

# **Preparing for the Next Financial Crisis**

**Proposal for a new financial system  
beyond present stopgap measures**



NATIONAL  
INSTITUTE FOR  
RESEARCH  
ADVANCEMENT

NIRA Report

**Preparing for the Next Financial Crisis:**

Proposal for a new financial system beyond present stopgap measures

\* Executive Summary: [http://www.nira.or.jp/pdf/0902english\\_summary.pdf](http://www.nira.or.jp/pdf/0902english_summary.pdf)

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National Institute for Research Advancement (NIRA)

ISBN 978-4-7955-8540-9 C3030

**Publisher**

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October 1, 2009

## **NIRA Report**

### **Preparing for the Next Financial Crisis**

#### **Proposal for a new financial system beyond present stopgap measures**

##### **NIRA Post-crisis Financial System Study Group**

\* **NIRA:** The National Institute for Research Advancement (NIRA), founded in 1974 under the National Institute for Research Advancement Act, has conducted comprehensive research in order to contribute to the resolution of a variety of complex contemporary social, economic and lifestyle issues. NIRA has changed its juridical status as an incorporated foundation since November 29, 2007, although NIRA's aims are unchanged, and NIRA will continue to conduct its activities for the public interest.

The new NIRA will seek to present bolder policy proposals and make information available in a timely fashion in order to stimulate policy discussion and contribute more actively to the policy-making process. As globalization advanced and Japan's population ages, Japanese society is facing profaned structural changes, a situation that urgently requires the nation's research institute to adopt new roles. NIRA therefore views its change in organizational status as an opportunity to reform its research system to meet the demands of a new era. NIRA's research will address issues facing Japan, with a focus on the three areas of national economic and social policies, international relations, and regional issues.

\* **Post-crisis Financial System Study Group:** This group was established in June, 2009 in order to discuss and report on modifications to be made to the financial system based on the lessons learned from the current crisis. The members of this group are: Tsuyoshi Oyama (Chairman of the Study Group, and Director, Risk & Controls Solutions, PwC Aarata), Nana Otsuki (Executive Director, Equity Research/FICC, UBS Securities Japan Ltd.), Hidetoshi Ohashi (Managing Director, Fixed Income Research, Morgan Stanley Japan Securities Co., Ltd.), Shinsuke Kume (Joint General Manager, Internal Audit Department, The Sumitomo Trust & Banking Co., Ltd.), Toshinori Kurihara (Director, PLANNING & RESEARCH OFFICE, Inspection Bureau, Financial Services Agency, Government of Japan, and Visiting Professor, Hiroshima University), and Hiroo Sugai (Joint General Manager, Corporate Risk Management Dept., SUMITOMO MITSUI BANKING CORPORATION). The NIRA administrative team is: Reiko Kanda, Kimiya Nakagomi, and Yusuke Inami.

The content of this report represents the individual views of study group members, and does not reflect the official positions of the institutions to which they belong.

# 1. Introduction

Two years have passed since the U.S. subprime problem, which until the beginning of 2007 was considered a problem confined to a single country, grew into a global financial crisis in a very short period of time. Commencing with the BNP Paribas shock and the failure of the U.K.'s Northern Rock Bank in the summer of 2007, the crisis led to the collapse of major U.S. investment banks in 2008, and further, to significant earnings deterioration for major European and U.S. banks and the biggest U.S. insurance company. The crisis has now lost momentum as a result of emergency liquidity supply by the central banks of leading economies and the provision of relief in the form of injections of public money to major financial institutions by governments.

**Chart 1: Major events related to the current financial crisis**

Period	Event
July 2007	Crisis at IKB Deutsche Industriebank (IKB German Industrial Bank, Germany)
August 2007	<ul style="list-style-type: none"> <li>• BNP Paribas freezes assets of ABS-related funds (France)</li> <li>• Crisis at Sachsen LB state bank (Germany)</li> <li>• Joint liquidity supply by central banks of major economies</li> </ul>
September 2007	Crisis at Northern Rock Bank (U.K.)
March 2008	Bear Stearns collapses, and is bailed out and acquired in May by JP Morgan Chase (U.S.)
August 2008	Crisis at Rothschild Bank (Denmark)
September 2008	<ul style="list-style-type: none"> <li>• Collapse of Lehman Brothers (U.S.)</li> <li>• Emergency government bailout of AIG (U.S.)</li> <li>• Coordinated action in the U.S. dollar short-term money market by central banks of major economies (Japan, U.S., Europe)</li> <li>• Fannie Mae and Freddie Mac come under government control (U.S.)</li> <li>• Lloyds TSB acquires HBOS (U.K.)</li> <li>• Collapse of Washington Mutual (U.S.)</li> <li>• Nationalization of Bradford &amp; Bingley (U.K.)</li> <li>• De facto nationalization of Fortis by the Belgian, Dutch, and Luxemburg governments (Belgium, Netherlands)</li> <li>• Emergency bailout of Dexia by the French, Belgian, and Luxemburg governments (France, Belgium)</li> </ul>

October 2008	<ul style="list-style-type: none"> <li>• Emergency Economic Stabilization Act of 2008 enacted to purchase distressed mortgage-backed assets up to US\$700 billion (U.S.)</li> <li>• Coordinated interest rate cut of 0.5% by major European and U.S. central banks</li> <li>• The U.S. announces an injection of up to US\$250 billion of public funds into financial institutions (U.S.)</li> </ul>
November 2008	<p>1st G20 summit on Financial Markets and the World Economy (Washington, U.S.)</p> <p>— All participants agree on stricter worldwide oversight of the financial system</p>
January 2009	<ul style="list-style-type: none"> <li>• Bank of America bails out and acquires Merrill Lynch (U.S.)</li> <li>• Wells Fargo acquires Wachovia (U.S.)</li> </ul>
February 2009	The U.S. monetary authorities conduct a stress test on the 19 biggest financial institutions
March 2009	<ul style="list-style-type: none"> <li>• Basel Committee on Banking Supervision increases its participating members</li> <li>• FRB announces purchase of long-term government bonds up to US\$300 billion (U.S.)</li> </ul>
April 2009	<ul style="list-style-type: none"> <li>• 2nd G20 summit on Financial Markets and the World Economy (London, U.K.)</li> <li>— Summit agrees on provision of US\$1,100 billion in total to the IMF and other organizations</li> <li>• Financial Stability Forum is reorganized into Financial Stability Board</li> </ul>
June 2009	General Motors files for bankruptcy protection (U.S.)
September 2009	3rd G20 Summit on Financial Markets and the World Economy (Pittsburgh, U.S.)

During this period, the Japanese and Asian financial systems, which were away from the epicenter of the crisis, were heavily shaken by the secondary shock of the crisis that impacted on the world macro-economy at an unprecedented level. In fact, Japan's seasonally adjusted real GDP dropped by 12.8% in the 4th quarter of 2008 on an annualized quarter-on-quarter basis and by a further 12.4% in the 1st quarter of 2009 (on the same basis). These declines were far greater than the worst post-war growth rates ever recorded (on an annualized quarter-on-quarter basis, Japan's GDP fell by 7.2% in the 1<sup>st</sup> quarter of 1998 and by 4.6% in the 3<sup>rd</sup> quarter of 2001). Considering the year-on-year GDP growth rate of 1.5% for fiscal 2008 and 1.7% for fiscal 2009 projected as of April 2008 (median value of projections made by Bank of Japan policy board members, BOJ, 2008a), the actually recorded declines in GDP were, quite literally, an unprecedented shock.

Why did easy, excessive lending by non-bank financial institutions targeted mainly at low-income

earners in the U.S. develop into such a huge financial crisis?

If we define a financial bubble as the formation and increase, against the background of long-term easing of credit and excessive euphoria regarding the future of the economy, of financial asset value made possible only because it is predicated upon cash flows and other factors of a type that are unsustainable over the long term from the perspective of fundamentals, the U.S. housing price bubble—the first to collapse in the current financial crisis—is merely an example of a financial bubble. Such phenomena have occurred repeatedly in the past in many countries, including Japan, and therefore present no surprises.

The current crisis, however, differs greatly from any of these past bubbles in that the euphoria had supported the healthy macro-economies of the U.S., the UK, and other leading countries, which had driven the world economy over recent years. The euphoria had been generated because people believed that financial risks were measureable, transformable, and tradable, and that it had become possible for societies to absorb far greater financial risk (i.e., investments) than had been the case in the past, because everyone involved each took small risks according to their personal preferences.

In the current crisis, underestimated risks were spread out thinly among investors throughout the world via financial markets. Taken together, the amount of these underestimated risks represented such an enormous sum in comparison to the situation in the past that moves to correct the underestimation of risk spread instantly throughout the world. The euphoria—which in the midst of the bubble was universally seen positively as a result of structural change in the economy or technological innovation—was incorporated into the growth mechanism of the world economy so deeply that the aftershock resulting from its collapse proved to be enormous. This aftershock impacted not only on the housing market that had been supported by the U.S. subprime loans, but also on the securitized instruments backed by such loans, and further on the business model that was predicated upon financing by means of securitized instruments or other securitization products not necessarily associated with subprime loans, and ultimately, on the global economic structure itself (including the structural dependence on exports to the U.S. of Japan and other Asian countries), which was in turn predicated upon healthy European and U.S. macro-economies underpinned by the rapid growth of their financial industries.

