Section 2
The U.S. Economy Aiming for a Soft Landing[1)]

HONDA, Yuzo

1. Introduction

Since March 2020, there has been a rapid spread of the corona virus across the United States. As the disease spread, spending and production dropped sharply, and the U.S. unemployment rate hit a record 14.7% in April 2020. This was the highest unemployment rate in the U.S. after the Great Depression. To cope with the situation, the government and the Federal Reserve Board (FRB) immediately implemented bold expansionary fiscal and monetary policies.

Some economists, including professor Lawrence Summers, warned from the outset that the expansionary policies by the government and the FRB were too excessive in scale. In retrospect, they were right. As they correctly worried, the U.S. economy was experiencing high inflation. Unfortunately for the government and the FRB, Russia invaded Ukraine in February 2022. The Russo-Ukrainian war caused a sharp rise in global natural resource and food prices, which exacerbated inflation in the U.S. In September 2022, the U.S. CPI inflation rate reached 9.1% year on year.

Faced with high inflation, the FRB took a sharp turn toward tightening monetary policy in 2022. This time, the FRB tightened monetary policy sharply, feeling anxious that high inflation might come to stay. As a result, as shown in Figure 1-2-1, the inflation rate peaked in September 2022 and has since been steadily declining. Nevertheless, as of March 2023, the inflation rate was 5.0%, which is still much higher than the 2% target. Further monetary tightening is necessary. On the other hand, the growth rate of production has already declined due to the effects of monetary tightening, and the real economy has now virtually leveled off. If monetary tightening continues, the economy might fall into recession in the latter half of 2023 or 2024. In addition, in March and May 2023, three U.S. regional banks went bankrupt due in part to the rapid and drastic monetary tightening.

In this Section 2, we report the above recent trend of the U.S. economy aiming for a soft landing from such high inflation, from a macroeconomic

1) I would like to thank Koichi Hamada and Karavasilev Yani for their helpful comments in the preparation of this paper. However, any possible remaining errors are solely my own.

Figure 1-2-1 U.S. CPI Inflation rate

Source: Federal Reserve Bank of New York

perspective and consider its implications for the Japanese economy.

Section 2 is organized as follows. Subsection 2.2 describes the FRB's policy shift toward tighter monetary policy after 2022, and Subsection 2.3 examines the current situation of the U.S. real economy in the wake of the FRB's monetary tightening. Subsection 2.4 explains the relationship between high inflation and the risk of recession, one of the current challenges, and Subsection 2.5 considers another current challenge, the relationship between high inflation and the failure of three regional banks. Subsection 2.6 discusses the impact of the above U.S. economic movement on the Japanese economy.

2. FRB's Switch to Contractionary Monetary Policy

As shown in Figure 1-2-1, the U.S. economy was hit by rapid inflation from 2021. In order to cope with high inflation, the FRB changed its previous stance of monetary easing, and swiftly tightened monetary policy in 2022. This subsection presents data on this tightening and explains its contents.

(1) Federal Funds Rate

Table 1-2-1 shows the timing at which the policy interest rate has been changed. The FRB has raised its policy interest rate, the federal funds rate, seven times in 2022 and three times already in 2023. As a result, the federal funds rate rose to 5.00-5.25% on May 5, 2023.

The characteristics of these policy interest rate changes are twofold: The first is the rapid increase in interest rates in a short period of time, and the second is the large size in the range of respective changes. In this short period,

Table 1-2-1 Federal funds rate change: timing and range

Month of Change	Increase	Level
March 2022	0.25%	0.25% to 0.50%
May	0.50%	0.75% to 1.00%
June	0.75%	1.50% to 1.75%
July	0.75%	2.25% to 2.50%
September	0.75%	3.00% to 3.25%
November	0.75%	3.75% to 4.00%
December	0.50%	4.25% to 4.50%
February 2023	0.25%	4.50% to 4.75%
March	0.25%	4.75% to 5.00%
May	0.25%	5.00% to 5.25%

Source: Federal Reserve System

the policy interest rate rose by approximately 5% from 0% at the beginning of 2022. The policy interest rate was raised by 0.75%, three times the normal level, in each of the four changes from June through November 2022, and by 0.50%, twice the normal level, in May and December 2022, as shown in Table 1-2-1. All of these indicate the FRB's rapid shift toward monetary tightening.

