

Daiwa's View

Apr BOJ Financial System Report

- References to structural problems that existed since before the coronavirus crisis along with the rising US long-term interest rates bring to mind the 2018 "policy adjustment," but the output gap and financial gap assessments are different.

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◆Summary

On 21 April, the BOJ released its *Financial System Report (FSR)*. While assessing that Japan's financial system "has been maintaining stability on the whole," similar to the view in the [previous October report](#), the latest report also provided three future risks. Here it **emphasized the risk of adjustment in global financial markets, mainly "rising long-term US interest rates."** With an eye on the post-coronavirus era, this report also again focused on the risk-taking behavior of financial institutions in a low interest rate environment, such as lending to the real estate industry and middle-risk companies, which the FSR had warned about since before the coronavirus crisis.

BOJ Financial System Report (Apr 2022)

- Japan's financial system has been maintaining stability on the whole, while COVID-19 continues to affect economic and financial activity at home and abroad.

In light of the Ukraine situation and accelerated financial normalization in Europe and the US, the April *FSR* focused on the risk of a broader deterioration in financial conditions, including a "rise in US long-term interest rates," which was positioned as only a risk scenario in the previous report, and indicated the impacts for Japanese financial institutions. There is the risk of meaningful impacts for Japanese financial institutions if the overall financial conditions, including stocks and credit, deteriorate, rising US long-term interest rates put downward pressure on real economies, especially within emerging economies, and risk aversion leads to yen appreciation and equity market declines. However, the current depreciation of the yen is mitigating that risk.

In addition, the focus is returning to the "structural problems" that existed since before the coronavirus crisis, namely, the "cumulative impact" (side effects) on the financial system caused by the **"downward pressure on profitability" at domestic financial institutions.** Naturally, this will have medium/long-term implications for the BOJ's monetary policy management (yield curve control [YCC]).

Furthermore, the similarities with "rising US long-term interest rates" bring to mind the 2018 "policy adjustment." However, unlike at that time, the April *FSR's* output gap (one of the price momentum indicators) has remained in negative territory and the report concluded that a positive financial gap will "reduce" the tail risk (downside risk) to the growth rate over the next three years. Based solely on the April *FSR*, the hurdles for adopting "monetary policy measures" from the perspective of the financial system (financial institution earnings and market functioning), like those adopted in 2018, are seen as high.

◆Current assessment of financial system stability and risks

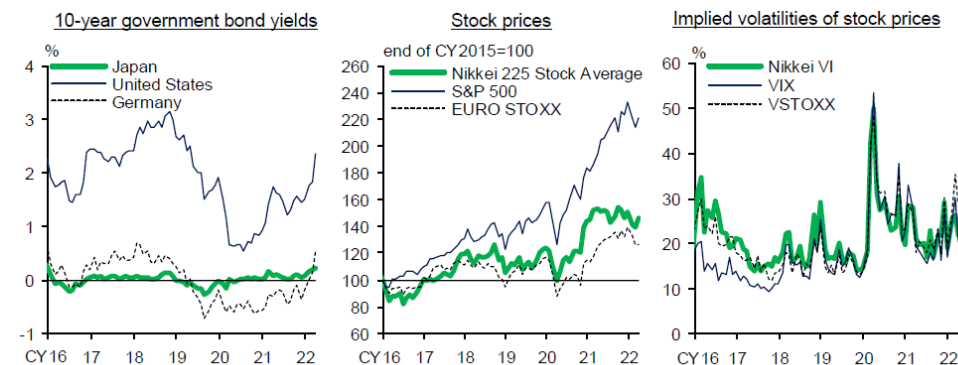
The April *FSR* Report assessed the stability of Japan's financial system as **"has been maintaining stability on the whole,"** which was the same wording used in the October report. Meanwhile, the report presented the three future risks of (1) impact of the pandemic on credit costs of domestic loans, (2) future global economic and financial shocks, such as an adjustment in global financial markets, will have an adverse impact on Japanese financial institutions' overseas lending, securities investment, and foreign currency funding, and (3) vulnerabilities that have been present since before the pandemic. These three future risks differed from those in the October report¹.

Specifically, one major change from the October *FSR* is that coronavirus impacts on the domestic and international economies are gradually easing. In particular, the wording for Japan's financial intermediation functions was revised from "firms experience funding difficulties" in the October *FSR* to "profits of firms that have been significantly affected by the pandemic are weak." Problem awareness is shifting to the real economy rather than the financial side.