Given this, what were the defects in the concept of “risk visualization” that served as a foundation for the business model adopted by U.S. and European financial institutions? Were there any underlying errors in policy responses effected after these problems became manifest and spread instantly throughout the world, developing into a global financial crisis? International organizations and the

financial authorities of countries throughout the world have proposed a variety of measures and recommendations to deal with the problems that are seen as having triggered the financial crisis. Are these measures truly appropriate?

The NIRA Post-crisis Financial System study group brought together specialists with extensive knowledge of risk management practices and management issues at various financial institutions to present and discuss their opinions on these issues, and ultimately to prepare a number of proposals designed to prevent the recurrence of a similar financial crisis in the future. Below, we present a discussion of the causes of the financial crisis and of problems identified in recent measures and proposals by national authorities, and finally, we propose policy recommendations that seek to resolve these problems. A general consensus was reached among the study group members regarding these analyses and proposals.

## **2. Root causes of the current financial crisis**

Annex 1 presents the views held by the study group members on the causes of the financial crisis. The general conclusion reached by the study group with regard to factors in the background of the huge losses suffered by European and U.S. financial institutions is that the systematic factors observed throughout the financial industry (the external environment in which the management of each individual financial institution was situated, such as systems, practices, and bubbles) had a greater influence on the crisis than the idiosyncratic factors attributable to the judgment and management of individual financial institutions (causes peculiar to each individual financial institution).

This view differs somewhat from the views expressed in the reports issued by international organizations and the relevant authorities of major economies; problems related to risk management and governance at the level of individual financial institutions are the starting points for the discussions in these reports. Problems in the systems and policies that macro-economically determine the management of individual financial institutions have been recognized as being important, but have been treated as secondary to management problems. By contrast, the study group discussions recognized problems relating to the systems and policies determining the management of individual financial institutions as more important than problems relating to their management.

The view adopted by the study group in no way denies the existence of accountability and risk management problems in individual financial institutions as factors in the current financial crisis. In our view, however, in the given environment, the current financial crisis could not have been

prevented even if individual financial institutions had made efforts to increase the sophistication of their risk management systems. In other words, dependence on voluntary efforts by financial institutions will have limited effects unless systems and incentive mechanisms that positively influence the management of individual financial institutions are firmly put in place. Because problems of governance and risk management at individual financial institutions are directly responsible for the huge losses that occurred in the current financial crisis, it is relatively easy to identify such problems, and their direct correction will satisfy major stakeholders in financial institutions. Such correction alone, however, will be no fundamental solution to the existing problems and may actually lead to another crisis in the future, given that it may enable financial institutions to more easily evade regulations.

### (Basis of the current financial crisis)

The study group considers problems in the environment and systems related to governance at financial institutions to be the most important issue in the financial crisis. For instance, the systems of governance in the financial institutions of the countries at the epicenter of the current financial crisis have very distinctive characteristics as compared with the systems adopted in Japan and other countries. It is likely that some of these characteristics, combined with other causes, pushed financial institutions toward excessive risk-taking. The financial authorities also faced two major problems with respect to maintaining the stability of the financial system: one was a lack of systems to head off a financial crisis by means of regulatory intervention; the other was a lack of systems designed to quickly and flexibly cope with a crisis should one eventuate. Finally, a significant challenge must also be faced by individual financial institutions with respect to establishing risk management that is conscious of strong stresses, particularly stresses such as the current financial crisis. The consensus of the study group was that the correction of risk management is an urgent task to be addressed.

The study group considered that if viewed from the perspective of flaws in the macroeconomic and microeconomic systems, the basis of the abovementioned problems can be summarized into the following categories:

- ① Lack of crisis-prevention framework: Specifically, (i) problem of frameworks regulating corporate governance and the incentive structure of financial institutions; (ii) lack of flexible crisis-preventive macro-prudential policy; (iii) weaknesses of risk management in individual financial institutions; and (iv) problem of accounting system.
- ② Lack of framework for overcoming crises: Specifically, (i) unclear role-sharing between governments and the private sector in addressing solvency problems (problems related to the

capability of making payments) in a financial crisis, and (ii) unclear role-sharing between the government and the private sector in addressing liquidity problems in a financial crisis.

### (Problems of Japanese banks and Japan's financial system)

The above discussion focused primarily on financial institutions operating at the epicenter of the current financial crisis. How, then, are Japanese banks and Japan's financial system faring? While the losses posted by Japanese banks are rather large in terms of absolute amounts, their impact on the banks is substantially lower than that of the losses suffered by European and U.S. banks. A look at the *Financial System Report* (BOJ, 2009a), for instance, tells us that the cumulative losses suffered by major banks between July 2007 and the end of 2008 amounted to some US\$700 billion for major U.S. banks and US\$300 billion for major European banks, while the losses posted by major Japanese banks fell short of US\$20 billion. In terms of capital (on a different basis to the above), the ten biggest U.S. banks together had US\$423.5 billion of shareholder's equity outstanding as of the end of 2006, while the Tier 1 capital of the major Japanese banks at the end of 2006 stood at ¥20 trillion (equivalent to some U.S.\$210 billion at the exchange rate of US\$1.00 = ¥95). Given this, the losses sustained by U.S. banks are likely to have already exceeded their core capital at the end of 2006, while the losses of Japanese banks remained at around 10% of their core capital.

In the understanding of the study group, the impact of the current financial crisis on Japanese banks is an aftershock of the financial crisis in Europe and the U.S.; it is strongly "exogenous" (see Annex 1). Further, with respect to the external environment surrounding governance in financial institutions or the systems designed to maintain the stability of the financial system, the problems affecting Japan are relatively minor when compared with Europe and the U.S., precisely because Japanese banks had, based on their own experience of crisis following the collapse of the bubble, improved their systems and environments.

Many members of the study group were of the opinion that the problems faced by Japanese banks lie rather in the business model that gives rise to poor income, overbanking and lack of financial innovation. Some held that such problems afflicting Japanese banks may also be faced in the future by European and U.S. banks after tighter regulation is implemented. The primary focus of the study group was to consider the necessary form of the financial system from the perspective of preventing the recurrence of a similar crisis, and issues related to business models therefore fell outside the scope of our discussion. We believe, however, that in considering the future of Japan's financial system, it will be necessary to discuss what form should be taken by a financial system in order to reconcile stability with the potential to contribute significantly to the national economy.

On the other hand, the study group members shared the understanding that Japanese banks will be required to address many challenges, just as European and U.S. financial institutions are. In particular, risk management of cross-shareholdings, a challenge that derives from the socioeconomic environment peculiar to Japanese banks, has again attracted considerable attention in the wake of the financial crisis. Opinions are divided among the study group members with regard to risk management of cross-shareholdings: One view emphasizes an endogenous factor, a simple lack of risk recognition on the part of financial institutions, while the other emphasizes an exogenous factor, the system-related problem of overestimation of risk— a risk which is directly linked to the business model— when viewed from an accounting perspective.

With regard to the actions taken by the financial authorities to cope with the crisis, the study group is of the opinion that the concept of a “backstop” against a financial crisis (a braking mechanism to prevent worsening of the crisis) had to some extent been established in Japan based on the experience of crisis in the past; Japan therefore already possessed a system that would enable a financial crisis to be weathered in a comparatively smooth manner. However, the following points may be indicated as issues that need to be addressed: ① the appropriateness of the degree of the backstop (which, if excessive, may give rise to moral hazard and impede financial innovation); ② the lack of a system designed to address a new crisis in a prospective manner; and ③ the inadequate handling of cross-shareholding risk.

### **3. Problems related to recommendations made by international organizations and regulatory agencies**

(Distinctive features of the measures taken by European and U.S. authorities following the current financial crisis)

The distinctive features of the recommendations presented and the measures implemented by international organizations—bringing together the regulatory agencies of various countries—and by European and U.S. authorities can be broadly classified into the following categories: (a) tighter regulation of financial institutions; (b) the adoption by financial authorities of more powerful means to stabilize the financial system; (c) the implementation of stronger governance at the level of individual financial institutions; and (d) the adoption of more powerful risk management methods by individual financial institutions.

#### **(a) Tighter regulation of financial institutions**

- ① Substantially higher capital requirements
  - For individual financial transactions, the capital requirements stipulated in the Basel II framework on securitization transactions have been significantly increased (BCBS, 2009c). In addition, the enhancement of capital requirements from the traditional “VaR × multiplier” to “(VaR + stressed VaR) × multiplier” for the general market risk portion of transactions in the trading book has been proposed, for example by the *Turner Review* released by the UK Financial Services Authority (FSA, 2009a), and further, by the Basel II market risk revision by the BCBS, which basically follows the *Turner Review* (BCBS, 2009c).
  - In addition to the above, there are moves to require systemically important financial institutions to prepare additional capital buffers, or additional fixed capital buffers established with the aim of eliminating the procyclical impact of Basel II.
  
