	A

Contribution to Changes in Public Debt

	Actual			Projections											
	2011-2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	3.4	22.9	4.1	-0.6	-4.3	0.4	0.7	1.1	1.3	1.4	1.7	2.2	2.3	6.2	
Identified debt-creating flows	3.6	18.9	6.8	1.8	-2.5	0.4	0.7	1.4	1.5	1.5	1.7	2.2	2.2	11.0	
Primary deficit	4.1	8.3	7.0	7.4	3.3	2.3	2.3	2.4	2.4	2.5	2.7	2.8	2.9	31.0	-0.7
Primary (noninterest) revenue and grants	31.6	34.6	34.6	34.0	33.9	33.9	33.9	33.9	33.9	33.8	33.7	33.6	33.4	338.1	
Primary (noninterest) expenditure	35.7	42.9	41.6	41.4	37.2	36.2	36.2	36.3	36.3	36.4	36.4	36.4	36.3	369.1	
Automatic debt dynamics [5/]	-0.5	10.6	-0.3	-5.7	-5.8	-1.9	-1.6	-1.0	-0.8	-1.0	-1.0	-0.7	-0.7	-20.1	
Interest rate/growth differential [6/]	-0.5	10.6	-0.3	-5.7	-5.8	-1.9	-1.6	-1.0	-0.8	-1.0	-1.0	-0.7	-0.7	-20.1	
Of which: real interest rate	1.5	-0.4	3.9	0.5	0.1	0.2	0.2	0.2	0.2	0.0	0.1	0.1	0.1	1.6	
Of which: real GDP growth	-2.0	11.0	-4.2	-6.1	-5.9	-2.0	-1.8	-1.2	-1.0	-1.0	-1.0	-0.8	-0.8	-21.7	
Exchange rate depreciation [7/]	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	0.0	
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (1) (e.g., drawdown of deposits) (negative)	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroarea loans)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes [8/]	-0.2	4.0	-2.7	-2.3	-1.7	0.0	-0.1	-0.3	-0.3	-0.1	0.0	0.0	0.1	-4.7	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

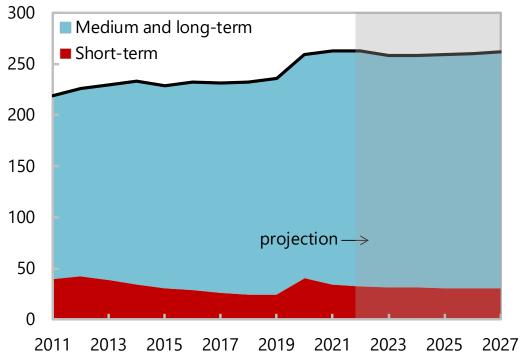
8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

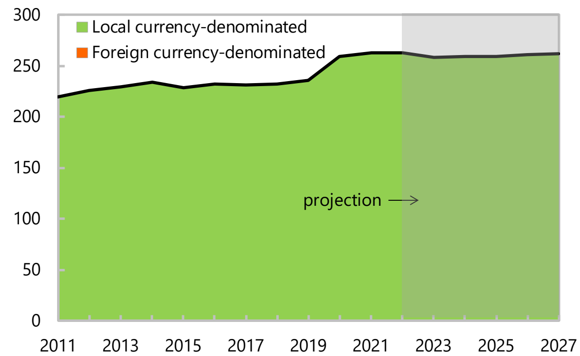
Figure 4. Japan: Public Debt Sustainability Analysis – Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



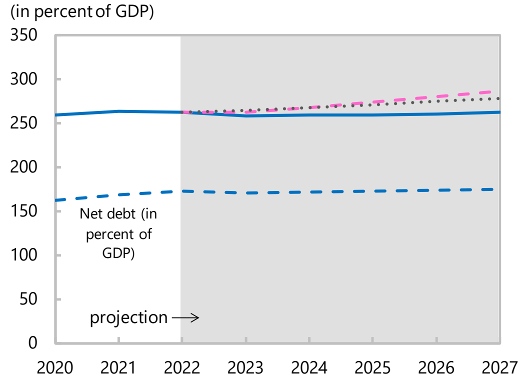
By Currency
(in percent of GDP)



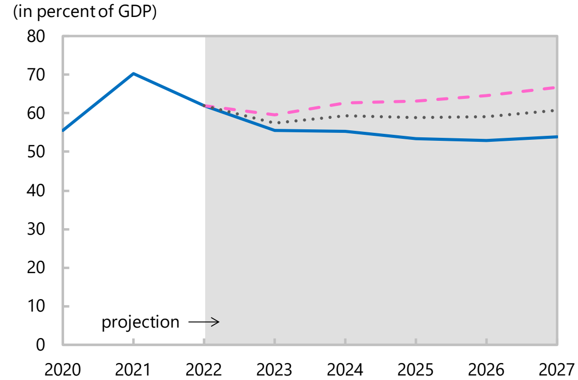
Alternative Scenarios

Baseline　　Historical　　Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions
(in percent)

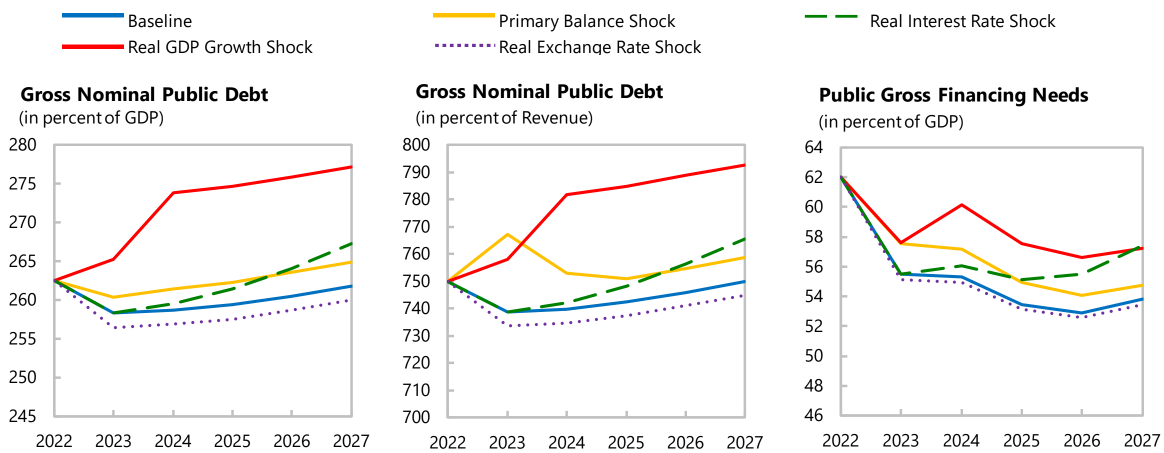
Baseline Scenario	2022	2023	2024	2025	2026	2027
Real GDP growth	2.4	2.3	0.8	0.7	0.5	0.4
Inflation	0.4	0.4	0.4	0.4	0.4	0.5
Primary Balance	-7.4	-3.3	-2.3	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.5	0.5	0.5	0.5
Constant Primary Balance Scenario						
Real GDP growth	2.4	2.3	0.8	0.7	0.5	0.4
Inflation	0.4	0.4	0.4	0.4	0.4	0.5
Primary Balance	-7.4	-7.4	-7.4	-7.4	-7.4	-7.4
Effective interest rate	0.6	0.5	0.5	0.5	0.5	0.5

Historical Scenario	2022	2023	2024	2025	2026	2027
Real GDP growth	2.4	0.5	0.5	0.5	0.5	0.5
Inflation	0.4	0.4	0.4	0.4	0.4	0.5
Primary Balance	-7.4	-4.5	-4.5	-4.5	-4.5	-4.5
Effective interest rate	0.6	0.5	0.5	0.6	0.6	0.7