Indeed, the newly added third risk of "vulnerabilities that have been present since before the pandemic" moves the focus back to structural problems that pre-date the coronavirus outbreak. In other words, this suggests that the ***FSR* viewpoint is gradually shifting to a "post-coronavirus" era.**

Also, the focus of the April *FSR* is the second future risk, namely "adjustment in global financial markets." Even as of the previous *FSR*, although there was awareness of the normalization of monetary policy in various countries, especially in the US, there was the view that "financial market risk sentiment remains favorable on the whole" and "rising long term interest rates" was positioned only as a risk scenario. However, the April *FSR* considered that **"financial markets have been nervous, reflecting concerns about a reduction in the degree of monetary easing in the United States and Europe as well as the situation in Ukraine."** More specifically, as a change in the external environment surrounding Japanese financial institutions, the rise in US interest rates is positioned as the starting point for awareness of this issue.

Developments in Global Financial Markets



Note: Latest data as at March 2022.

Source: Excerpted from BOJ Financial System Report (Apr 2022).

◆Domestic credit risk and heat map

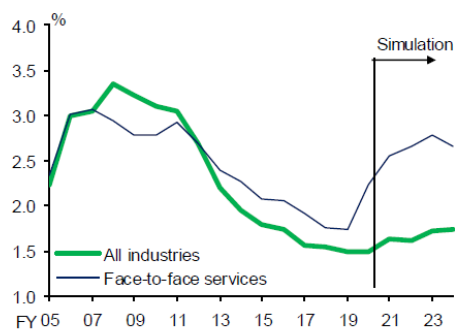
The assessment of domestic credit risk was revised from the previous "firms experience funding difficulties," which suggested a recovery trend is in place. This is because the assumed macro-environment has recovered generally in line with the average outlook as of the previous report and the wording "the number of bankruptcies, default rates, and the subrogation rate have generally remained at low levels even with the repayment of pandemic-related loans, including effectively interest-free loans, gathering pace" was significant.

¹ Up until [the previous report](#), the three risks were (1) an increase in credit costs due to a delay in economic recovery at home and abroad, (2) deterioration in gains/losses on securities investment due to substantial adjustments in financial markets, and (3) destabilization of foreign currency funding due to the tightening of foreign currency funding markets. This time, in addition to consolidating (2) and (3), the wording for (1) was softened from "increase" to "impact" and the phrase "vulnerabilities that have been present since before the pandemic" was added.

Of course, even though there are still some firms, especially those in the face-to-face services industries, that continue to face difficulties in terms of debt repayment, the report showed that **not only large firms, but also SMEs' resiliency in terms of financing has been maintained on the whole.** The report also assessed that the "credit cost ratios of Japanese financial institutions have remained low." This is because even though credit extended by financial institutions has increased, much of this credit is in the form of guaranteed loans, so losses to financial institutions in the event of corporate default have been mitigated.

The April FSR also includes an ongoing financial condition simulation analysis for coronavirus outbreak impacts on company default rates through changes in fundraising and debt repayment capacity (analysis period extended to FY24). This analysis found that the share of defaulting firms within the face-to-face services industries will likely rise further from the current level through FY23, but the overall level will remain restrained. Also, the share of loans to face-to-face service industries within financial institutions' credit portfolios is relatively small overall, which suggests that any **rise for the credit cost ratio will be limited.**

Developments in Share of Firms in Default



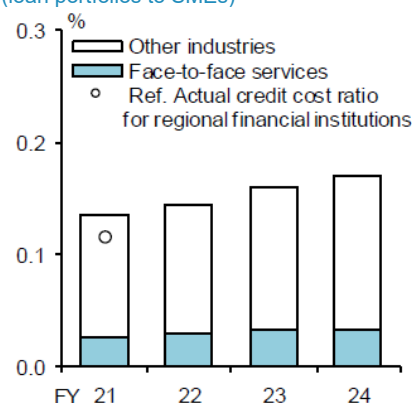
Note: The share of firms in default is calculated as the number of firms in default during the fiscal year divided by the number of existing firms at the beginning of the fiscal year.

Source: Excerpted from BOJ Financial System Report (Apr 2022).

Notes: (1) The marker in the right-hand chart indicates the average of actual credit cost ratios over the last three years for regional financial institutions (the latest data for regional banks are annualized values for the first half of fiscal 2021).