- ② Increased core Tier 1 capital requirements
  - In addition to enhancing overall capital requirements, there are also moves to enhance the requirements for core Tier 1 capital, which is more strongly characterized as capital. For instance, core Tier 1 capital (the composition of which differs somewhat between the U.S. and the UK) is required to be 4% or more in the UK FSA’s *Turner Review* and the stress test conducted on major U.S. banks (SCAP). The BCBS has also announced that it will place greater importance on core Tier 1 capital within the capital requirements, adding that it will revise Basel II in the near future in line with this decision (BCBS, 2009b).
  
- ③ Simplification of regulations
  - Some regulatory agencies acknowledge that because the risk-sensitive approach under Basel II failed to accurately identify risks involved in specific transactions, the approach actually encouraged this type of high-risk transaction. For this reason, some observers insist on the need to simplify the regulations (in concrete terms, the introduction of a leverage ratio regulation). This proposal has been supported by the UK FSA (*Turner Review*, FSA, 2009a), the BCBS (“Enhancements to the Basel II framework,” BCBS, 2009b), the Financial Stability Forum<sup>1</sup> (“Report of the Financial Stability Forum on Addressing Procyclicality in the Financial System,” FSF, 2009b) and by the U.S. Department of the Treasury (*Financial Regulatory Reform*, U.S. Department of the Treasury, 2009b).
  
- ④ Departure from principle-based oversight: conversion of Pillar II into Pillar I

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<sup>1</sup> In April 2009, the Financial Stability Forum (FSF) was reorganized into the Financial Stability Board (FSB). This report refers to the FSF or FSB in accordance with its officially used name at the time cited in published reports or documents.

- In the Turner Review, the UK FSA clearly declared its departure from the existing “light touch regulation.” In addition, the BCBS has released papers providing more specific, concrete details regarding risk management (“Revisions to the Basel II market risk framework,” BCBS, 2009c; “Principles for sound stress-testing practices and supervision,” BCBS, 2009a; etc.), which had previously been left to the independent judgment of financial institutions.

**(b) Enhancement of means available for financial authorities to stabilize the financial system**

- ⑤ Building a system able to deal smoothly with the collapse of financial institutions
  - Given that the collapse of some financial institutions which had actively been engaged in cross-border transactions generated enormous turmoil in the current financial crisis, frameworks for dealing with bankruptcies have been proposed by the FSF (“FSF Principles for Cross-border Cooperation on Crisis Management” FSF, 2009c), the EU (*The High-level Group on Financial Supervision in the EU* (de Larosiere Report), European Commission, 2009) and the UK FSA (*Turner Review*, FSA, 2009(a)) which would facilitate collaboration between concerned countries in this type of case. The U.S. Department of the Treasury (*Financial Regulatory Reform*, U.S. Department of the Treasury, 2009b) has also proposed building a framework to facilitate domestic handling of bankruptcies among major financial institutions.
  
- ⑥ Procyclicality of regulations (the effect of amplification of business and other cycles to which a macro-economy is subject)
  - The FSF (“Report of the Financial Stability Forum on Addressing Procyclicality in the Financial System”), the EU (de Larosiere Report), and the UK FSA (*Turner Review*) have each emphasized the necessity of considering measures to mitigate the procyclicality effect generated by Basel II and fair value accounting.
  
- ⑦ Building a macro-prudential system
  - The EU (de Larosiere Report), the UK FSA (*Turner Review*), and the U.S. Department of the Treasury (*Financial Regulatory Reform*) have emphasized the necessity for central banks or for central banks and the financial authorities jointly to build a framework designed to monitor the stability of the financial system from a macroeconomic perspective, providing warnings or taking corrective action should any problem occur.

**(c) Enhancement of governance at individual financial institutions**

⑧ Enhanced governance

- Many reports have emphasized the necessity of enhancing governance at the level of individual financial institutions. In particular, the UK HM Treasury (*A review of corporate governance in UK banks and other financial industry entities*, (Walker Review), HM Treasury, 2009) details concrete methods of enhancing governance.

⑨ Regulation of compensation practices

- The FSF (“FSF Principles for Sound Compensation Practices,” FSF, 2009d), the UK FSA (*Turner Review*), the EU (“Commission Recommendation on remuneration policies in the financial services sector,” Commission of the European Communities, 2009), the U.S. Department of the Treasury (*Financial Regulatory Reform*), and other organizations are concerned that the current system of compensation applying to directors and executives of financial institutions pushed them toward excessive risk-taking, and have therefore emphasized the necessity of correcting this type of system.

**(d) Enhancement of risk management methods at individual financial institutions**

⑩ Enhancement of stress test methods

- Many reports have emphasized the importance of effectively utilizing stress tests as a means of compensating for the limitations of statistical risk management methods, including VaR. The UK FSA (“Stress and scenario testing,” FSA, 2008b), and the BCBS (“Principles for sound stress-testing practices and supervision,” BCBS, 2009a), which basically follows the UK FSA’s guidelines, in particular provide detailed descriptions of sound practices.
- The stress test conducted concurrently on major financial institutions in the U.S. (SCAP) presented a new style of stress test, in which financial institutions assess their own capital adequacy based on a common macroeconomic scenario provided by the financial authorities (this is very similar to the macro stress test conducted in the IMF’s FSAP, a program under which the IMF regularly evaluates the stability of the financial systems of member countries).

⑪ Enhancement of liquidity risk management methods

- Many reports have emphasized the importance of liquidity risk management, focusing in particular on both funding liquidity risk and market liquidity risk as areas highlighted by the current financial crisis. The UK FSA (“Strengthening Liquidity Standards,” FSA, 2008a) and the BCBS (“Principles for Sound Liquidity Risk Management and Supervision,” BCBS, 2008c) provide concrete descriptions of sound practices in these areas.

## ⑫ Other issues

- Immediately after the occurrence of the crisis, the Senior Supervisors Group (SSG) and the FSF, among other organizations, issued numerous reports pointing out risk management problems at individual financial institutions. These reports emphasized the importance, in addition to the use of the abovementioned stress tests (recognition of VaR-related problems) and liquidity risk management, of strengthening company-wide risk management (breaking down corporate silos), awareness of risk concentration, and reputational risk management.

### (Inherent problems in recommendations made by financial authorities)

Of the various recommendations and measures discussed above, those dealing with risk management-related problems at individual financial institutions in particular are extremely suggestive. The study group strongly supports these types of initiative. On the other hand, the study group considers that proposals concerning the design of the prudential system as a whole and methods of approaching the existing problems in general involve the following problems:

- ① Many of the recommendations made to date have employed arguments which do not clearly distinguish between idiosyncratic factors (risk management at individual financial institutions) and systematic factors (problems of systems and practices) as the primary causes of the crisis, or implicitly assume that the former were the primary causes. These arguments are based on a mistaken view of the issues, and have produced harmful results, as described below.
- ② Many of the recommendations simply repeat descriptions of the flaws in risk management (idiosyncratic problems) in financial institutions which have already been sufficiently delineated. No moves have yet been made to analyze and correct the problems of the incentive system (systematic problems), which prevented financial institutions themselves from correcting such flaws.
- ③ The financial authorities seek to rely exclusively on the enhancement of regulation as an effective means of correcting flaws in risk management. However, tightening regulation without changing the incentive system is likely to encourage further circumvention of regulation or an increase in risk-taking that escapes the attention of the authorities.
- ④ Furthermore, as a result of overly hasty efforts to enhance regulation, some recommendations are lacking in logic. Such a lack of logic will impede movement towards a convergence between the regulation sought under Pillar II of Basel II and the risk management practices that are actually applied, leading to a loss of confidence in financial authorities, which have to date been seeking to move in this direction.
- ⑤ There is insufficient distinction between measures to prevent a crisis and measures to cope with a

crisis that has actually occurred. The currently existing measures contain numerous elements which are strongly punitive towards financial institutions and therefore are likely to impose an excessive burden on macroeconomic management under normal conditions.

- ⑥ If we do not adequately determine the cause of huge losses posted by financial institutions in some regions and uniformly require financial institutions, somewhat punitively, to substantially increase equity capital, we will adversely affect financial and economic activities in many countries not located at the epicenter of the current financial crisis, and at the same time will provide financial institutions in these countries with incentives to circumvent regulation.

## **4. Framework of proposals**

### **(Objective of measures)**

The study group took into consideration the inherent problems in the recommendations made by the various financial authorities, as discussed above, and specified a set of measures which its members believe should be put in place in the future. These measures are discussed below. The objective that we focused on in formulating these measures was to develop a new financial system which adopts a long-term perspective in preventing the recurrence of a financial crisis similar to the present crisis, and is able to appropriately deal with such a crisis should one occur.

A “long-term perspective” as used above means attempting to formulate policies that are sustainable for the long-term, taking into consideration their impact on the macro-economy. It is highly likely that policies formulated on the basis of a short-term perspective will not be sustainable for extended periods, and will ultimately lead to a new crisis.

The “financial system” indicated in the objective broadly includes the oversight of financial institutions by the financial authorities, the framework of macro-prudential policies and their implementation, and governance and risk management associated with the management of individual financial institutions.

The majority of these measures were formulated, with a view towards their global application, after the major problems of the financial system became clear in the current financial crisis; however, some of the measures were formulated with consideration of Japan’s special circumstances, and therefore should be applied only to Japan.