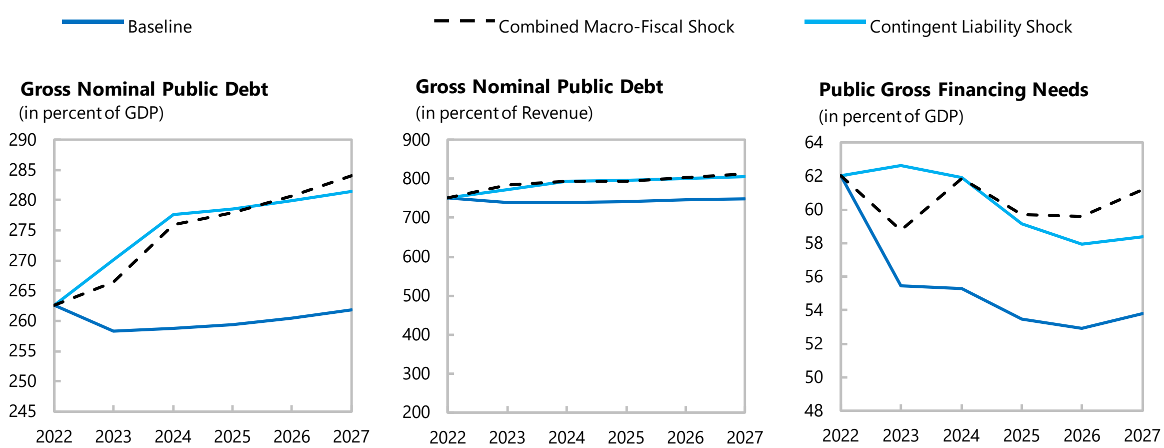
Source: IMF staff.

Figure 5. Japan: Public Debt Sustainability Analysis – Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions
(in percent)

	2022	2023	2024	2025	2026	2027
Primary Balance Shock						
Real GDP growth	2.4	2.3	0.8	0.7	0.5	0.4
Inflation	0.4	0.4	0.4	0.4	0.4	0.5
Primary balance	-7.4	-5.4	-2.8	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.6	0.5	0.5	0.6
Real Interest Rate Shock						
Real GDP growth	2.4	2.3	0.8	0.7	0.5	0.4
Inflation	0.4	0.4	0.4	0.4	0.4	0.5
Primary balance	-7.4	-3.3	-2.3	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.8	1.0	1.1	1.3
Combined Shock						
Real GDP growth	2.4	0.4	-1.1	0.7	0.5	0.4
Inflation	0.4	0.0	-0.1	0.4	0.4	0.5
Primary balance	-7.4	-5.4	-4.3	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.8	1.0	1.1	1.3

	2022	2023	2024	2025	2026	2027
Real GDP Growth Shock						
Real GDP growth	2.4	0.4	-1.1	0.7	0.5	0.4
Inflation	0.4	0.0	-0.1	0.4	0.4	0.5
Primary balance	-7.4	-4.2	-4.1	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.5	0.6	0.6	0.6
Real Exchange Rate Shock						
Real GDP growth	2.4	2.3	0.8	0.7	0.5	0.4
Inflation	0.4	1.2	0.4	0.4	0.4	0.5
Primary balance	-7.4	-3.3	-2.3	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.5	0.5	0.5	0.5
Contingent Liability Shock						
Real GDP growth	2.4	0.4	-1.1	0.7	0.5	0.4
Inflation	0.4	0.0	-0.1	0.4	0.4	0.5
Primary balance	-7.4	-9.2	-2.3	-2.3	-2.4	-2.4
Effective interest rate	0.6	0.5	0.7	0.6	0.6	0.6

Source: IMF staff.

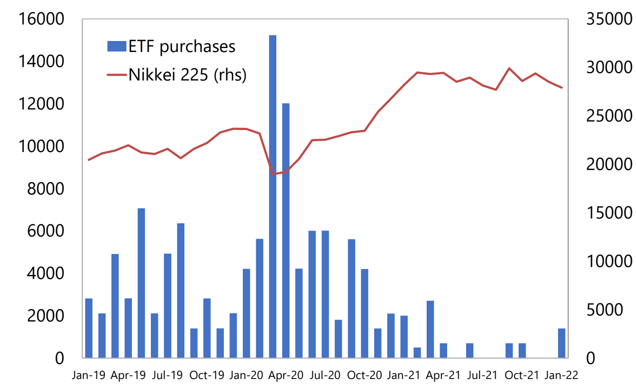
Annex VI. March 2021 Revisions to Monetary Policy Measures

Following an assessment in March 2021, the Bank of Japan undertook some adjustments to its monetary policy framework to make it more sustainable and nimble, including more flexibility in its asset purchases and measures to mitigate the adverse effects of prolonged low interest rates.

The following three main policy actions were implemented:

1. **Allowing more flexibility in its purchases of exchange traded funds (ETFs) and Japanese Real Estate Investment Trusts (J-REITs)**: With the expansion of the ETF purchase program during the COVID-19 pandemic, the BoJ's equity ownership rose to close to 7 percent of the total value of the stock exchange, making it Japan's largest institutional equity shareholder. After the March 2021 assessment, the BoJ introduced more flexibility in its purchase by removing the annual target for ETF (JPY6 trillion) and J-REIT (JPY180 billion) purchases while retaining the respective JPY12 trillion and JPY180 billion annual ceilings (which were initially introduced on a temporary basis in response to the COVID-19 shock). The BoJ has already reduced its purchases of ETFs since, while still maintaining loose financial conditions. The BoJ also switched all its purchases to TOPIX-linked ETFs.[1]

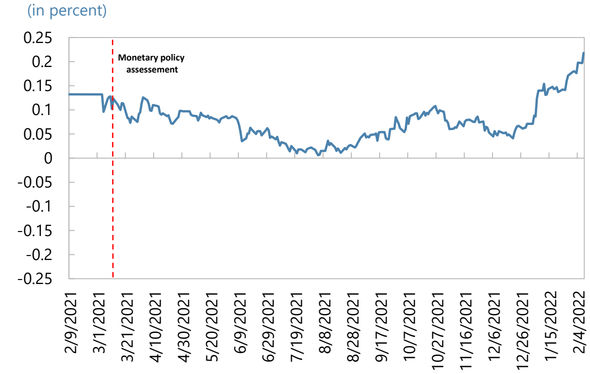
Japan: BoJ Monthly ETF Purchases
(In millions of yen)



Source: Bank of Japan.

2. **Specifying the range of the fluctuation band around the 10-year bond yield target**: While YCC has helped mitigate some of the pressures in JGB market liquidity, empirical estimates suggest a statistically significant and negative impact of BoJ's JGB purchases on market liquidity which tends to increase with the share of BoJ's holdings.[2] Hence, the BoJ clarified the band around the 10-year JGB yield target of +/- 25bps to revive market functioning in the JGB market which could allow more

Japan: 10-year Government Bond Yield
(in percent)



Source: Bloomberg L.P.

[1] So far, the BoJ has operated both in Nikkei 225 and TOPIX ETFs. TOPIX is market-cap based and a broader index than the Nikkei 225, the latter where BoJ's ETF purchases have been concentrated so far.

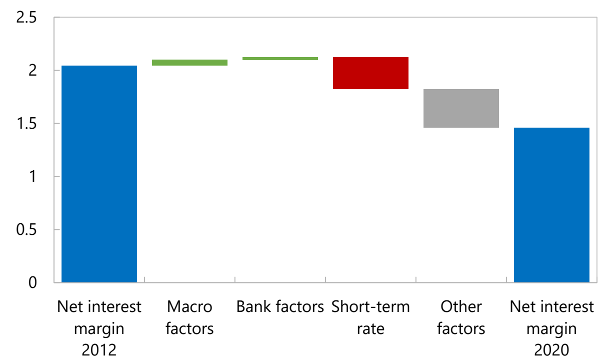
[2] See 2017 IMF Financial System Stability Assessment

interest rate fluctuations,[3] and introduced "fixed-rate purchase operations for consecutive days" to set an upper limit on 10-year rates when necessary. The BoJ also announced plans to reduce the amount of JGBs it will purchase in 2021Q3 and shifted the announcement of its bond-buying program from a monthly to a quarterly schedule to facilitate better market functioning.[4] In February 2022, the 10-year yield inched closer to the 0.25 percent upper target, the highest level since NIRP and YCC were adopted in 2016. In response, the BoJ offered unlimited fixed-rate purchases for 10-year JGBs at 0.25 percent.