(2) The loan coverage ratio is calculated as the latest value of regional financial institutions (about 60 percent). The recovery rate for uncovered loans is assumed to be 60 percent.

Financial Institutions' Credit Cost Ratios (loan portfolios to SMEs)



Still, despite variations among industries, lending trends show that "firms' precautionary demand for liquidity due to the pandemic has subsided on the whole" and "some firms have been repaying their cash reserves." These points were also confirmed by the heat map. As of the time of the last report, five of the financial activity indexes were "red" (signals a large upward deviation from the trend). These were "growth rate of M2," "total credit to GDP ratio," "household loans to GDP ratio," "real estate loans to GDP ratio," and "corporate credit to GDP ratio." However, in the latest report **only four indexes signaled "red" as "growth rate of M2" turned "green"**.

As for those indicators signaling "red," as was the case before, many proved "proactive implementation of measures to support corporate financing and the fact that financial intermediation activities are operating smoothly." This is still not viewed as a problem due to the result of "financial institutions responding to the demand for working capital, including precautionary demand, caused by the sharp decline in sales due to the pandemic." In other words, much of the debate over the "overheating of financial activities" comes down to **"vulnerabilities associated with lending to real estate businesses, which was signaling red even before the coronavirus outbreak."** As explained below, this is a "vulnerability" risk that pre-dated the coronavirus outbreak.

² To be precise, minutes for the January Monetary Policy Board meeting revealed that the number of indicators signaling "red" had declined to four as of January. The BOJ's Financial System and Bank Examination Department explained in these minutes that "among the 14 Financial Activity Indexes (FAIXs) that comprise the heat map in the Financial System Report, four—including one indicating the amount of financial institutions' credit relative to real economic activity—showed deviations from the trends toward overheating."

[illegible]

Source: Excerpted from BOJ Financial System Report (Apr 2022)

As explained earlier, regarding the current state of international financial markets, the report conducted a comprehensive and cross-sectional analysis to compile the risks posed by global economic and financial shocks to "Japanese financial institutions' overseas lending, securities investment, and foreign currency funding." Compared to the previous FSR, this analysis was conducted with greater awareness of the Ukraine situation and rising US long term interest rates. This risk analysis is the main part of this report and should provide market participants with many valuable insights.

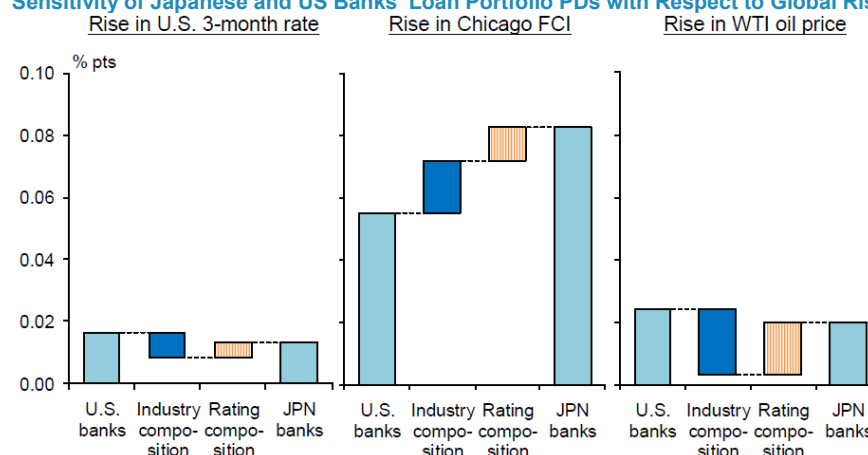
	Country	Outstanding (mil. USD)	Share (%)
1	France	23,644	0.7
2	Italy	23,195	2.3
3	Austria	17,086	3.6
4	United States	14,497	0.3
5	Japan	7,134	0.3
6	Germany	5,153	0.3
7	United Kingdom	3,073	0.1
8	Korea	1,416	0.7
9	Finland	935	0.2
10	Spain	278	0.0

However, in addition to negative impacts for borrower firms' profits due to the various sanctions, rising resource/energy prices, and supply chain disruptions, the risk of a "substantial and rapid adjustment in global financial markets, such as rising US and European interest rates," was also noted as a risk that could have ripple effects.