## (How measures are distinguished)

In presenting the measures, the study group found it necessary to distinguish between the following three types: ① stopgap measures based on a short-term perspective (interim measures enabling a crisis to be measured), ② macroeconomic measures based on a long-term perspective (measures designed to nip a financial crisis in the bud and measures to cope with a financial crisis that has actually occurred), and ③ micro-economic measures (individual regulations) that are consistent with the measures described in ②.

The type of interim measures described in ① are, naturally, important in responding to such a large-scale crisis as the present one, which if mishandled to any extent has significant potential to drive the world economy into a spiral towards catastrophe. At times, however, these measures conflict with measures based on a long-term perspective because of their different time horizons. The current financial crisis has had a severe impact on people's lives. Because of this, some countries are seeking to identify and punish the "perpetrators" of the crisis and are expanding the scope for such perpetrators beyond their national borders in order to prevent their country alone being placed in a disadvantageous position. However, in many senses these measures entail numerous negative effects. This report will present the thinking of the study group regarding the short-term stopgap measures indicated in ① mainly in the form of a discussion of the problems in the current measures.

Following this, the report will shift its focus to the long-term macroeconomic measures indicated in ② and the microeconomic measures (individual regulations) consistent with these measures indicated in ③. With respect to the long-term macroeconomic measures, we found it important to distinguish between measures designed to nip a financial crisis in the bud and measures aimed at quickly bringing a crisis that had occurred under control. Due to time constraints, we were unable to discuss microeconomic measures sufficiently, but we have endeavored to present, as much as possible, those measures essential to the implementation of macroeconomic measures.

## (Orientation of the measures)

In formulating these measures, we were particularly conscious of the following orientations:

- To correct the systematic causes lying behind the financial crisis (avoiding the characteristic responses of the financial authorities, which focus only on idiosyncratic causes, ignoring the true problems);
- To develop a system (rather than ad hoc tighter regulation) that is designed to induce financial

institutions to bring their risk management more in line with the expectations of the financial authorities (preventing a vicious cycle of tighter regulation giving rise to new forms of circumvention of regulation);

- To take into consideration the differences in the situations in which the financial institutions of different countries find themselves (to prevent distortions arising from uniform regulation);
- To take into consideration the need for punitive elements (to prevent distortions arising from uniform regulation);
- To take into consideration the differences between measures to prevent a crisis and measures to enable a crisis to be weathered (to ensure that policies are sustainable and to prevent the risk of excessive regulation constricting economic activity).

## 5. Proposals concerning lack of crisis-prevention framework and corrective measures

### 5.1 Proposals for a framework regulating corporate governance and the incentive structure of financial institutions

#### (1) Traditional approaches

The general characteristics of the existing governance environments in financial institutions in Europe/the U.S. and Japan can be outlined as follows:

**Chart 2: Different governance environments in financial institutions**

	Anglo-American capitalism	European capitalism	Japanese capitalism
Cultural background (thinking)	<ul style="list-style-type: none"> <li>• Calvinism</li> <li>• Protestantism</li> </ul>	<ul style="list-style-type: none"> <li>• Greek philosophy</li> <li>• Roman culture</li> <li>• Catholicism</li> <li>• Lutheranism</li> </ul>	<ul style="list-style-type: none"> <li>• Analects (Confucianism)</li> <li>• Buddhism</li> </ul>
Background economic concepts	<ul style="list-style-type: none"> <li>• Laissez-faire</li> <li>• <i>Wealth of Nations; Theory of Moral Sentiments</i> (Adam Smith)</li> <li>• Monetarism (Milton Friedman)</li> <li>• Washington Consensus</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Capital</i> (Karl Marx)</li> <li>• <i>Economy and Society</i> (Max Weber)</li> <li>• Free Money Theory (Silvio Gesell)</li> <li>• <i>The Limits to Growth</i> (Club of Rome)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Keisei saimin</i>, a broader concept of “economy” that encompassed administration and ethics. Military, agricultural, industrial, and mercantile classes</li> <li>• Cliques, unions, and</li> </ul>

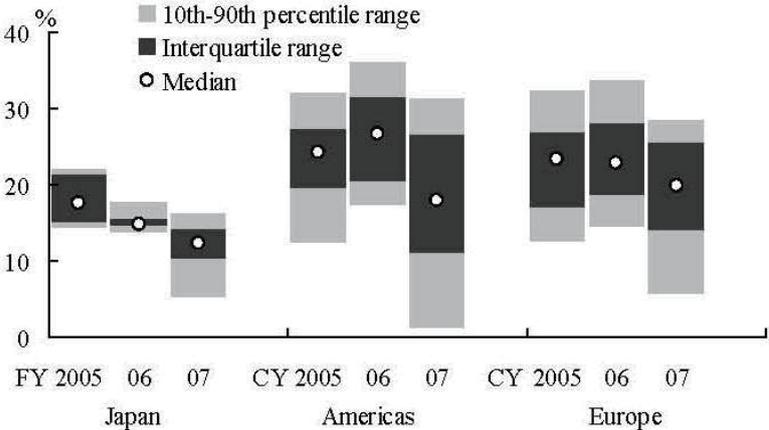
		<ul style="list-style-type: none"> <li>• Regulation Theory</li> </ul>	<ul style="list-style-type: none"> <li>associations</li> <li>• Theory of compatibility between morality and economy (Eiichi Shibusawa)</li> <li>• French stock system</li> </ul>
System of law	<ul style="list-style-type: none"> <li>• German law</li> <li>• Anglo-American Law (common law)</li> <li>• Rule of law</li> </ul>	<ul style="list-style-type: none"> <li>• Roman Law</li> <li>• Continental law (civil law)</li> <li>• Legalism</li> </ul>	<ul style="list-style-type: none"> <li>• Continental Law</li> <li>• Civil Code: French legal system</li> <li>• Commercial Code: German legal system</li> </ul>
Stakeholders considered important	<ul style="list-style-type: none"> <li>• Shareholders</li> <li>• Managing executives</li> </ul>	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Employees, customers, and suppliers</li> <li>• Subcontractors, local communities, and states</li> <li>• Shareholders</li> </ul>	<ul style="list-style-type: none"> <li>• Employees</li> <li>• Customers</li> <li>• Main financing banks (large creditor- shareholders)</li> </ul>
Capital strategy time horizons	<ul style="list-style-type: none"> <li>• Short-term</li> </ul>	<ul style="list-style-type: none"> <li>• Long-term</li> </ul>	<ul style="list-style-type: none"> <li>• Long-term</li> </ul>
Employment system	<ul style="list-style-type: none"> <li>• Merit-based system</li> <li>• Contingent remuneration</li> </ul>	<ul style="list-style-type: none"> <li>• Long-term employment</li> <li>• Job-based salary</li> </ul>	<ul style="list-style-type: none"> <li>• Lifetime employment</li> <li>• Seniority-based system</li> </ul>
Oversight of management executives	<ul style="list-style-type: none"> <li>• Shareholders</li> <li>• Directors</li> <li>• Audit board</li> </ul>	<ul style="list-style-type: none"> <li>• Auditors</li> <li>• Unions</li> <li>• Shareholders</li> </ul>	<ul style="list-style-type: none"> <li>• Main financing bank</li> <li>• Employees</li> <li>• Unions</li> </ul>
Applicable countries	<ul style="list-style-type: none"> <li>• The U.S., UK, Netherlands, and Switzerland</li> </ul>	<ul style="list-style-type: none"> <li>• Germany, France, Italy, and Spain</li> </ul>	<ul style="list-style-type: none"> <li>• Japan and other Asian countries</li> </ul>
Key points in constraining management of financial institutions	<ul style="list-style-type: none"> <li>• Emphasis on control process by outsiders and challenge involved</li> </ul>	<ul style="list-style-type: none"> <li>Mechanisms of control by insiders and outsiders predicated on emphasis on collective</li> </ul>	<ul style="list-style-type: none"> <li>• Emphasis on mechanisms of self-control by insiders and challenge involved</li> </ul>

Focusing in particular on the relationship between major stakeholders (shareholders, regulatory agencies, and employees) and the management of financial institutions, we find the following differences between Europe/the U.S. and Japan.

(European/U.S.-style system)

- ① In Europe and the U.S., the CEO is the “shareholders’ representative” and is very rarely a career employee. Generally, therefore, the CEO is given wide-ranging management options that are not bound by his/her relationship with the existing organization or employees. This type of executive appointment makes it difficult for the existing employees to restrain the CEO for organizational defense from a long-term perspective.
- ② On the other hand, in the CEO-shareholder relationship, emphasis is placed on systems enabling oversight and restraint of management by shareholders (e.g., separation between directors and the CEO/executive officers). In addition, in many cases, the compensation system is organized to reflect shareholders’ intentions.---
- ③ As this suggests, while the European and U.S. systems make it difficult for management executives to run out of control, they provide limited margin for stakeholders other than shareholders to have their interests reflected in management.
- ④ There is a strong tendency for European and U.S. banks to be required by shareholders to engage in high-risk, high-return management over relatively short-term time horizons (see Chart 3). One reason that may be indicated for this is the difficulty of consensus building and the existence of a high degree of uncertainty with regard to ownership relations because diverse shareholders participate in ownership, principally through transactions in the market.