3. **Enhancing the feasibility and credibility of further deepening its negative interest rates**: Staff's empirical analysis shows that a flattening of the yield curve has been associated with a significant decline in Japanese banks' profitability–particularly in the negative interest rate environment. To address this concern, the BoJ introduced a new interest scheme to promote lending by compensating financial institutions for the reduction of lending margins associated with negative policy rates and to incentivize them to provide specific loans (currently loans for COVID-19 backed by the special funds-supplying operation without government support). Under this scheme, the BoJ will apply certain interest rates as an incentive to financial institutions' reserve balances, which will be categorized under three classes of lending (see Table 1). It also made technical adjustments to its three-tier reserve system to facilitate arbitrage transactions among financial institutions.

Japan: Contributions to the Change in Net Interest Margins

(In percent, all banks)



Source: IMF Staff Estimates.

Table 1. Three Categories Under the BOJ's Interest Rate Scheme to Promote Lending

	Applied interest rate (incentive to financial institutions' current account balances)	Eligible fund-provisioning measure
Category I	Higher than the absolute value of the policy rate	Special Operations in Response to COVID-19, when funds are provided against loans made by financial institutions on their own1/
Category II	Absolute value of the policy rate	Special Operations in Response to COVID-19, when funds are provided against loans other than those for Category I and against private debt pledged as collateral
Category III	Lower than the absolute value of the policy rate	Fund-provisioning measure to support efforts on climate change. Loan Support Program Operation to Support financial institutions in Disaster Areas

1/ The Special Funds-Supplying Operations to Facilitate Financing in Response to COVID-19 will be conducted until the end of September 2021.

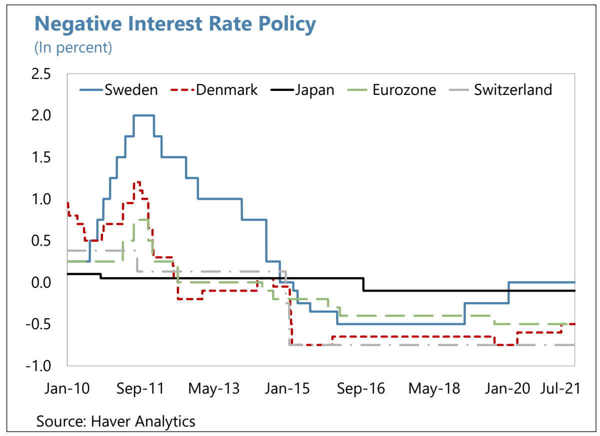
[3] Until now the range had not been a formal part of the framework, but based on signals from the BoJ had been assumed to be around 0.2 percent.

[4] BoJ's monthly purchases of conventional JGBs will be cut by 250 billion to 5.65 trillion yen starting July.

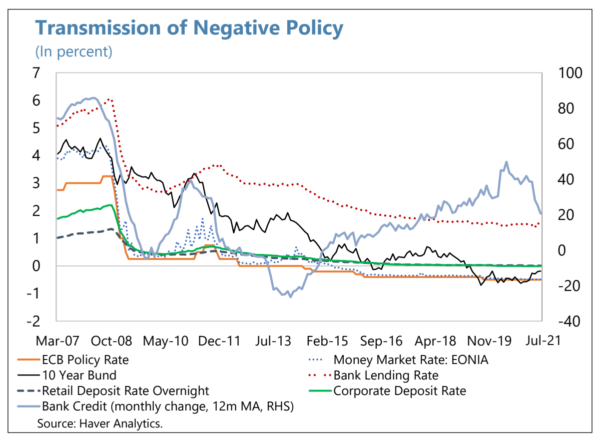
Annex VII. The European Experience with Negative Interest Rate Policy

Several central banks in Europe have employed negative interest rates policies (NIRP), with rates below the BoJ's policy rate. Empirical evidence from Europe suggests that NIRP has been effective, while negative side effects have been contained.

1. **Central banks in Denmark, the euro area, Sweden, and Switzerland introduced negative interest rate policy (NIRP) in recent years.**[1] NIRP was introduced as part of a range of unconventional monetary policy measures against the backdrop of persistently weak inflation outlooks and low neutral real interest rates and, in the cases of Denmark and Switzerland, strong currency appreciation pressure. European central banks embarked on NIRP earlier than the Bank of Japan and operated with more negative policy rates.



2. **The empirical evidence from Europe suggests that NIRP has been effective with similar transmission channels as interest rate cuts above zero**. Negative policy rates in Europe had an immediate impact on money market rates and across the full government bond maturity spectrum. Transmission to bank lending rates occurred broadly similar to rate cuts above zero. Bank lending volumes generally increased. Deposit rates dropped less on retail deposits than on corporate deposits. There have been no clear signs of an increase in cash holdings in response to negative interest rates. Empirical studies on the exchange rate channel under NIRP find mixed results, but it appears to have been effective in Denmark and Switzerland.



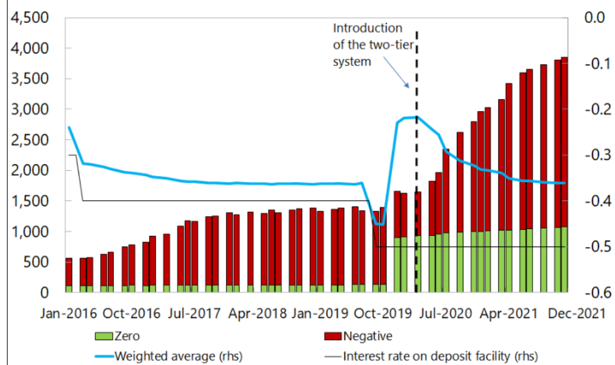
3. **Negative side effects of NIRP have so far been contained**. Increased risk taking, an intended consequence of interest rate cuts, has not raised significant financial stability concerns. At this point, average bank profits have not significantly deteriorated in Europe as a result of negative interest rates. Higher loan volumes, greater reliance on fee income including on deposit accounts, lower loan loss provisions, and capital gains on securities holdings offset

[1] For a comprehensive overview of the experience with NIRP see: Brandao-Marques, Luis, Marco Casiraghi, Gaston Gelos, Gunes Kamber, and Roland Meeks. "Negative Interest Rates; Taking Stock of the Experience So Far." IMF Departmental Papers 3 (2021).

smaller lending margins. However, smaller, more specialized banks appear to have experienced larger declines in profitability.

4. European central banks have assessed NIRP as successful in achieving their policy objectives. Positive effects of NIRP have dominated negative side effects in the European experience, suggesting that the reversal rate at which interest rate cuts are no longer expansionary is significantly below zero in Europe. That said, European policymakers have acknowledged the risk of stronger NIRP side effects over time. To defray some of the costs of negative interest rates for banks, European central banks introduced reserve renumeration tiering (euro area, Switzerland) or absorption of a certain amount of excess liquidity (Denmark, Sweden). Compared to Japan, where less than 5 percent of reserves are subject to the negative policy rate, the share of reserves exempt from negative rates is much smaller in Europe.

ECB Reserves and Average Renumeration Rate
(Billion of Euros)



Sources: ECB and IMF staff calculations

Annex VIII. Digitalization and Other Structural Reforms to Support Inflation and Growth

The pandemic highlighted the need to step up digitalization in Japan. The government's digital transformation strategy, combined with other priority reforms, could lift Japan's potential growth and help achieve the two-percent inflation target.

1. **Digitalization has great potential to reinvigorate productivity growth in Japan**. The pandemic has highlighted Japan's uneven state of digitalization, with low penetration in e-commerce, mobile banking, and digital government services. To promote digital transformation, the government has taken various initiatives to digitalize public services and incentivize private adoption of digital technology. Those measures are expected to boost ICT investment in the short term and raise total factor productivity over time. The pandemic highlighted the need for digitalization in Japan. The government's digital transformation strategy, combined with other priority reforms, could lift Japan's potential growth and help achieve the two-percent inflation target.

2. **Digitalization could also help reflate the economy by raising labor productivity and the return to capital**. In the context of a general equilibrium model, in response to a positive shock to permanent income and the return to capital, households will consume more, and firms will increase their investment to build up the capital stock. The short-term demand boost outpaces the increase in potential output, putting upward pressure on wages, the return to capital, and the price level. Given the current low level of inflation and the BoJ's overshooting commitment, monetary policy is assumed to remain accommodative in the short run, further boosting the positive impact on growth and inflation.

