## **Discussion Paper**

# JFSA's Approaches to Prudential Supervision

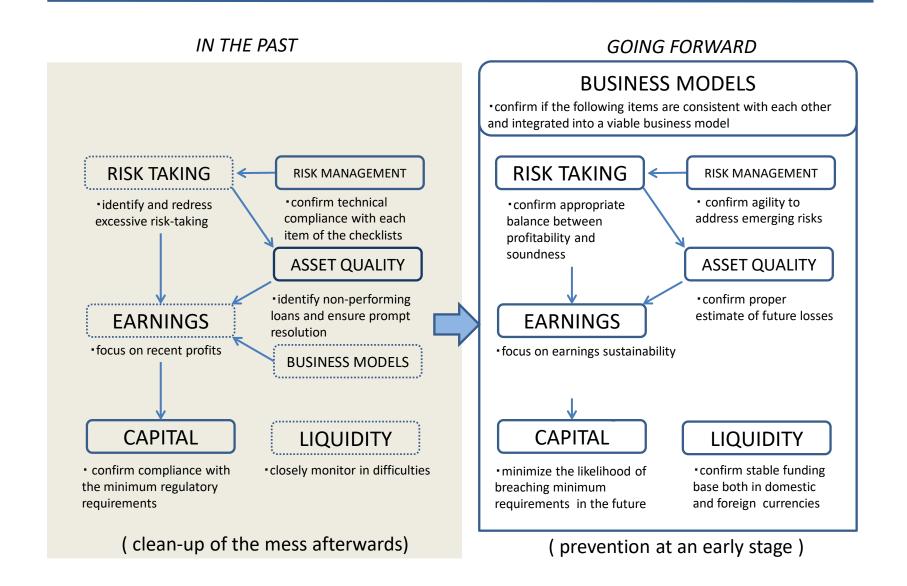
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### JFSA'S APPROACHES TO PRUDENTIAL SUPERVISION



### Introduction

### (Background of this document)

In June 2018, the Financial Services Agency (JFSA) published the "JFSA's supervisory approaches (Replacing checklists with engagement)," which summarizes the basic concepts and approaches shared across all supervisory activities, in response to the recommendations made in the report "Transforming the JFSA's Supervisory Approaches" published by the Advisory Group on Supervisory Approaches in March 2017. Going forward, based on this basic policy, the JFSA will present concepts and approaches for specific issues and areas in the form of a report for discussion purposes ("Discussion Paper").

The "JFSA's supervisory approaches" report summarizes the objectives of financial regulation as follows: through the realization of the basic goal of striking the right balance between financial stability and effective financial intermediation, consumer protection and better services, and market integrity and vigor, financial regulation aims to achieve the ultimate objective of the maximization of national welfare through sustainable growth of the economy and national wealth. This document relates with financial stability, which is an important element of the basic goal of financial regulation.

More specifically, this document sets out the basic concepts and approaches of the JFSA's prudential supervision to ensure financial stability. It aims to serve as a material to facilitate multi-directional dialogue with financial institutions and other relevant stakeholders, while taking into consideration lessons drawn from past economic crises in Japan, challenges that financial institutions are facing, and experiences in other jurisdictions. Discussion Paper on loan business and loan loss provisioning is expected to be published separately.

The supervisory approaches in this document are mainly applied to deposit-taking institutions. In addition, other financial institutions that engage in maturity and liquidity transformation through use of leveraging, such as securities companies with large-scale balance sheets, are within the scope of this document.

The public consultation period for comments and feedbacks was closed on July 30, 2018. Further discussions are carried out with a wide range of stakeholders including financial institutions and financial services users to continuously enhance the JFSA's approaches.

"JFSA's supervisory approaches" report sets out that the JFSA's Inspection Manuals will be repealed at some point after the end of FY2018 (after April 1, 2019) to promote a shift from set of checklists to set of concepts and approaches.

The Inspection Manuals takes the form of checklists on matters such as establishment of specific internal control systems for various risks. Financial institutions have developed a range of risk management practices based on these checklists.

The repeal of the Inspection Manual does not contradict with or deny the current practices that have been accumulated by the financial institutions so far; rather, it aims to support the financial institutions' efforts to pursue better practices with their current practices as a starting point.

As a Discussion Paper, this document aims to serve as a material to facilitate in-depth dialogue between the authority and the financial institutions towards improving their practices. The individual issues for discussion described in this document are not intended to be applied formalistically in the JFSA's supervision. Neither are they intended to be used as a checklist for supervisors. When engaging in a dialogue using this document, discussions should fully consider the scale and unique characteristics of each financial institution.

### (Purposes of this document)

This document is expected to serve the following purposes;

Firstly, the JFSA intends to indicate how the approaches to prudential supervision would change when the overall supervisory approaches go through transformation, as set out in the "JFSA's supervisory approaches" report.

Secondly, the JFSA aims to make clear the backgrounds and material elements of various assessment factors of prudential supervision by reviewing the fundamental purposes of such factors.

Thirdly, the JFSA intends to draw important lessons from past financial crises and use them as materials for active dialogue with financial institutions and other stakeholders, thereby promoting sharing of these lessons.

### 1. New Approaches to Prudential Supervision

### (Concepts of the new approaches)

As the asset price bubble burst, Japan experienced a serious financial crisis from the late 1990s to the early 2000s. The financial institutions that failed during this period included 181 deposit-taking financial institutions, seven life insurance companies, and one of four major securities companies. Although a total of 12,380.9 billion yen of public funds was injected, economic growth took a major downward turn. The pain was felt by the society as a whole, with the number of suicides per year increased by about 10,000 people, particularly among the middle-aged and elderly, while the younger generation entered an "ice age" of employment.

The housing price bubble in the United States burst and caused a severe global financial crisis at the end of the 2000s. Unemployment rates in the U.S. and Europe rose rapidly, while the growth rate of developed economies dropped significantly. The Japanese economy was also heavily impacted by the crisis, with a decline in exports as well as a drop in the real economic growth rate to -5.4% in 2009.

These two financial crises were not special exceptions. In the period after financial deregulation, most economies, regardless of whether they were developed, developing or emerging, experienced serious crises to their financial systems in various forms.

A crisis to the financial system severely constraints the sustainable growth of the economy and industries as well as of the national wealth, and eventually hurts the growth in national welfare, which is the ultimate goal of financial regulation.

The primary objectives of prudential supervision are to prevent financial crises as well as to minimize the impact of the crisis in the event of its occurrence. A stable financial system is a prerequisite for effective financial intermediation, which contributes to economic growth. In addition, it can also lead to stable growth in national wealth through the protection of depositors. Prudential supervision is one of the core missions of the JFSA. Prudential policy consists of the formulation of

Finance are planning and formulating financial resolution legislation and financial crisis management from the perspective of securing fiscal soundness, appropriate management of

<sup>&</sup>lt;sup>1</sup> Article 3 of the Act for Establishment of the Financial Services Agency sets out that ensuring stability of the Japanese financial functions is one of the missions of the JFSA. Article 1 of the Banking of Japan Act describes that the contribution to maintenance of the stability of the credit system as one the objectives of the Bank of Japan. In addition, the Act for Establishment of the Ministry of Finance sets out that one of the roles of the Ministry of

financial rules and regulations, and prudential supervision, which is carried out by implementing these rules and regulations.

This document sets out the basic concept of prudential supervision, and the approaches to supervisory activities in this area. The design of regulations are outside the scope of this document (refer to BOX 2).

### (Guiding Principles of the New Approaches)

Since its establishment, the JFSA has been endeavoring to continuously upgrade prudential supervision with the benefit of accumulated experiences of financial crises and developments in regulatory and supervisory practices. In particular, after the 1990s, to cope with financial crisis, the JFSA has been conducting supervision with an intense focus on stringent categorization and write-off/loan loss provisioning of each individual loan asset and verification of compliance with the minimum capital requirements. This approach may have contributed to the resolution of the non-performing loan problem and the recovery of the functions of the financial system, which were pressing issues for Japan at that time.

The environment surrounding Japanese financial institutions have shifted significantly since then with a shrinking domestic market due to the declining and aging population, a prolonged global low interest rate environment, and technological innovation including FinTech. The earnings environment is therefore becoming increasingly severe. Furthermore, the speed of changes in the locus and nature of risks for financial institutions are accelerating, and the agility and flexibility with which to address such changes have become a defining factor for sustainable operation of the financial institutions.

In such an environment, an approach that emphasizes cleaning up the negative legacies from the past may not necessarily be effective in preventing the occurrence of new problems. Moreover, when the past supervisory approaches, which were developed to address past challenges, are applied mechanically and repeatedly in the long term, the JFSA will face the risk of concentrating on "backward-looking, element-by-element check on the compliance with formal requirements," and even have the possibility to hinder new initiatives to cope with new challenges.

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the national treasury, maintaining trust in the currency, and securing the stability of foreign exchange rates. These provisions together indicate that the JFSA, with the support of the Bank of Japan and the Ministry of Finance, bears the final responsibility on prudential policies.

Prudential supervision should be carried out not only with the perspective of "backward looking, element-by-element check on the compliance with formal requirements," but also from the perspective of "substantive, forward-looking, and holistic analysis and judgment" in light of the significant changes in the circumstances of financial institutions.

In view of the above, going forward, emphasis of the prudential supervision should be placed on the followings:

Comprehensive and substantive assessment: in assessing the safety and soundness of financial institutions, prudential supervision should not focus solely on checking the compliance with specific standards such as asset quality and regulatory capital requirements; comprehensive and substantive assessment should be carried out on the overall soundness of each financial institution, as well as the potential risks to the overall financial system.

After the financial crisis of the 1990s, as mentioned before, prudential supervision in Japan has been limited to the narrow scope of inspecting individual asset quality and verifying compliance with the regulatory capital requirements, which are heavily dependent on pro-forma criteria such as financial data and the existence or quality of collaterals. Going forward, the JFSA will reform its supervisory processes to accurately analyze the risk profile of financial institutions from a broad range of perspectives and address high priority issues that warrant close examination from the perspective of overall management of the financial institutions. Furthermore, the JFSA will also identify vulnerabilities of the overall financial system, not just at the level of the individual financial institutions, and address them in a more focused manner.