(2) Interest rate on reserves

The FRB controls its policy interest rate, the federal funds rate, to its target through changes in interest rate on reserves (private banks' deposit accounts at the FRB). As shown in Figure 1-2-2, the FRB raised this interest rate on

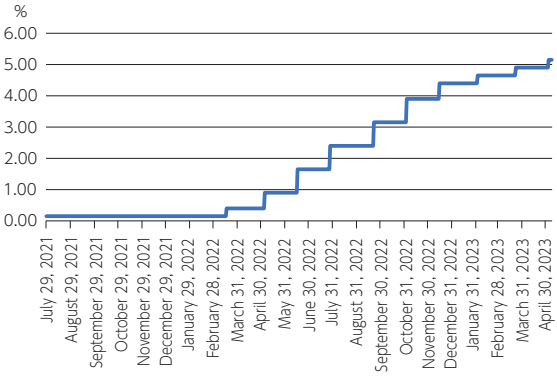

Figure 1-2-2 Interest on reserves (July 2021 to May 2023)

Source: Federal Reserve Bank of St. Louis

reserves from 0.15% to 0.4% in March 2022 and then rapidly increased it to 5.15% in May 2023. This also demonstrates how the FRB has quickly tightened its monetary policy.

(3) Monetary base

Another measure of monetary policy stance is monetary base (the sum of cash and private bank deposits at a central bank). As shown in Figure 1-2-3, the monetary base peaked in December 2021 and then began to rapidly decline. Recognizing clearly the risk of high inflation, the FRB raised its short-term policy interest rate and stopped quantitative easing (QE) in March 2022, and began quantitative tightening (QT) in June 2022. We can also observe this quick shift to monetary tightening through the shrinkage in the size of the FRB's balance sheet.

Using Figure 1-2-3, we call your attention to the following four points. First, the FRB dramatically increased the monetary base after the Lehman Shock in 2008. Second, the FRB spent for more than six years from 2008 through 2014 expanding the monetary base to recover from the recession after the Lehman Shock, whereas it rapidly expanded the monetary base in a very short period of time from 2020 to 2021 under the current corona virus recession. The same is true for the case of monetary base contraction. The FRB took the longer period of time from 2014 through 2019 to gradually reduce the monetary base for the case of the global recession due to the Lehman Shock, whereas it shrank the

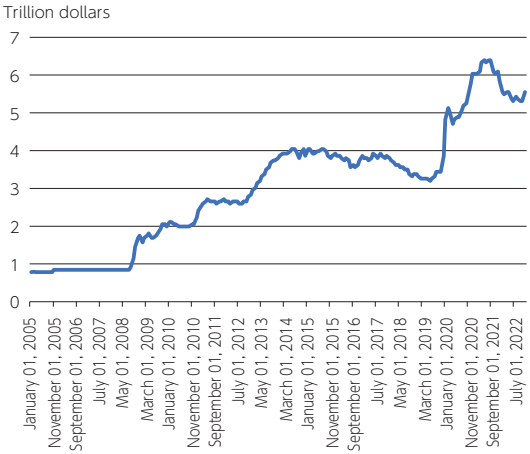

Figure 1-2-3 Monetary Base (January 2005 - March 2023)

Source: Federal Reserve Bank of St. Louis

monetary base rapidly in the shorter period from 2021 to 2022 for the case of the corona pandemic. Third, the magnitude of the monetary base change due to monetary expansion and contraction (vertical change in Figure 1-2-3) at this time is as large as that during the deep recession from the 2008 global financial crisis. Finally, the FRB's rapid expansion of the monetary base within a short period of time, followed by its rapid contraction immediately afterward, is one of the main causes of recent financial institution failures.