**Chart 3: The ROE of major Japanese, U.S., and European financial institutions**



Note: 1. ROE = income before income taxes and others / total stockholders' equity. ROEs are sorted out in ascending order. 10th, 25th, 50th, 75th, and 90th percentiles are shown.  
 Source: Bureau van Dijk, "Bankscope."

Source: BOJ(2008b)、P.71、Chart4-1

- ⑤ However, shareholders' intentions usually differ significantly from those of the regulatory agencies, another key stakeholder, which emphasize stable management based on a long-term time horizon.
- For instance, Fahlenbrach and Stulz (2009) reached the conclusion that the excessive risk-taking by some of the financial institutions in the current financial crisis, and the losses that they sustained, were the result of their management's faithfulness to shareholders' intentions rather than the result of acting against such intentions.
- ⑥ The general rule appears to be as follows: checks of governance at financial institutions by financial authorities emphasize verification of the system of restraint of management executives by outsiders (shareholders) (e.g., the function of the board of directors and external directors); at the same time, the authorities check that the institutions are operated in conformity to a system of self-control by insiders after specifying the desirable system (the UK FSA's motto "comply or explain" accurately represents the above process).

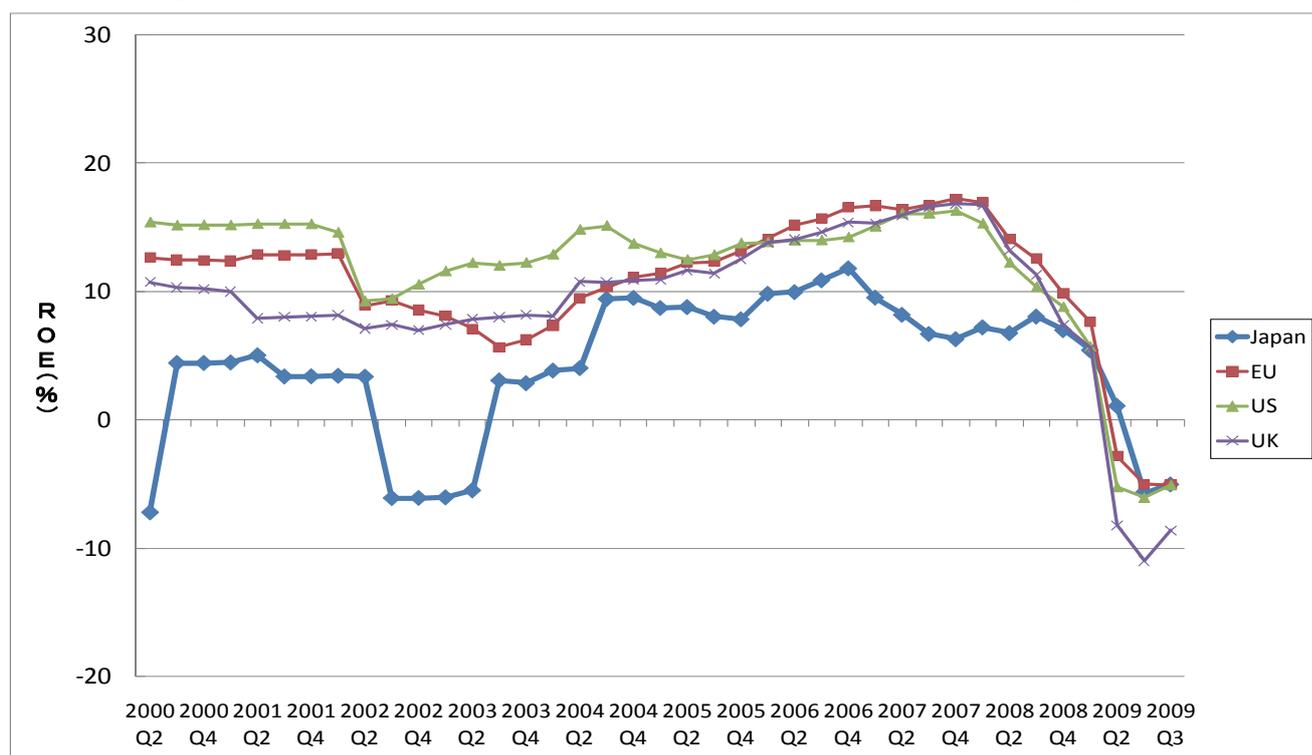
#### (Japanese-style system)

- ① In a Japanese organization, in most cases the top executive is "the representative of the organization" rather than the shareholders' representative, and is a career employee. For this reason, the top executive is strongly constrained by the existing organization and employees (and any restructuring involving the sacrifice of employees is positioned as a last-resort measure). Japanese organizations continue to tend to emphasize long-term employment and seniority-based promotion. As a result, existing organizations and employees tend to strongly demand organizational defense based on a long-term time horizon (stable management based on a low-return, low-risk policy). The compensation system applied to management executives is weakly linked to business performance (in the form of monetary incentives). The system is rather based on non-monetary incentives that encourage management based on a long-term time horizon (such as fame, reputation, and social status).
- ② In terms of its relationship with shareholders, as long as a few stable shareholders exist, a Japanese organization is not placed under as strong a pressure for profit improvement as a European or U.S. organization, and is allowed to work over a longer time horizon. Given the limited number of risk capital providers in Japan, a Japanese organization tends to be managed from a long-term perspective and to incorporate perspectives presented by various stakeholders other than shareholders. It should be noted, however, that shareholder pressure on bank management has tended to become stronger amid the progressive globalization of stock ownership over recent years (see Chart 4).
- ③ The characteristics indicated above have a positive side, in that they provide stability and

harmonize the interests of diverse stakeholders, and a negative side, in that they permit any management errors to remain uncorrected for extended periods, or give rise to cozy and complacent relationships between some stakeholders (while the potential for excessive risk-taking by the CEO or other individuals who are running out of control is low, there is a danger of an entire organization becoming uncontrollable if an organization-wide consensus is formed).

- ④ While Japanese-style management places greater importance on stability than European or U.S.-style management, it suffers from the problem of a lack of management dynamism (as seen in profit rate, innovation, growth-orientedness, etc.) (for instance, while investors have probably tended, in part due to regulation and the financial crisis, to consider the Japanese banking industry as being similar to a public service industry, in recent years they must have viewed some of the leading European and U.S. banks, having also incorporated investment banks, as a growth industry, similar to the IT industry).

**Chart 4: Comparison of the ROE of financial institutions in different countries and regions**



Note: Data concerning the weighted average ROE of financial institutions (including commercial banks, investment banks, insurance companies, nonbanks, etc.) obtained by isolating issues that together account for 75% to 80% of the aggregate market capitalization in each country's or region's market.

Source: Thomson Reuters Datastream

- ⑤ In its relationship with the regulatory agencies, management based on a longer time horizon, which emphasizes a balance of benefits between employees and shareholders, should be more in line with the intentions of the authorities, at least when a financial institution is required to engage in management predicated on significant stress. However, if the organization itself utterly ceases to function as an organization (with no choice left other than bankruptcy or radical restructuring)—as many financial organizations actually did at the time of the crisis of the Japanese banking system—a decisive confrontation between management and the regulatory agencies might eventuate. In this sense, the Japanese system appears to be superior for the purpose of crisis prevention, while the European or U.S. systems may be more effective in addressing an existing crisis.
- ⑥ In checking governance at financial institutions, the regulatory agencies focus more on verifying the “mechanism” of self-control by insiders (specifically, the PDCA or the Plan-Do-Check-Act cycle, particularly the CA aspect, as will be explained in more detail below) by insiders than on verifying systems enabling outsiders (shareholders) to constrain management executives. This check system reflects the above-mentioned characteristics of Japanese management (i.e., the importance of control by employees viewed as stakeholders in contrast with shareholders). In addition, the emphasis placed on a PDCA-like feedback process is another characteristic generally found in Japanese companies, which is not limited to financial institutions (as exemplified by the process of *kaizen* or “improvement” practiced at Toyota). In this sense, while Europe and the U.S. work on a feed-forward process (which checks to ensure that a system is working as originally designed, on the assumption that it is virtually error-free), the Japanese system is more inclined towards a feedback process (designed to correct the system whenever an error occurs, on the assumption that errors will inevitably occur in systems).

## **(2) Recent discussions and countermeasures**

With respect to the problems of governance in financial institutions, the UK HM Treasury emphasized the importance of correcting the points shown in Chart 5 below in the Walker Review published in July this year (HM Treasury, 2009).

With regard to discussions concerning compensation systems that encourage excessive risk-taking and the regulation of compensation applicable to the directors and executives of financial institutions, recommendations have been presented by, for example, the G20 Summit on Financial Markets and the World Economy and the FSF. The U.S. is also moving in the direction of introducing legislation for the regulation of executive compensation. Some European and U.S. financial institutions have already

begun to revise their compensation systems.

These discussions and measures are in line with the orientation of the regulatory agencies, which seek to reduce the degree of linkage between the compensation of management executives and short-term performance, in addition to the level of that compensation. A more detailed overview is provided below.