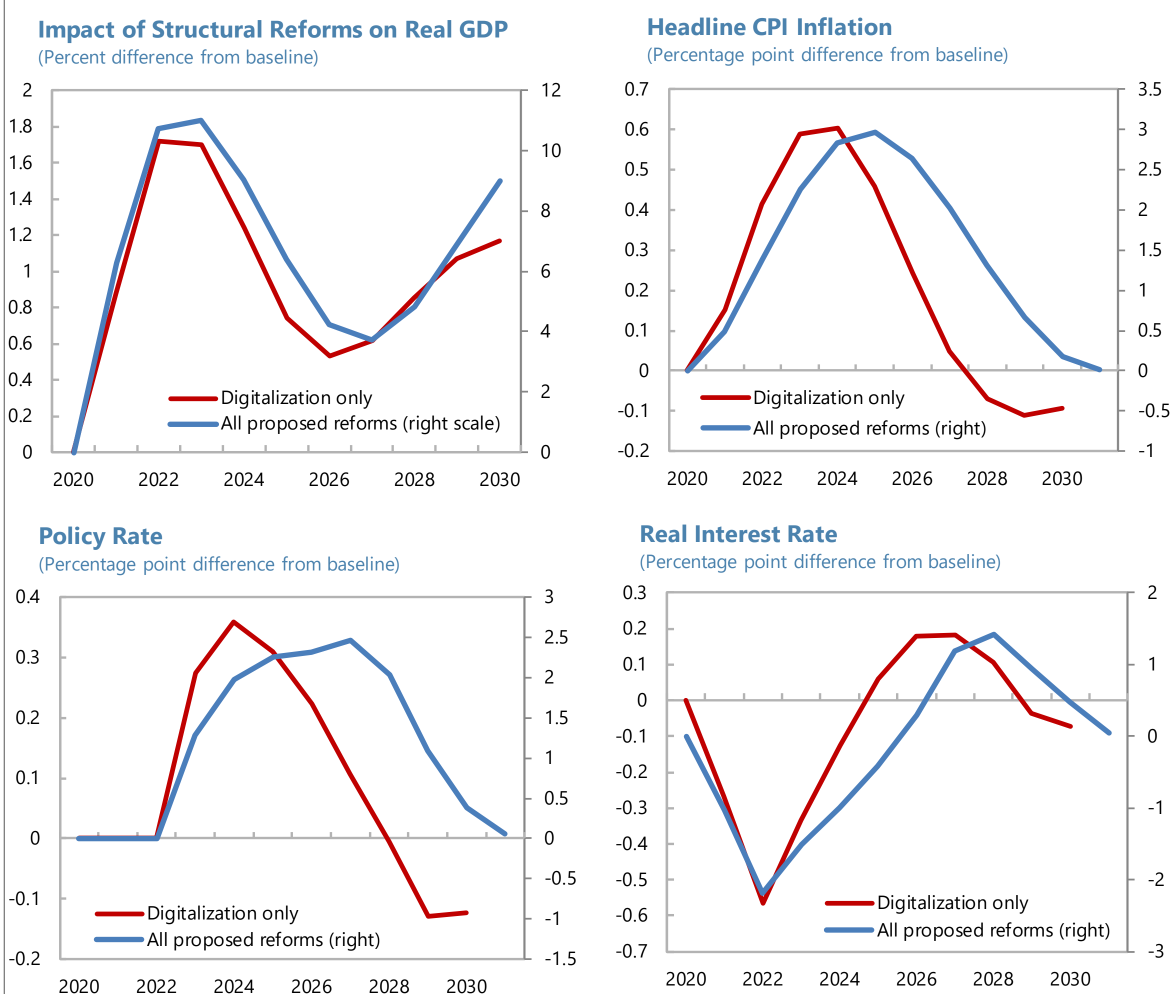
3. **Simulation results suggest that digitalization policies alone could boost GDP by 1.7 percent and raise inflation by 0.6 percent in the near term**. Two specific policies are considered in the analysis: a ten percent increase in public ICT investment in the next two years, and a five percent tax credit on ICT investment.[1] These policies are estimated to increase ICT investment by 5 percent and raise TFP by 0.5 percent (see *2022 Japan: Selected Issues* paper "Digitalizing the Japanese Economy"). Changes in investment and TFP are then added as shocks to the simulation relying on the Global Integrated Monetary and Fiscal model (GIMF). Assuming that monetary policy remains accommodative in the near term, real GDP increases by 1.7 percent compared to the baseline in two years before coming back down due to policy tightening. Similarly, inflation increases by about 0.6 percent in three years compared to the baseline due to the anticipation of higher income and capital returns. Negative real interest rates provide additional boosts to consumption and investment as monetary policy remains accommodative in the near term.

4. **It remains essential to push forward other priority structural reforms included in the 2019 Staff Report to boost potential growth and achieve the inflation target**. The authorities

[1] There are many other important digitalization policies. The analysis focuses on these two policies because 1) these are concrete policies with quantifiable impact; and 2) these policies are credible reforms as they have been announced and budgeted.

have made significant progress in reducing labor market duality through the Work Style Reform and "equal pay for equal work", enhancing senior worker employment beyond 65, and promoting the multilateral trading system through new agreements. Continued efforts to implement these priority reforms, including digitalization, are needed to support potential growth against population ageing and achieve the two-percent inflation target. Simulation results suggest that credible implementation of the full portfolio of structural reforms could help reflate the economy and boost GDP by more than 10 percent over the medium-term compared to the baseline.

Figure 1. Japan: Effects from Structural Reforms



Source:Staff simulation using GIMF model
Note: assume no rate hikes for two years and gradual tightening afterwards

Annex IX. Progress of the Work Style Reforms

Japan's reforms to increase labor supply, productivity, and wages are steps in the right direction, given demographic challenges facing Japan. The early outcomes of Japan's Work Style Reform include a reduction in aggregate and overtime working hours, while the impact on productivity and wages is yet to materialize. Looking ahead, reform implementation could be further enhanced and complemented with skills training and reforms to reduce labor market duality.

1. **The Work Style Reform (WSR) is one of Japan's core policies that aims at enhancing working conditions and labor productivity, while reducing wage gaps among workers**. The WSR legislation was passed on June 29, 2018. The WSR consists of three main pillars including legal caps on overtime hours, rules establishing an equal pay for equal work principle to address wage disparity in working conditions between regular and non-regular workers, and exemptions from work-hours restrictions for high-level professionals (see Table). These reforms have been implemented in a phased manner since April 2019, and applied for all firms in Japan. Alongside, the Government of Japan (GoJ) has provided consultation services as well as incentives and subsidies to firms to support the WSR implementation.

Table 1. Japan: Work Style Reforms

Work Style Reform Pillars	Date of Enforcement
(i) **Legal caps on overtime hours**: The upper limit for overtime working hours will be capped at 45 hours per month and 360 hours per year in general, and at 100 hours per month under temporary special circumstances.	April 1, 2019 (April 1, 2020 for SMEs)
(ii) **Exemption from work hour regulations for highly-paid professionals**: This exemption was created as a compromise to address the business need to ensure that certain positions remain flexible in terms of hours, including being exempted from the overtime cap, and pay especially for highly compensated employees (annual income greater than JPY10.75 million).	April 1, 2019
(iii) **Equal pay for equal work**: A revised legislation to ensure fair treatment of workers regardless of their employment status—e.g., ensuring equal pay for non-regular workers that engage in the same scope of work as regular workers.	April 1, 2020 (April 1, 2021 for SMEs)

Source: Ministry of Health, Labor and Welfare.

2. **Other key reforms to increase labor supply including initiatives to increase female and elderly workers' participation in the labor force are progressing**.

- **To facilitate an increase in female labor supply**, the GoJ plans to significantly expand the availability of childcare and nursing facilities by nearly one million slots during FY2013-2024. Of which, 736,000 slots were achieved by end-FY2019. To support job mobility, the public employment security offices have provided skills training and job-matching services workers including women and non-regular employees through vocational training and career development support throughout working life.