**Ex-ante prevention of crises**: prudential supervision needs to identify and address vulnerabilities before they lead to a crisis, rather than coping with crises after the event.

To date, supervision had been carried out as a response to restore the safety and soundness of financial institutions only after they have suffered losses or fallen into financial difficulties. However, the longer it takes to respond, the more limited the choices are for the financial institutions and the authorities to resolve the problems. Furthermore, past financial crises have shown that once the soundness of a financial institution is impaired, national welfare can be significantly affected, due to the unique vulnerabilities of the financial system and its contagious effect on real

economic activities (refer to BOX 1). In many past cases, ultimately there were very limited financial institutions and their regulators in containing the crises. Going forward, from the perspective of preventing future crises from occurring, the JFSA will work to identify potential vulnerabilities of financial institutions as well as of financial systems at an earliest possible stage and address them in a forward-looking manner.

**Establishing environment to assist better practices**: rather than requiring financial institutions to refrain from any risk-taking, prudential supervision needs to establish an environment that allows financial institutions to exercise their own initiatives to ensure their safety and soundness through appropriate level of risk-taking.

The mechanical measures that JFSA took in the past have had the effect of making financial institutions passive and inactive towards any risk-taking, with excessive dependence on collaterals and guarantees. However, amidst the growing severity of the business environment, financial institutions cannot ensure their sustainable soundness just by avoiding any risks. Going forward, prudential supervision will focus on ensuring that financial institutions find their own way to develop a sustainable business model, whereby they achieve financial health through a level of risk-taking commensurate with their risk capacity, while paying attention to excessive or hidden risk-taking.

### <BOX 1> Basic Concept of Prudential Policies

As in the case in non-financial sectors, it is ideal for soundness of the financial sector to be achieved through free market competition, discipline from shareholders and corporate governance structure. However, as banks and other deposit-taking institutions can be subject to the following market failures, the authority needs to fulfill a certain role.

Banks have long-term assets funded by short-term liabilities such as deposits and inter-bank borrowings (maturity mismatch). For this reason, when there are heightened concerns over their payment capacity, people may withdraw their money all at the same time (bank run). Furthermore, as it is difficult for external parties to grasp the financial condition of a bank (asymmetry of information), bank runs can easily spread from the bank in question to other banks engaged in similar businesses, due to a psychological contagion. As banks raise a large amount of debt compared with the amount of capital (leveraging), they may suffer a magnitude of losses that makes their survival difficult in the event of a deterioration of the economic environment.

Due to such inherent vulnerabilities in the banking system, as is clearly shown by the past domestic and global financial crises, relying solely on the market mechanism is not sufficient to ensure the stability of the financial system.

In addition, banks fulfill payment and settlement functions through deposit accounts and financial intermediation functions through credit provision. As such, if a bank fails, the real economy will be significantly affected (negative externality). Safety nets are put in place to prevent this from occurring, including the deposit insurance system and the lender of last resort function of central bank. However, the presence of the safety nets can weaken the incentives for banks to manage their businesses cautiously, and rather make the financial system unstable through excessive risk-taking (moral hazard).

Traditionally, the purpose of bank supervision has been to address such issues and ensure the stability of the financial system.

The recent global financial crisis<sup>2</sup> occurred under circumstances where financial intermediation functions were being offered not only by banks, but also by different types of institutions through the markets. A decline in the prices of specific assets triggered a downward spiral of financial institutions' losses, market liquidity decline due to fire sales and widespread asset price falls, and led to the malfunctioning of the markets.

Furthermore, as financial institutions were interconnected to each other in a complex and opaque manner through derivatives and securities lending transactions, the failure of a large financial institution caused a panic to spread through the markets to the entire financial system instantaneously. Market liquidity dried up and many financial institutions faced funding difficulties.

Such market-driven crises are different from conventional ones in terms of the scope of the affected financial institutions and the speed at which they spread, and therefore present new challenges for prudential policies.

In light of the concept of prudential policies as described above, the scope of this document includes not only deposit-taking institutions but also financial service providers with such functions as liquidity and maturity transformation and leveraging and other functions that may potentially lead to market failures.

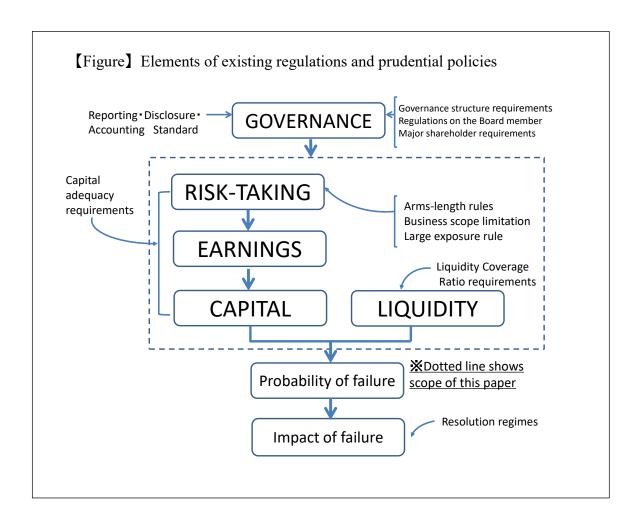
<sup>&</sup>lt;sup>2</sup> The global financial crisis which stemmed from crisis in the subprime mortgages in the U.S. and the subsequent global economic downturn in the second half of the 2000s.

### <BOX 2> Prudential banking regulation in Japan

Deposit-taking institutions (banks, credit associations (Shinkin banks), credit unions, labor credit associations and agricultural cooperatives engaged in the credit business) are put under license system under the Banking Act and respective laws, and are subject to relevant regulations to secure sound and appropriate management of the business. Safety nets are also in place under the Deposit Insurance Act mainly to limit the impact of a failure.

Below are principal rules of banking regulation in Japan aimed at preemptively securing soundness of banks and preventing their failure:

- 1) Capital adequacy requirements, which are to keep the probability of a failure due to insolvency below a certain level (Article 14-2 of the Banking Act)
- 2) Liquidity Coverage Ratio requirements, which are to keep the probability of a failure due to funding shortage below a certain level (Article 14-2 of the Banking Act)
- 3) Arm's length rule, business scope limitation, and large exposure rule, which are to prevent the occurrence of inappropriate, unnecessary or excessive losses (Articles 13-2, 12, and 13 of the Banking Act). In addition, risk management framework and practices in general are examined mainly through supervision.
- 4) Reporting, disclosure, and accounting standards, which are to ensure that the accurate picture of financial positions is reflected in the financial statements, and filed for disclosure (Articles 19-22 of the Banking Act, Article 7 of the Financial Reconstruction Act)
- 5) Governance structure requirements, which are to ensure effective governance (Article 4-2 of the Banking Act), fit-and-proper rules and restrictions on multiple jobs for directors and senior managers (Article 7 and 7-2 of the Banking Act), major shareholder requirements, which are to prevent inappropriate influence from specific shareholders (Article 52-9 of the Banking Act). In addition, governance framework and practices in general are examined mainly through supervision.



### 2. Balancing Soundness and Financial Intermediation

To achieve the ultimate goal of financial regulation (i.e. to improve national welfare through sustainable economic growth and stable household asset formation), it is vital for prudential supervision to strike a right balance between financial system stability/safety and soundness of financial institutions and financial intermediation functions.

Both financial soundness and financial intermediation are indispensable and they are dependent on each other. If financial stability or soundness of financial institutions is impaired, financial intermediation may end up not functioning well. Likewise, if financial institutions are not proactive in exercising their intermediation functions, they may have difficulty in generating profits in a sustainable manner and corporate/economic growth may be hindered, which then would undermine financial stability and soundness of financial institutions.

It is therefore important for the JFSA to make a continuous effort to realize a virtuous cycle where financial stability leads to well-functioning financial intermediation, and the latter in turn contributes to sustainable profits and financial stability. With diversity of business models taken into consideration, the JFSA will engage with financial institutions to explore diverse range of good practices without presupposing specific answers or conclusions, so that financial institutions can find their own best balance between soundness and financial intermediation.

There are a range of measures to address concerns about soundness: some are immediately-effective but others take time. There are even measures which increases costs at an early stage. They may also have different impacts on financial intermediation functions. Moreover, available time to address the concerns differs from one institution to another. The JFSA will therefore seek a tailored and well-sequenced program according to the condition of each financial institution to enable a right balance between soundness and financial intermediation to the extent possible, rather than comprehensively calling on a reduction in risk-taking.

For example, a financial institution which is likely to breach minimum prudential standards in the near future requires a solution whereby it focuses on restoring financial health before taking time to work on improving its financial intermediation functions. In contrary, a financial institution which suffers from weak profitability but holds sufficient capital needs a different solution which is intended to increase profitability over time while improving financial intermediation functions under a

multi-year plan, even though no immediate effect is anticipated.

Discussion on financial intermediation functions is outside the scope of this document. However, the JFSA will continuously explore to enhance both the safety and soundness and financial intermediation functions in an integrated manner.

### <BOX 3> Approach to Balancing Soundness and Financial Intermediation

(Regional Banks)

For regional banks, one of the promising approaches that allow for a right balance between soundness and financial intermediation is the development of a virtuous cycle of these two objectives by creating shared value with customers. This is a cycle where regional banks properly identify customers' business challenges, propose measures to address them, give advice necessary for their implementation and provide financing for this purpose in a consistent and continuous manner, whereby raising local corporate profitability and developing the local economy, which in turn enhance regional banks' business fundamentals.

This cycle is deemed completed only when banks have come to generate stable earnings through their well-functioning financial intermediation, and it takes considerable time to reach this stage. Moreover, the severe business environment including the protracted low interest rates makes it difficult for regional banks to address these challenges in a balanced manner.