### (Recommendations by the G20 Summit, the FSF, and some other authorities)

In July 2008, the Institute of International Finance (IIF) (an international association of financial institutions) announced seven guidelines for designing an appropriate compensation system (IIF, 2008). In these guidelines, the IIF indicates that the system of compensation (particularly as it relates to incentives) should accord with the corporate earnings achieved after consideration of interest for shareholders and long-term risk and capital cost, while also stating that the guidelines are intended purely as guidelines and not recommendations, because a compensation system is an important factor that differentiates one company from another. Following this announcement, it was decided in the action plan formulated at the 1st G20 Summit on Financial Markets and the World Economy held in November 2008 (the Washington Summit) that "action needs to be taken, through voluntary effort or regulatory action, to avoid compensation schemes which reward excessive short-term returns or risk taking," as one of the immediate measures to be put into effect by March 31, 2009.

In response to these initiatives, the FSF proposed The "FSF Principles for Sound Compensation Practices" (FSF, 2009d) at the 2nd G20 Summit on Financial Markets and the World Economy held in April 2009 (the London Summit) (see Chart 6). These are made up of nine principles grouped under three major items: ① Effective governance of compensation, ② Effective alignment of compensation with prudent risk-taking, and ③ Effective supervisory oversight and engagement by stakeholders. The leaders' declaration issued at the summit indicated "We have endorsed the principles on pay and compensation in significant financial institutions developed by the FSF to ensure compensation structures are consistent with firms' long-term goals and prudent risk-taking." This declaration established the global orientation for the tightening of regulation of compensation.

**Chart 5: Outline of the Walker Review**

On governance
<ul style="list-style-type: none"> <li>• The function of boards of directors at large financial institutions should be modified by increasing the role of non-executive directors in the processes of risk-taking and making decisions regarding compensation.</li> <li>• Given the fact that the directors of financial institutions were insufficiently aware of the types and the magnitude of the risk held by their own institutions, the board of directors should confer considerable power on their risk committee (a forum for discussion of risk management issues by officer-level executives) to examine the risks held by their own organization.</li> <li>• The chief risk officer (CRO) should attend board meetings as the person responsible for risk management and overseeing company-wide risk-taking processes.</li> <li>• Given that directors have been unable to maintain a high level of discipline to enable the achievement of sustainable performance, the chairman of the board should be elected every year.</li> <li>• Non-executive directors should spend more time conducting board duties than was previously the case.</li> <li>• Institutional investors should actively fulfill their responsibilities as shareholders.</li> </ul>
On compensation
<p>Acknowledging that the existing bonus framework is designed to reward short-term performance and has therefore encouraged excessive risk-taking, the review indicated the necessity of conferring increased power on compensation committees to compel highly remunerated directors to disclose more information about their compensation and to investigate company-wide compensation.</p>

Source: Compiled from HM Treasury (2009)

**Chart 6: FSF Principles for Sound Compensation Practices**

Effective governance of compensation
<p>Principle 1. The firm’s board of directors must actively oversee the compensation system’s design and operation.</p> <p>Principle 2. The firm’s board of directors must monitor and review the compensation system to ensure the system operates as intended.</p> <p>Principle 3. Staff engaged in financial and risk control must be independent, have appropriate authority, and be compensated in a manner that is independent of the business areas they oversee and commensurate with their key role in the firm.</p>

Effective alignment of compensation with prudent risk taking
Principle 4. Compensation must be adjusted for all types of risk. Principle 5. Compensation outcomes must be symmetric with risk outcomes. Principle 6. Compensation payout schedules must be sensitive to the time horizon of risks. Principle 7. The mix of cash, equity and other forms of compensation must be consistent with risk alignment.
Effective supervisory oversight and engagement by stakeholders
Principle 8. Supervisory review of compensation practices must be rigorous and sustained, and deficiencies must be addressed promptly with supervisory action. Principle 9. Firms must disclose clear, comprehensive and timely information about their compensation practices to facilitate constructive engagement by all stakeholders.

Source: FSF (2009d)

(Regulation of compensation in the U.S. ① <In relation to companies that received injections of public money>)

In the U.S., the huge compensation paid to corporate directors and executives came under heavy criticism before the current financial crisis (in 2006), because of the frequent incidence of inappropriate accounting treatment of stock options (the right of executives to purchase shares in their own companies). To tighten the regulation of such compensation, at the time the regulatory agencies principally considered ① obligating shareholders to decide the compensation payable to directors and executives, and ② applying heavier taxation to enormous sums received as compensation. However, neither of these two measures was enacted at the time. From the perspective of determining the cause of the crisis and preventing the recurrence of a similar crisis, the current financial crisis required the regulatory agencies to again discuss the regulation of compensation for directors and executives. As a result, it was decided to commence regulation of the compensation awarded to the directors and executives of companies that utilize the Troubled Asset Relief Program (TARP), which was designed to provide US\$700 billion of public money under the Emergency Economic Stabilization Act of 2008.

In June 2009, the U.S. Department of the Treasury announced the final version of its regulations regarding compensation for the directors and executives of companies assisted by the TARP program as part of the American Recovery and Reinvestment Act of 2009. Its main provisions are: ① the abolition of incentive compensation that encourages excessive risk-taking, ② the prohibition of “golden parachutes” (huge retirement benefits), ③ the prohibition of bonuses and similar forms of compensation (with some exceptions), ④ tighter oversight of seven companies that have been provided with exceptional support, by installing a special compensation supervisor, ⑤ obligation of

compensation committees to perform risk analyses and provide explanations regarding the compensation of all employees, and ⑥ obligation of shareholders to decide director and executive compensation. The guidelines published in February 2009 applied a compensation cap of US\$500,000, which was later withdrawn, principally because it might discourage companies in need of public support from requesting support, and it might cause companies to become less competitive due to an exodus of superior personnel.

In a statement made at the time of publication of the final version of the regulations, Treasury Secretary Tim Geithner pointed to excessive compensation for corporate directors and executives as one factor in the current financial crisis, indicating that the emphasis placed on short-term performance overwhelmed the organizational function of controlling excessive risk-taking. He further indicated that the tighter regulation of compensation being implemented sought only to ensure consistency between compensation and risk management, and that the government did not intend to prescribe how companies determined compensation.

(Regulation of compensation in the U.S. ② <In relation to listed companies in general >)

In addition to the above, the regulatory authorities also discussed compensation regulation applicable to listed companies in general. In the financial regulatory reform announced on June, 2009 (U.S. Department of Treasury, 2009b), the Department of the Treasury suggested the following as part of measures designed to enhance the soundness of financial institutions: ① federal financial regulators should indicate criteria for compensation practices that are consistent with long-term shareholder value and are designed to prevent incentive grants that threaten their soundness, and ② the Department of the Treasury will support legislation to obligate shareholders to decide compensation for senior executives and the establishment of new requirements that will increase the independence of compensation committees from management. The Department further recommended that the principles for sound compensation practices formulated by the FSF should be incorporated into the risk management guidance prescribed by the Basel Committee on Banking Supervision by the end of 2009 as a measure to tighten international regulation. This recommendation may be considered to have been made because of concerns that if compensation regulation was tightened only in the U.S., its international competitiveness would deteriorate due to an exodus of elite personnel.

In response to the Financial Regulatory Reform, efforts are underway to legislate for regulation of executive compensation. On July 16, 2009, the Department of the Treasury submitted a bill entitled “Investor Protection Act of 2009” to Congress that seeks to: ① obligate all listed companies to have

shareholders decide director and executive compensation, and ② obligate all listed companies to make their compensation committees independent from management. Barney Frank, Chair of the House Financial Services Committee, also submitted a bill entitled “Corporate and Financial Institution Compensation Fairness Act of 2009.” In addition to items relating to the abovementioned Investor Protection Act, the bill incorporates the power for the federal financial regulators to tighten the regulation of incentive compensation agreements at financial institutions with assets of US\$1 billion or more. The bill is expected to clear the House of Representatives on July 31, 2009, and to be submitted for consideration by the Senate from the following autumn.

(Regulation of compensation in other regions (chiefly the UK) and at some European and U.S. financial institutions)

In July 2009, the UK HM Treasury conducted a review of the UK banking industry based on the abovementioned Walker Review (HM Treasury, 2009), and warned that financial institutions unable to adopt a strict compensation system would face severe difficulties. The report presented recommendations to the UK banking industry for improvement of its compensation systems and governance. With regard to compensation systems, the report points out the necessity to: ① enhance the power of the compensation committee (to ensure its independence from management and to enable it to investigate the company-wide compensation system), and ② pay bonuses based on long-term performance (for a maximum of five years). However, the leader of the review, Sir David Walker, does not see any need for new legislation arising from the report. The European Commission, for its part, has already submitted a bill to confer power on each member country’s regulatory authority to fine banks that adopt a compensation system that is likely to encourage excessive risk-taking, or to require them to increase their capital ratio.

In response to such moves by the regulatory agencies, many European and U.S. financial institutions have begun to review their compensation systems, principally looking toward correction of the linkage of compensation with short-term performance. Measures include ① ensuring that the system is consistent with long-term shareholder interest and business performance (bonus assessment on a longer-term basis, etc.), and ② the introduction of fixed compensation for senior directors and executives. However, because compensation systems are not uniform among all financial institutions, it has been pointed out that the distortion produced by whether an institution has or has not revised its compensation system will likely give rise to an exodus of personnel and a consequent inequality in competition.