- **To promote gender equality and career advancement for women**, the GoJ introduced *Eruboshi* certification program in 2016, to officially certify employers with outstanding performance on career opportunities for women and work-life balance outcomes. In June 2020, the program was strengthened by enforcing disclosure requirements of the standardized outcome indicators (e.g., share of newly hired female employees in all new hires, share of women in employees in managerial positions, overtime hours, take-up of childbearing leaves). Eruboshi-certified employers are eligible to various incentives such as public procurement incentives.

- **To support elderly employment**, Japan has enacted bills that require private sector employers to make best efforts to provide their employees beyond age 65 with jobs until age 70 and that raise the retirement age from 60 to 65 for government employees in a phased manner during FY2023-2031, in line with past IMF advice. The bills aim at increasing the employment opportunities for older workers to address severe labor shortages and alleviate pressures on the pension system.

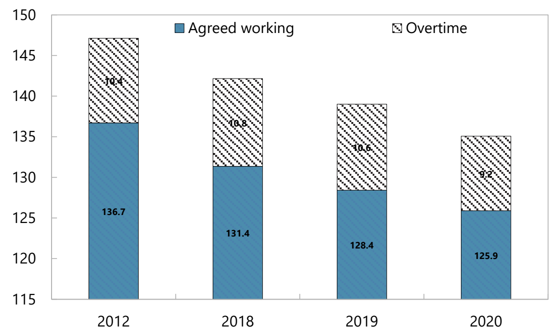
3. WSR efforts are steps in the right direction but more needs to be done. Female and elderly workforce participation and employment have gradually increased (Figure 5). The early outcomes of Japan's WSR showed a reduction in aggregate and overtime working hours (Figure 8). However, the reform impact on productivity and wage improvement is yet to be seen. The "equal pay for equal work" launched in April 2020 may also face implementation challenges, as the definition of the irrational pay gaps among workers is vaguely defined and the system relies on workers' requests to the firm for information and explanation of gaps. At end-2021, the *Eruboshi*-certified employers comprised only about 1,674 firms.

4. WSR implementation should be further strengthened and accompanied by skills training and reforms to reduce labor market duality. WSR implementation should be complemented by a stronger reporting framework of firms' wage gaps and job descriptions and sanctions for firms that do not comply with the "equal pay for equal work" pillar. In addition, programs to increase skills training and reforms to reduce labor market duality would help enhance career opportunities for non-regular—particularly female—workers, thus raising productivity and real wages.

Figure 1. Japan: Labor Market Reforms

Total Working Hours per Month

(Number of hours)

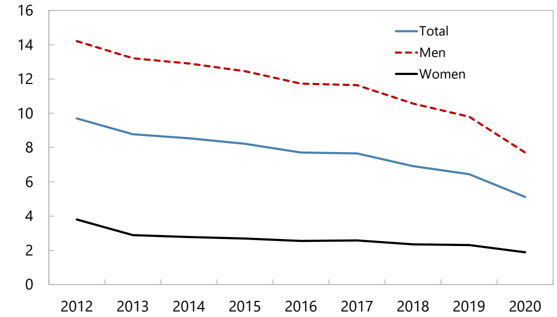


Source: Ministry of Health, Labor and Welfare.

Note: 2020 data were coincided with the COVID-19 pandemic.

Share of Employees Exceeding Overtime Cap 1/

(In percent of total)

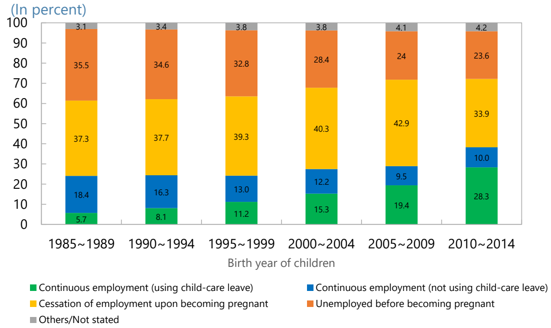


Source: Ministry of Health, Labor and Welfare.

1/ Employees working more than 60 hours a week.

Females who Continued to Work after Child Birth

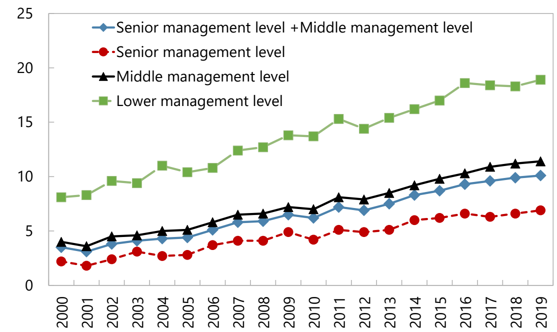
(In percent)



Source: "Fifteen Japanese National Fertility Survey (Survey on Married Couples)", National Institute of Population and Social Security Research.

Share of Female in Managerial Positions

(Percent of total, based on survey results of enterprise with 100 employees or more)



Source: "Basic Survey on Wage Structure", Empoyment Environment and Equal Employment Bureau, MHLW.

Annex X. Progress on 2017 FSAP Key Recommendations

Fund Recommendations	Time Frame[1]	Update on Progress
Cross-Cutting Issues		
Further raise corporate governance standards to bolster independence of board and oversight functions from senior management across banking and insurance sectors (FSA).	NT	The Corporate Governance Code was revised further in June 2021, with a focus on enhancing board independence (in addition to promoting corporate diversity and attention to sustainability and ESG considerations). The revised Code increases the required number of independent directors from at least two to at least one-third of the board for prime market listed companies (where necessary, a majority of the board members should be elected as independent directors), and requires establishing nomination and remuneration committees.
Further develop internal processes to support full risk-based supervision for banks, insurers, and securities firms (FSA, SESC).	I	The FSA published "Principles of Prudential Policy" in March 2019, laying out its forward-looking approach to macroprudential and microprudential supervision. It solicited comments on a draft "Supervisory Guideline" paper clarifying internal supervisory procedures under this new approach in October 2019.
Consider enhancing independence of the FSA and BoJ in key supervisory issues (PM, MoF, FSA, BoJ).	MT	Under consideration by the authorities.
Systemic Risks		
Develop own supervisory stress testing model for both solvency and liquidity risk analysis for banks, and for solvency risk analysis for insurers, as well as stress test large exposures periodically (FSA).	NT	Since 2019, the FSA and BoJ have been conducting common stress testing using agency scenarios for major financial institutions. In addition, the FSA periodically requests from megabanks a list of credit amounts and internal ratings of domestic and foreign exposures (to simulate the effects of the downgrading of credit ratings of such exposures on credit costs and capital adequacy ratios as necessary).
Continue conducting liquidity stress testing regularly for significant foreign currencies and require banks to hold sufficient counterbalancing capacity, particularly high-quality liquid assets (FSA).	I	In cooperation with the BoJ, the FSA continued to conduct foreign currency liquidity stress tests for three megabanks (using agency scenarios), as well as engage with the banks with regards to the depth and frequency of internal foreign currency liquidity stress tests. The FSA has also strengthened cooperation with the host authorities in this regard given large overseas presence of the three megabanks.
Financial Sector Oversight		
Give the FSA the power to set capital requirements for banks based on specific risk profiles (Gov).	I	The FSA's revamped "Early Warning Mechanism" achieves a similar result to Pillar 2 capital buffers, by identifying banks with medium-term profitability or soundness concerns and engaging their management to take early remedial actions. In particular, the FSA periodically simulates each bank's (roughly) 5-year core net profit or capital ratio under stressed conditions. It then conducts in-depth dialogues with the management of banks with medium-term profitability or soundness concerns on their business outlooks, discussing their economic forecasts, revenue diversification or cost reduction plans, capacity to make profits on securities. and capital policies. Finally, for those banks whose profitability or capitalization prospects remain inadequate following in-depth dialogues, the FSA takes further actions as necessary to address the identified issues, such as conducting a governance review via on-site inspections, or issuing a business improvement order.

[1] I-Immediate" is within one year; "NT-near-term" is 1–3 years; "MT-medium-term" is 3–5 years.