3. Current Status of the U.S. Economy

Subsection 2.3 describes the current state of the U.S. economy following the monetary tightening by the FRB explained in Subsection 2.2.

(1) Production and Expenditures

Expansionary fiscal and monetary policies to cope with the corona pandemic led to a relatively smooth recovery of production and expenditures in the U.S. economy until the end of 2021. Durable consumption goods such as automobiles, computers, and electronics increased relatively steadily even in 2022, when monetary tightening began. On the other hand, housing investment fell sharply in both price and quantity due to rising interest rates. As a whole, as shown in Figure 1-2-4, the upward trend in production has weakened since 2022 and roughly remained flat. However, the level of production has already exceeded the pre-corona pandemic level in 2022.

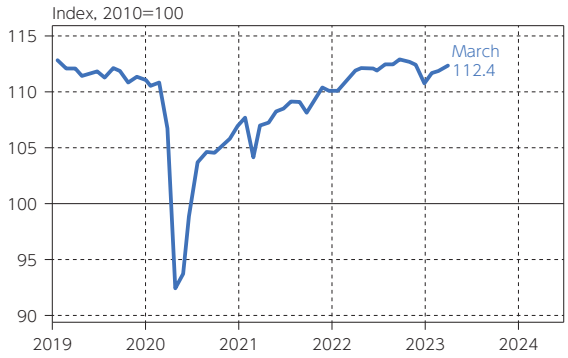

Figure 1-2-4 Production of the U.S. Economy

Source: Federal Reserve Bank of New York

(2) Prices

Prices rose sharply from 2021 due to several factors, including bold expansionary fiscal and monetary policies. In addition to these factors, the global surge in natural resource prices, following Russia's invasion of Ukraine, further pushed up domestic prices, and the consumer price inflation rate in June 2022 recorded 9.1% year on year.

Thanks to the contractionary monetary policy by the FRB as well as the slowdown in global natural resource price surge, inflation has begun to improve and recovered to 5.0% as of March 2023. It is still, however, well above the 2% target.

When considering future inflation rates, people's inflation expectation rate is important. The one-year inflation rate forecast by the University of Michigan's consumer survey peaked at 5.4% in March and April 2022 but has been declining ever since, falling to 3.6% as of March 2023, as the actual inflation rate has been decelerating. The University of Michigan's inflation forecast rate is an inflation rate expected by consumers, while the breakeven inflation rate (BEI) is an inflation rate expected by investors. The BEI inflation rate forecast for the next five years is slowly declining from over 3.5% to under 2.5%, as the actual inflation rate has somewhat subsided.

Another factor affecting an inflation rate is the world natural resource and food prices. The price level of WTI crude oil, one of the leading indicators of energy prices, peaked in March 2022 at US$123.6 per barrel, and it has decreased since then. Prices have recently remained in the high range of $70-$80 per barrel. However, the rate of price increase has been slowing down.

(3) Unemployment Rate

The unemployment rate was 14.7% in April 2020, when the new corona virus widely spread. Thanks to bold expansionary fiscal and monetary policies, however, the unemployment rate has recovered quite rapidly, and has been relatively low since 2022. The unemployment rate in April 2023 was 3.4%, and the adverse effect of monetary policy tightening has not yet appeared.

This is the current situation of the U.S. economy. In summary, although production is virtually leveling off, the economy as a whole has not as yet deteriorated and the labor market remains tight. Inflation has fallen significantly, but is still high at 5%.

4. The Primary Challenge Facing the U.S. Economy: High Inflation and Risk of Recession

The U.S. economy is currently facing at least two challenges: The risk of recession and the risk of bank failures. This Subsection 2.4 describes the first challenge: high inflation and the risk of recession.