The JFSA will pay particular attention to the time horizon of each bank's effort with a view to prioritization and sequencing when engaging in dialogue with regional banks on their approaches. The following two categories need particular attention:

1) Banks with persistently low profitability. It is necessary to urge these banks to reform their operations as early as possible to ensure soundness in a sustainable manner and fulfill financial intermediation functions. They may be required to expeditiously develop and implement a feasible and effective business and revenue plan including measures to improve operational efficiency such as branch restructuring and staff reassignment, so as not to face difficulties before their long-term effort to improve financial intermediation has borne fruit.

The JFSA will also focus on banks' continued dividend payments that are not commensurate with their financial positions and unrealized losses on investment securities that they delay disposing of to make financial results look better. It will have an intensive dialogue with the banks' directors and senior management to warn them against such short-sighted behaviors.

2) Capital-injected banks. As they are required to use injected public funds to enhance financial intermediation in their region and to repay the funds within fifteen years under the Act on Special Measures for Strengthening Financial Functions, they need to consolidate a virtuous cycle to create shared value with customers within this period. The JFSA will engage in dialogue with these institutions primarily on i) the measures they take to enhance financial intermediation, and ii) the progress they make in accumulation of retained earnings to repay the public funds. It will focus particularly on whether they have come to generate profit through fulfilling financial intermediation functions in their region such as extending credit to support borrowers' core business based on assessment of its prospects, instead of depending on collaterals. This is because a profit-only approach, which does not care about financial intermediation, is against the purpose of the Act.

The time horizon of each bank's effort is again important. When it comes to a bank with insufficient retained earnings to repay the pubic funds, although the remaining time to due date is short (the Act anticipates a long time horizon of fifteen to twenty-five years), the JFSA will pay particular attention to whether the bank can translate its effort in financial intermediation into earnings generation to complete the virtuous cycle.

# 3. Overall Picture of Prudential Supervision (Micro and Macro Relationship)

### (1) Micro-prudential and Macro-prudential Perspectives

### (Micro-prudential perspective)

From macro perspectives, the purpose of prudential supervision is to make sure that financial services, which are indispensable to the economy, are provided smoothly to those in need through ensuring financial stability. From micro perspectives, it is to protect depositors through ensuring the safety and soundness of individual financial institutions.

Financial stability presupposes the safety and soundness of individual financial institutions (Refer to BOX 2). In the past financial crises, the actual or potential failure of financial institutions have often undermined confidence in the financial system and impaired its stability. Consequently, prudential supervision has traditionally placed much of its emphasis on the safety and soundness of individual financial institutions; this micro-prudential perspective will remain essential for the future prudential supervision.

### (Macro-prudential perspective)

Equally important in the future is the macro-prudential perspective, as financial stability is not simply equivalent to the sum of the soundness of individual financial institutions and there are cases in which dysfunction of the financial system and deterioration of the economy mutually reinforced each other, causing a larger impact than each of them alone could have exerted, as is described in (2) and (3).

Furthermore, dysfunction of financial markets may have a particularly great impact on the financial sector and asset markets. In the recent global financial crisis, a shortage of asset market liquidity triggered a vicious cycle where a decline in asset prices and losses in the financial sector mutually reinforced each other, while a liquidity shortage in the funding market further strengthened this process.

However, the actual or potential failure of individual financial institutions may not always trigger a chain of failures nor damage the overall financial stability. If the primary functions of a failed or failing institution are taken over by other institutions and losses are properly allocated before the concern spreads, and if it is made clear that the other parts of the system are sound, the financial system may still be able to

maintain its stability.

Prudential supervision does not aim to completely eliminate the failure of financial institutions. A zero-failure regime would require a significantly high level of capital and curb even a modest risk-taking. This could hinder the financial institutions from developing a sustainable business model and impair financial intermediation functions necessary for the economy.

In sum, it is essential for the JFSA to assess vulnerabilities of the overall financial system and to prevent the materialization of systemic risks<sup>3</sup>, with due consideration of the interactions between the financial system and real economy as well as between the financial sector and various markets (macro-prudential perspective). Also, when an institution is in financial difficulties, appropriate recovery or resolution measures should be taken to prevent its actual or potential failure from damaging the stability of the overall financial system.

### (Relationship between the two perspectives)

The micro-prudential and the macro-prudential perspectives do not exist separately. As is described in (2) and (3), it is necessary to aim towards taking an integrated approach with an understanding of the interactions between overall financial stability and soundness of individual financial institutions.

## (2) Relationship Between the Two Perspectives in Risk Identification and Assessment

To address risks and vulnerabilities inherent in the individual financial institutions as well as the overall financial system, it is essential first to identify and assess them.

### (Micro-prudential perspective)

Historically, when financial institutions fail, it is because of insolvency or illiquidity. The basic measure to prevent a failure therefore is to maintain sufficient capital and liquidity to ensure an adequate distance from failure.

However, a financial institution with a large sum of unresolved bad loans or excessive exposure to other risks cannot be viewed as sound, even if it appears solvent on its

<sup>&</sup>lt;sup>3</sup> Systemic risk is the possibility that a malfunctioning of an entire or part of the financial system could trigger severe disruption in the provision of financial services and seriously damage the real economy.

balance sheet at one point. It is therefore necessary for the JFSA to assess a financial institution's risk profiles including its asset quality in addition to its balance sheet solvency. Moreover, even in case a financial institution holds sufficient capital against the risks it takes, its capital base is likely to be impaired in the future if it continues to incur a deficit. Hence, making a reasonable profit is also important in ensuring the safety and soundness. At the same time, a financial institution which manages its risks in a way that allows it to respond promptly and flexibly to changes in environment is less likely to suffer an impairment of its capital base, and therefore is considered more sound, even though its capital and earnings position is comparable to those of its peers.

### (Macro-prudential perspective)

To ensure overall financial stability, it is necessary to identify and address vulnerabilities which may lead to the materialization of systemic risks.

Past financial crises show that the sources of vulnerabilities include the divergence of asset prices from fundamentals, excessive leveraging and maturity/liquidity transformation (such as over-reliance on short-term wholesale funding) as well as interconnectedness between financial institutions and complexity of financial institutions and financial transactions.

A significant mispricing could easily give rise to sharp price adjustments due to risk reassessment in the aftermath of market shocks, causing massive losses for financial institutions and a deterioration of the real economy. Highly-leveraged entities are more likely to fail by shocks as they have small capital reserves compared with the risks they take, and could significantly affect the financial system in case of failure due to the large scale of their borrowings. Market participants with a large maturity/liquidity mismatch are more likely to resort to fire sales to meet obligations when they suffer losses. Past financial crises were caused and deepened by interactions between a rise and fall of asset prices, leveraging and a maturity/liquidity transformation. In contrast, a financial crisis may not be provoked simply by a divergence of asset prices from fundamentals,<sup>4</sup> as was illustrated by the collapse of the so-called IT bubble in the early 2000s.

If financial institutions are interconnected with each other through credit and funding relationships, the impact of the failure or imminent failure of a financial institution

<sup>&</sup>lt;sup>4</sup> Fundamentals are various basic elements that indicate the actual situation of economic activities.

can easily spread widely through the web of network, ending up with provoking a crisis. Furthermore, highly complex transactions make it difficult to identify and assess risks during a crisis, which could lead to massive fire sales by panicked market participants or a reduction in risk-taking, further deepening the crisis.

### (Relationship between the two perspectives)

The macro-prudential perspectives are interrelated to the micro-prudential perspectives. In some cases, the vulnerabilities of the overall financial system cannot be assessed without looking carefully at each individual financial institution; conversely, the safety and soundness of individual financial institutions may not be properly assessed without taking into consideration the vulnerabilities of the overall financial system.

It is often difficult to assess the financial system vulnerabilities only by looking at such macro-level changes as asset price hikes or expansion of leverage. This is because these changes could have been caused by an improvement in the productivity or structural changes of finance. In such cases, over-reaction by the authority could unintendedly impede the efficient allocation of resources. On the contrary, there was a case where soaring asset prices were justified by a false narrative that links asset prices and productivity. For this reason, the JFSA will also pay attention to micro-level developments such as an underestimation of risks in credit and investment behavior of individual financial institutions in order to accurately identify and assess vulnerabilities of the financial system.

Likewise, it is necessary to take into consideration the ripple effect of potential impairment of the financial system on the soundness of individual financial institutions. Such impairment of the financial system could give rise to a vicious cycle of a credit crunch and a deterioration in the real economy, as well as a downward spiral of asset price declines and financial institutions' losses, which is fueled by a dry-up of market liquidity. This could cause financial institutions greater losses than they would have anticipated. It is important therefore to estimate, using multi-scenario simulations, the impact of impaired financial system on individual financial institutions, including, where necessary, the secondary effects caused by financial institutions' response to the crisis.

Notably, developments at individual financial institution level such as an underestimation of risks may appear economically rational for the institution and are difficult to identify as vulnerabilities if viewed individually. For example, in case a

bank sell bad credit loans to investors soon after their origination, it may generate profit, but the overall financial system may become more vulnerable. Hence, the JFSA needs to monitor the behavior of individual financial institutions not only from micro- but also from macro-prudential perspective.

### (3) Relationship Between the Two Perspectives in Responding to Risks

As the identification and assessment of risks both from the micro- and macroprudential perspectives are mutually related, the two perspectives are also closely related in the JFSA's response to the risks.

For example, vulnerabilities of the financial system should be addressed not only by introducing institutional measures such as countercyclical buffer (CCyB), but also by taking supervisory actions against individual financial institutions. In doing so, one-size fits all measures intended to reduce credit exposures or increase capital to address diversion of asset price from fundamentals or excessive leveraging have more side effects than benefits. Rather, supervisory actions should be intensively focused on financial institutions which have significant exposures<sup>5</sup> to vulnerable parts of the financial system and engage in imprudent lending/investment activities without proper risk assessment or risk-based pricing. These financial institutions tend to have problems with their soundness when viewed individually, and the JFSA needs to engage with them with both the micro- and macro-prudential perspectives.