### **(3) Desirable countermeasures – Proposals**

As indicated in Section 2 above, in the opinion of the study group the most crucial factor in the current financial crisis is the environment that determines governance at financial institutions. The study group believes that these environments cannot be corrected or improved by the voluntary efforts of individual financial institutions in isolation, but rather must be improved by means of the macroeconomic system. More specifically, the opinion of the study group is that although it is undoubtedly a fact that risk-taking by some financial institutions in excess of the risk appetite the regulatory agencies expected them to have lies behind the current financial crisis, such risk-taking is not excessive at all from the perspective of different stakeholders (shareholders); thus, the study group concludes that as long as governance structures which are under strong pressure from shareholders are maintained, it will be very difficult for the voluntary efforts of individual financial institutions to solve these problems.

(Differences between European/U.S. banks and Japanese banks—the root causes of the issues that generated huge losses)

An issue of deep interest here is how Japanese financial institutions weathered the current financial crisis. As stated above, among internationally active major financial institutions, Japanese institutions stand out by virtue of having suffered losses far smaller than those posted by institutions in other countries. Of course, the absolute amounts of the losses posted by Japanese institutions reached a substantial scale, and the resulting damage was therefore not minor in any way; however, the damage did not give rise to a situation that might precipitate a crisis in the Japanese financial system, even when the ripple effects derived from the downturn of the macroeconomy are considered. This situation clearly differs from the cases of major European and U.S. banks. What accounts for this difference? It stems from the substantial differences between the Japanese business model and the European and U.S. models.

As Chart 7 shows, while investment banking and retail business account for a large proportion of business at European and U.S. banks, at Japanese banks the ratio of wholesale banking is still overwhelmingly high. Considering the fact that in the current financial crisis, huge losses were recorded by the investment banking and retail banking sectors, it is unsurprising that this difference in business composition resulted in differences in losses. It has not always been the case that European and U.S. banks have been so heavily weighted towards investment and retail banking; the proportion of this type of business began to increase in and after the 1990s. Behind this phenomenon is the fact that investment banking and retail banking business is much more profitable than the traditional wholesale banking business in terms of risk versus return.

**Chart 7: The ratio of income by department at financial institutions in different countries**

Business Line Gross Income as a Percent of Consolidated Gross Income (Results Reported as Medians)	All Participants	Australia	Europe	Japan	North America	Brazil / India
Corporate Finance	2.1%	1.1%	3.0%	0.9%	4.2%	0.5%
Trading & Sales	7.7%	11.1%	11.4%	3.2%	4.8%	8.8%
Retail Banking	44.2%	51.3%	42.3%	20.3%	49.5%	38.4%
Commercial Banking	24.6%	17.2%	24.9%	54.0%	17.5%	21.0%
Payment & Settlement	2.1%	4.9%	0.7%	4.9%	1.1%	3.4%
Agency Services	1.1%	.	0.7%	2.5%	2.2%	1.3%
Asset Management	4.0%	.	3.4%	0.6%	4.0%	6.7%
Retail Brokerage	2.8%	na	2.3%	3.0%	4.7%	0.2%

Note 1. Cases where there are results from fewer than four banks are denoted by "." in the tables.

Source: BCBS (2009d), Summary Table I

Why, then, did Japanese banks not follow the trend among European and U.S. banks? One reason is the fact that Japanese banks did not have sufficient capital to embark on new businesses as the result of the banking crisis of the '90s; another is the fact that European and U.S. banks were pushed toward these new business models by the financial authorities as a source of economic growth. At the same time, however, the members of the study group pointed out that the cautious stance of Japanese banks with regard to the "invisible risks" involved in a new business had caused them to hesitate to invest a significant amount of resources in such new businesses. For financial institutions, in addition to visible or probabilistically measurable risks, there are also risks that cannot be measured probabilistically (the "knight's uncertainty"), and these may constitute invisible risks. The model risk used for risk measurement also falls under this category, and there are other risks that are not explicitly identified in advance as risk factors. Members of the study group expressed the opinion that visible risks are strictly managed and controlled by European and U.S. banks, and that in this respect their level of management is superior to that of Japanese banks. However, they tended to ignore invisible risks. By contrast, Japanese banks possessed a latent wariness of invisible risks, affected by their experience in the banking crisis of the '90s, and further influenced by the regulatory agencies (to be discussed below). They therefore displayed a strong tendency to resist financial products or transactions when they felt skeptical regarding the premises used in the risk measurement model (for instance, credit risk volumes based on recent stable parameters—at a reliability level of 99%—are in many cases substantially lower than the losses actually sustained by banks in Japan's banking crisis) or when they failed to clearly identify where the risks primarily existed.

In addition, the way of thinking adopted by the Japanese regulatory agencies regarding the improvement of the risk management system at Japanese banks also displayed distinctive

characteristics in comparison to those of the European and U.S. authorities. One of these was the importance placed on the PDCA (Plan, Do, Check, Act) cycle (a feedback process). The importance of the PDCA cycle within the internal control process was referred to as a characteristic of the Japanese-style business model in the research report prepared in 2003 by the Study Group on Risk Management and Internal Control of the Ministry of Economy, Trade and Industry (*Risukukanri-naibutousei-ni-kansuru-kenkyuukai*, 2003) (see Chart 8 and Chart 9). As indicated above, European and U.S. financial authorities generally emphasize systems by means of which outsiders (shareholders) restrain management. At the same time, they define the process of self-control by insiders in advance, and having established a desirable mode of self-control, check the organization's conformity to the process. The problem here is that the former is meaningless if the risk appetite of the shareholders deviates significantly from the expectations of the regulatory agencies, and that the latter, to the extent that the check is limited to the self-control process explicitly indicated in advance, limits any check of actions taken to address problems that occur in the process itself (verification of the process's workability). Further, in internal control, emphasis is placed on systems of "confrontation," whereby an independent third party (risk management department) restrains the front office; however, in this process, self-discipline inside the front office is not viewed as important.

The process described above requires a great deal of time and work on the part of the regulatory agencies, and also requires them to possess high-level expertise and experience in business administration, because they must proceed on the basis of an accurate understanding of the situation of each financial institution. Furthermore, from the perspective of a financial institution, the process requires even front office departments to engage in business transactions under constant self-restraint, a situation which makes it extremely difficult to conduct business. On the other hand, it strongly encourages the financial institution to develop a system to determine "invisible risks" for itself, and to establish measures to address them. In this sense, the process can be seen as one that pushes financial institutions more strongly toward taking action to deal with invisible risks. There are also indications that the regulatory agencies have dealt with invisible risks more cautiously than the European and U.S. authorities.

In handling funds under Basel II, for instance, as a general rule the Japanese financial authorities apply the "look-through approach" (whereby risk assets are calculated for each asset held in the fund and then summed up), in addition to the internal rating method and the standard method. Only in cases in which the look-through approach is not possible is a financial institution able to apply calculation methods that are based on the criteria applicable to fund investment. By contrast, in Europe, external rating-based risk weighting or the look-through approach may be applied under the standard method, while the internal rating method permits the application of the look-through approach or the simplified

method for estimating stock costs. Thus, because a financial institution can opt not to choose the look-through approach, the most rigorous approach, even if it is available, risk-rating practice in Europe is somewhat “soft” in comparison to Japan. While the situation is somewhat better in the U.S., the existence of a hierarchical structure which prioritizes the look-through approach is not as clear as it is in Japan. If European and U.S. regulatory agencies had required financial institutions to thoroughly adhere to the look-through approach as was the case in Japan, the institutions would have been required to recognize SIVs (structured investment vehicles) as risks, even if they did not appear on their balance sheets, because they would have been required to recognize risk in itself; it may be assumed that this would have increased their prudence with regard to risk-taking.

