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Japan Economics Analyst

2023 Outlook: Focus on Wage Growth and BOJ Leadership Change

- While we expect Japan's real GDP growth to slow to 1.3% in 2023, from 1.5% in 2022, we look for growth to continue to outpace its potential. Consumption is likely to directly benefit from economic reopening, and we also expect capex to remain firm on the back of pent-up demand, labor shortages due both to demographics and reopening, and supply chain rebuilding. We see a contrast in external demand between goods and services, with goods exports softening predominantly in H1, on global economic slowdown, and services exports improving steadily throughout the year led by inbound spending.
- We forecast core CPI inflation (excludes fresh food) will decelerate after peaking at around 3.5% at end-2022, thanks in part to the government's new energy subsidies, but remain above 2% through most of the year owing largely to the cumulative impact of the weak yen coming to the fore.
- Market interest in FY2023 *Shunto* and wage growth has been rising markedly, as the BOJ has positioned wage growth of at least 3% as a prerequisite for stable achievement of its 2% inflation target. We expect an acceleration in basic wage growth reflecting high inflation effectively canceled out by a deceleration in bonuses and other wages chiefly due to a slowdown in corporate earnings growth, resulting in largely flat overall wage growth just shy of of 2%. Given strong inflationary pressures and reopening effects, we believe risk is tilted to the upside. However, stable wage growth of 3% still seems to be a distant prospect, unless the corporate mindset changes meaningfully.
- BOJ Governor Kuroda's second term is set to end in April 2023. We do not expect an explicit rate hike even under the new leadership in 2023, chiefly due to the above-noted wage factor and the Kishida administration's concerns about global slowdown. This could also be true for 2024, unless the Kishida administration has more incentive to encourage policy normalization. That said, adjustments to forward guidance with an easing bias and widening the 10-year yield band in 2023 are possibilities, in our view.

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Global Economic Outlook

Further Slowdown Expected in 2023

Global growth decelerated steeply in 2022 on the combined effects of a diminishing reopening impulse, fiscal and monetary tightening, China's economic challenges, and the Russia-Ukraine war. We expect global growth of just 1.8% in 2023 from 2.9% in 2022, with US resilience contrasting with a European recession, albeit a moderate one, and a bumpy reopening in China (Exhibit 1).[1] Key points are as follows.

First, we expect the US economy to avoid a recession, despite our updated outlook of the further tightening by the Fed which we think will hike another 125bp to a terminal rate of 5-5.25% (4.75-5% previously) during 2023.

Second, the Euro area and the UK are probably already in recession, as household real income is eroded by surging energy bills. That said, we see no deep recession as European nations have already managed to substantially cut reliance on Russian gas without damaging economic activity.

Third, recovery in China is likely to be moderate in 2023H1 as an expected reopening in Q2 may initially raise COVID-19 cases. We see a more tangible recovery in H2 on a reopening boost, but our long-run China view remains cautious on structural weakness in both demographics and productivity and the long slump in the property market.

Exhibit 1: Global Growth to Slow Again in 2023

Global Real GDP Growth Forecasts

	2021	2022		2023		2024	
	Actual	GS	Consensus	GS	Consensus	GS	Consensus
US	**5.9**	**1.9**	1.8	**1.1**	0.4	**1.6**	1.4
Japan (CY)	**1.6**	**1.5**	1.6	**1.3**	1.4	**1.4**	1.1
(FY)	**2.3**	**1.7**	1.9	**1.2**	1.2	**1.5**	
Euro area	**5.3**	**3.3**	3.1	**-0.1**	-0.1	**1.4**	1.5
Germany	**2.6**	**1.8**	1.6	**-0.6**	-0.7	**1.4**	1.3
France	**6.8**	**2.5**	2.5	**0.1**	0.4	**1.3**	1.3
Italy	**6.7**	**3.8**	3.5	**-0.1**	-0.1	**1.3**	1.2
Spain	**5.5**	**4.6**	4.5	**0.6**	1.0	**2.1**	2.0
UK	**7.5**	**4.4**	4.2	**-1.2**	-0.5	**0.9**	1.1
Asia ex. Japan	**6.6**	**3.5**	3.3	**3.8**		**4.5**	
China	**8.1**	**3.0**	3.3	**4.5**	4.8	**5.3**	5.0
India	**8.3**	**6.9**	7.1	**5.9**	5.8	**6.5**	6.6
Korea	**4.1**	**2.4**	2.6	**1.4**	1.8	**2.5**	2.4
Australia	**4.9**	**4.0**	4.0	**1.9**	2.0	**1.7**	1.9
Brazil	**4.6**	**2.9**	2.7	**1.2**	0.8	**2.2**	1.9
Russia	**4.7**	**-3.3**	-4.0	**-1.3**	-3.2	**1.8**	1.5
DM	**5.3**	**2.5**	2.5	**0.7**	0.6	**1.5**	1.6
EM	**7.3**	**3.5**	3.1	**3.4**	4.0	**4.4**	4.4
World	**6.1**	**2.9**	2.9	**1.8**	1.8	**2.8**	2.6

Source: Bloomberg, Goldman Sachs Global Investment Research

1 See Jan Hatzius et. al., "Macro Outlook 2023: This Cycle Is Different," Global Economics Analyst, November 16, 2022.

Japan's Economic Outlook

1. Executive Summary

Softening External Demand a Drag, but Reopening and Robust Capex to Maintain Above-Potential Growth

Exhibits 2 and 3 show our new forecasts for the Japanese economy. While we expect real GDP growth to slow to 1.3% in 2023, from 1.5% in 2022, we look for growth to continue to outpace the potential growth rate of 0.8%.

Consumption is likely to benefit directly from economic reopening. We also expect robust capex growth on cumulative pent-up demand, the need to address labor shortages due to worsening demographics and reopening, and supply chain rebuilding. As for external demand, we see a contrast between goods and services exports. We forecast softer goods exports, particularly in H1, due to the global economic slowdown amid the dropping-out of pandemic-driven demand for goods. In contrast, we expect services exports will steadily improve throughout the year, led by inbound spending, in the wake of the lifting of border controls by the Japanese government in October.

We forecast core CPI inflation (excludes fresh food) will peak at end-2022 at around 3.5% and decelerate in 2023 due in part to the government's newly introduced energy subsidies. That said, we expect core CPI inflation to remain above 2% during most of 2023, owing largely to the cumulative impact of yen weakness. Our forex team recently revised up their USD/JPY forecasts to ¥155 in 3 and 6 months before easing to ¥140 in 12 months, from ¥150/¥135/¥125.[2] Our commodity team maintains their bullish forecasts for Brent oil price at $115/bbl, $105, and $110 for the next 3, 6, and 12 months.

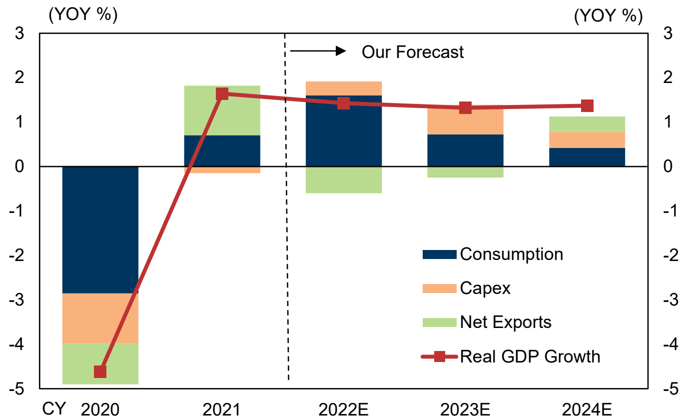
Exhibit 2: Another Above-Potential Growth Year Expected, Despite Slowdown
Economic Outlook for Japan

	Calendar Year				Fiscal Year			
	2021	2022E	2023E	2024E	2021	2022E	2023E	2024E
Real GDP (YOY %)	**1.6**	**1.5**	**1.3**	**1.4**	**2.3**	**1.7**	**1.2**	**1.5**
Consumption	1.3	3.0	1.3	0.8	2.6	3.0	0.9	0.9
Capex	-0.9	2.0	4.2	2.2	0.6	3.9	3.4	2.1
Housing Investment	-2.0	-4.3	0.5	1.9	-1.7	-4.0	1.3	2.1
Private Inventories (contribution)	-0.2	0.4	-0.1	-0.1	0.1	0.2	-0.1	0.0
Export	11.8	4.6	4.2	6.6	12.4	4.8	4.4	6.9
Import	5.1	7.9	5.4	4.7	7.1	7.8	4.7	4.8
Government Spending	2.1	1.6	0.7	0.7	2.0	1.4	0.6	0.7
Public Fixed Investment	-2.7	-6.7	2.5	1.9	-7.5	-2.2	2.2	1.8
Net Exports (cont.)	1.1	-0.6	-0.2	0.3	0.9	-0.6	-0.1	0.4
Private Domestic Demand (cont.)	0.4	2.2	1.3	0.8	1.5	2.2	1.0	0.8
Public Demand (cont.)	0.3	0.0	0.3	0.2	0.0	0.1	0.2	0.2
Nominal GDP (YOY %)	**0.8**	**1.3**	**2.6**	**3.7**	**1.3**	**1.9**	**3.0**	**3.4**
Industrial Production (YOY %)	**5.6**	**1.2**	**2.0**	**4.4**	**5.7**	**2.2**	**1.8**	**4.9**
Core CPI (YOY %)	**-0.2**	**2.2**	**2.5**	**1.4**	**0.1**	**2.7**	**2.4**	**1.1**
New Core CPI (YOY %)	**-0.5**	**1.0**	**2.4**	**1.1**	**-0.8**	**1.9**	**2.1**	**0.9**
Unemployment Rate (%)	2.8	2.6	2.5	2.4	2.8	2.6	2.5	2.4
Current Account (¥ tn)	21.6	8.8	1.6	7.8	20.3	5.5	3.3	7.6
BOJ Policy Rates (End of Period; %)								
Short-Term Target	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**
10-Year Target	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
USD/JPY (End of Period)	115.1	145.0	140.0	140.0	121.4	155.0	140.0	140.0
EUR/JPY (End of Period)	130.0	143.6	147.0	147.0	134.7	145.7	147.0	147.0

Source: Goldman Sachs Global Investment Research

[2] See Karen Fishman, "The Path FOrward for USD/JPY," Global Markets Daily, November 9, 2022.