Fund Recommendations	Time Frame[1]	Update on Progress
Take further steps to implement an economic-value-based solvency regime for insurers (FSA).	NT	In line with the recommendations put forward in June 2020 by The Advisory Council on the Economic Value-based Solvency Framework (which comprises external experts and was established in May 2019), the FSA aims to conduct annual field testing for all insurance companies, finalize the standards in 2024, and apply the new solvency regulations from 2025. The "Insurance Capital Standard" will be introduced as a capital standard for Internationally Active Insurance Groups (IAIGs) in 2025 after a five-year monitoring period from 2020. The FSA also released a document in June 2021 that comprehensively summarizes the state of the deliberations so far.
Introduce more specific periodic reporting requirements and more proactive investigations into related party transactions (FSA).	I	The FSA requires that banks which conduct transactions with a related party where arm's length rule may apply should seek approval. The requirements for this approval have been clarified by the Regulation for Enforcement of the Banking Act and the supervisory guidelines. In addition, the FSA imposes business scope restrictions on banking groups, and prevents contamination of heterogeneous risks. As a result, the FSA considers the effect of related party transactions on the soundness of banks' business to be limited, and assesses that the existing framework is sufficient enough to prevent violations of the arm's-length rule.
Ensure robust supervision of the systemically important securities firms by ensuring access to a sufficient number of experienced staff and onsite monitoring of overseas operations (FSA, SESC).	I	The FSA has been continuously monitoring the governance, profitability, and risk management for major Japanese securities firms through its Securities Firms Monitoring Office (SFMO).
Enhance recovery plan further by including extreme stress scenarios while ensuring continuity of critical services and mitigating contagion risks through clearing members (JSCC).	I	In Listed Derivatives clearing, the JSCC set a cap on the cash call to non-defaulting clearing members, after consuming all resources set in the revised scheme.
Address recovery planning issues on regulation for central counterparties (FSA).	I	Under consideration by the authorities.
Macroprudential Policy		
Clarify the mandate of the Council for Cooperation on Financial Stability (FSA, BoJ).	NT	The Council has convened bi-annually since 2014 (and most recently in April and October 2021), with the aim of exchanging views on the state of the financial system and financial markets, with a view to strengthening their cooperation regarding macroprudential policy. Lower-level liaison meetings are held to discuss the necessity of raising the countercyclical capital buffer (CCyB) and the effective measures including macroprudential policies, and reports to the Council. Since 2020, the FSA and BoJ have been coordinating on reducing the burden on financial institutions to avoid reporting duplications and to achieve higher-quality monitoring.
Consider proactively enhancing the macroprudential toolbox, including sectoral tools (FSA).	NT	The FSA has been monitoring emerging sources of systemic risks through its microprudential supervision with a view also on macroeconomic dynamics, covering topics such as lending to the real estate sector, monitoring of CLO holdings, and foreign currency liquidity management jointly with the BoJ. It also conducts a systemic risk assessment jointly with the BoJ under the CCyB framework on a quarterly basis, and explicitly specifies indicators to be used for and overall process for determining CCyB rates in supervisory guidelines.

Fund Recommendations	Time Frame[1]	Update on Progress
Continue to broaden and deepen the scope of systemic risk assessments (FSA, BoJ).	NT	Recognizing that the risks surrounding the financial system are evolving, including climate change risks at banks and insurance companies, the expansion of overseas operations by major financial institutions, the decline in the profitability of regional banks and their risk-taking behavior, the emergence of new players such as Fintech companies and their competition and cooperation with existing financial institutions, the FSA set up dedicated monitoring teams assigned to monitor nine major banking groups (including G-SIBs and D-SIBs) and five major securities companies, and a dedicated monitoring team for Fintech companies.
Crisis Management, Resolution, and Financial Safety Nets		
Strengthen resolution framework by removing ambiguities in the choice of tools, introducing a statutory bail-in power, clarifying triggers to enable early entry into resolution, and ensure that the role for the courts does not hinder effective resolution (FSA).	NT	The FSA has made efforts to limit financial institutions' need for temporary public support through various measures to improve their resolvability. The FSA's July 2017-dated report contains recommendations for further strengthening the resolution framework.
Consider broadening the perimeter of institutions to establish loss-absorbing capacity (FSA).	NT	The FSA has expanded the coverage of Total Loss-Absorbing Capacity (TLAC) requirements to one D-SIB (March 2021). The FSA will continue to monitor the situation to see if any financial institutions are newly designated as G-SIBs or if any Japanese D-SIBs meet the criteria in the future.
Encourage earlier prompt corrective action and provide a clearer path to resolution (FSA).	NT	The FSA's revamped "Early Warning Mechanism" helps guide its supervisory interventions to ensure that banks take early remedial actions to safeguard their soundness. In particular, the FSA periodically simulates each bank's (roughly) 5-year core net profit or capital ratio under stressed conditions. It then conducts in-depth dialogues with the management of banks regarding medium-term profitability or soundness concerns on their business outlooks, discussing their economic forecasts, revenue diversification or cost reduction plans, capacity to make profits on securities, and capital policies. Finally, for those banks whose profitability or capitalization prospects remain inadequate following in-depth dialogues, the FSA takes further actions as necessary to address the identified issues, such as conducting a governance review via on-site inspections, or issuing a business improvement order. Measures to provide a clearer path to resolution in the event of insolvency are under consideration by the authorities.
Enhance crisis preparedness and coordination via an interagency crisis management forum (MoF, Minister for FS, BoJ, FSA, DICJ).	NT	The FSA has been making efforts to enhance crisis management and contribute to inter-agency collaboration. The FSA and Deposit Insurance Corporation of Japan (DICJ) regularly meet (at least once a month since 2016) to work on effective operationalization of resolution measures. The FSA, BoJ and DICJ have informal consultations and set annual priorities for systemically important financial institutions to enhance their resolvability.
Establish an orderly resolution regime, following international guidance, for central counterparties and other FMI operators (FSA).	MT	Under consideration by the authorities.
Strengthen the framework for the provision of emergency liquidity assistance and tighten preconditions for the use of temporary public funding in resolution (MoF, BoJ).	NT	Under consideration by the authorities.
Financial Intermediation		
Continue engaging with banks on implications of macroeconomic and demographic trends	I	The FSA recognizes that the business environment surrounding regional banks became severer due to the

Fund Recommendations	Time Frame[1]	Update on Progress
and take actions on a timely basis when viability concerns are identified for individual institutions (FSA).		impact of the COVID-19 pandemic, in addition to continuing low interest rates and an ageing and shrinking population. In response, as summarized in "Strategic Priorities July 2021-June 2022", the FSA has taken several measures, including enacting amendments to the "Anti-Monopoly Act", establishment of a grant scheme for regional banks that aims to improve their business efficiency through measures such as mergers, and promoting digitalization and regional revitalization.
Encourage banks to evolve risk management practices in line with new business activities (FSA).	NT	Acknowledging the possibility of potential vulnerabilities being masked by large support programs, the FSA noted that they encourage regional banks to build capacity to provision in a more forward-looking manner.
Encourage regional and *Shinkin* banks to review measures such as cost reduction, consolidation, income diversification, and fee structures to address medium-term profitability concerns (FSA, Gov).	NT	The BoJ introduced in November 2020 a "Special Deposit Facility to Enhance the Resilience of the Regional Financial System" to strengthen regional financial institutions' business foundations (as a three-year temporary measure for the fiscal years ending March 2021-2023). The scheme provides extra interest on current account balances held by regional financial institutions that meet certain requirements (streamlining overhead costs and providing credible plans for mergers, business integration, or certain forms of acquisitions that would strengthen business foundations). Recent amendments to the Banking Act, which took effect in late 2021, provide further flexibility in business operations for banks. The FSA, through its revamped "Early Warning System", also encourages banks to take targeted measures to address medium-term profitability concerns. The Parliament also approved a legislation in May 2020 that would exempt merger and acquisitions (M&A) between domestic regional banks from the anti-monopoly law (provided that the FSA approves the M&A plan as credibly promoting profitability and enhancing financial services).
Lower coverage of credit guarantees (SME Agency).	MT	The government introduced full public credit guarantees for eligible SMEs at the outbreak of the pandemic (where SMEs facing a significant drop in y/y sales were deemed eligible). The FSA allowed banks to assign zero risk-weights to such loans, and exercised regulatory flexibility and allowed banks to flexibly adjust/renew the terms recognizant of business difficulties as the pandemic lingers. The government also expanded the program of effective zero interest loans without collateral to private sector banks (where interest subsidies are paid directly to private sector banks by the Organization for Small & Medium Enterprises and Regional Innovation).