On this point, the April *FSR* presented the impacts of the three global risk factors (rise in US interest rates, widespread deterioration of financial conditions, rise in crude oil prices) on Japanese financial institutions via firms' creditworthiness.

Compared to major US commercial banks, Japanese banks' overseas loan portfolios have higher proportions of non-investment grade loans, as well as higher proportions of firms in the electric/gas and energy industries. As such, **adverse effects are likely to be more severe in the case of overall financial condition (Chicago FCI³) deterioration as opposed to rising short-term US interest rates (3-month rates⁴) and oil prices.** Due to the liquidity risk in terms of foreign currency funding and other factors, Japanese banks will be more affected than US and European banks, even in terms of financial conditions, especially when financial stress indicators worsen.

Sensitivity of Japanese and US Banks' Loan Portfolio PDs with Respect to Global Risk Factors



Source: Excerpted from BOJ Financial System Report (Apr 2022).

Note: Changes in the 2-year PD are calculated as the weighted averages of PD increases by industry and investment grade, using the composition of U.S. and Japanese banks' loan portfolios as weights.

◆ Macro stress test and rising US long-term interest rates

Also, compared to conditions at the time of the previous *FSR*, **"US long-term interest rates have risen somewhat significantly since then, reflecting the FRB's moves to reduce the degree of monetary easing amid growing concerns over inflation,"** which has produced dramatic changes for financial conditions. Therefore, this *FSR* analyzed the impacts of rising long-term US interest rates on the Japanese financial system via the domestic real estate market and the real economy, in addition to the abovementioned changes to the financial conditions overall.

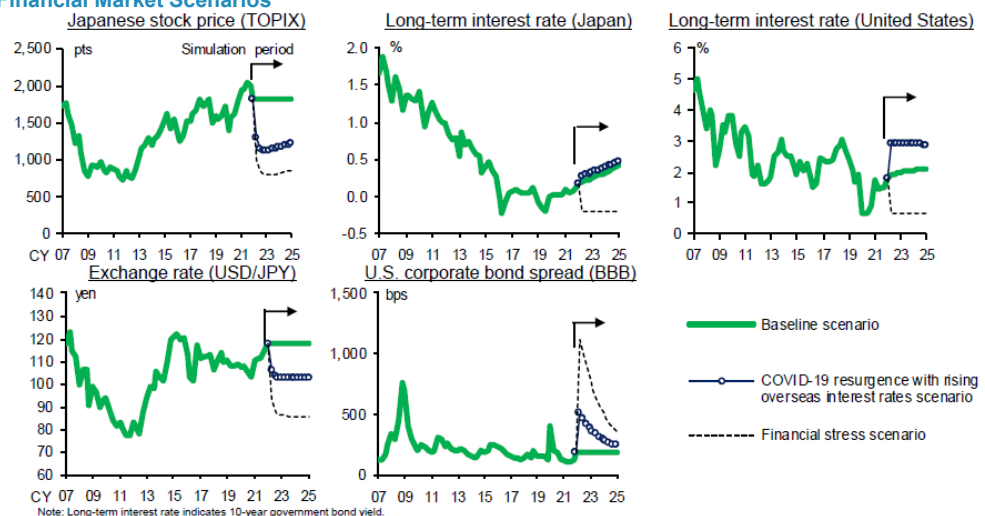
First, as was the case with the previous *FSR*, the macro stress test conducted a scenario simulation of upward pressure (+100bp) on US long-term interest rates. Specifically, the report changed the three downside scenarios of (1) diverging business conditions scenario, (2) financial stress scenario, and (3) emerging markets stress scenario. Specifically, the report prepared the two scenarios of **"COVID-19 resurgence with rising overseas interest rates scenario,"** in which domestic/foreign real economies **deteriorate due to a coronavirus uptick and rising US long-term interest rates**, and **"financial stress scenario,"** which assumes a significant negative shock comparable to the Lehman Shock (same as the last report).

Clearly the main focus of the simulation is the "COVID-19 resurgence with rising overseas interest rates scenario," which assumes a rise in US long-term interest rates (+100bp). This scenario assumes restraints on economic activity, particularly in industries where corporate activity was severely curtailed during the coronavirus outbreak and emerging economies where pressure for capital outflows is likely to occur, due to rising long-term US interest rates mainly via an increase in inflation expectations combined with a re-emergence of the coronavirus outbreak.