The overall CPI inflation rate has fallen to 5.0% as of March 2023. However, the 5.0% level is still too high for people to live with in general and well above the target of 2.0%. Furthermore, the core CPI inflation rate excluding food and energy, shown in Figure 1-2-5, remained high at 5.6% as of March 2023. This indicates that the transient decline in food and energy prices contributed significantly to the fall in the overall CPI inflation rate from 9.1% to 5.0%. All of these factors suggest that there still remains a considerable risk that high inflation might remain into the future.

Both consumption and investment in the real economy were quite strong in 2022, with the exception of housing investment, and the unemployment rate was low at 3.4% in April 2023. The labor market was also tight, with the 2.6% increase of an employment rate year on year (Figure 1-2-6).

The high level of overall CPI inflation rate, the persistently higher level of core CPI inflation rate, active spending, and the tight labor market suggest the need for further monetary tightening.

One reason why tightening policy has not been fully effective is that the monetary base, which expanded rapidly and urgently during the outbreak of the new corona virus, has not been fully shrunk. In the market there still remains more than 1.5 times the base money in the pre-pandemic period. The glut of

Figure 1-2-5 Core CPI inflation rate excluding food and energy (year on year)

Source: Federal Reserve Bank of New York

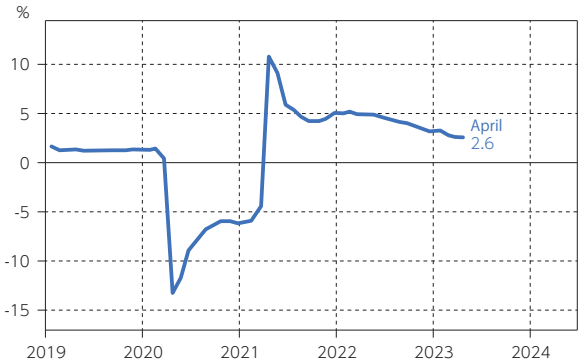

Figure 1-2-6 Employment Growth (year on year)

Source: Federal Reserve Bank of New York

base money in the market is one of the reasons why the core inflation rate has remained high, and thus, QT should continue.

However, as we move into 2023, the effects of monetary tightening to date are actually eroding the strength of expenditures in the economy. If monetary policy continues to be tightened further, production and expenditures might turn downward, and the economy might face the risk of entering recession. We are now in the difficult situation in which we must decide whether to continue tightening monetary policy or to return to a neutral monetary policy stance.

As for an outlook, although the inflation rate has fallen to 5%, that level is still too high, and the FRB is likely to continue tightening for the present. As a result, there is certainly some risk that the U.S. economy might fall into a recession in late 2023 or in 2024, but even if a recession should occur, it is unlikely to be major if other conditions remain the same.

5. Second Challenge: High Inflation and Financial System Stabilization

In Subsection 2.4, we discussed the relationship between high inflation and the risk of recession. In March 2023, a rapid shift to monetary tightening by the FRB resulted in another serious problem: The failure of some U.S. regional banks.

(1) Liquidity and Bank Run

There are at least two possible reasons for a bank failure: First, as in a manufacturing business firm, the bank might go bankrupt if it is inefficient in its operation. Second, the bank also might fail if it runs short of liquidity. (Liquidity

is a measure of each asset, i.e., how easily the asset can be converted into cash without loss. By definition, cash is the most liquid asset and real estate such as land is the least liquid asset.) Whatever the reason, even if it is merely a rumor or a lie, if it causes people to rush to a bank to withdraw their deposits, that alone can cause the bank to fail. In fact, this has happened many times in the past. In the United States, during the Great Depression in the early 1930s, people lined up in front of banks to withdraw their deposits. During the chaos, the U.S. financial authorities were forced to simultaneously close and terminate all banking businesses in the U.S. In Japan, the financial panics in 1927, when bank runs occurred frequently, are well known.

(2) Failure of Three Regional Banks

In just over a year from the beginning of 2022 to the present, the FRB raised the policy interest rate by 5%, converted QE to QT, and rapidly reduced the monetary base. This shift to tighter monetary policy caused bond prices to fall sharply and brought about unexpectedly large capital losses for regional banks, comprising one of the reasons for the failures of the three regional banks at the time. As shown in Table 1-2-2, Silicon Valley Bank and Signature Bank failed in March 2023, and First Republic Bank failed in May.