INTERNATIONAL MONETARY FUND

JAPAN

March 16, 2022

STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By	Asia and Pacific Department (In consultation with other departments)

CONTENTS

FUND RELATIONS

(As of February 28, 2022)

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)	23,710.07	76.93
Reserve Tranche Position	7,132.34	23.14
Lending to the Fund		
New Arrangements to Borrow	790.68	

SDR Department:

	SDR Million	Percent Allocation
Net cumulative allocation	41,825.03	100.00
Holdings	44,747.44	106.99

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				
	2022	**2023**	**2024**	**2025**	**2026**
Principal					
Charges/Interest	**0.70**	**0.70**	**0.70**	**0.70**	**0.70**
Total	**0.70**	**0.70**	**0.70**	**0.70**	**0.70**

[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 Arrangement:

Japan maintains a free-floating exchange rate regime. There has been no foreign exchange intervention in recent years (last in 2011). The Ministry of Finance publishes foreign exchange intervention information on its website. The exchange system is free 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 2008. Significant deficiencies were identified, notably with respect to customer due diligence (CDD) requirements, transparency of legal entities, the criminalization of terrorist financing and the freezing of terrorist assets. Since the 2014 Article IV mission, Japan has made significant progress in its commitment to strengthening its AML/CFT legal framework through the FATF standards, notably by enacting the Amendment Act on Prevention of Transfer of Criminal Proceeds, the Act to Amend the Terrorism Financing Act, and the Terrorist Assets Freezing Act. Japan will continue to be monitored by the FATF on its progress including the issuance of subsidiary legislations to implement the enacted Acts.

Article IV Consultation:

The 2019 Article IV consultation discussions were held between November 11 and 25, 2019; the Executive Board discussed the Staff Report (IMF Country Report No. 18/333) and concluded the consultation on January 30, 2020. 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 2017 Article IV consultation, in line with the five-year cycle for member countries with financial sectors that are determined to be systemically important, pursuant to Decision No. 15495-(13/111), adopted December 6, 2013. The Financial System Stability Assessment (FSSA) report for the 2017 assessment has been published (Country Report No.17/244) and is available on the web at: https://www.imf.org/en/Publications/CR/Issues/2017/07/31/Japan-Financial-System-Stability-Assessment-45151.

Technical Assistance: None

Resident Representatives: None

STATISTICAL ISSUES

Economic and financial data provided to the Fund are considered adequate for surveillance purposes. Since April 2016, Japan has adhered to the Special Data Dissemination Standard (SDDS) Plus and it meets the SDDS Plus specifications for the coverage, periodicity, and timeliness of data. Japan is also progressing in the implementation of the G-20 Data Gaps Initiative (DGI-2) recommendations. It started reporting quarterly General Government Gross Debt data in April 2018 and the global Security Financial Transactions data to the Financial Stability Board in 2019. Plans are to disseminate quarterly General Government Operations in line with SDDS Plus requirements by 2021. Japan has committed to address the limited data availability to compile Securities Statistics and sectoral accounts. The last mission on the Observance of Standards and Codes (data ROSC) took place in 2005 with a report published in March 2006 (available at https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Japan-Report-on-the-Observance-of-Standards-and-Codes-ROSC-Data-Module-19054).

Table 1. Japan: Table of Common Indicators Required for Surveillance

(As of February 28, 2022)

	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Frequency of Publication[6]
Exchange Rates	Jan. 2022	Feb. 2022	M	M	M
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	Sep. 2021	Dec. 2021	M	M	M
Reserve/Base Money	Nov. 2021	Dec. 2021	M	M	M
Broad Money	Aug. 2021	Nov. 2021	M	M	M
International Investment Position	2021Q3	Dec 2021	Q	Q	Q
Central Bank Balance Sheet	Dec. 2021	Jan. 2022	M	M	M
Consolidated Balance Sheet of the Banking System	Dec. 2021	Jan. 2022	M	M	M
Interest Rates[2]	02/24/2022	02/28/2022	D	D	D
Consumer Price Index	Jan. 2022	Feb. 2022	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	2020	March 2021	A	A	A
Revenue, Expenditure, Balance and Composition of Financing[3] – Central Government	2020	March 2021	A	A	A
Stocks of Central Government and Central Government-Guaranteed Debt[5]	2021Q4	Feb. 2022	Q	Q	Q
External Current Account Balance	2021Q4	Feb. 2022	Q	Q	Q
Exports and Imports of Goods and Services	Jan. 2022	Feb. 2022	M	M	M
GDP/GNP	2021Q4	Feb. 2022	Q	Q	Q
Gross External Debt	2021Q4	Feb. 2022	Q	Q	Q

[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 and extra budgetary funds), local governments, and social security funds.
[5] Including currency and maturity composition.
[6] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

Statement by Takuji Tanaka, Executive Director for Japan, Mikari Kashima, Alternate Executive Director, Shinsuke Naka, Senior Advisor to the Executive Director, and Inaho Ogihara, Advisor to the Executive Director
April 1, 2022

On behalf of Japan's authorities, we thank staff for their high quality Staff Report and Selected Issues Paper based on productive policy discussions held in January 2022, which was the first Article IV consultation since the start of the COVID-19 pandemic. From April 2020 to September 2021, state of emergencies was declared four times, as the spread of infections significantly affected economic activity, including income and employment. Swift and considerable fiscal spending and monetary accommodation assisted the normalization of economic and social activities by businesses and households, preventing a greater decline in output than otherwise and putting Japan's economy onto a recovery path. However, in the wake of Russian aggression against Ukraine amid the ongoing pandemic, surges in commodity prices and supply chain disruptions are causing significant uncertainties to the Japanese economy.

In the Article IV consultation, our authorities discussed with staff various structural challenges facing Japan, such as the aging and declining population, climate change and the digital transformation. The Government is accelerating reforms to address these challenges and to achieve sustainable and inclusive economic growth, as well as fiscal consolidation. Last June, the Cabinet approved the Basic Policy on Economic and Fiscal Management and Reform 2021 (Basic Policy 2021), which focuses on key drivers of growth (green, digital, creation of vibrant local regions, measures to arrest declining birthrate), integrated economic and fiscal reforms, and a firm commitment to the fiscal consolidation target.

The Japanese authorities' views on the staff analysis and recommendations are broadly summarized in the "Authorities' Views" section of the staff report, but we would like to offer the following specific points.

Recent Economic Developments

While the Japanese economy is picking up, it faces a range of risks. With the normalization of economic and social activities and supported by unprecedented stimulus measures, the economy continues to show signs of picking up, and real GDP has nearly recovered to its pre-COVID level. However, risks and uncertainties remain significant, including from supply constraints, an external economic slowdown, a resurgence of COVID-19 variants, and commodity price volatility. Russian aggression against Ukraine is posing additional risks through soaring energy and commodity prices and supply chain disruptions.

Fiscal Policy

The Government adopted an economic package in November 2021 and the FY 2022 budget with a view to achieving a virtuous cycle of growth and distribution putting the economy back on a self-sustaining growth path. In November 2021, the Cabinet formulated comprehensive economic measures to realize a "New Form of Capitalism", that is to achieve growth in the post-COVID society and to realize a virtuous cycle of growth and distribution. Preventing a resurgence of COVID-19 is of the greatest importance, and Japan will continue to take all possible measures to respond to COVID-19 outbreaks in a flexible manner. The November 2021 economic package included pandemic containment policies such as measures to strengthen the medical care system, and five trillion yen has been set aside in the FY2022 budget as contingency funds to address the pandemic. Aligned with staff's advice, policy support is shifting towards more targeted measures such as limiting benefits only to those businesses and households most affected by the pandemic, and facilitating resource reallocation to growing business areas by expanding job training.

The Government will advance expenditure and revenue reform to achieve the fiscal target, while working on overcoming deflation and revitalizing the economy. Due to the pandemic response, the public debt to GDP ratio is expected to be around 217 percent at end-March 2022. In addition, given the declining birthrate and aging population, Japan's public finances face the structural challenge of an imbalance between the benefits from and contributions to social spending. Against this backdrop, the Government will pursue reforms in the social security system, which accounts for most of the future growth in expenditure. For example, from October 2022, out-of-pocket medical expenses will be raised for late-stage elderly with income above a certain level, and further reform efforts will be continued. Furthermore, we will work on improving the quality of the budget by addressing challenges posed by the one-year-budget principle. The Government will continue consolidation efforts to achieve the fiscal target of consolidated (central and local Government) primary balance surplus in FY2025.