Exhibit 3: Consumption and Capex Driving Japan's Economy in 2023
Real GDP Growth and its Breakdown



Source: Cabinet Office, Goldman Sachs Global Investment Research

Focus on Wage Growth and BOJ Leadership Change

Meanwhile, market interest in FY2023 *shunto* (spring wage negotiations between labor unions and management) and resultant macro wage growth has been rising markedly, as the BOJ has positioned macro wage growth of at least 3% as a prerequisite for stable achievement of its 2% inflation target. We forecast basic wage growth will accelerate in FY2023, chiefly reflecting high inflation in FY2022, whereas bonuses and other wages will decelerate chiefly due to a slowdown in corporate earnings and more generally economic activity, resulting in essentially flat overall wage growth just shy of 2% in FY2023. Given on-going strong inflationary pressures and severe worker shortages, we believe near-term risk is tilted to the upside. However, stable wage growth of 3% still seems to be a distant prospect, unless the corporate mindset becomes meaningfully more constructive.

On the policy front, BOJ Governor Kuroda's second term is set to end in April 2023, and will herald a transition to new leadership. Even under the new governor, however, we do not expect an explicit rate hike during 2023 due to the above-noted wage factor. The Kishida administration is also likely to maintain the current monetary easing policy, owing to its concerns about a global economic slowdown and its potential negative impact on the Japanese economy.

This could also be true for 2024, unless the Kishida administration has more incentive to encourage monetary policy normalization, even after global economic concerns abate. That said, adjustments to the current forward guidance (potentially removing the easing bias) and/or widening the 10-year yield band are possibilities in 2023.

2. Detailed Outlook

Consumption: Robust on Reopening, But Weighed Down Gradually by Inflation

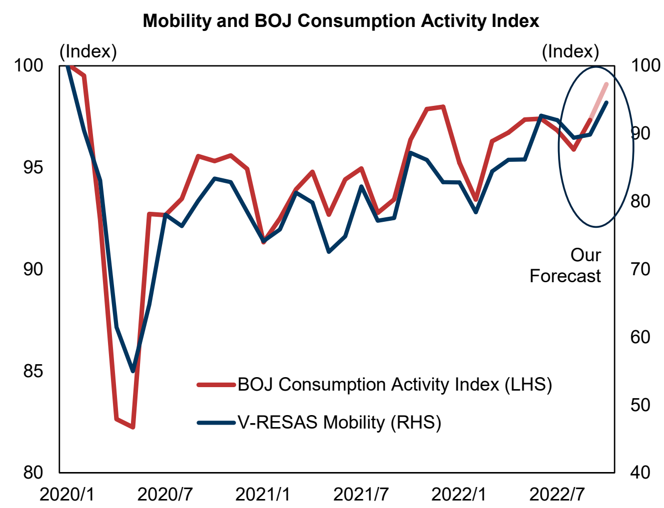
During the pandemic, consumption has remained closely correlated with the government's restrictions on people mobility (Exhibit 4 LHS). While the number of new COVID-19 cases continues to rise and fall in waves, the pandemic itself is being discussed with less frequency in Japan, and the sense of excessive cautiousness among consumers appears to have dissipated somewhat. The government has also been gradually easing the pandemic-related restrictions. It not only effectively removed border controls from October, but also launched new measures aimed at stimulating tourism demand (nationwide travel subsidies), among others.

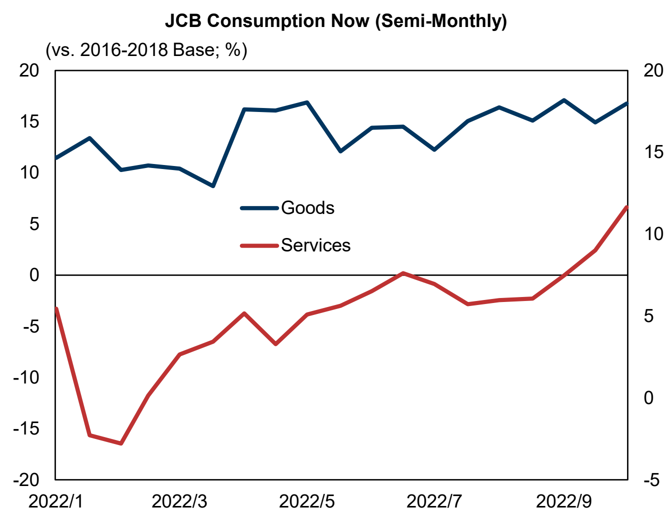
Against this backdrop, consumption is belatedly starting to benefit from economic reopening. High-frequency credit card data shows that services consumption turned upward strongly from September and is around 5% higher than the pre-pandemic level (Exhibit 4 RHS).

The reopening boost notwithstanding, households are still facing a challenging environment as consumer confidence is worsening with real wage growth in negative territory (Exhibits 5, 6). However, we still expect consumption to pick up in the near term on the back of reopening benefits, supported by over ¥60 tn in "forced savings," stemming from the lost opportunities to spend during the pandemic (equivalent to 11% of GDP; Exhibit 7).[3] That said, we also expect reopening momentum will peak in the next 6 months or so and wane afterwards, gradually weighed down by inflation.

We see downside risk to our consumption forecasts particularly if large upticks in COVID-19 cases lead to people becoming cautious again and refraining significantly from outside activities and the government again reinforcing mobility restrictions.

Exhibit 4: Economic Reopening Effect Is Finally Becoming Evident in Consumption

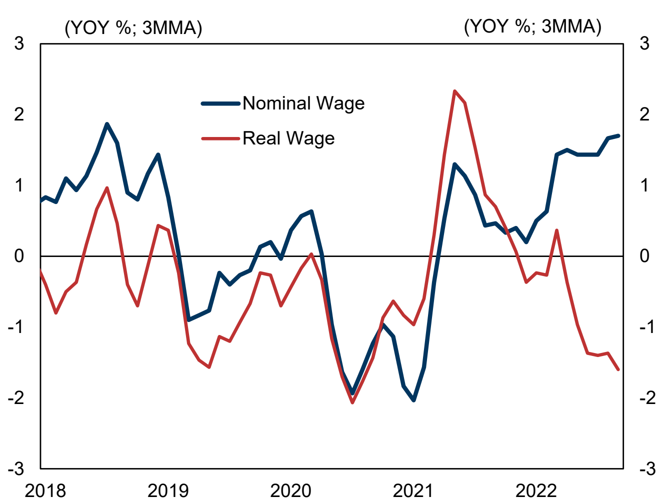




Source: BoJ, Cabinet Office, Nowcast Inc., Goldman Sachs Global Investment Research

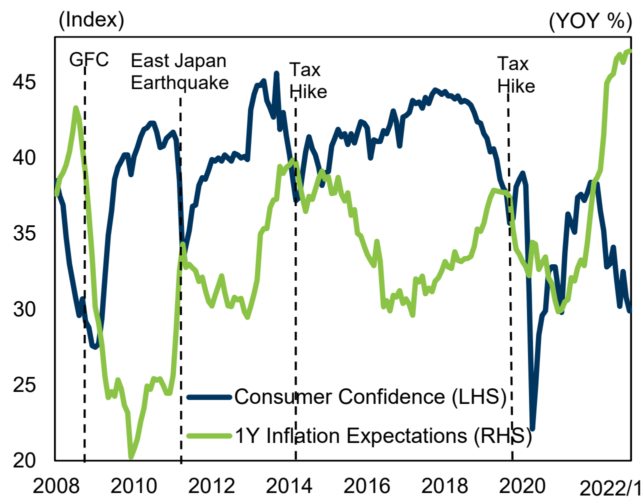
[3] See Naohiko Baba, "From Forced Savings to Pent-Up Spending," Japan Economics Analyst, September 10, 2021.

Exhibit 5: Real Wage Growth Remains in Negative Territory
Nominal and Real Wage Growth



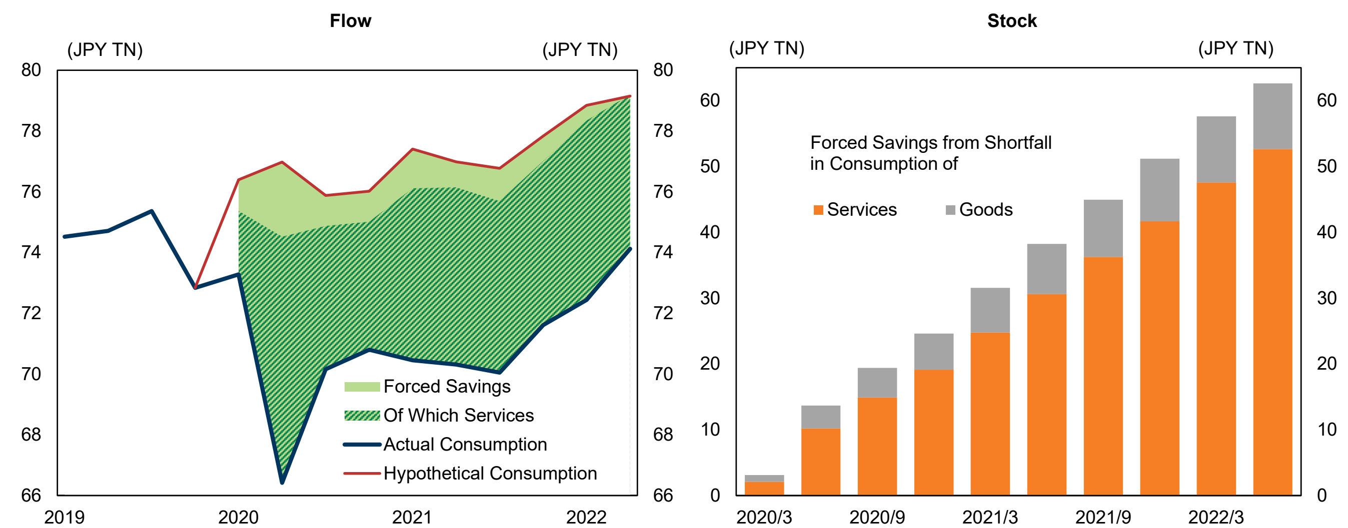
Source: MHLW

Exhibit 6: Consumer Confidence Has Been Deteriorating
Consumer Confidence and 1-Year Inflation Expectations