Conversely, when certain financial institutions are deemed to have problems with the safety and soundness, other financial institutions also tend to face similar problems. In such cases, measures to uniformly require a reduction of positions may have an adverse impact on the markets and the economy, making it all the more difficult to ensure soundness. Again, the JFSA needs to adopt both the micro- and macro-prudential perspectives when responding to such cases.

<sup>&</sup>lt;sup>5</sup> Exposure is total amount of credit by a financial institution.

# **4.** Ensuring the Safety and Soundness of Individual Financial Institutions (Micro-prudential Perspective)

### (1) Concept of Safety and Soundness

The assessment factors for the safety and soundness of individual financial institutions include, as aforementioned, capital and liquidity, asset quality and risk-taking, earnings, and risk management. These factors have traditionally been the focus in prudential supervision in most countries.

Among these factors, asset quality and capital adequacy have been considered to be particularly important to cope with the non-performing loan problem and resulting financial crises. Notably, there has been a tendency to place the emphasis on fulfilling the minimum requirements stipulated in the Inspection Manual checklists and the capital adequacy rules.

However, such a supervisory approach—which focuses on the ex-post responses to a crisis—will not be able to appropriately address emerging challenges stemming from the increasingly severe earnings environment, as well as the acceleration in changes to the location and nature of risks.

A financial institution that is not capable of generating sufficient earnings to maintain its capital base in a sustainable manner cannot be viewed as safe and sound even if its reported asset quality is good and capital requirements are met at this point in time. In particular, under the current low interest rate environment, it is not possible to improve profitability simply by pursuing loan volume while engaging in competition to reduce interest rates for borrowers with a good credit history. Likewise, a financial institution which is in the black at present cannot be viewed as safe and sound if its earnings are expected to fall significantly due to the interest rate environment and loan demand, or if losses are expected to exceed the accumulated profits when the market reverses its course.

It is therefore essential to take an appropriate level of risk under a sustainable business model to generate stable earnings into the future rather than avoiding any risk-taking. A high risk business is not always unsound; it can be sound if an appropriate control commensurate with its risk is put in place and decent earnings are expected. Conversely, a low-risk business cannot be described as a sound one if its expected earnings are not worth the risk and cost.

It is vital for financial institutions to make clear the amount and types of risk they are

willing to take to generate sustainable earnings within their respective business model, and constantly review them in response to changes in the business environment.

In line with the overall supervisory reform as described above, the traditional assessment factors for the safety and soundness should shift from "backward looking, element-by-element check on the compliance with formal requirements" to "substantive, forward-looking, and holistic analysis and judgment." More specifically, the prudential supervision will focus on asset quality measured by the actual repayment capacity of the borrower, capital adequacy taking into account non-regulatory risks, sustainable profitability into the future, funding liquidity in anticipation of stress, and risk management enabling flexible responses to changes in the environment. Furthermore, in addition to looking at these factors individually, the JFSA will assess whether these factors are fully integrated into a sustainable business model.

### <BOX 4> Development of Prudential Policies in Japan

Banks have traditionally been subject to such regulations as entry regulations, business scope limitations, interest rate regulations, large exposure rules, related party transaction rules and branch regulations. All these regulations, except interest rate regulations and branch regulations, still consist a part of prudential policies.

Since financial deregulation in the 1980s, emphasis has been placed on equity capital as a common buffer against losses that could arise from various types of risk. Capital requirements, although different from what they were in the past, still form the basis of prudential policies.

After the mid-1990s, the focus was placed on quantitative risk management in light of the development of financial engineering and the advancement of risk management practices in financial institutions.

After the global financial crisis, capital requirements have been increased to reduce the possibility of the failure of a financial institution in light of its impact on the economy. Furthermore, liquidity coverage ratio requirements were introduced as seemingly sound institutions experienced a liquidity squeeze due to a decline in the functions of the short-term funding market, which raised interest in funding liquidity. In the meantime, attention is also paid to business models and risk governance as the possible root causes of failures and significant losses.

Earnings have always been one of the essential assessment factors in prudential supervision (as the "E" in "CAMELS"<sup>6</sup>). However, amid the growing severity of the earnings environment for financial institutions, many authorities, including

Capital Adequacy

Asset Quality

Management

**Earnings** 

Liquidity

Sensitivity to Market Risk

These are assessment factors of evaluating soundness adopted by the supervisory authorities in the United States and other countries.

<sup>&</sup>lt;sup>6</sup> CAMELS is an acronym of the following:

those in Europe, have enhanced their supervisory focus on business models and earnings sustainability.

### (2) Assessment factors for the Safety and Soundness

### i. Asset Quality

Asset quality of financial institutions played an essential role in the past financial crises, and will continue to be an important factor in the assessment of the financial institutions' safety and soundness. Furthermore, proper asset assessment is a premise in ensuring soundness. In this regard, Discussion Paper on loan assessment and provisioning is expected to be published separately.

### ii. Capital and Risk-taking

Capital serves as a common buffer against different types of risk. For this reason, after financial deregulation, the adequacy of capital against risk has become a core of the safety and soundness standards.

As the recovery of the capital base that was impaired by the collapse of the economic bubble was an urgent priority in the past, the main objective of prudential supervision has conventionally been to ensure compliance with the minimum capital requirements after stringent asset assessment and write-off/provisioning.

### <BOX 5> Capital requirements

With regard to minimum capital requirements, domestic rules have been developed to meet the accords of the Basel Committee on Banking Supervision, which comprises of global regulatory authorities.

The first Basel Accord (1988) defined the minimum required capital to be eight percent of the sum of different classes of asset, which are calculated by multiplying the amount of each asset class by its risk weight that was determined based on its credit risk. In Japan, minimum capital requirements are established separately for internationally active banks and domestic banks.

Subsequently, market risk, which is the possibility of suffering losses due to fluctuations in market prices, and operational risk, which is the possibility of suffering losses due to human errors, misconducts or external events, were incorporated as a part of risks against which capital buffer needs to be prepared. In addition, the "internal ratings-based" approach, which allows banks that obtained an approval from the JFSA to calculate risk assets by using their own credit ratings, was introduced.

Furthermore, in light of the lessons from the global financial crisis, a higher capital requirement was put in place with a focus on common stock/retained earnings that are considered to have high loss absorption capability. Additional requirements were also introduced for a more accurate risk measurement of counterparty exposures related to securitization, trading, and derivative transactions.

### (Risks that are not captured by regulations)

The importance of regulatory capital as a factor for assessing soundness will remain unchanged in the future prudential supervision. However, regulatory risk-weighted assets do not necessarily provide a comprehensive picture of risk-taking as there are types of risk that are not captured such as credit concentration risk and interest rate risk in the banking book. Many of the financial institutions that failed during the financial crisis in Japan turned out to have concentrated exposures to specific industries, borrowers and asset classes. During the global financial crisis, various types of risk that had not been anticipated by regulations materialized, leading to massive losses and failures (Refer to BOX 6).

For this reason, even a financial institution which technically complies with capital requirements may not be resilient against future shocks. Furthermore, if the authorities focus only on the types of risk that are captured by regulations, financial institutions may increase risks that are ignored or underestimated by the regulations (arbitrage), thereby further weakening their capital buffer. It is therefore necessary to take into considerations all material risks in every risk category.

During the global financial crisis, financial institutions that depended on structuring and sales of complex securitized products as well as on short-term wholesale funding for their profit turned out to have significantly underestimated risks they were taking; such risks could not be appropriately captured through existing prudential standards. JFSA will therefore analyze business models, in particular the mechanism for generating profits, to capture all material risks. In cases where earnings are supported by a solid business model and strong risk management, it is rather necessary to encourage financial institutions to drive business innovation and improve risk management. Conversely, earnings may be generated by hidden risk-taking. Therefore, when earnings are increasing rapidly or a high profitability is maintained despite declining market-wide profit margins, the JFSA needs to examine the business model closely and verify if there is excessive and hidden risk-taking.

### <BOX 6> Example of risks that are not captured by regulations

Japanese banks in the early 1990s and European/American banks prior to the collapse of Lehman Brothers had fulfilled prudential requirements in form. However, when the crises erupted, hidden risks materialized in a following manner:

- Losses that were higher than anticipated by regulations were incurred due to a concentration on specific borrowers/asset classes, or correlation breakdowns (as was seen in mortgage markets in the U.S.)
- The market prices of securitized products that were held for sale plummeted due to a drying up of market liquidity and unexpected losses were incurred.
- Financial institutions were forced to dump their assets at discounted prices due to funding difficulties and incurred unexpected losses.
- Financial institutions had to bear losses from off-balance investment vehicles or mortgage companies, resulting in unexpected and significant losses.
- An increase in exposure to derivative counterparties and a downgrade of the counterparties' credit rating occurred at the same time, resulting in unexpected losses (wrong way risks).

Furthermore, there are a number of risks that are not adequately captured by regulations, such as interest rate risk in the banking book, strategic risk of failing to generate expected earnings due to business strategy failures, reputational risk, which is the possibility of incurring damages to credibility and brand value, risk associated with a credit term longer than the maturity period<sup>7</sup> anticipated by regulations, and potential emerging risks that have never occurred in the past.

For many of these risks, there are no established methods for quantitative assessment. It is, however, desirable for financial institutions to find a way to take into account these risks when assessing their capital adequacy.

<sup>&</sup>lt;sup>7</sup> Maturity refers to the terms for the extension of credit, such as loans.

### (Level of Capital)

With regard to capital requirements, many jurisdictions set the same minimum requirements for internationally active banks and domestic banks. In Japan, however, the minimum capital requirements for domestic banks are lower than those set out in the Basel Accord in light of differences in the nature of business and the difficulty in resolution in case of failure. Furthermore, while many supervisory authorities establish additional capital requirements for each financial institution in addition to the common minimum requirements, the JFSA does not have such individual requirements. Instead, the JFSA intends to build a shared understanding on the appropriate capital level through two-way dialogues with financial institutions.

In any case, it is not sufficient for financial institutions only to comply with minimum capital requirements at one point in time to maintain their safety and soundness in a sustainable manner. In addition to the need to take into consideration risks that are not captured by regulations as discussed above, financial institutions that barely meet the minimum requirements may not be able to take enough risk to generate earnings, and may not achieve soundness in the medium- to long-term.