Monetary Policy

The Bank of Japan (BOJ) will continue with Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. The year-on-year rate of change in the CPI is likely to increase clearly in positive territory for the time being due to a significant rise in energy prices, a pass-through of raw material cost increases, and dissipation of the effects of the reduction in mobile phone charges. Meanwhile, the underlying inflationary pressure is projected to increase, mainly on the back of improvement in the output gap and a rise in medium- to long-term inflation expectations. The BOJ will continue to support financing mainly of firms and maintain stability in financial markets through the Special Program to Support Financing in Response to the Novel Coronavirus (COVID-19) and other measures, while examining important sources of risks such as increased vulnerabilities from the prolonged low-interest rate environment. In order to facilitate higher corporate profits and improved labor market conditions, the BOJ will continue to persistently pursue powerful monetary easing that can generate a virtuous cycle where wages and prices see sustained increases. Regarding the staff's recommendations on monetary policy, the BOJ considers that the current framework is effective and flexible, and does not need to adjust it.

Financial Sector

Japan's financial system has maintained stability on the whole, despite the pandemic. Regarding Russian aggression against Ukraine, while global financial and capital markets have been volatile and prices of commodities such as crude oil have risen significantly, market reactions in Japanese financial markets have been limited compared to those following the outbreak of the pandemic, and market functions have been maintained. Also, there has been no significant impact on the operations of Japanese financial institutions so far. Backed by the BOJ's measures to support financing, the Government's measures, and efforts made by private financial institutions, the external funding environment remains accommodative. Also, according to the results of the BOJ's macro stress testing, Japan's financial system is likely to remain highly robust in the case of a future resurgence of COVID-19 or adjustments in global financial markets and emerging economies due to a rise in U.S. long-term interest rates. On the other hand, prolonged downward pressure on financial institutions' profits due to the low interest rate environment and excess savings in the corporate sector could create the risk of a gradual pullback in financial intermediation. The risks of greater vulnerability in the financial system, mainly as a result of financial institutions' search for yield behavior, also deserves attention.

As discussed in the Article IV consultation, the environment surrounding the financial sector is evolving due to digitalization accelerating, demographic changes, and climate change. Against this backdrop, the Government is offering comprehensive administrative support, such as developing sustainable business models for regional financial institutions, encouraging digitalization to create user-oriented services, and attracting domestic and foreign funding for Japanese companies' pursuit of net-zero. In addition, Financial Services Agency is developing a policy and regulatory framework for so-called stablecoins. In July 2021, the BOJ published its Strategy on Climate Change and introduced Climate Response Financing Operations, disbursing loans of more than 2 trillion yen in December 2021. As staff noted in the Selected Issues Paper, further efforts are needed to strengthen climate financial risk management. Japan's authorities will continue to strengthen and support confidence towards the financial system amid significant changes to the financial and economic environment, including from risks such as cyber-crime.

Growth Strategy and Structural Reforms

Japan has implemented various reforms under "Abenomics" and achieved significant results, despite the headwinds to growth from the declining population. Though, as noted by staff, further reforms are essential for a strong recovery and inclusive and sustainable growth. Under the "New Form of Capitalism", Japan will update both its growth and distribution strategies and build a virtuous cycle of growth and distribution. The growth strategy will focus on digitalization, climate change, economic security, and technology and innovation. Distribution and reducing inequality will also be enhanced through raising wages, investing in human capital, and strengthening the middle-class cohort. The grand design of the "New Form of Capitalism" concept and its action plan will be published this spring.

The Government has made steady progress on structural reforms. On labor supply shortages, the Government has been reforming its labor market policies, including through promoting labor force diversification, female employment, and labor mobility along with pension system reforms. In addition, since April 2021, firms have been strongly encouraged to secure employment opportunities for older workers up to age 70. Supports for raising productivity and mitigating labor market distortions have been expanded through "Equal Pay for Equal Work" regulations that launched in April 2020, and working time regulations in April 2019. Also, the Government will further support the trend of wage increases, such as through the expansion of corporate tax credits and minimum wage increases. As for strengthening corporate governance, Japan continues its efforts through the revisions to the Corporate Governance Code and Guidelines for Investor and Company Engagement, as well as enhancing disclosure of information regarding the proportion of females in managerial positions and sustainability reporting. In order to improve business and investment, the Government will support business restructuring, de-regulation of employment in the agriculture sector and for foreign workers, fair sub-contracting, and striving to deliver a high-quality research environment. To attract FDI, the Government will also promote matching opportunities between foreign investors and potential recipients, simplify procedures, and enhance investor promotion. Japan will continue to lead a free, fair and rule-based international economic system, including rule-making in digital areas such as e-commerce.

Climate Change

Japan has committed to the goal of achieving net-zero by 2050. This involves reforming the energy supply structure, and promoting the transformation of the entire economy and society, including the industrial structure, individual consumption, and local communities. Japan has reduced greenhouse gas emissions for seven consecutive years since FY2014, representing an 18 percent reduction from the base year of FY2013. In order to bolster Japan's climate change policies, the Act on Promotion of Global Warming Countermeasures was amended in May 2021, legislating the net-zero target as a basic principle. Going forward, Japan will double climate investment and promote decarbonization, while ensuring green investment is a growth driver into the future. In particular, through the development of the "Basic Guidelines on Climate Transition Finance" and the pathways to achieve net-zero by 2050 for high-emitting sectors, the Government will promote transition finance, and support high-emitting industries' steady transition toward decarbonization. The Government will continue comprehensively analyzing climate issues such as regional decarbonization, individual lifestyle changes, green finance, and carbon pricing. The overall outlook of the transformation toward a net-zero economy and society will be presented in the forthcoming Clean Energy Strategy.

Digitalization

The Government is actively promoting digitalization with a user-centric focus and enhancing productivity to underpin the transition to a digital society. We welcome the in-depth analysis on Japan's digitalization and policy effects in the Selected Issues Paper. The COVID-19 pandemic highlighted the effectiveness of digital technology and Japan's lagging in digitalization. Digital technology is now an indispensable part of tackling social issues such as an aging society and rural economic decline. Against this backdrop, in September 2021, the Digital Agency was swiftly established to promote the development of rules and infrastructure from the user's perspective. This will help to create a digital society where everyone can benefit from digital technology. The welfare of the elderly, disabled, and people in rural areas will be a high priority, especially as they are the most likely to benefit from digital services such as online medical care and autonomous vehicles. As Japan's existing regulatory frameworks often do not meet the needs of new business models and services, the Government will review around 40,000 regulations under the guiding principle of digitalization, and encourage new markets supported by new rules in areas such as drones, autonomous vehicles, as well as in healthcare and education. Japan will also promote digitalization of administrative services, such as open data, sharing information on public platforms, and providing online services. For example, the law for registration of individuals' public benefits-receiving account enacted in May 2021 enables prompt payment of benefits and subsidies with registered account data. The Government is also strengthening risk management and responses to cyber-attacks, addressing both user convenience and security aspects.

External Sector

We agree with staff's preliminary assessment that the projected 2021 current account (CA) balance is broadly in line with fundamentals and desired policies, and the related policy recommendations. As noted above, the Government will continue to promote fiscal consolidation as well as structural reforms. Regarding the EBA methodology, consideration of the income balance into the CA-REER elasticity separate from the trade balance is consistent with our previous arguments, and we welcome staff's recent refinements as a good start. The relationship between REER and the income balance is not significant. Thus, it would be difficult for the EBA methodology to adequately assess Japan's current account level, where Japan's current account surplus mainly reflects the income account surplus. The EBA model and its assumption on a strong linkage between the exchange rate and the current account balance assessment should also be reviewed.

Conclusion

Our authorities highly value their close collaboration with the Fund and look forward to deepening discussions with staff to tackle domestic and international macroeconomic challenges. Finally, the authorities wish to thank again the Mission Chief, Mr. Salgado and his team for their insightful analysis and policy discussions presented in the Staff Report.