Source: Cabinet Office, Data compiled by Goldman Sachs Global Investment Research

Exhibit 7: Forced Savings to Support Reopening Effect For the Time Being
Forced Savings



Source: Cabinet Office, BoJ, Goldman Sachs Global Investment Research

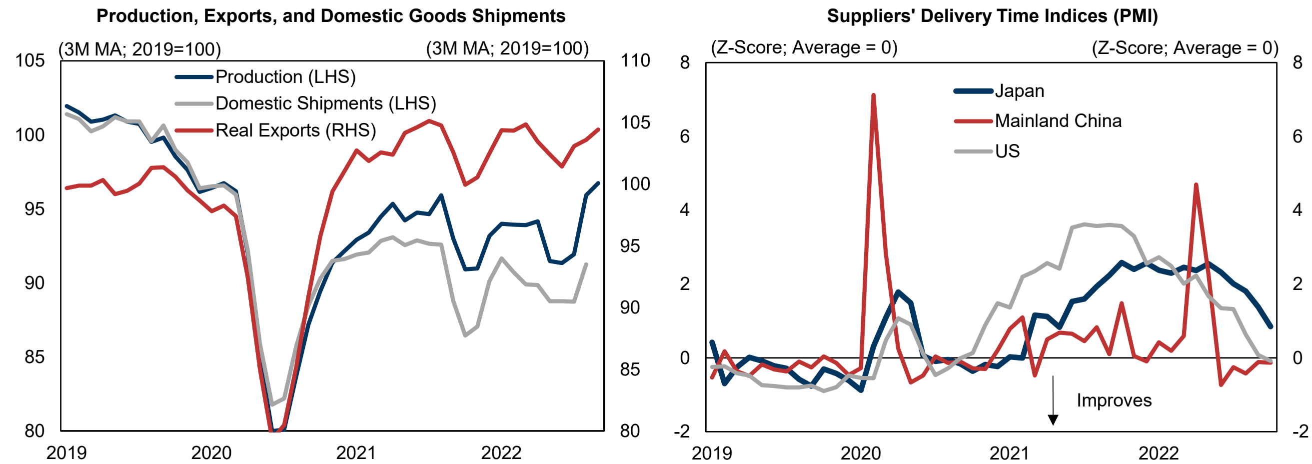
Manufacturing Activity: Supply Constraints to Give Way to Softer External Demand

Japan's production staged a V-shaped recovery in 2020, chiefly driven by exports, but both have shown directionless, volatile movements since 2021, mainly due to supply chain disruptions centering on automobiles (Exhibit 8 LHS). In 2022, auto production dropped sharply again in May owing to supply bottlenecks in essential components/parts caused by the zero-COVID strategy in China. That said, Japan's supply chain, which has been slower to improve than other major countries, is finally back on a steady recovery path (Exhibit 8 RHS).

Going forward, we expect manufacturing activity to be influenced more by softening external demand than supply constraints. We forecast slowing global growth momentum especially in 2023H1. In terms of the short-term manufacturing cycle, OECD countries have already entered a contraction phase. Japan's manufacturing sector is still in a slowdown phase, but we expect it to move into a contraction phase during 2023H1, as weaker external demand takes a toll (Exhibit 9).

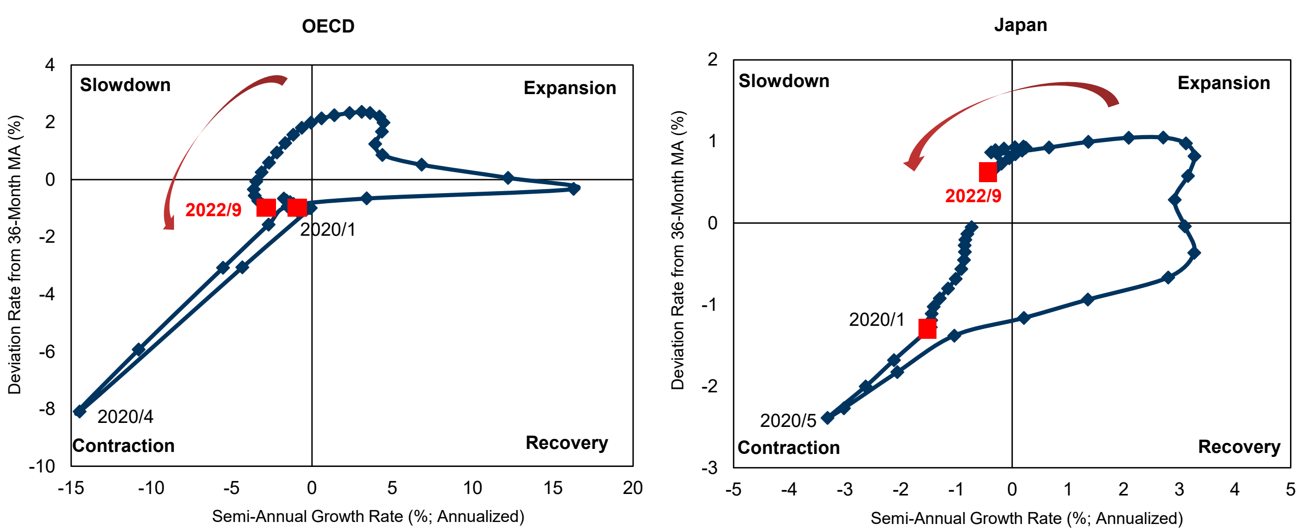
That said, from 2023H2, we expect recovery not only in Europe and the US, but also more notably in China with gradual deregulation of the zero-COVID policy. With these tailwinds, Japanese manufacturing activity is likely to regain momentum. We also think substantial depreciation of the yen will make some positive contribution to growth in goods exports. However, as its impact on real exports has faded structurally, especially due to offshoring of production bases by manufacturers, Japan's goods exports are predominantly influenced by the global demand.[4]

Exhibit 8: Changing Theme in Production From Supply Constraints to Slowing External Demand



Source: Ministry of Economy, Trade and Industry, BoJ, Haver, Data compiled by Goldman Sachs Global Investment Research

Exhibit 9: Japan Set to Follow Other Major Economies in Manufacturing Cycle
Manufacturing Cycle Based on OECD Leading Indicators



Source: OECD, Data compiled by Goldman Sachs Global Investment Research

[4] See Naohiko Baba and Yuriko Tanaka, "FAQ on Nexus Between Forex and Manufacturing Activity," Japan Economics Analyst, July 11, 2022.

Inbound Spending: Still Long Road to Full Recovery, but Steady Gains Expected

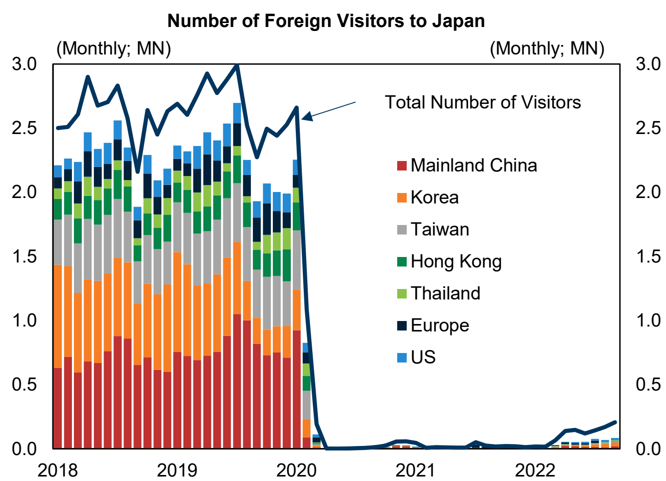
Inbound spending (posted as service exports) reached around ¥5 tn in 2019 (0.8% of 2019 GDP), but dropped to almost nothing during the pandemic and the historic slump continued until the summer of 2022 (Exhibit 10 LHS).

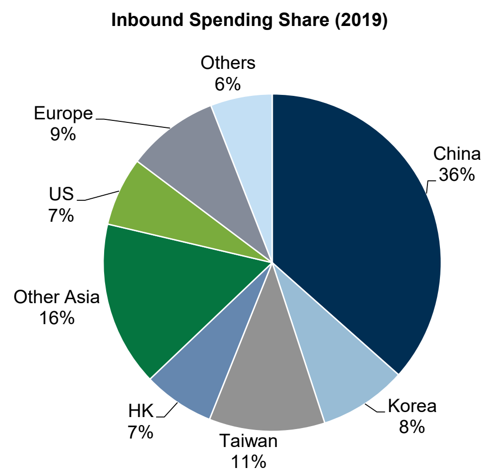
The Kishida administration finally removed the daily entry cap on foreign visitors in October. Following this, the number of foreign visitors to Japan in September exceeded 200,000 for the first time since February 2020. Our ball-park estimation points to potentially larger annual inbound spending of ¥6.6 tn post full reopening vs. the pre-pandemic level of ¥5 tn, partly helped by the weak yen.[5] Accounting for outbound spending by Japanese visitors overseas (¥2.3 tn), net inbound spending would be ¥4.3 tn (equates to 0.8% of 2022 nominal GDP; Exhibit 11 LHS).

However, we expect a full recovery in inbound spending to take until 2024, mainly because of China's zero-COVID policy. In 2019, Chinese travelers accounted for 30% and 36% of foreign visitors to Japan and inbound spending, respectively (Exhibit 10 RHS). However, due to strict departure and reentry restrictions in China under the country's zero-COVID policy, together with Japan's delayed reopening, Chinese visitors have accounted for less than 13% of total visitors since the beginning of 2022.

Our Chinese economics team expects related regulations to start easing from 2023Q2, but for this to initially be restricted to domestic travel, with overseas travel restrictions not being loosened until Q3. We therefore think a full recovery in Chinese inbound spending will have to wait until 2024. As a result, we forecast inbound spending of ¥2.8 tn by end-2023, around 60% of the 2019 level (Exhibit 11 RHS). Accounting for outbound travelers, net inbound spending would be ¥1.2 tn at 2023-year-end.