The level of capital that a financial institution should hold differs depending on its scale and business model. Internationally active large financial institutions need to hold the level of capital that the global financial markets feel is comfortable, and take into account the capital level of other G-SIFIs. The JFSA will assess whether the amount of capital is consistent with the scale and business model of individual financial institutions. It will subsequently engage in supervisory dialogue and take supervisory actions, as appropriate, according to the likelihood of a breach of the minimum standards in the future.

The regulatory capital ratio tends to underestimate risks during times of economic boom and overestimate them during an economic downturn as it depends on historical data. It is therefore important to take into account economic cycles and ensure that there is sufficient capital in times of stress.

As shareholders tend to call on financial institutions to hold less capital than necessary to boost Return on Equity (ROE) in the immediate future, it is not appropriate to depend solely on governance by shareholders to ensure capital adequacy. Even if a financial institution suggests a particular payout ratio in its dialogue with shareholders, the FSA should not take it as given and instead should urge financial institutions to realize desirable capital levels, although it needs to

understand the status of dialogues the financial institution has with its shareholders.

### iii. Earnings

Financial institutions need to generate adequate earnings over the medium to longterm to maintain sufficient capital. In this regard, there are two aspects: earnings to cover balance-sheet losses and earnings to cover expenditures.

With regard to the first aspect, many financial institutions during Japan's economic bubble years as well as in the years prior to the global financial crisis kept generating profits, but recorded losses that exceeded the accumulated profits after the crisis, which impaired their capital reserve. It is presumably the result of excessive risk-taking,<sup>8</sup> which was prompted by an underestimation of risks and temporary growth in earnings during the economic bubble, but did not match the level of earnings from the medium to long-term perspective.

It is vital therefore for financial institutions not only to be in the black at the current point in time, but also to continuously generate adequate earnings, in anticipation of an increase in credit costs during the next downturn in the credit cycle. In cases where earnings are insufficient to cover expected balance sheet losses, a risk reduction may be required.

With regard to the second aspect, some regional banks are already unable to continuously generate sufficient earnings to cover their expenditures, or are expected to be unable to do so going forward in the low interest rate environment. In addition, in cases where the economy takes a turn for the worse, their earnings could deteriorate further due to a decline in loan originations and fee income. Some securities firms were unable to cover their expenditures as a decline in trading volume after the global financial crisis hit their fee income. Other possible causes of insufficient income may include low business profitability as well as excessive expenditures in light of the scale of the business.

It is therefore essential not only to secure positive earnings at one point but also to generate earnings that are sufficient to continuously cover expenditures even if potential declines in loan volume and fee income in the future environment are taken

<sup>&</sup>lt;sup>8</sup> Understanding the level of risk-taking in order to evaluate profitability also requires substantive and comprehensive assessment, as with the case of capital. In case "return on regulatory risk-weighted assets (RORWA)" is adopted, distorted incentives may function in the evaluation of risk returns due to reliance on historical data and the existence of various

into consideration. If this is not the case for a financial institution, a reduction in risk-taking will not improve its profitability; it may be necessary to review its business model or to restructure its businesses.

As explained above, the JFSA will focus not only on current earnings, but also on sustainable profitability when considering either of the two aspects.

### <BOX 7> Relationship between earnings and risk-taking

Some financial institutions assess the risk/return profile of their businesses by comparing the cost of capital of each business, which is estimated using market data, with its return on capital (such as ROE). As the cost of capital is the required return, which reflects investors' risk awareness, comparing it with the return on capital can be a method for assessing the risk/return profile.

However, markets are not always able to assess risks accurately and have frequently underestimated risks that financial institutions have taken. Hence, financial institutions need to consider risks that are reflected in market data when assessing the risk/return profile of their businesses.

Many financial institutions allocate their risk capital to each department or business line according to its respective business environment and risk. They intend to improve their overall risk/return profile by optimizing capital allocation. It is difficult to maintain soundness in a rapidly changing environment if once flourishing but now loss-making businesses are preserved based on optimistic business outlook, although it is important to take into consideration the growth potential of poorly performing new businesses or the potential synergy effect between businesses. A visualization of the relationship between risk and return will help financial institutions develop a sustainable business model.

When it comes to profitability metrics, current gross profit has typically been used. There has also been a trend of focusing only on accounting profits without considering unrealized losses, or fully accounting for up-front fees<sup>9</sup> in the first fiscal year instead of deferring them over the life of the related loan. These practices, however, do not help financial institutions establish a business model which enables them to generate adequate earnings despite future changes in business environment. The JFSA will focus therefore more on the following metrics, while taking into account the nature of each business (Refer to BOX 8):

- Earnings prospects, rather than current earnings;
- Net profit after credit cost and expenditures are deducted, rather than gross profit;
- Profit after unrealized losses are accounted for;
- Risk-adjusted return; and
- Return after up-front fees are deferred over the lifetime of the loan

For example, as there are cases where financial institutions redeem mutual funds with unrealized gains with the only aim of inflating their current core net business income, it would be appropriate to exclude profit from redemption.

Particularly, earnings projections should be based on realistic assumptions, including adverse but likely changes in business environment, instead of merely reflecting what senior management wants to see and relying on an unrealistic business strategy. For example, it is desirable to examine whether the assumptions on market trends that serve as premises for the business model are appropriate, even when considering demographics, economic environment, regulatory trends, entry by other financial institutions into relevant markets and development of financial technology.

In the past financial crises, many financial institutions went under as they failed to replace their outmoded business model with a new sustainable one, thus expanding businesses with concentrated exposure to specific risks without careful consideration, even after the economic and regulatory environment had changed.

As this demonstrates, it is desirable to assess the relationship between earnings and risk-taking with an emphasis on economic reality.

Earnings is an assessment factor in which shareholders play an important role

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<sup>&</sup>lt;sup>9</sup> Up-front income refers to earnings such as commissions which can be received up-front as a lump-sum in financial transactions. In contrast, lifetime earnings are earnings which can be received proportionally over a period of time.

compared with other factors. Especially, listed financial institutions should have governance in place whereby they strive to increase profitability through dialogue with capital markets. The JFSA will respect such dialogue when it functions effectively. However, shareholders, who tend to focus on short-term rather than medium to long-term earnings, may encourage excessive risk-taking for immediate profits, or refrain from seeking reforms necessary to generate sustainable earnings when they are satisfied with the current accounting profits. Moreover, as shareholders do not bear losses beyond their investment, they may be lured to urge financial institutions to take excessive tail risks<sup>10</sup> at the expense of depositors and regulatory safety nets. In such cases, the JFSA should be involved with a view to ensuring sustainable earnings.

<sup>&</sup>lt;sup>10</sup> Tail risk is the risk with an extremely low statistical probability but a high impact.

# <BOX 8> Risk and return of securities investment

As loan interest income is expected to remain low, financial institutions may have a greater incentive to focus on short-term earnings for their securities investment in order to stay in the black.

It is therefore essential to assess the performance of securities investment with due regard not only to interest, dividends and capital gains, but to unrealized gains and losses. It is also necessary to note that financial products with high immediate returns may be accompanied by medium to long-term tail risks.

If these viewpoints are not properly regarded, even positive accounting profits will not necessarily ensure a sustainable profitability and the appropriate risk/return balance. In the past financial crises, some financial institutions increased economically irrational investments to make their financial statements look better, and consequently damaged their financial health.

Other examples include financial institutions that realized unrealized gains by selling high-yield securities to make immediate profits without any prospects for other securities investments. In an extreme case, a financial institution purchased two mutual funds of which prices move in opposite directions and recorded profits by selling only the one whose price had gone up.

# iv. Liquidity

Liquidity refers to the ability of a financial institution to meet its short-term financial obligations.<sup>11</sup> In the past financial crises, liquidity shortfall was a cause for business failures and massive losses. Liquidity is one of the important factors in assessing the safety and soundness of financial institutions.

With regard to liquidity, the importance of building a stable funding structure in normal times in terms of sources, instruments and tenor has been learned from the global financial crisis, where dependence on short-term wholesale funding led to cash flow difficulties. Furthermore, it is also necessary to hold sufficient liquid assets to withstand loss of funding sources amidst massive cash outflows, as is demonstrated by the global financial crisis.

Against this background, the Liquidity Coverage Ratio (LCR) rule, which requires internationally-active banks to hold liquid assets as large as expected cash outflows over a stress period, has been introduced. The Net Stable Funding Ratio (NSFR) rule, which is intended to reduce the liquidity mismatch between assets and liabilities, is also expected to be introduced. The JFSA will monitor the LCRs of domestically active banks and request for improvement measures where necessary.

It is not sufficient, though, simply to comply with the minimum liquidity requirements, as with other assessment factors. As the liquidity rules set a uniform expected cash outflow rate for each category of liabilities, the different characteristics of various funding sources within the same category are not necessarily reflected. The concentration of funding sources and the liquidity for each currency are also not taken into consideration. Financial institutions should not rely solely on the regulations but assess their funding structure and adequacy of liquid assets based on a thorough understanding of their own business and risk profile.

A financial institution that is engaged in foreign currency business may have currency-specific liquidity shortages, even if overall liquidity is ensured. When it relies significantly on short-term wholesale funding, it may be forced to pay extremely high funding costs depending on the market environment, as is observed

<sup>&</sup>lt;sup>11</sup> The degree to which a specific financial product can be sold in a timely manner without a significant discount is defined as "market liquidity," while the ability of a financial institution to meet its short-term financial obligations is defined as "funding liquidity." If the market liquidity of the assets held by a financial institution is high, the funding liquidity of that institution is expected to be high. Although related in this way, the two are completely separate concepts. "Liquidity" in this section refers to funding liquidity.

with the so-called "Japan premium" during the financial crisis in Japan. Hence, liquidity management in individual currencies is critical.

#### (Stable funding structure)

A financial institution is considered to have a stable funding structure when it relies on stable funding sources, such as retail deposits and corporate bonds, and its funding sources are well diversified.