³ The Chicago Fed National Financial Conditions Index (FCI) is calculated as a weighted average of 105 reference indicators for risk, credit, and leverage (respective Z-scores).

⁴ Note that this is not the US long-term interest rate.

Financial Market Scenarios

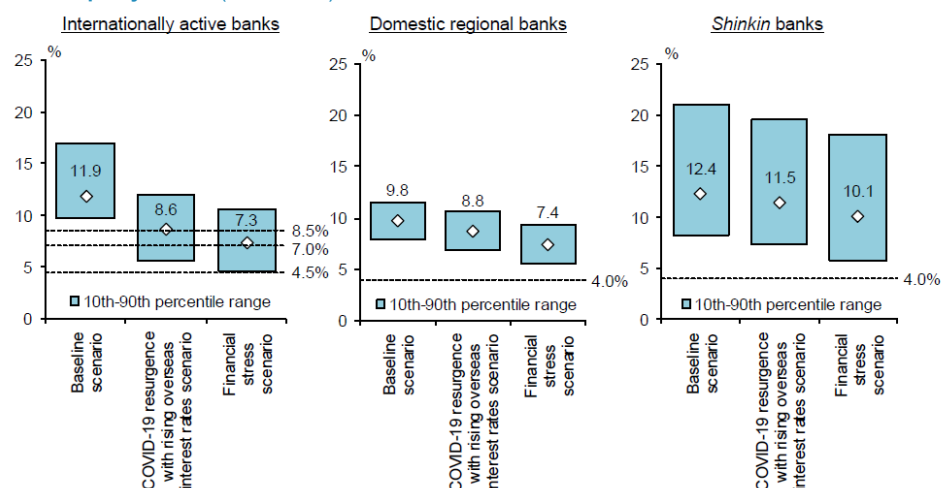


Source: Excerpted from BOJ Financial System Report (Apr 2022).

However, under this "COVID-19 resurgence with rising overseas interest rates scenario," all business categories maintain capital adequacy ratios above the regulatory level, although losses related to securities due to falling stock and bond prices would apply downward pressure. As a result, the BOJ maintained its previous assessment of **"Japan's financial system is likely to remain highly robust even in the case of a resurgence of COVID-19 and a simultaneous rise in US long-term interest rates leading to an adjustment in the real economy and global financial markets."**

Of course, if a "financial stress scenario" on par with that during the Lehman shock were to emerge, a commensurate impact would occur, particularly for the International Uniform Standards Line. Meanwhile, the "COVID-19 resurgence with rising overseas interest rates scenario," assumes risk aversion accompanied by a stronger yen and lower stock prices. However, when looking at this simulation it is important to note that the yen is currently depreciating as US long-term interest rates rise.

Capital Adequacy Ratios (fiscal 2024)

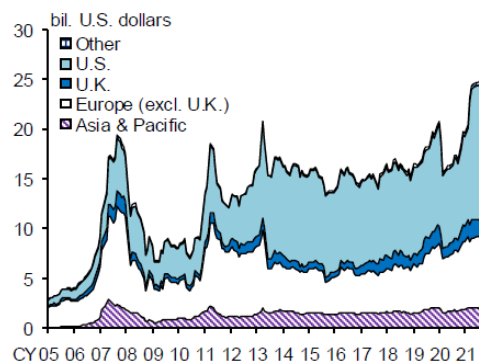


Source: Excerpted from BOJ Financial System Report (Apr 2022).

◆Post-coronavirus perspective: Vulnerabilities present since before pandemic

The April FSR also presented an analysis of how rising US long-term interest rates impact Japan's real estate market. As confirmed by the abovementioned heat map, this market has seen large inflows of capital from foreign investment funds, even before the coronavirus outbreak. These fund flows are sensitive to changes in the global financial and economic environment and there are the **risks of decreased fund flows and lower real estate fund prices, in the event of rising US interest rates**.

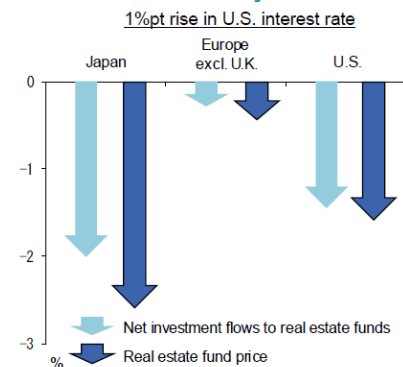
Japanese Real Estate Fund Holdings of Foreign Investment Funds



Note: Figures are calculated using the regional share of AUM (assets under management) for investment funds that mainly invest in real estate funds. "Asia & Pacific" excludes Japan. The number of investment funds is about 12 thousand. Latest data as at September 2021.