Exhibit 10: Inbound Spending Declined Drastically During the Pandemic

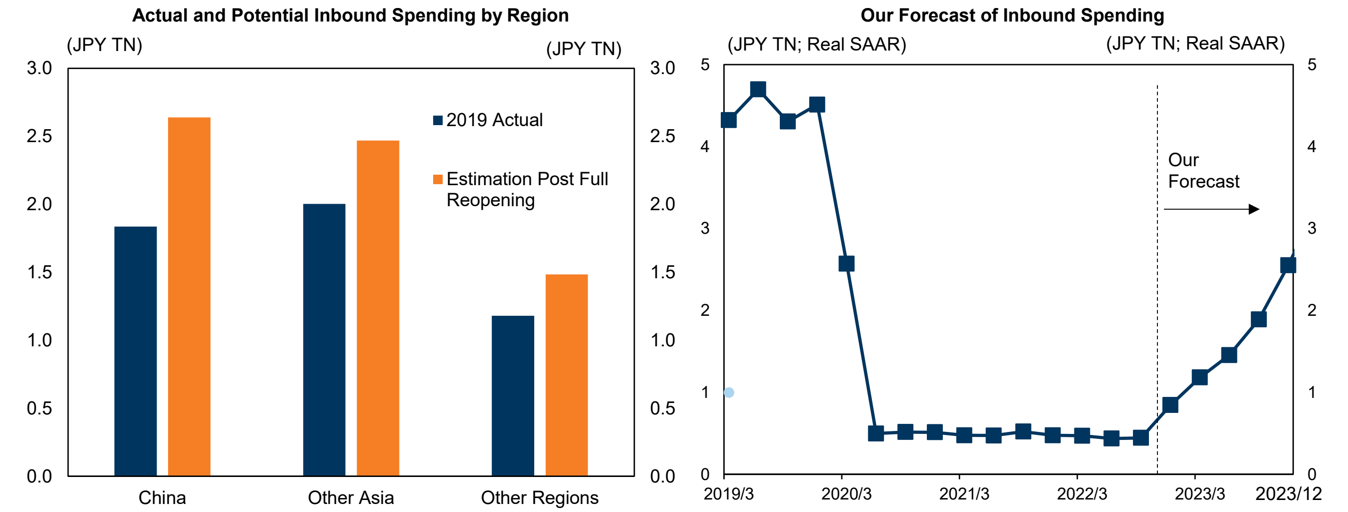




Source: Japan National Tourism Organization, BoJ

[5] See Yuriko Tanaka and Naohiko Baba, "Inbound Spending Post Reopening: Implications for External Balance," Japan Economic Flash, September 22, 2022.

Exhibit 11: Inbound Spending Has the Potential to Exceed Pre-Pandemic Levels, But No Full-Scale Recovery Until 2024



Source: BoJ, Cabinet Office, Goldman Sachs Global Investment Research

Capex: Pent-Up Demand and Labor Shortages to Support Firm Investment

Turning to capex, while the slowdown in external demand will generate some headwinds, we think capex will remain firm on the back of pent-up demand built during the pandemic and demand in response to labor shortages accompanying economic reopening amid deteriorating demographics.

In fact, FY2022 corporate plans call for the highest capex demand since 1983 when data became available (Exhibit 12 LHS). These are of course only plans and will likely be revised down ahead, especially among manufacturers, as external demand slows, and we think FY2023 plans will be more cautious.

Nonetheless, we think intensifying labor shortages will drive Japan's capex going forward. For example, looking at the two elements of the BOJ's output gap, the capital input gap is still in excess supply, whereas the labor input gap has already turned into excess demand (Exhibit 13 LHS). One noteworthy aspect on this occasion is that while in an economic recovery phase the capital input gap normally tends to more quickly enter excess demand territory, the labor input gap is now leading the way. We expect excess demand for labor to remain in place for now reflecting Japan's deteriorating demographic trend even after the reopening boost wanes.

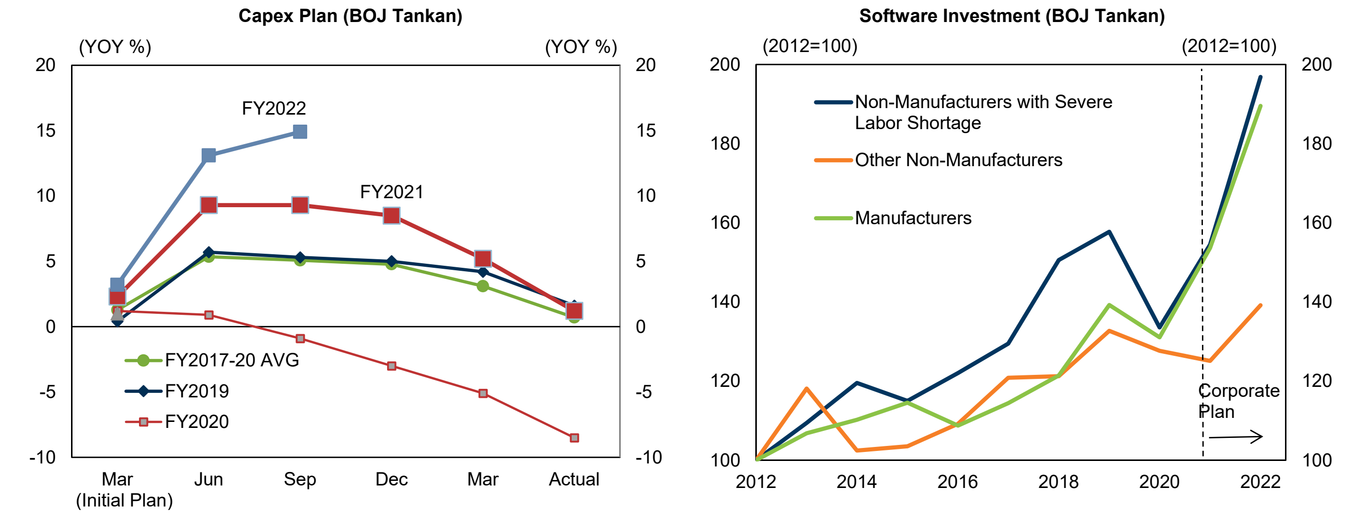
Assessing contributions to capex (yoy) from each of these two input gaps, the explanatory power for future capex variations is larger for labor input gap than capital input gap (Exhibit 13 RHS). We think the reason for this is increasing corporate demand for capex to address labor shortages, not only by improving factory and office efficiency, but also by actively introducing ICT equipment and software.[6]

Software investment dropped sharply during FY2020 in the group of non-manufacturing industries faced with severe labor shortages, such as lodging and eating/drinking

[6] Another non-negligible technical factor is that the BOJ's capital input gap does not properly capture shortages of software and other intangible assets, due to data availability issues. This is likely to lower the explanatory power of the capital input gap for capex in a bid to address labor shortages.

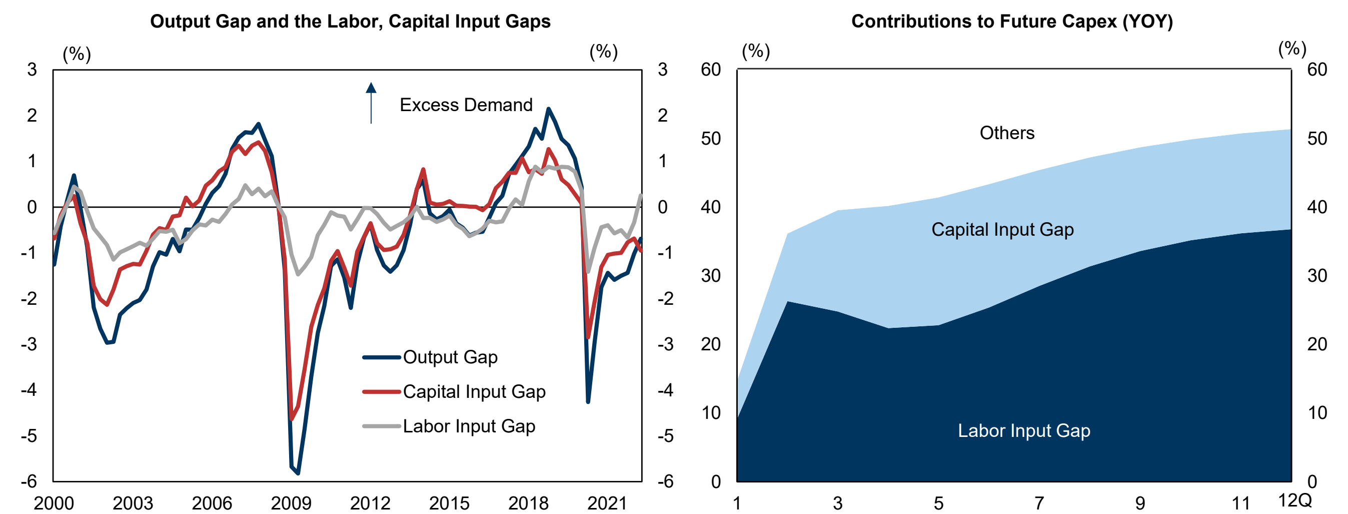
services, as these industries tend to require more physical interaction (Exhibit 12 RHS). However, investment plans since FY2021 have reverted to being markedly bullish. Similarly, in the manufacturing industry, companies are working on initiatives to create smart factories, among others. This goes beyond merely improving productivity in production processes. It equates to digital transformation designed to reinvent the overall supply chain, encompassing parts procurement, production, sales, and maintenance. This trend is likely supported by manufacturers being compelled to revamp inventory systems due to supply chain disruptions during the pandemic.

Exhibit 12: Companies Have Robust Capex Demand, Software in Particular



Source: BoJ, Data compiled by Goldman Sachs Global Investment Research

Exhibit 13: Capex Responds Strongly to Labor Shortages



Source: BoJ, Goldman Sachs Global Investment Research

Inflation: Core Inflation to Decelerate, But Remain Above 2% During Most of 2023

The inflation wave has reached Japan after arriving in other developed economies much sooner. Core CPI inflation (excludes fresh food) has risen, lifted mainly by higher food and energy inflation, and exceeded 3% as of October 2022. Looking ahead, we think core inflation will peak at 2022 year-end, partly thanks to government subsidies (Exhibits 14). Thereafter, we look for inflation to decelerate, but remain above 2% during most of 2023.