One of the differences between the recent U.S. regional bank failures and the traditional bank runs described above is the speed of people to withdraw their deposits. In past bank runs, it took many days for depositors to wait in line and gradually withdraw their deposits, but in the case of the Silicon Valley Bank failure, for example, newspapers reported that about a quarter of the deposits were withdrawn in one day.

Information on whether a bank holds a large amount of bonds that incur capital losses is available on the Internet. This kind of information is spread via social networking sites (SNS) and the Internet, and instantly affects the stock price of the bank in question. A decline in a stock price increases the risk of failure, not only because of a lack of liquidity, but also because of unsound and inefficient management. As a result, the depositors of the bank in question will rush to withdraw their deposits through Internet banking and other means. The

Table 1-2-2 U.S. Regional Bank Failures

bankruptcy date	Bank Name
March 10, 2023	Silicon Valley Bank failed.
March 12, 2023	Signature Bank failed.
May 1, 2023	First Republic Bank failed.

massive outflow of deposits further erodes the bank's credibility, and financial instability will increase dramatically. For these reasons, banks now are likely to fail in a much shorter period of time than in the past. One of the characteristics of this series of bank failures is that they occurred within a very short period of time once the banks' issues had surfaced.

(3) Bank Term Funding Program (BTFP) and Federal Deposit Insurance Corporation (FDIC)

When the three regional banks failed, the two immediate actions taken by the U.S. financial authorities were (1) to create the Bank Term Funding Program (BTFP) and (2) to fully protect the deposits of the banks. These two measures induced depositors not to panic and minimized turbulence in the financial system. So how do these two measures work?

When deposit outflows occur, they may spread not only to the bank in question but also to other similar banks. If these deposit outflows are left uncontrolled, confidence in the financial system as a whole could be lost. Hence, the FRB must play the role of "lender of last resort" as a central bank and provide ample liquidity to the financial market. It is essential to prevent banks from failing by lending them the funds they need so that they do not run short of reserves (cash held by private banks and/or their deposits at the central bank) when deposit outflows occur. BTFP is the FRB's measure to secure the funds at the congress, which allows the FRB to make emergency loans as needed.

The second countermeasure was an immediate decision by the financial authorities to protect all deposits in the failed banks so that depositors would not suffer losses. In so doing, they prevented bank runs or a 'domino-toppling' expansion of bank failures.

The FDIC was established in the United States in 1933 as a countermeasure to the frequent bank failures that occurred from the 1920s through the Great Depression. Thanks to the FDIC, it was expected that deposits would be protected in the event of a bank failure. The existence of this system aimed to prevent people from running to banks to withdraw their funds.

However, there is a cap of $250,000 (approximately equals to JPY 33 million) on the amount of settlement deposits that can be protected under this system, and deposits exceeding this limit are not protected. The financial authorities, fearing a further spread of financial instability, have immediately decided to protect all of the bank's deposits, including those not covered by FDIC deposit insurance, to pacify the situation. As a result, the number of failed banks is currently limited to three as shown in Table 1-2-2.

(4) FDIC System and Moral Hazard of Banks

Since the financial authorities have decided to protect deposits exceeding the amount protected by FDIC insurance, why do they not protect the entire amount of deposits without setting a ceiling on deposits from the outset?

If there were no ceiling on the amount of deposits to be protected, depositors would lose their incentive to choose a bank with which to deposit their money, since the full amount of their deposits would be protected anyway, regardless of which bank they chose. In other words, for depositors, all banks would be equal. If this were to happen, there would now be an incentive for banks to take risks (this behavior is called "moral hazard"). Since there is generally a trade-off between risk and return, banks will tend to take higher risks in search of higher returns. This is because depositors are generally indifferent to their choice of banks and will not leave their own banks, even if said banks take riskier behavior. It is not desirable for banks to take riskier behavior, since banks have the public mission of playing a key role in the settlement system. For these reasons, institutional protection of the full amount of deposits is considered difficult. Yet despite these difficulties, the FDIC system is expected to be improved in some way based on the experience currently being acquired.