Source: Excerpted from BOJ Financial System Report (Apr 2022).

Sensitivity of Investment Flows to Real Estate Funds and Price Sensitivity to Global Shocks

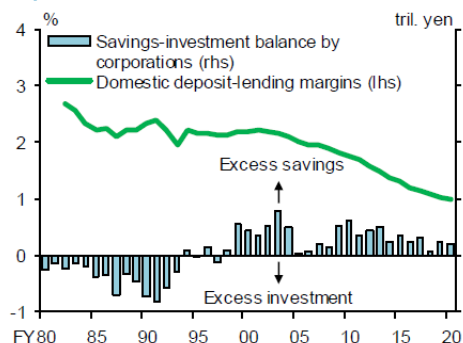


Note: Arrows represent estimated sensitivities. Real estate fund prices are calculated from the relationship between AUM and net investment flows. The U.S. interest rate is the 10-year U.S. Treasury yield. The estimation period is from the January-March quarter of 2003 through the January-March quarter of 2021.

In light of these conditions, the April *FSR* again focused on the risk-taking behavior of financial institutions in a low interest rate environment, such as lending to the real estate industry and middle-risk companies, as "vulnerabilities present since before the pandemic." Here, the issue of the "cumulative effects" (side effects) on the financial system from the "downward pressure on profitability" faced by domestic financial institutions was due to "structural factors such as the fall in the potential growth rate reflecting the declining population and the resultant secular decline in loan demand, as well as the prolonged low interest rate environment."

This issue has been frequently cited in *FSR* since before the coronavirus outbreak. It is significant that the April *FSR* has again mentioned this issue as one of the three future risks⁵. In other words, the perception of the severity of "firms' financing" under the outbreak has gradually eased. As awareness of the issue shifts to corporate profitability (real economy), the *FSR* (BOJ) perspective is also becoming more focused on conditions after the coronavirus is contained. This point is one of the reasons behind the "prolonging of low interest rates" and also entails medium/long-term implications for the BOJ's current management of monetary policy (YCC).

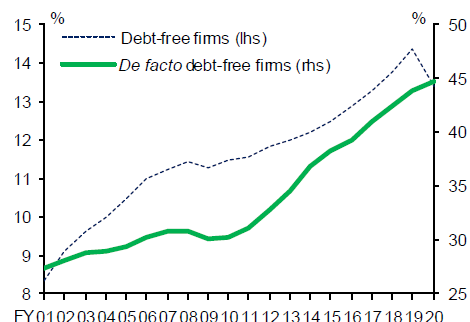
Deposit-lending Margins Among Domestically Licensed Banks and Excess Savings by Corporations



Note: 1. "Savings-investment balance by corporations" covers private nonfinancial corporations.
 "Domestic deposit-lending margins" covers regional banks.
 2. Latest data as at fiscal 2020.

Source: Excerpted from BOJ Financial System Report (Apr 2022).

Share of Debt-free Firms



Note: 1. "Debt-free firms" is defined as firms without borrowings. "De facto debt-free firms" is defined as firms whose cash and deposits exceed their total amount of borrowings.
 2. Covers SMEs.

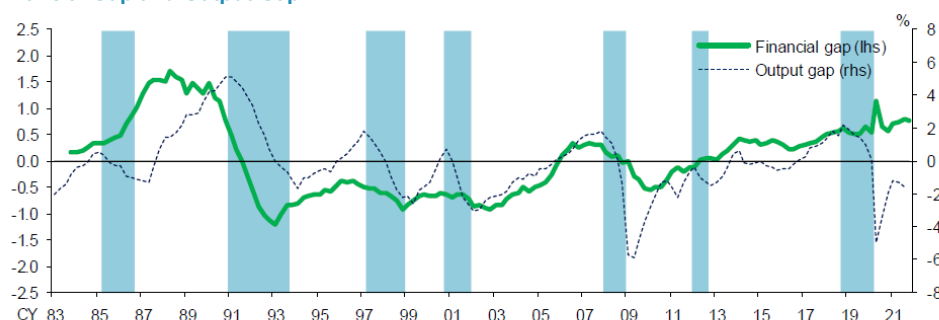
⁵ Indeed, the text even includes a reference to a pre-coronavirus era *FSR* (October 2019).