In this regard, it should be noted that seemingly stable funding sources can become unavailable in times of stress, due to changes in its own credit, markets' view on that and the liquidity of financial markets.

For example, a fund provider that makes maintaining specific credit ratings a condition for funding is likely to withdraw funds if the rating is downgraded. It may refuse to provide funding even with collaterals when the rating falls significantly. Further, if the fund provider itself falls into cash flow difficulties, rollover of funding may become difficult. At the same time, a robust relationship with fund providers in normal times, including through extensive disclosure of business performance, may help borrowers obtain funding in times of stress.

Regarding funding source diversification, it is important for a financial institution to manage concentration risk in terms of fund providers, instrument types, and tenors, and moreover, not just to have multiple sources of funds, but to have an adequate number of sources from which it can get funding during times of stress.

#### (Level of liquid assets)

The appropriate quality and quantity of liquid assets should be determined based upon the possibility of an outflow of funds and funding market disruption in times of economic and market stress over different periods. The stress scenarios, as described earlier, should include changes in the financial institution's own credit standing and the market's views on that, as well as the liquidity of financial markets. They should be not only such that shocks occur individually but also such that more than one shock occurs simultaneously.

The stress-test simulations should also be based on sufficiently conservative assumptions on outflow of funds during times of stress in light of the nature of the transactions and the financial institution's characteristics, as well as experiences of other institutions. It is also necessary to cautiously examine if the funding options would be readily available during times of stress. For example, a large-scale sale of

assets may become difficult in times of stress due to a sharp decline in liquidity of asset markets, and, as explained earlier, fund providers may also have a liquidity shortage, making it difficult to obtain funds when funding sources are concentrated.

Furthermore, internationally-active financial institutions need to get a clear picture of the location of liquidity across the group and regulations in respective jurisdictions, and make sure that they can obtain funding within each of their jurisdictions during times of stress, as local authorities may impose restrictions on intragroup cross-border transfers (ring fencing).

# (Liquidity and profitability)

As liquidity and profitability have a trade-off relationship in such a way that building a stable funding structure incurs costs and holding liquid assets decreases investment yield, efforts should be made to strike the appropriate balance between them in accordance with the business model of each financial institution.

## v. Risk Management

Risk management consists of identifying and assessing various risks to the business in light of its environment and taking appropriate measures.

Risk management, as is in the case of decision-making on capital allocation and liquidity reserve, is related to all the other assessment factors, and is a vital element in securing the safety and soundness of financial institutions. Weak risk management has been a defining factor of many of the bank failures.

Traditionally, emphasis has been put on a mechanical application of checklists, such as the JFSA's Inspection Manuals (for example, whether policies and procedures are well-documented, or whether directors have had a discussion on a particular subject), and on analysis of the causes for individual losses and examination of the countermeasures. These approaches, however, may no longer be able to cope adequately with emerging challenges in an increasingly severe business environment where changes in the location and nature of risks accelerate.

The focus of risk management will therefore be on whether a financial institution is able to respond swiftly and flexibly to changes to its business environment to prevent the materialization of various risks, in accordance with the JFSA's objective of ensuring the safety and soundness of financial institutions into the future.

# (Capturing risks in a timely and appropriate manner)

An agile and flexible response requires financial institutions to capture the risks they face in a timely and appropriate manner.

In the global financial crisis, internationally-active banks were not able to identify risks of the entire group including their overseas bases, affiliated companies and off-balance-sheet vehicles, and took much time to aggregate group-wide risk data. Furthermore, many financial institutions could not assess risks adequately in anticipation of changes in the environment, including cyclical economic downturns, as they were excessively dependent on statistical methods and external credit ratings for their risk measurement.

Valuation of assets and liabilities also did not necessarily correspond to business strategies. For example, many of the financial institutions that engaged in active loan portfolio management through asset sales and hedges did not carry out a market-consistent valuation, but relied upon historical default rates for their loan valuation.

Appropriate risk identification and assessment requires senior management, business lines, and risk management functions to engage in active communication about various risk scenarios and their impact on the respective businesses in current and future market and economic conditions. In particular, risk and earnings indicators improve and vulnerabilities tend to be masked during an economic bubble, making it important to visualize these vulnerabilities to the extent possible and engage in extensive discussion at management level. To that end, it is necessary to develop capabilities to swiftly aggregate group-wide risk and earnings data and process them flexibly.

# (Agile and Flexible Responses)

There are many cases where risk identification did not lead to an agile and flexible response to changes in the environment. During Japan's bubble economy period, boards of directors or risk management functions failed to perform checks on senior management and business lines. After the collapse of the bubble, many financial institutions could not dispose of non-performing loans and incurred large losses.

In case of Japanese financial institutions, agile and flexible responses may be constrained by their focus on lending volumes and gross profits, which is tied in with each department's desire to maintain its organizational size and status, as well as their practice of developing firm-wide business plans with emphasis on continuity with

the past.

In financial institutions with weak performance during the global financial crisis, business lines are reported to have had tendency to communicate insufficiently with senior management and make decisions in isolation. In contrast, in financial institutions that performed well, senior management and business lines reportedly discussed together at an early stage countermeasures including reduction of positions.

It is also reported that some financial institutions provided incentives for business lines to properly control activities that could otherwise lead to significant balance sheet growth or reductions in capital (for example, charging business lines for building contingent liquidity exposures). It is suggested that such incentives made a difference in business performance during the crisis.

**Senior management:** agile and flexible responses require senior management to accurately capture risks and demonstrate its leadership while communicating closely with business lines and risk management functions. It has been repeatedly pointed out that top management is inclined to delay business restructuring when it is necessary in anticipation of not facing a crisis during its term of office. It also rests on senior management to exercise discretion and make a business judgement in case it is difficult to accurately assess risks. Senior management should consist of persons who can exercise such leadership.

**Board of directors:** the board of directors is required to ensure that senior management does not put off any urgent strategic review that is necessary to secure the safety and soundness in a sustainable manner. In cases where senior management or business lines are devoted to business expansion without adequate attention to the risks, the board of directors, with the support of risk management functions, are required to perform checks and controls.

The board of directors as a whole is therefore required to have adequate skills and experiences in risk management. If a risk management committee is established within the board, it should be granted sufficient authority and consist of capable and experienced members.

**Risk management functions:** risk management functions have conventionally focused on technical risk measurement and have not had a sufficiently strong influence on senior management or business lines. For risk management functions to perform checks and controls, they should have an in-depth understanding of the business through daily communication with business lines while maintaining

independence from them, analyze the impact that various risk scenarios may have on the business, and provide feedbacks to senior management and business lines. The head of the risk management functions should have a sufficiently strong voice in the organization, and should be a person with skills and experiences appropriate to perform such roles.

**Business lines:** agile and flexible responses are expected not only from the board of directors and senior management but also from business lines. It is therefore critical that business lines are given appropriate incentives. If performance indicators are linked directly to the amount of loans or gross profits, business lines will be induced to pursue quantity while compromising on profitability. If the emphasis is put only on net income for the short term, they may attempt to build a portfolio that would generate up-front profits but carry tail risks. It is therefore important to utilize risk-adjusted returns as a management tool in order to ensure the safety and soundness in a sustainable manner. It is also essential that human resources with skills and experience are properly allocated in business lines.

As explained above, in order for risk management to work to facilitate agile and flexible responses to changes in the environment, the overall corporate governance of financial institutions ought to function appropriately. The JFSA will aim to avoid discouraging financial institutions' efforts to manage risks in an agile and flexible manner and therefore engage in dialogues with financial institutions on what types of risk management framework will enable agile and flexible responses to emerging risks, instead of criticizing weaknesses in their risk management only after a loss is incurred.

#### vi. Sustainability of Business Models

The above assessment factors of the safety and soundness may have a trade-off relationship in certain situations or a mutually complementary relationship in others, and these relationships would differ depending on the business model of each financial institution.

For example, a business model where long-term illiquid assets are funded by short-term wholesale funding can easily create a vicious cycle of shortage of liquidity and loss of equity capital, as seen in the global financial crisis. The supervisory focus for such a business model will be on how a financial institution attempts to strike a delicate balance between maintaining profitability and ensuring liquidity while enhancing risk management function.

A business model where assets are funded by stable funding sources such as customer deposits is less likely to create the above-mentioned vicious cycle; however, under the declining population and low interest rates environment, the JFSA should instead focus on how a financial institution attempts to achieve a balance between enhancing profitability and securing capital through proactive risk-taking while strengthening credit and market risk management function.

Conversely, a financial institution that relies more on fee-based businesses than balance-sheet based activities as its main source of earnings is likely to face the possibility of being unable to generate sufficient income to cover its operating expenses and thus impairing capital, rather than that of losses as a result of aggressive risk-taking. In particular, transaction-based activities, unlike asset management businesses, may face greater fluctuation in earnings, consequently requiring a higher level of capital to support the businesses.

Apart from the structure of assets and liabilities as described above, the relationship with customers may also influence how the assessment factors for the safety and soundness are mutually related.

For example, close and stable relationships a financial institution has built with its customers may help ensure stable earnings and liquidity even during times of stress. They also help collect and produce information on borrowers that is useful for risk control. At the same time, such relationships make it difficult to reduce loan exposures even in times of stress; in particular, if the customer base is limited to specific regions or industries, the need to prepare for the materialization of concentration risks would be stronger. The opposite is true for transaction-based banking<sup>12</sup>.

As described above, the relationships between the assessment factors for the safety and soundness would differ depending on the business model type. Accordingly, the JFSA should understand such relationships in light of the business model type, and evaluate the resilience of the overall business model.

#### (3) Supervisory Process

The new approaches to prudential supervision as described in 1. ((i) assess safety and

<sup>&</sup>lt;sup>12</sup> Transaction-based banking refers to the type of bank management which focuses on profitability of individual transactions, rather than medium to long-term relationship with borrowers.

soundness comprehensively and substantially; (ii) respond in a forward-looking manner; and (iii) enable appropriate risk-taking through financial institutions' own initiatives) requires not only reviewing the assessment factors for the safety and soundness, but also enhancing the supervisory process with a focus on the following viewpoints.