(5) Are High Inflation Control and Financial Stability Policies Compatible?

If bank failures were left uncontrolled, deposits would flow out of the banking sector, and the amount of bank loans would decline. The reduction in credit would lead to a reduction in spending in the private sector. To avoid this, the FRB should inject ample funds through the BTFP into the private sector to make up for the shortfall of needed funds.

The latest slight upturn in the monetary base balance in Figure 1-2-3 can be attributed to the FRB's emergency additional supply of liquidity to cope with the failure of two regional banks in March.

When people withdraw their bank deposits all at once, as was the case with the three regional bank failures, the monetary base flows out from the financial sector to the nonfinancial sector. If left uncontrolled, the money multiplier will decrease (i.e., the economy's overall loans and deposits will decline), resulting in a large reduction in the money supply (a part of which are deposits). If the monetary base flows out from the financial sector, and if the central bank does not modify the amount of the monetary base, it is equivalent to reducing the money supply to the economy as a whole, thus tightening monetary policy. The monetary policy stance becomes neutral only when the central bank supplies additional monetary base equal to the amount of funds flowing from financial

sector to nonfinancial sector. It is important to understand that deposit outflows, if left uncontrolled, are equivalent to tightening monetary policy. Therefore, the latest increase in the monetary base in Figure 1-2-3 cannot be immediately interpreted as an easing of monetary policy. It is more likely that the necessary monetary base is injected simply to compensate for the shortfall of funds.

Here is one obvious question. The increase in the monetary base to stabilize the financial system, as shown in Figure 1-2-3, will work as monetary easing, which might conflict with the contractionary monetary policy currently employed to control high inflation. Will the FRB give priority to the financial system stabilization policy and ease the monetary tightening policy?

In fact, the FRB could manage to pursue both high inflation control and financial system stabilization policies simultaneously by adopting the following approach. Since the effects of monetary policy are broadly economy-wide, general monetary policy measures should be allocated to controlling high inflation. On the other hand, pinpoint policy measures, such as the BTFP, should be allocated to specific purposes to fully protect the deposits of failed banks and to stabilize the financial system. In this way, the two measures could be consistent with each other, and the FRB could deal with the two challenges simultaneously. If bank failures should continue to occur frequently in the future, this approach would not work, in which case another approach would be needed. But at least the above approach has successfully dealt with the current issues to date.

The U.S. economy is currently aiming for a soft landing from high inflation, and although it faces the two risks described here and in the previous subsection, overall the real economy is generally on a steady recovery path. However, the monetary base stock is still quite high, so it may take some time for inflation rate to reach the 2% target. The risk of future bank failures also needs due attention.

6. Impact on the Japanese Economy

Subsection 2.6 briefly describes the impact of the movement in the U.S. economy on the Japanese economy.

(1) JPY depreciation due to the interest rate differentials

The BOJ has set its short-term policy rate at minus 0.1% since January 2016 and has supported its 10-year long-term interest rate at near 0% since September 2016. On the other hand, the FRB has raised the policy market interest rate by roughly 5% with its tightening monetary policy since early 2022. Long-term interest rates have risen accordingly. The interest rate differential between Japan and

the U.S. has widened significantly, and the yen-dollar exchange rate has swung sharply toward a depreciation of the yen against the U.S. dollar. In 2022, the yen depreciated against the dollar to a 150-yen-per-dollar level at one point, but was subsequently bought back. The yen-dollar exchange rate at the end of 2021 was 115 yen per dollar, while it was 132 yen per dollar at the end of 2022, implying that the yen weakened against the dollar by about 15% during the year of 2022.