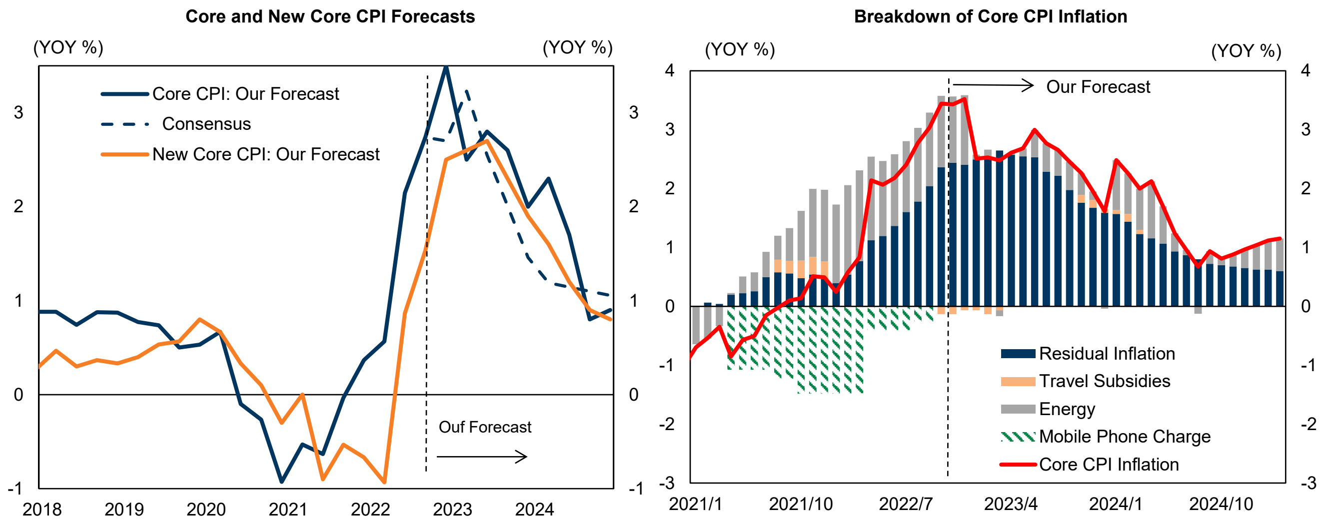
The impact of the yen, which has weakened rapidly since spring 2022, has yet to run its course and our working assumption calls for substantial yen weakness up to ¥155/$ over the 6-month horizon. Also, while Japanese companies have been passing on cost inflation to consumers, mainly in the food industry thus far, the pass-through is still far lower than cost inflation. We therefore see further scope for pass-throughs. At the same time, however, we also see the limit of pass-throughs, in light of high price sensitivity among consumers amid stagnated long-term wage trend.[7]

The impact of government subsidies, which cover not only energy (electricity, gas and gasoline), but also nationwide travel support, on core CPI inflation is likely to be significant, but will show up chiefly in volatility more than the level of inflation (Exhibit 15). In particular, electricity subsidies will be implemented from January 2023 to counter electricity price hikes by power companies scheduled in spring 2023. While we think the contribution to core CPI inflation after netting out these two effects is only slightly negative, the timing gap of both could create significant volatility.

Like the BOJ, we think high inflation driven mainly by cost-push factors is not sustainable. Sustainable inflation around the BOJ's 2% target would require a large and stable bump in wages (discussed later) and anchored inflation expectation at relatively high levels among households. Inflation expectations have already risen materially (Exhibit 16). However, given the strong tendency for Japan's inflation expectations to co-move with actual inflation, expected inflation rates are likely to fall once CPI inflation starts to decelerate significantly ahead as we expect. Accordingly, at this stage, we think these conditions are unlikely to be met for now.

[7] See Naohiko Baba, "Growth Strategy Key to Wage Growth/Price Pass-Through, Rather Than Monetary Easing," Japan Economicc Analysi, Octover 14, 2022.

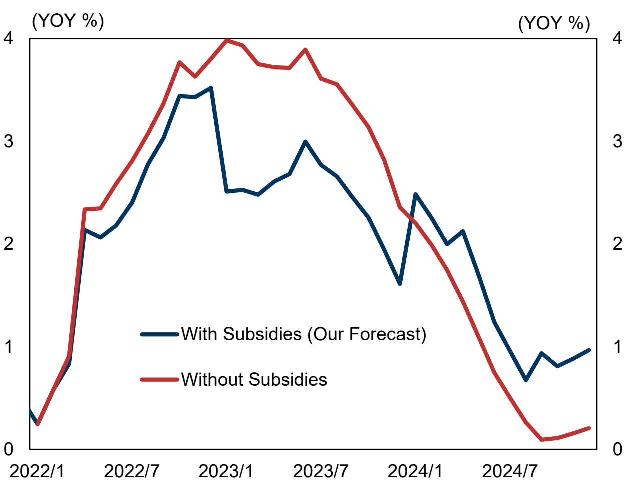
Exhibit 14: Inflation to Decelerate, After Peaking at Year-End



Core excludes fresh food and new core excludes fresh food and energy.

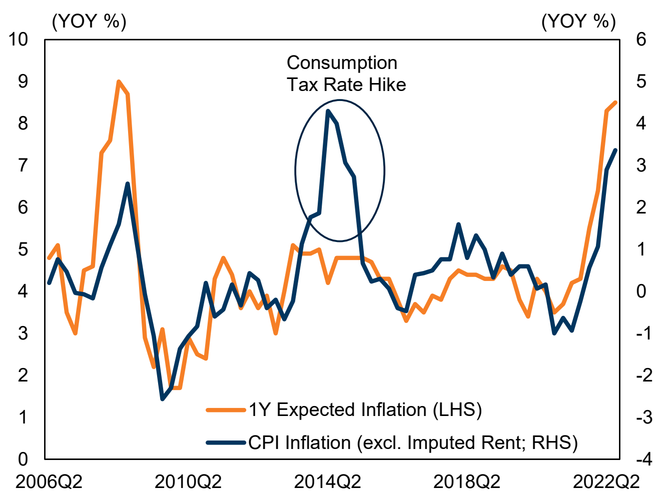
Source: Ministry of Internal Affairs and Communications, Goldman Sachs Global Investment Research

Exhibit 15: Government Subsidies To Raise Volatility
Core CPI Inflation: With or Without Government Subsidies



Source: Ministry of Internal Affairs and Communications, Goldman Sachs Global Investment Research

Exhibit 16: Inflation Expectations Are Rising, But Sustainability Holds the Key Ahead



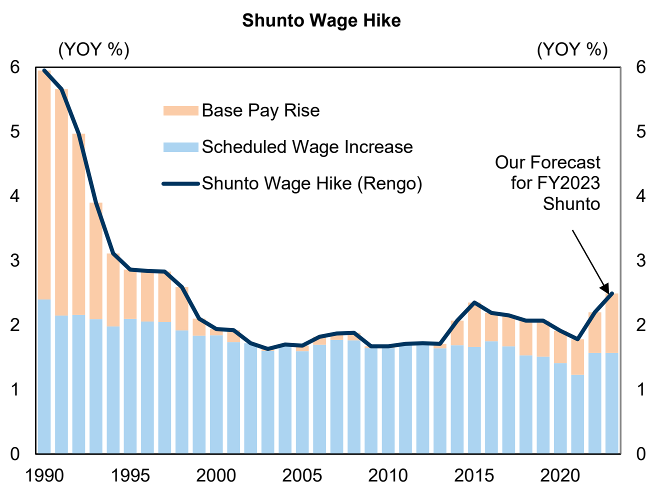
Source: BoJ, Ministry of Internal Affairs and Communications

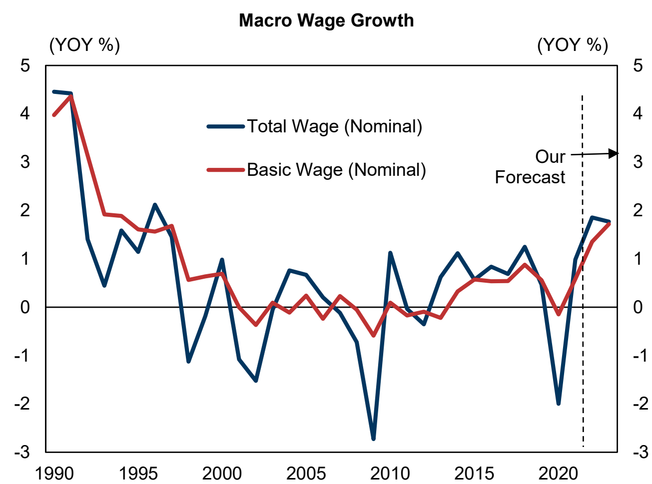
Wages: Heightened Market Interest in FY2023 *Shunto*

Market interest in FY2023 *shunto* has been rising markedly, as the BOJ sees wage growth as a key factor for policy decisions.[8] As noted above, core CPI inflation is already well above the BOJ's 2% target, at around 3%. However, BOJ Governor Kuroda has reiterated that macro wage growth of 3% or higher will be needed to attain this target in a sustainable manner. In this regard, there is some confusion among market participants, as the *shunto* wage hike, which the market currently focuses on, is not directly comparable to macro wage data. Below, we first clarify the relationship of the *shunto* wage with macro wage, which here we specifically refer to the monthly average wage per worker in the *Monthly Labor Survey* (an establishment survey, not household) by the Ministry of Health Labor and Welfare, and then discuss our outlook on the FY2023 wages.