#### i. Risk Profiling

The new supervisory approaches cannot be realized through checklist-based, uniform reviews of financial institutions, as were carried out during on-site inspections in the past. Rather, more emphasis should be placed on capturing the risk profile of each financial institution and assessing the likelihood of breaching the minimum standards. In particular, the JFSA will carry out more in-depth analysis on and intensive dialogues with systemically important financial institutions.

# (Analysis of business environment and risk profiling of each financial institution)

The JFSA begins by analyzing economic and market trends and determining the risk profile of each financial institution in light of the assessment factors, and assesses the impact they will have on the institution's financial health. The JFSA will pay careful attention to the institution's business profile, sources of earnings, and customer base, as well as its corporate culture, history, and senior management's vision among others.

The JFSA will therefore gather information not only through having regular interviews on financial results, business trends and business plans, but also through, where necessary, analyzing materials from board of directors and management meetings and engaging in dialogue with different stakeholders such as external directors, statutory auditors, users of financial services and institutional investors.

In particular, annual and mid-term business plans of financial institutions deserve careful scrutiny. The JFSA will examine them in light of the assessment factors through dialogues with financial institutions, and assess their feasibility and the likelihood of breaching the minimum standards due to a material deviation from the plans.

In case of systemically important financial institutions, the JFSA will engage in dialogues on their stress tests to preemptively assess the impact that future economic and market trends may have on their earnings and capital. Each financial institution

needs to establish different scenarios that capture its vulnerabilities and analyze the impact of each of the scenarios on the profits and losses of its major business lines in timely manner.

The JFSA's dialogues using the assessment factors may be supported by the "risk appetite framework (RAF)" approach. The RAF refers to a management framework where risk appetite, which stands for the types and total amount of risks that a financial institution is willing to take to achieve its business plan while taking into consideration the unique nature of its business model, is utilized as a common language for firm-wide communication on risk-taking including capital allocation and risk-return optimization.

The RAF is already well-established in international financial institutions, and is increasingly introduced in Japan, particularly among major banks. The above-mentioned assessment factors for soundness are important elements in building a risk appetite framework. The JFSA will therefore consider to utilize key elements of the RAF in engaging in dialogue with financial institutions on how they attempt to secure soundness in consideration of interactions of the assessment factors based on their respective business models.

The JFSA's dialogues will cover non-financial factors as well as financial risk. The JFSA will discuss with financial institutions whether management resources are properly allocated, especially skilled and experienced staff are deployed, so that business strategies are effectively carried out throughout the institution.

It should be noted that, in case vulnerabilities are identified in the overall financial system, individual financial institutions are more likely to breach the minimum standards going forward.

# ii. Supervisory Measures Corresponding to the Likelihood of Breaching the Minimum Standards

The assessment of the likelihood of breaching the minimum standards should not depend solely on specific quantitative standards at the present point of time; it should be carried out by taking into account the assessment factors in comprehensive manner after extensive risk profiling.

For example, the possibility of a breach will be affected by concerns over medium to long-term profitability, non-regulatory risks such as interest rate risk in the banking book and risk management approaches (Refer to BOX 9).

The JFSA will consider potential supervisory measures for a financial institution commensurate with the likelihood of or timing of its breaching the minimum standards.

As the measures that can be taken after a financial institution has actually breached the minimum standards would be limited both for the financial institution and the JFSA, possibly making it necessary for the financial institution to take measures that would undermine its medium to long-term revenue base and financial intermediation functions, it is vital to seek preventive measures at an early stage. For example, if there is a concern over medium to long-term soundness due to a low profitability, measures should be put in place at an early stage even though no major problems are expected in the short-term. This is because 1) reform initiatives would normally increase costs at first, 2) it would take time to reap results, and 3) markets would react ahead of time based on future outlook and could affect depositors' behavior.

#### (Possible supervisory measures)

When the JFSA observes an increased likelihood of a breach of the minimum standards or inadequate responses by the financial institution in the course of its supervisory action, it will issue a reporting order or conduct on-site inspections for an in-depth analysis of the root causes, and urge the financial institution to take additional improvement measures depending on the degree of seriousness.

Furthermore, in cases where improvement is not expected even after the above measures are taken, the JFSA will consider issuing a corrective action order, even before the minimum capital requirements have been breached.

When the JFSA finds a breach of the minimum standards, it will order corrective measures pursuant to the relevant laws and regulations. For example, when capital requirements are breached, prompt corrective measures or capital distribution constraints will be imposed corresponding to the degree of the breach. Similarly, if minimum liquidity requirements are breached, the JFSA will issue reporting requirements, and where necessary, a corrective action order. The JFSA may also order corrective actions in case significant deficiencies in internal control are identified.

The JFSA will continue to review its supervisory approaches corresponding to the likelihood of breach of the minimum standards, including the "early warning system", in accordance with the abovementioned dynamic supervisory approaches.

#### iii. Balancing Soundness and Financial Intermediation

As described in section 2, it is vital to strike a right balance and realize a virtuous cycle between the safety and soundness and financial intermediation functions. The JFSA will engage in dialogue with financial institutions from the viewpoint that combines the both perspectives, and fine-tune the way of striking the balance in response to the soundness of individual financial institutions.

#### iv. Engagement Towards the Pursuit of Best Practices

The JFSA will engage in an exploratory dialogue with financial institutions, regardless of the likelihood of their breaching the minimum standards, so that they can exercise their own initiative to pursue best practices in the area of safety and soundness.

The JFSA will compile good practices from horizontal reviews and learn the latest trends from exchanges with overseas authorities and share them with financial institutions to encourage their voluntary reform effort, while giving due consideration to business confidentiality.

#### v. Integrated On-site/Off-site Monitoring

The JFSA will share with financial institutions the issues identified through its monitoring, and reflect such issues in risk-profiling of individual financial institutions, and follow up on the improvement status through continuous on-site and off-site monitoring. In cases where cross-sectoral issues are identified, the JFSA will share them with all financial sectors, and, where necessary, review its supervisory approaches or prudential policies.

Particularly with regard to regional financial institutions, the JFSA will conduct monitoring in response to each institution's financial health in full coordination with the Local Financial Bureaus, so that safety and soundness and financial intermediation functions are pursued in a well-balanced manner.

<BOX 9> Assessing the likelihood of breaching the minimum standards

- The JFSA will assess the likelihood of a financial institution breaching the minimum standards by considering, in addition to its regulatory capital ratios, interest rate risks in banking books, concentration risks and other risks that are not captured by the regulations depending on its business models<sup>13</sup>. It will also take into consideration its current and expected earnings in light of the economic environment, and, where necessary, the status of governance and risk control. For example, a financial institution that has a stable earnings base or robust governance may have relatively large capacity for risk-taking.
- Based on such analysis, the JFSA will form hypotheses about the vulnerabilities of the financial institution and their root causes that it will test in dialogues with the institution. For example, the situation differs between a financial institution which maintains a stable earnings base but its capital ratio falls due to a temporary loss on securities investment, and one whose capital ratio falls due to an increase in credit costs in addition to a continuous decline in profitability. A decline in earnings may be short-term due to investments for future growth; conversely, an increase in earnings may be unsustainable as it is due to sales of securities with a view to realizing unrecognized profits, or it accompanies significant unrealized losses or tail risks. Starting from such hypotheses, the JFSA will engage in in-depth dialogue with the financial institution with due consideration of the institution's self-assessment, identify vulnerabilities and their causes, and provide feedback.

<sup>&</sup>lt;sup>13</sup> For example, in the case of a financial institution that has built a business model based upon its close relationship with its customers, assessment of interest rate risks that assumes stickiness of deposit funding may be justified.

# 5. Addressing Financial System Vulnerabilities (Macro-prudential Perspective)

# (1) Assessment Factors for Financial System Vulnerabilities

As described earlier, the assessment factors for financial system vulnerabilities include the divergence of asset prices from fundamentals, excessive leveraging and maturity/liquidity transformation, interconnectedness between financial institutions, and complexity of financial institutions and financial transactions. The market liquidity of financial products and transactions in times of stress also has an impact on the vulnerabilities. Details on each factor is discussed below.

# (Divergence of asset prices from fundamentals)

Divergence of asset prices from fundamentals, such as that of real estate and securities prices, is a vulnerability that has repeatedly emerged during past financial crises. Specifically, the following are the issues which warrant focus:

- Real estate has traditionally been used as loan collateral. It can give rise to a financial bubble due to the synergy of price hikes and credit expansion, and, when the prices fall, can easily lead to the emergence of systemic risks through the vicious cycle of loan defaults, financial institutions' losses, credit crunch and a deterioration of the economy. It is therefore one of the assets that warrant intensive focus going forward.
- When credit risk is widely underestimated, an economic downturn could lead to a vicious cycle of loan defaults, loan loss provisions and credit crunch, thereby causing a further deterioration of the economy.
- In Japan, where shareholdings by financial institutions are still common, share
  price declines could have a large impact on the financial system and real
  economy, through a vicious cycle of financial institutions' losses, credit crunch,
  economic downturn, and further share price declines.
- If market participants hold excessively large exposure to interest rate risk as a result of their underestimation of the risk amid a protracted low volatility environment, a shock-induced risk reassessment can trigger fire sales, leading to a sharp rise in interest rates, which will affect the real economy.

As described earlier, capturing systemic risk requires a focus not only on asset price levels, but also on distortions in the lending and investment behavior of individual

financial institutions. For example, it is important to examine whether loans are extended based on the borrowers' business prospects or solely on expected price increases in collateral assets, or whether they are provided at prices that are significantly lower than they should be due to an underestimation of the risks. In this regard, it is useful to simulate what would happen under various scenarios in full consideration of what type of participants are active in the market and what kind of incentives motivate them.

As it takes time for signs of systemic risk to be observed in macro data, such microlevel analysis will be beneficial to the early detection of systemic risks.