The global surge in natural resource and food prices, coupled with the depreciation of the JPY, caused the prices of imports into Japan to soar, and high inflation became a problem in Japan as well. High inflation is particularly problematic for people whose incomes are fixed at nominal values, as it directly affects their livelihoods and reduces their spending.

However, the depreciation of the JPY also alters the conditions of competition for domestic firms with foreign firms, with domestic products becoming cheaper than foreign products. When the JPY depreciates, Japan's trade balance and production are negatively affected at first by the depreciation. Within six months to two years, however, the effects will be reversed, and positive effects for the Japanese economy will expand and dominate. (In macroeconomics, this reversal effect is called the "J-curve effect." For details, see Honda (2022).)

The Japanese economy had been experiencing a gradual depreciation of the yen since 2021, but the sharp monetary tightening in the U.S. from the beginning of 2022 led to its rapid depreciation. As a result, the first adverse part of the J-curve effect appeared in 2022, and the trade deficit of the Japanese economy in 2022 was extremely large. However, the subsequent positive aspects of the J-curve effect are expected to appear and favorably impact Japan's current account balance and production in the future.

(2) The Impact of the FRB's Monetary Tightening on Japan's Regional Bank Management

The tightening of U.S. monetary policy from 2022 has already begun adversely affecting the management of Japanese banks. Rising interest rates in the U.S. have caused a significant deterioration in the "net gains/losses on other securities" account through valuation losses on foreign and domestic bonds and equities held by Japanese banks. In particular, "gains on other securities" of regional banks, facing a severe business environment, have been rapidly declining since the end of March 2021, and many individual regional banks have already recorded net losses.

If the Japanese and/or U.S. monetary authorities raise interest rates in the future, the valuation losses will increase further and have a greater negative impact on bank management. We need to continue closely monitoring the

figures in the "gains/losses on other securities" account.

(3) U.S. economy

The impact of the U.S. economy on the Japanese economy would be quite different, depending on whether or not the U.S. economy succeeds in a soft landing. In terms of total trade values in exports and imports, China is Japan's No.1 trading partner with the U.S. No.2. In terms of export value alone, however, the U.S. was the No.1 export partner and China was No.2 in April 2023. Therefore, boom or recession in the U.S. economy has a significant impact on Japan's exports.

As discussed in Subsection 2.3, while the U.S. economy has generally performed well as a whole, the contractionary monetary policy after 2022 might cause the U.S. economy to fall into recession in the second half of 2023 or in 2024. Although the possibility is slight, if the U.S. economy were to fall into a serious recession, Japan's trade and current accounts would incur commensurate damage, leading to a major blow for the Japanese economy.

(4) Risk of U.S. financial system instability

Another concern for the Japanese economy is the collapse of the three U.S. regional banks. If no other banks go bankrupt, there will no problems. However, the FRB is still in the process of tightening monetary policy. Raising interest rates by the FRB could worsen the banks' balance sheets through capital losses from bond possession. If more and more banks should fail, the U.S. financial industry could fall into turmoil and also seriously impact the Japanese economy.

In that case, the impact would be on both real and financial sectors in the Japanese economy. If the financial turmoil were transmitted to the real sector in the U.S. economy, Japanese firms' exports to the U.S. as well as local production in the U.S. would decline. This would have a direct effect on the real sector in the Japanese economy. If the U.S. real economy should fall into recession, the FRB would ease its monetary policy significantly, inducing JPY appreciation.

Looking back, the global recession of 2008 began with the bursting of the real estate bubble in the United States in mid-2006. The resulting turmoil remained within the financial industry for about two years. When the Lehman Brothers went bankrupt in September 2008, the turmoil quickly spread to the real economy. As soon as the U.S. economy fell into recession, the FRB dealt with it by boldly easing monetary policy, while the Bank of Japan was late and its intervention was minimal. This difference in monetary policy between the FRB and the Bank of Japan led to the extreme appreciation of the JPY, which in turn brought about a disastrous impact on the Japanese economy. Recalling this bitter experience, we cannot take our eyes off the developments in the U.S.

financial industry.

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