The *shunto* wage hike comprises an "annual scheduled wage increase" and a "base pay rise," (Exhibit 17 LHS), which was 2.2% in FY2022 (1.57% for the former and 0.63% for the latter). The scheduled wage increase is a system of automatic increases in wage according to age, and it certainly means higher wages for individual workers. However, for a broad economy, the total wage cost only changes with the worker age mix, which changes extremely slowly. In principle, the incremental change in the *shunto* scheduled wage increase would provide that additional acceleration in macro wage growth. That said, we find no significant statistical relationship to the *shunto* scheduled wage increase and macro wage growth, and hence we can safely disregard scheduled wage increase in considering macro wages.

Exhibit 17: While We See a Further Pick-Up in Base Pay Rise in FY2023 Shunto, Overall Macro Wage Growth Is Likely to Remain Largely Flat





Source: Ministry of Health, Labour and Welfare, JTUC-RENGO, Goldman Sachs Global Investment Research

By contrast, the *shunto* base pay rise effectively signifies uniform wage increases across all workers, and an increase in the wage cost for a company as well as for the broad economy. This is hence reflected in the macro basic wage growth. The *shunto* base pay rise is highly correlated with the prior fiscal year's base pay rise, CPI inflation, and corporate sales. Based on these variables, we estimate a *shunto* base pay rise of

8 See Naohiko Baba and Yuriko Tanaka, "How Large of a Shunto Wage HIke Is Needed for 3% Macro Wage Growth?" Japan Economics Analyst, November 9, 2022.

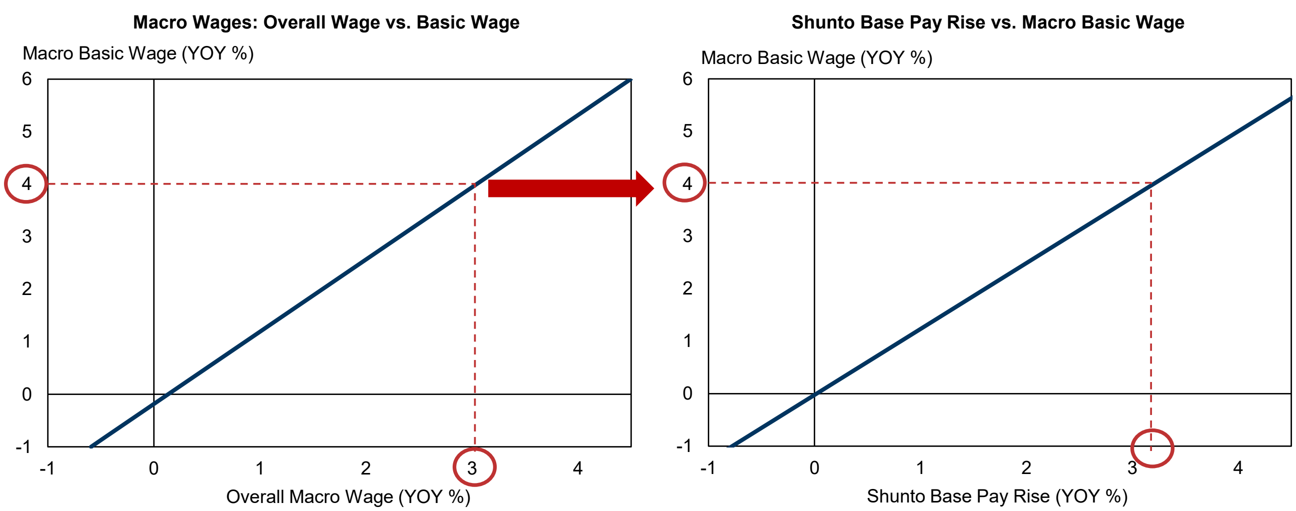
0.9% in FY2023, accelerating from 0.6% in FY2022. This reflects large contributions from high inflation and the strong base pay increase agreed in FY2022, and it would mark the largest base pay rise since 1994. If the *shunto* scheduled wage increase is the same as in FY2022 (1.57%), the headline *shunto* wage hike would equate to around 2.5%, the largest figure since 1998.

Next, estimating macro basic wage growth from the *shunto* base pay rise would generate macro basic wage growth of 1.7% in FY2023, an acceleration from a projected 1.4% growth in FY2022. Meanwhile, we estimate that the combined overtime and special wage growth would slow to 1.9% yoy in FY2023 from a projected 3.2% in FY2022, chiefly due to a slowdown in corporate earnings and economic activity. Combining these estimates, our results indicate an overall macro wage growth of 1.8% in FY2023, essentially flat versus a projected 1.9% in FY2022 (Exhibit 17 RHS). This is well below the 3% wage growth that BOJ Governor Kuroda asserts is necessary for stable achievement of the 2% inflation target.

The next question is how large of a *shunto* wage hike would be needed to achieve the 3% macro wage growth. We address this question based on the following steps.

1. With overtime wage and special wage growth estimated from corporate earnings and real GDP growth as a given, we map the relationship between the overall wage and basic wage growth in Exhibit 18 (LHS). This shows that a basic wage growth of roughly 4% is needed in order to reach an overall wage growth of 3%.
2. Based on the stable relationship between past *shunto* base pay rises and macro basic wages, we estimate that a *shunto* base pay rise of 3.2% is needed to reach basic wage growth of 4% (Exhibit 18 RHS). The last time base pay was raised this much was in 1991. If the *shunto* scheduled wage increase is the same as in FY2022 (1.57%), a 4.8% *shunto* wage hike will be needed to attain 3% macro overall wage growth (the highest *shunto* wage hike since 1992).

Exhibit 18: Notably High Shunto Base Pay Rise Is Necessary to Achieve 3% Macro Wage Growth



Source: Ministry of Health, Labour and Welfare, JTUC-RENGO, Goldman Sachs Global Investment Research

In any case, a high *shunto* wage hike close to the level 30 years ago would be needed for 3% macro wage growth. Given the strong inflationary pressures and worker shortages due to economic reopening, we believe that risk to the 2023 wage situation is tilted to the upside. However, at this stage, we think even if upside risk materializes, it would not be enough to attain stable macro wage growth of 3% during 2023 for the following reasons.

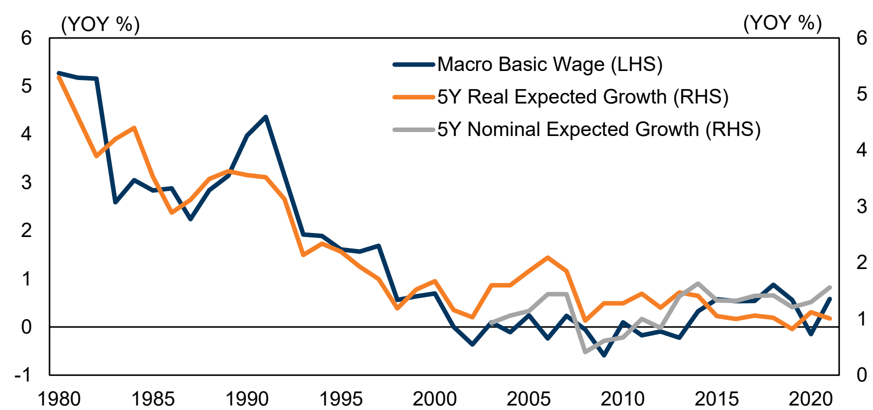
First, basic wages are very much viewed as fixed costs, especially in Japan, and once raised, it is challenging to lower them, barring an unforeseeable strong, sustained shock such as the Japanese financial crisis in the late 1990s. Accordingly, as long as companies' long-term growth expectations continue to languish, companies likely tend to hesitate to raise basic wages significantly (Exhibit 19).[9]

Second, macro wage growth (not adjusted for composition) could be constrained if a shortage of labor leads to a sharp increase in non-permanent employees, whose wage levels are well below those of permanent workers.

Third, with the input cost burden weighing down businesses, conditions may not be conducive to large wage increases, especially at SMEs, given they typically find it difficult to pass on costs in sales prices.

Exhibit 19: Meaningful Improvement in Growth Prospects Among Companies Is Indispensable for Structurally Higher Basic Wages

Five-Year Expected Growth Rates and Basic Wage



5-year expected growth rates are based on listed companies taken from Annual Survey of Corporate Behavior (Cabinet Office).

Source: MHLW, Cabinet Office

[9] See Naohiko Baba, "Growth Strategy Key to Wage Growth/Price Pass-Through, Rather Than Monetary Easing," Japan Economics Analyst, October 14, 2022.

Economic Policy: Current Fiscal and Monetary Policy Mix to Be Maintained Amid Concerns About Global Economic Slowdown

Since mid-2021, the Kishida administration's basic stance on the policy mix has been to address sharply rising import inflation and the weak yen via fiscal policy and currency market intervention, while at the same time the administration has pushed for a monetary policy that maintains the low interest rate environment to support proactive fiscal expenditure.[10] Within this context, the administration has begun intervening in the forex market since September, and announced another fiscal package in October, while the BOJ is sticking steadfastly to its accommodative monetary policy stance.

The Kishida administration has also been stressing its concerns about a global economic slowdown and its potential negative impact on the Japanese economy, which is still in the recovery phase from the pandemic. Until these concerns have largely abated, we expect the Kishida administration will continue to encourage the BOJ to sustain the low interest rate environment.

Rapid depreciation of the yen has likely come as a surprise to the Kishida administration and the BOJ. However, both have expressed concern about the possible adverse impact on the economy (especially SMEs and households with mortgages) from any move to address the weak yen by hiking rates, given this would likely require a substantial increase in policy rates. Accordingly, we expect the administration will maintain its stance of waiting for the Fed pivot, while buying time by occasionally intervening in the currency market as necessary.

We See Limited Impact of New Fiscal Package, Compared to Headline Size

Below, we look at the new fiscal package announced on October 28. Central government spending (¥36 tn) has ballooned to rival the pandemic-related package, with a second FY2022 supplementary budget of ¥29 tn (5.4% of GDP). We note that this increase in the headline figure followed the rapidly falling public approval rating for the Kishida administration (Exhibits 20).

The government has positioned energy subsidies (electricity, gas, and gasoline), as the most appealing items in the package, as noted above. Among other measures, the government plans to establish a new system to support pregnant women, and provide maternity support subsidies equivalent to ¥100,000 in total. In addition, it plans to broaden its re-training support program in a bid to increase wages. PM Kishida said that the government will inject around ¥1 tn into this program over a 5-year period.