◆ Differences vs 2018 "policy adjustment" from financial system perspective

Reviewing the situation at the time of the July 2018 policy adjustment could be useful when examining the BOJ's current monetary policy stance. At that time, the financial gap, which indicates the degree of easing for financial activity indicators among "economic activity, prices, and financial conditions," improved, while the output gap (price momentum) also remained in positive territory. However, while the financial gap currently remains positive, the output gap still remains negative due to proactive implementation of corporate financial support measures in response to the coronavirus outbreak.

In 2018, with both the financial gap and output gap in positive territory, the GDP-at-Risk, which looks at the estimated probability distribution of GDP growth rates over the next three years, contributed to an increase in tail risk (downside risk) for the real economy. Meanwhile, **the April FSR analysis suggests that tail risks to the real economy have declined⁶.**

Financial Gap and Output Gap



Note: The latest data for the output gap and financial gap are as at the July-September quarter and the October-December quarter of 2021, respectively. The shaded areas indicate recession phases.

Source: Excerpted from BOJ Financial System Report (Apr 2022).

In 2018, as well, US long-term interest rates were rising along with rate hike speculation, linkage with the JGB market declined, and multiple BOJ Policy Board members voiced concerns about the side effects that prolonged low interest rates would have on the earnings at financial institutions.

Summary of Opinions at Monetary Policy Meeting on 26-27 Apr 2018

- Looking at recent developments in corporate bond markets and bank lending, monetary easing effects -- stemming from the decline in the long-term real interest rates -- on economic activity and prices could be becoming smaller. It is important to make further consideration concerning the desirable shape of the yield curve, given the cumulative impact on financial institutions' financial strength becoming increasingly severe.
- From the perspective of enhancing the effectiveness of monetary policy as the Bank persistently continues with the current monetary easing, it is necessary to make efforts to give a clear explanation on the meaning of "exit" and "normalization," and gain understanding among the public that the Bank can respond flexibly depending on developments in economic activity and prices as well as financial conditions.

Summary of Opinions at Monetary Policy Meeting on 14-15 Jun 2018

- Since the reason for the sluggishness in prices is unlikely to be merely a shortage of demand, it is not appropriate to adopt a policy that would forcibly push up demand in a short period of time. It is important to persistently maintain the current accommodative financial conditions, and to this end, the Bank should conduct monetary policy by giving due consideration to its sustainability while making sure that severe distortions do not arise in the economic and financial conditions.
- Financial institutions are faced with a rise in unrealized losses on securities and risks of impairment losses at branches with low profitability. In continuing with the current monetary policy, it is necessary to take into account the two time frames in which its positive effects and side effects appear and consider the possible countermeasures against the side effects before they materialize.
- In the recent Japanese government bond (JGB) market, market participants' responsiveness to developments in mainly U.S. interest rates has been decreasing, and there have been days when inter-dealer transactions of newly issued bonds were not concluded. It is important to conduct market operations with a view to maintaining the functioning of financial markets as much as possible.

⁶ As seen in the heat map section, the financial gap could be subjected to gap-narrowing pressure once the effects of the temporary policy response drop off.

However, unlike the case in 2018, there is currently no confirmed opinion that "financial conditions (side effects)" are the primary focus. Indeed, according to the Summary of Opinions for the March Monetary Policy Board meeting, one board member indicated that it was important to consider "monetary policy responses" in light of "recent changes in the external environment affecting Japan's economic activity and prices."

That said, unlike in 2018, this member did not demand any monetary policy responses due to changes in financial conditions. Among "economic activity, prices, financial conditions⁷," the April *FSR* determined that the hurdles for revising the BOJ's monetary policy stance are high from the perspective of (and because of) the financial system (financial institution profits and market functions).

Summary of Opinions at Monetary Policy Meeting on 17-18 Mar 2022

- Given recent changes in the external environment affecting Japan's economic activity and prices, it is important to consider monetary policy responses while assuming various possibilities.

⁷ With the BOJ expected to revise lower its FY22 economic growth rate forecast contained in its April *Outlook for Economic Activity and Prices* report (due out next week), there is the risk of a delay for the improvement of the "macro output gap," one of the price momentum indicators.

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