#### (Leverage, maturity and liquidity transformation, and market liquidity)

Domestic and international experience shows that the leverage of the whole economy can be captured by using the divergence of the total credit-to-GDP ratio from its long-term trend as a reference. The leverage of the financial sector can be measured by the capital adequacy and liquidity positions of financial institutions. However, as systemic risks often arise in specific segments, it is also meaningful to take into consideration, where necessary, the leverage, maturity and liquidity transformation, and market liquidity of each segment.

For example, the financial leverage and funding structure of real estate companies and funds may affect the occurrence and severity of a crisis. Also, in cases where the implicit leverage of exposures to specific assets has significantly increased through derivatives and securitization, a sudden change in the price of these assets can cause massive losses to market participants. They in turn may resort to fire sales to avoid further losses, leading to a shortage of market liquidity, which may result in further market fluctuations. In particular, if market participants engage in short-term wholesale funding, such a vicious cycle can be further accelerated.

It should be noted that financial leverage appears to be contained during an economic boom, as net assets and earnings are inflated by a mutually reinforcing cycle of soaring asset prices, increasing loan volume and growing economy. Conversely, during times of stress, a loss increase due to falling asset prices, mass de-leveraging and fire sales due to liquidity constraints and a deterioration in the real economy can form a negative spiral. An asset market with active trading during normal times can be illiquid in times of stress. These stress-induced changes can be captured by conducting a forward-looking vulnerability analysis using multiple scenarios. Where necessary, it may be useful to utilize common scenarios to capture, from a macro

perspective, the secondary impact of financial institutions' responses to stress.

# (Interconnectedness and complexity)

Interconnectedness of financial institutions arises from their exposures to other financial institutions and those to common risk factors, which include similar business models, accounting practices and risk management methods (Refer to BOX 10).

The exposures to financial institutions include on-balance exposures through interbank and repo markets, as well as off-balance exposures through derivatives trading. It is important to assess what kind of network these exposures form in the entire financial sector, as well as which part of the network is vulnerable and shock-transmitter. For example, if a financial institution which is engaged in a wide scope of transactions with other financial institutions has insufficient capital, it could constitute a vulnerability for the financial system as a whole.

The interconnectedness resulting from exposures to common risk factors is often difficult to capture before it has actually served as a contagion channel. The JFSA, in such cases, may attempt to simulate the impact the failure of a financial institution would have on other financial institutions by making the best use of market indicators (not necessarily identifying the contagion channel), which are supposed to reflect a wide range of interconnectedness risks.

In Japan, the network effect is enhanced by banks' and insurance companies' holdings of shares and bonds of other financial institutions. Their impact on the financial system should be scrutinized.

With regard to complexity, the JFSA will pay attention to transactions for which prices would be difficult to identify in times of stress, such as transactions with complex structures or with extremely low liquidity.

The criteria for selecting systemically important banks include the amount of credit and debt between financial institutions from the perspective of interconnectedness, and the amount of derivatives trading from that of complexity. The JFSA's supervisory approaches will however focus not only on these regulatory criteria but on the above-mentioned assessment factors.

# (2) Measures Aimed at Containing Vulnerabilities

# (Divergence of asset price from fundamentals, expansion of leverage, etc.)

Divergence of asset prices from fundamentals and expansion of leverage have been addressed by the introduction of the CCyB as part of the capital adequacy requirements in accordance with the international agreements. The CCyB requires financial institutions to achieve a capital adequacy ratio that is to a certain degree higher than the minimum required level, with the aim of building a buffer against losses that may be incurred by possible economic fluctuations in the future. The ratio will be determined by reference to such indicators as the total credit/GDP ratio and the lending attitude DI of financial institutions, in consultation with the Bank of Japan.

Meanwhile, as the CCyB works on the lending capacity as a whole, it may not be able to effectively address systemic risk in specific segments of the market. It does not take into consideration different levels of capital buffer that financial institutions have already built up. In addition, a long lead time for implementation may hinder swift response to changes in the environment. Therefore, JFSA should not depend solely on the CCyB for its macro-prudential policy, but explore the optimal response based on its assessment of emerging systemic risk.

Based on the above direction, JFSA will take measures commensurate with vulnerabilities identified in the assessment. For example,

- in cases where the economy as a whole overheats, as seen in widespread divergence of asset prices from fundamentals or expansion in leverage across the entire economy, the JFSA will engage in a dialogue with the financial sector on enhancing risk management, and where necessary, on reducing risk or increasing capital, in light of loss estimates using macro stress scenarios.
- in cases where specific asset prices have diverged from fundamentals, the JFSA will have a dialogue with individual financial institutions with significant exposure to such assets. The dialogue will include a review of underwriting standards and risk reduction, in light of loss estimates using individual stress scenarios.
- in cases of an overall expansion or a deterioration in quality of credit due to an underestimation of risk, the JFSA will discuss a review of underwriting standards in light of stressed loss estimates.

When estimating stressed losses, it is desirable to assume scenarios where asset price corrections and de-leveraging- and liquidity constraint-induced fire sales will

influence each other.

In order to effectively address risks that accumulate over time, such as divergence of asset prices from fundamentals and excessive leverage, the timing and scale of supervisory responses are extremely important. While strong measures at the initial stage of a financial bubble can damage economic recovery, modest responses may not be effective. In addition, measures put in place at the end of a bubble period can unintendedly intensify the economic downturn. Further studies are needed in this area (Refer to BOX 10).

It should also be noted that vulnerabilities arising from divergence of asset prices from fundamentals and excessive leverage as well as maturity and liquidity transformation can be found outside the financial sector.

The JFSA will not attempt to directly contain such non-financial sector vulnerabilities, for example by curbing the real estate prices, but to enhance the resilience of the financial sector so that financial stability will be maintained when the vulnerabilities materialize. For example, the JFSA may try to address vulnerabilities arising from a real-estate bubble by requiring financial institutions to enhance underwriting standards, reduce risk-taking or increase capital base. It should be noted that these measures may often reduce non-financial sector vulnerabilities, which in turn would require adjustments in measures the JFSA would take against financial institutions in light of such potential benefits.

However, such a financial sector-focused approach solely may not necessarily contain non-financial sector vulnerabilities. Highly leveraged non-bank institutions relying on non-bank funding may play important roles in some asset markets. Therefore, when the JFSA considers it insufficient just to work with financial institutions, it will convey its view on the vulnerabilities to non-bank market participants and encourage them to take appropriate actions.

The JFSA needs to implement macro-prudential policies in close collaboration with the Bank of Japan. It will take advantage of regular senior-level meetings and further promote discussions at the working-level as well.

### <BOX10> Japan's Responses to Real Estate Bubbles

In the second half of the 2000s, there were signs of overheating in the real estate market in major cities of Japan, particularly in central Tokyo, partly due to the impact of the global real estate boom. The upturn was driven by real estate funds, which in turn were supported by banks through non-recourse loans. <sup>14</sup> In contrast, land prices were falling in most rural areas and credit to the real estate sector remained flat.

In response to this situation, the JFSA added a note to its annual priorities statement calling on large banks to strengthen their risk management for real estate non-recourse loans, and significantly enhanced its on-site and off-site monitoring for this purpose. This supervisory action is thought to have eased the impact of the real estate price adjustments after the Lehman Shock on the financial system.

As the above example shows, signs of systemic risks often emerge more significantly in specific segments than in the overall system. In such cases, supervisory actions need to be more targeted to these segments and tailored to individual financial institutions.

Past experience shows that it is not straightforward to implement an appropriate supervisory measure, which is neither too strong nor too weak, in a timely manner. For example, in March 1990, the Ministry of Finance, which intended to curb land prices, required financial institutions to keep the growth in their real estate lending below the rate of increase in their total lending. However, this measure, combined with monetary tightening, is blamed to have intensified the impact of the bubble burst. Specifically, it is thought that the measure was introduced too late and began to have an impact only when land prices had already begun to fall, and eventually accelerated the price decline. Actually, the Ministry of Finance repeatedly issued supervisory guidances and conducted intensive interviews on land-related financing after 1986. Although these measures were not effective enough with hindsight, JFSA's intensive interviews may have tangible effects, as was seen in its enhanced monitoring during the

<sup>&</sup>lt;sup>14</sup> A non-recourse loan is a type of loan that is repaid exclusively from cash flow originating from specific real estate. The profitability and risks of the business, rather than the creditworthiness of the borrower, are important.

"mini bubble" of the 2000s. Restrictions on land acquisition loans implemented by the Ministry of Finance in 1973 are considered to have functioned appropriately.

In summary, it is not easy to find out beforehand which measures are effective. Risks that accumulate over time should be addressed by sufficiently robust measures at an early stage. To that end, it is vital for the JFSA to continuously deepen expertise on how to incorporate into policy-making the intensity of risk accumulation (for example, intensity of expectations for land price increases), relationship with monetary policy, time necessary to obtain data, and time necessary for measures to bear fruit.

#### (Interconnectedness and complexity)

The interconnectedness between financial institutions and the complexity of financial transactions are addressed by additional capital requirements for systemically important financial institutions (G-SIB buffer, D-SIB buffer) that are intended to minimize the possibility of a failure. Furthermore, to prevent the contagion to the overall financial system in the event of a failure, a resolution plan and a minimum Total Loss-Absorbing Capacity (TLAC<sup>15</sup>) is required for all G-SIBs and for other systemically important banks as necessary.

The interconnectedness in the OTC derivatives market is addressed by mandatory central clearing for certain standardized products and margin requirements for the others. The amount of initial margin is determined based on the nature of the transaction and that of variation margin is equivalent to the value of the exposure.

In addition to the above-mentioned regulatory requirements, supervisory responses calling for capital/liquidity increases or enhanced risk control are developed when any vulnerabilities of the overall financial system are identified in relation to interconnectedness and complexity.

End

<sup>&</sup>lt;sup>15</sup> Total Loss-Absorbing Capacity is loss-absorbing and recapitalization capacity available in resolution to mitigate the adverse impact on the financial system and to avoid exposing taxpayers to loss even in cases where a systemically important bank fails. It includes, alongside regulatory capital set out in the Basel framework, senior bonds issued by holding companies, which are prioritized in bearing the losses in the event of failure.