Our estimate of the economic impact of this package remains provisional owing to the many unclear details. However, we think it is likely to be only around 1% of GDP (total over the 2-3 year period), far smaller than the government's estimate of 4.6%, for the following reasons.

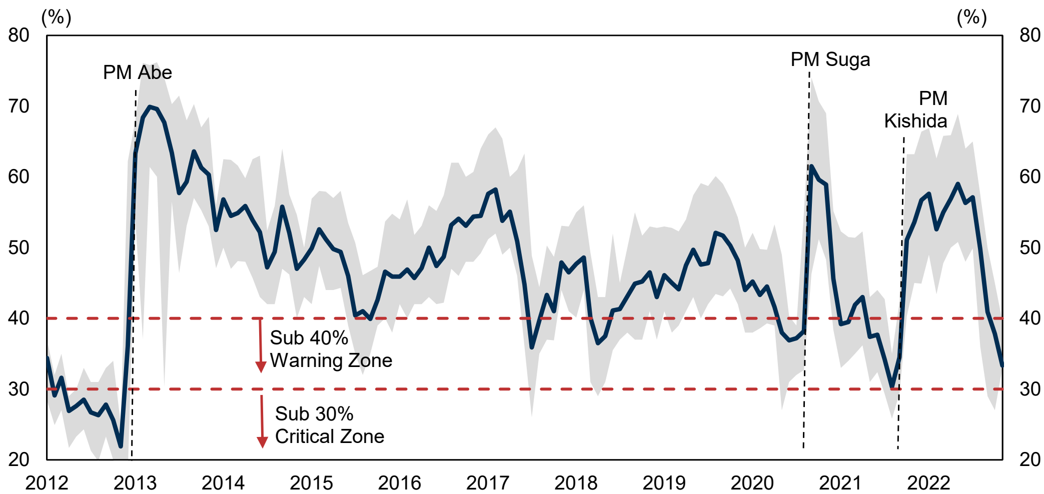
1. Unused portion in the FY2020-FY2021 budgets amounted to 20% of the total amounts, and we assume the government will be unable to spend a significant

[10] See Naohiko Baba, "Collaboration Between Government and BOJ, with Subtle Changes Seen in Both," Japan Views, October 28, 2022.

portion of the latest package as well.

2. Many measures initially proposed for the FY2023 main budget were front-loaded in the latest package.
3. The package includes a reserve budget of around ¥5 tn.
4. The bulk of the subsidies portion tends to be saved rather than spent.
5. The package includes non-negligible contributions to various funds whose future spending plan is unknown.

Exhibit 20: Kishida Administration's Approval Rating Approaching 30% Mark



Source: Real Politics Japan, Asahi Shimbun, Other media reports, Data compiled by Goldman Sachs Global Investment Research

BOJ Set for Leadership Change - No Easy Path Toward Normalization

Next, we turn to the BOJ. Governor Haruhiko Kuroda's second term is set to expire in April 2023, and will see a shift to new leadership (two deputy governors' terms will expire in March).[11] Two names, both of whom hail from the BOJ, have been frequently mentioned in the media as leading candidates to be the next governor: current Deputy Governor Masayoshi Amamiya and former Deputy Governor Hiroshi Nakaso (September 25, *Nikkei*). Mr. Amamiya has been deeply involved in formulating monetary policy including the negative interest rate policy (NIRP) and yield curve control (YCC) as Governor Kuroda's right-hand man for nearly 10 years. Mr. Nakaso also assisted in designing policy during Governor Kuroda's first term, and is known as an internationalist with deep knowledge of financial market functions and financial systems.

Mr. Amamiya has made few comments expressing his own thoughts about monetary policy given his position as an incumbent deputy governor. However, with regard to an exit strategy from current monetary easing, he noted at a press conference on July 29 that the BOJ is always considering this in terms of specific policy tools and as a way of communicating with the markets in the event that the BOJ is finally on track to achieve its 2% inflation target.

[11] See Naohiko Baba "Japan Views: Q&A on BOJ Under New Leadership: Our Preliminary Thoughts," Japan Views, October 13, 2022

Meanwhile, **Mr. Nakaso** has said that the BOJ has played a more than significant role in efforts to pull Japan out of deflation, and that Abenomics was overly dependent on the BOJ (September 28, *Bloomberg*). Related to this, with other central banks in Europe and the US hiking rates, he has stated that the BOJ needs to take heed of the cumulative risk from continuing with powerful easing (September 28, *Asahi Shimbun*). He has also pointed out that as the BOJ has come to hold roughly half of all outstanding JGBs, market functioning has deteriorated and this needs to be restored.

We believe the return to a normalized monetary easing policy after a decade of unprecedented easing will be the first priority for the next governor, and the market view is also likely to be leaning toward a hawkish shift. However, assuming the 2% inflation target will be maintained and given the Kishida administration's concerns about global economic slowdown, we think the probability of an explicit rate hike during 2023 is well below 50%.

This could also be true for 2024, given a narrow window for all the conditions we think necessary (discussed below) to be met for an explicit rate hike. Here, by an explicit rate hike we mean (1) shortening the maturity of the long-term yield target to 5 years from 10 years, (2) raising the 10-year yield target, while maintaining YCC, and/or (3) terminating the NIRP. Below, we discuss the conditions that would be required for this to occur.

(1) Wage growth would need to approach 3% to attain stable 2% inflation

As discussed above, Governor Kuroda has reiterated that macro wage growth would need to rise beyond 3% for the BOJ to seriously consider a rate hike. While the new leadership may not be so focused on the 3% figure, given this has now become a widely accepted condition, we expect it will remain a significant hurdle to any move toward an explicit rate hike.

(2) Prospects of domestic and global economy would need to improve

Even if there was no clear causal relationship, a situation where the economy falls into a downturn shortly after the policy rate is hiked could be labeled a failure of monetary policy. In this regard, the BOJ likely remembers that soon after terminating its zero interest rate policy in August 2000 the subsequent collapse of the IT bubble precipitated rapid deterioration in domestic and overseas economies, forcing the BOJ to adopt quantitative easing in March 2001.

(3) Stability of global interest rates would also be key

For example, if the maturity of the long-term yield target is shortened during a period of rising global interest rates, it could invite overshooting in Japan's long-term yields. Furthermore, even if the YCC framework was maintained and the 10-year yield target was shifted up, the yield would quickly move up to the new upper limit, putting pressure on the BOJ to do more. In this regard, the risk of terminating the NIRP is likely to be far smaller (discussed below).

(4) The Kishida administration would need to give its consent

This is closely related to the point (2) above. Also even after concerns about global economic slowdown are dispelled, the BOJ would need to wait until the Kishida administration give its consent.

However, Adjustments Are Possible / Swing Factor Is Termination of NIRP in the Name of Enhancing Sustainability

Meanwhile, we think adjustments to the BOJ's easing system in 2023 are more likely than an explicit rate hike, perhaps as a consequence of the policy review of the past decade under Governor Kuroda. Possible options would be **revising forward guidance** and **widening the tolerable band for the 10-year yield**. Revising forward guidance represents the lowest hurdle and our baseline scenario during 2023, as it is linked to the pandemic situation, and the pandemic-related funding support program for SMEs is set to expire at the end of March 2023. Specifically, we assume the BOJ will drop or revise the part stating that it expects "policy rates to remain at the present or lower levels."

In contrast, widening the tolerable band for 10-year yields during 2023 is a close call, in our view. At this stage, we tentatively position it as our risk scenario, given that its likelihood could change meaningfully depending on the next governor. In addition, we think widening of the 10-year band could be viewed as a means of making the easing policy more sustainable rather than tightening it, with three possible justifications as follows.

(1) Limits the side effects for the financial system from yields being held at ultra-low levels for a protracted period

By making full use of unlimited fixed-rate purchase operations to defend the upper bound of 10-year yield of 5bp, the BOJ has suppressed it far below our estimate of its fair value (Exhibits 21, 22). Against this backdrop, banks and other financial institutions have been obliged to heavily resort to investment in foreign bonds and investment funds. However, various issues are already coming to light in terms of valuation losses on these investments.

(2) Improves JGB market functioning

With the BOJ's rigorous efforts to maintain YCC, the JGB market functioning has deteriorated notably, according to the BOJ survey. The BOJ has already widened its 10-year band with this purpose in mind. Governor Kuroda has noted that widening the band is in effect the same as raising policy rates. However, the room for interpretation appears to be relatively large, given that one of the potential candidates for the governor position, Mr. Nakaso, has argued that JGB market functioning needs to be restored, as mentioned above.

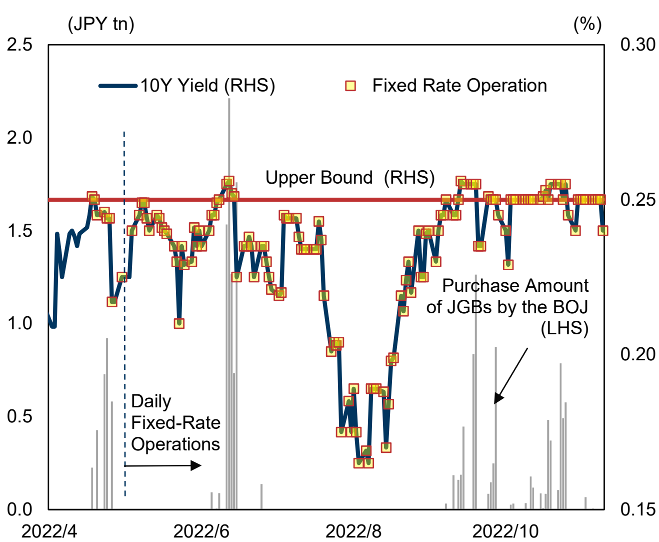
(3) Reduces the amplifying effect on forex rate fluctuations by capping 10-year yields

While the US and other developed economies have entered rapid rate hike cycles in 2022 in order to curb inflation, the BOJ has engaged in a resolute defense of YCC. As a consequence, the US-Japan 10-year yield differential has widened, leading to a rapid weakening of the JPY vs. the USD, which eventually triggered the first

USD-selling/JPY-buying intervention in 24 years in September.

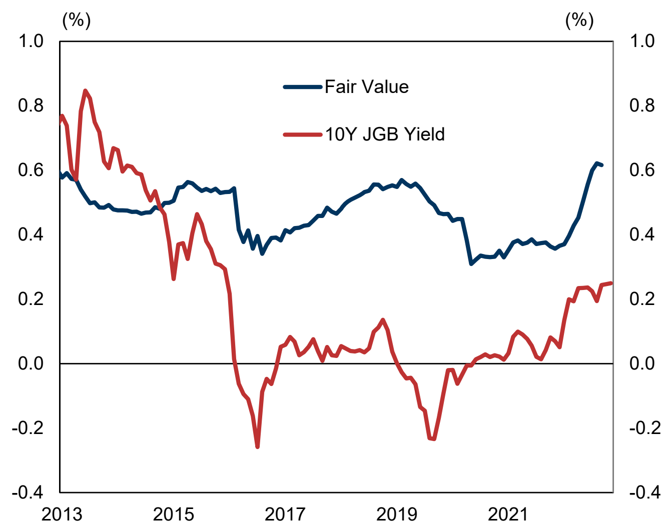
Another potential option is **eliminating the NIRP in the name of enhancing sustainability of the easing system.** Difficulty remains in this option, as the short-term policy rate is the most traditional focus of monetary policy, and also as the BOJ has emphasized that the most effective maturity to lower yields to support the economy is the short-term zone up to around 12 months. That said, with long-term yields volatile worldwide, this measure has the advantage of being relatively easy to implement. As a result, this option needs to be kept in mind, in our view, should the new BOJ leadership be looking to act in some way during 2023. If this is the case, we think the BOJ would position it as a measure to enhance sustainability of the easing system, not as a rate hike in a traditional sense.

Exhibit 21: BOJ Uses Fixed-Rate Operations to Defend YCC
10-Year JGB Yield and Fixed-Rate Operations



Source: BOJ, Datastream

Exhibit 22: BOJ Suppressing 10-Year Yield Far Below its Fair Value
10-Year JGB Yield vs. Fair Value



Source: Bloomberg, Goldman Sachs Global Investment Research

Naohiko Baba, Tomohiro Ota and Yuriko Tanaka

Japan Main Economic Forecasts

	Calendar Year						Fiscal Year					
	2021	2022E	2023E	2024E	2025E	2026E	2021	2022E	2023E	2024E	2025E	2026E
Real GDP (YOY %)	**1.6**	**1.5**	**1.3**	**1.4**	**1.4**	**1.0**	**2.3**	**1.7**	**1.2**	**1.5**	**1.2**	**1.0**
Consumption	1.3	3.0	1.3	0.8	0.9	0.6	2.6	3.0	0.9	0.9	0.8	0.6
Capex	-0.9	2.0	4.2	2.2	2.2	2.7	0.6	3.9	3.4	2.1	2.4	2.8
Housing Investment	-2.0	-4.3	0.5	1.9	2.0	0.6	-1.7	-4.0	1.3	2.1	1.7	0.2
Private Inventories (contribution)	-0.2	0.4	-0.1	-0.1	0.0	0.0	0.1	0.2	-0.1	0.0	0.0	0.0
Export	11.8	4.6	4.2	6.6	5.6	3.8	12.4	4.8	4.4	6.9	4.9	3.8
Import	5.1	7.9	5.4	4.7	4.6	4.2	7.1	7.8	4.7	4.8	4.5	4.2
Government Spending	2.1	1.6	0.7	0.7	0.7	0.7	2.0	1.4	0.6	0.7	0.7	0.7
Public Fixed Investment	-2.7	-6.7	2.5	1.9	1.3	1.9	-7.5	-2.2	2.2	1.8	1.2	2.1
Net Exports (cont.)	1.1	-0.6	-0.2	0.3	0.2	-0.1	0.9	-0.6	-0.1	0.4	0.1	-0.1
Private Domestic Demand (cont.)	0.4	2.2	1.3	0.8	0.9	0.8	1.5	2.2	1.0	0.8	0.9	0.8
Public Demand (cont.)	0.3	0.0	0.3	0.2	0.2	0.2	0.0	0.1	0.2	0.2	0.2	0.3
Nominal GDP (YOY %)	**0.8**	**1.3**	**2.6**	**3.7**	**3.0**	**2.4**	**1.3**	**1.9**	**3.0**	**3.4**	**2.9**	**2.3**
Industrial Production (YOY %)	**5.6**	**1.2**	**2.0**	**4.4**	**3.8**	**4.7**	**5.7**	**2.2**	**1.8**	**4.9**	**3.8**	**5.0**
Core CPI (YOY %)	**-0.2**	**2.2**	**2.5**	**1.4**	**1.1**	**1.1**	**0.1**	**2.7**	**2.4**	**1.1**	**1.1**	**1.2**
New Core CPI (YOY %)	**-0.5**	**1.0**	**2.4**	**1.1**	**0.8**	**1.1**	**-0.8**	**1.9**	**2.1**	**0.9**	**0.9**	**1.2**
Unemployment Rate (%)	2.8	2.6	2.5	2.4	2.2	2.2	2.8	2.6	2.5	2.4	2.2	2.2
Current Account (¥ tn)	21.6	8.8	1.6	7.8	10.6	15.0	20.3	5.5	3.3	7.6	11.6	14.8
BOJ Policy Rates (End of Period; %)												
Short-Term Target	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**
10-Year Target	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
USD/JPY (End of Period)	115.1	145.0	140.0	140.0	115.0	105.0	121.4	155.0	140.0	140.0	115.0	105.00
EUR/JPY (End of Period)	130.0	143.6	147.0	147.0	126.5	120.8	134.7	145.7	147.0	147.0	126.5	120.75

	2022				2023				2024			
	1Q	2Q	3Q	4QE	1QE	2QE	3QE	4QE	1QE	2QE	3QE	4QE
Real GDP (QOQ Annualized %)	**0.2**	**4.6**	**-1.2**	**2.9**	**1.0**	**1.0**	**1.1**	**1.1**	**1.4**	**1.6**	**1.6**	**1.5**
Consumption	1.3	5.1	1.1	2.5	0.8	0.7	0.5	0.5	0.8	0.9	1.0	1.1
Capex	-0.5	9.9	6.3	4.0	3.5	3.5	3.0	2.0	2.0	2.0	2.0	2.0
Housing Investment	-5.2	-7.4	-1.7	2.0	1.0	1.5	1.5	1.5	2.0	2.0	2.5	2.5
Private Inventories (contribution)	2.0	-0.9	-0.3	0.3	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0
Export	4.6	7.2	7.9	2.5	2.0	4.0	5.5	6.4	7.0	7.5	7.0	6.5
Import	15.1	3.3	22.6	1.0	3.0	4.5	4.2	4.2	5.0	5.0	5.0	5.0
Government Spending	1.6	3.4	0.0	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Public Fixed Investment	-11.5	4.2	4.9	2.0	2.0	2.0	2.0	2.0	2.0	1.8	1.8	1.8
Net Exports (cont.)	-1.8	0.7	-2.6	0.3	-0.2	-0.1	0.2	0.4	0.4	0.5	0.4	0.3
Private Domestic Demand (cont.)	2.4	3.0	1.2	2.4	1.0	0.8	0.7	0.5	0.8	0.9	0.9	1.0
Public Demand (cont.)	-0.3	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Real GDP (YOY %)	**0.6**	**1.7**	**1.8**	**1.6**	**1.8**	**0.9**	**1.5**	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**
Consumption	2.0	3.1	4.3	2.5	2.3	1.3	1.1	0.6	0.6	0.7	0.8	0.9
Capex	-1.0	0.4	4.1	4.9	5.9	4.3	3.5	3.0	2.6	2.2	2.0	2.0
Housing Investment	-2.9	-6.1	-5.0	-3.1	-1.6	0.7	1.5	1.4	1.6	1.7	2.0	2.2
Export	4.5	3.0	5.6	5.5	4.9	4.1	3.5	4.5	5.7	6.6	7.0	7.0
Import	7.3	3.5	10.6	10.2	7.1	7.4	3.2	4.0	4.5	4.6	4.8	5.0
Government Spending	2.1	2.1	0.9	1.4	1.1	0.5	0.6	0.7	0.7	0.7	0.7	0.7
Public Fixed Investment	-12.6	-8.9	-4.3	-0.3	3.3	2.7	2.0	2.0	2.0	1.9	1.9	1.8
Nominal GDP (YOY %)	**0.1**	**1.3**	**1.3**	**2.4**	**2.5**	**2.6**	**3.1**	**2.3**	**4.3**	**4.5**	**3.6**	**2.7**
Industrial Production (YOY %)	**-0.7**	**-3.6**	**4.3**	**4.9**	**3.0**	**4.8**	**0.0**	**0.0**	**2.5**	**5.1**	**5.1**	**5.1**
Core CPI (YOY %)	**0.6**	**2.1**	**2.7**	**3.5**	**2.5**	**2.8**	**2.6**	**2.0**	**2.3**	**1.7**	**0.8**	**0.9**
New Core CPI (YOY %)	**-0.9**	**0.9**	**1.5**	**2.5**	**2.6**	**2.7**	**2.3**	**1.9**	**1.6**	**1.2**	**0.9**	**0.8**
Unemployment Rate (%)	2.7	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.3
Current Account (¥ tn)	4.9	2.4	2.5	-1.0	1.6	-0.2	2.9	-2.7	3.3	2.3	5.1	-2.7
BOJ Policy Rates (End of Period; %)												
Short-Term Target	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**
10-Year Target	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
USD/JPY (End of Period)	121.4	135.7	144.7	145.0	155.0	155.0	145.0	140.0	140.0	140.0	140.0	140.0
EUR/JPY (End of Period)	134.7	142.1	143.3	143.6	145.7	150.4	145.0	147.0	147.0	147.0	147.0	147.0

Note: Both Core CPI and New Core CPI include impacts from consumption tax hike, free education and mobile phone charge reduction.

Source: Goldman Sachs Global Investment Research

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Reg AC

We, Naohiko Baba, Tomohiro Ota and Yuriko Tanaka, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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