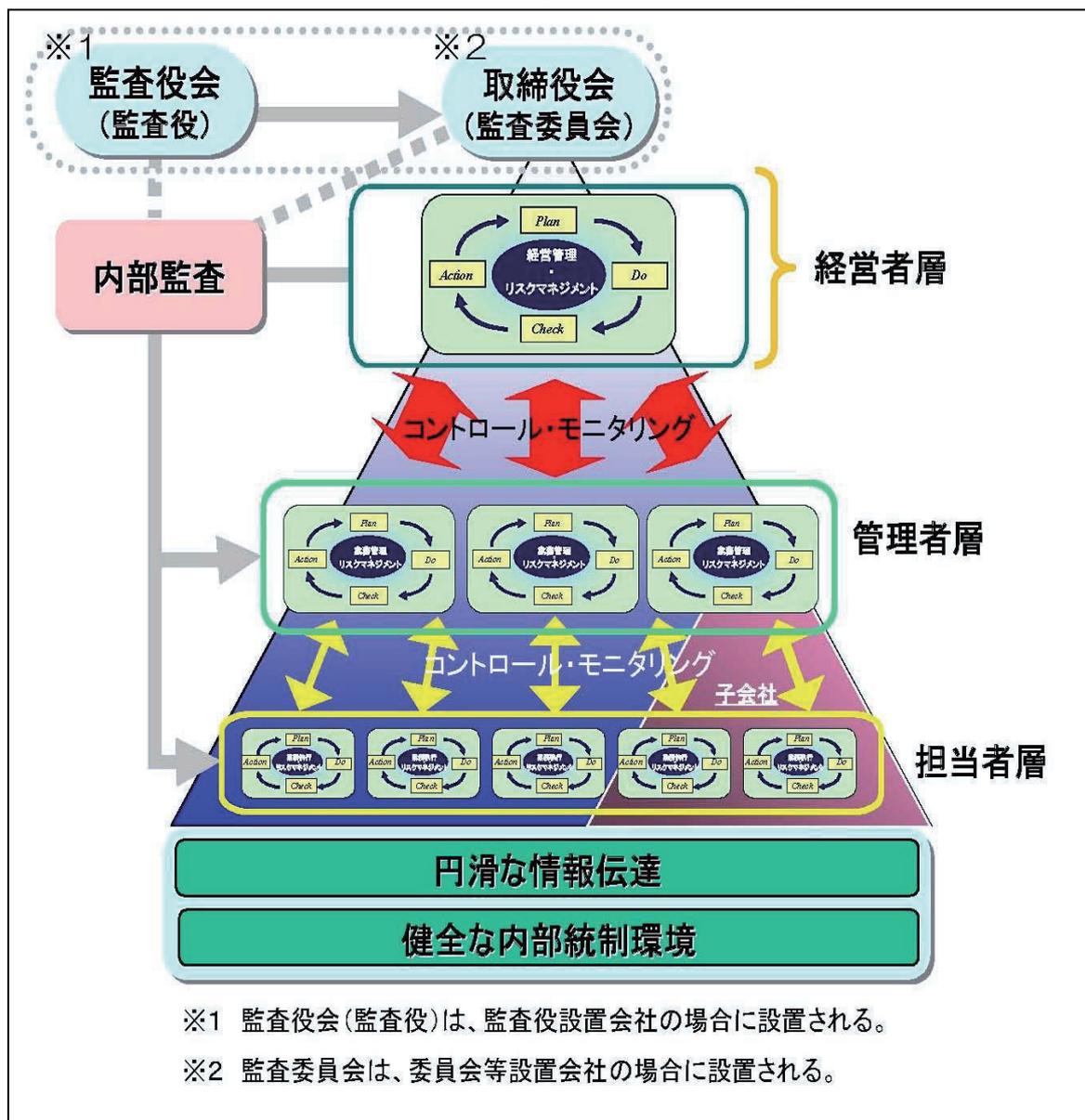
These substantial differences in the governance environments of European/U.S. banks and Japanese banks are, in fact, clearly revealed in the paper “Results from the 2008 Loss Data Collection Exercise for Operational Risk” (BCBS, 2009d), published recently by the Basel Committee on Banking Supervision. A consideration, for instance, of the operational risk losses posted by major banks (scaled on the basis of capital) (see Chart 10) reveals the losses of Japanese banks to have been smaller by one digit or more than those posted by European or U.S. banks. These data are basically restricted to operational risk losses, and we must therefore bear in mind their limitations; however, the data clearly speak of a substantial difference between European/U.S. banks and Japanese banks in terms of the way of thinking with regard to the management of individual business judgment processes.

**Chart 8: Summary of the report prepared by the Study Group for Risk Management and Internal Control**

Purpose of the report
Risk management and internal control have much in common from the perspective of coping with the risk that surrounds companies and of maintaining or enhancing corporate value. For this reason, it is necessary to consider them as a single issue in making them function. Against this background, the purpose of the report was to provide guidelines for risk management and internal control that would help companies maintain or enhance their value.
Predominant orientation of the report
Internal control should be so structured that it is shared company-wide and provides company personnel with the foundation of a sound internal control environment and smooth transmission of information when they perform company duties. Within this foundation of internal control, the top executives, the managers, and the personnel directly responsible for the task in hand each perform the PDCA cycle independently, in addition to applying controls and monitoring, as an integral part of the management process and business activities. In order to do so, it is essential to establish a monitoring function (internal audit) to independently monitor these internal control functions in their entirety.

Source: Compiled from *Risukukanri-naibutousei-ni-kansuru-kenkyuukai* (2003)

Chart 9: Overall view of internal control integrated with risk management



Source: Risukukanri-naibutousei-ni-kansuru-kenkyuukai (2003), P.24, 図表 3

- Note: 監査役会(監査役) : Board of auditors (internal auditors)  
 取締役会 (監査委員会) : Board of directors (auditing committee)  
 内部監査 : Internal audit  
 経営管理・リスクマネジメント : Business administration and risk management  
 経営者層 : Top executive layer  
 コントロール・モニタリング : Control & monitoring  
 管理者層 : Managerial layer  
 子会社 : Subsidiary  
 担当者層 : Responsible personnel layer

円滑な情報伝達：Smooth transmission of information

健全な内部統制環境：Sound internal control environment

※1 監査役会（監査役）は、監査役設置会社の場合に設置される。

:※1 The board of auditors (internal auditors) is established by a company legally obligated to have a board of auditors.

※2 監査委員会は、委員会等設置会社の場合に設置される。

:※2 An auditing committee is established by a company that adopts the committee system, in place of a board of auditors.

### Chart 10: Operational risk loss data collected by BCBS

		Annualised Sum of Losses ≥ €20,000					
		All	Australia	Europe	Japan	North America	Brazil / India
Consolidated Assets	All	155,555	170,747	129,811	13,750	387,437	394,482
	AMA	196,655	230,369	186,528	25,242	504,497	
	Non-AMA	116,838	94,121	108,300	8,820	224,287	394,482
Consolidated Tier 1 Capital	All	2,932,878	3,882,245	3,375,191	291,174	5,498,439	5,422,736
	AMA	5,640,662	5,760,028	6,376,932	551,558	12,128,746	
	Non-AMA	1,968,878	2,016,744	1,968,878	141,086	4,704,457	5,422,736
Consolidated Gross Income	All	4,860,322	5,550,147	5,125,736	726,431	8,076,643	7,711,110
	AMA	7,584,901	7,291,251	8,139,055	1,584,286	12,235,052	
	Non-AMA	4,162,786	3,211,629	3,527,860	486,563	7,024,900	7,711,110
Reported Regulatory Operational Risk Capital	All	43,268,410	29,093,167	56,283,482	5,708,683	67,153,605	177,956,321
	AMA	63,408,911	84,100,786	84,049,051	18,896,063	73,898,537	
	Non-AMA	29,093,167	21,440,604	39,381,024	3,245,737	54,602,027	177,956,321

Note 1. All participants in Brazil / India are non-AMA.  
Note 2. All losses in the stable dataset.

Source: BCBS (2009d), Table ILD11

### (Concrete measures)

The study group is of the opinion that the following measures are necessary in order to resolve the problems in the environment surrounding governance at financial institutions (particularly in Europe and the U.S.), which lie behind the current financial crisis: ①Building a governance system that enables the expectations of the financial authorities with regard to risk tolerance to be reflected in the decision-making of financial institutions; ②Improving the quality and number of supervisors and inspectors to enable appropriate evaluation of the governance system at such financial institutions; ③ Establishing a compensation mechanism designed to encourage risk-taking over a longer time horizon; and ④Establishing an organization designed to analyze the response of financial institutions to users' needs. Concrete measures will be discussed below.

It should be noted here that the above measures are only meaningful when the expectations of the regulatory agencies with regard to risk tolerance are clearly defined. See Proposal 13 for further details regarding this point.

**Proposal 1: The regulatory agencies should establish a framework influencing the corporate governance of financial institutions to have them reflect regulatory expectations (which will be clarified in proposal 13) in their risk tolerance.**

**Proposal 1.1: The regulatory agencies should enhance their supervision with an emphasis on assessing the PDCA cycle of risk management of financial institutions**

Where a substantial gap exists between the risk appetite of the shareholders and the expectations of the regulatory agency, enhancing the shareholders' oversight of management executives alone is insufficient to respond to a stress event like the current financial crisis. In the opinion of the study group, therefore, it is important not only to place importance on shareholders' oversight of management executives, but also to enable the regulatory agencies to directly influence the risk-taking behavior of those executives.

In other words, in overseeing financial institutions the regulatory agencies should accord fresh importance to the feedback approach (PDCA) at financial institutions. Specifically, in overseeing individual financial institutions, it is important for the regulatory agencies to verify that the PDCA process (particularly the CA aspect of the process) is in use in the institution. This verification will include interviews of personnel responsible for the process. As stated above, feedback-based risk management is a management method that always assumes the existence of risks not sufficiently grasped by the institution. In a manner of speaking, the method is like walking over a stone bridge and striking each stone to be sure it will not collapse. In addition to according with the expectations of the regulatory agencies, this way of thinking addresses diverse problems related to statistical risk measurement methods (e.g. VaR) that became manifest in the current financial crisis.

**Proposal 1.2: The regulatory agencies should influence the performance evaluation of the CROs and CEOs of financial institutions.**

If it was possible for the evaluation of the performance of CROs and CEOs by the regulatory agencies to be reflected to some extent in the evaluation of their performance by financial institutions, and to include the positioning and treatment of the CRO within the organization as an item in the evaluation of the CEO (e.g. whether or not the independence of the CRO's decisions and the

implementation of his/her suggested measures are guaranteed), the positioning of the CRO in the organization could be expected to improve.

**Proposal 2: The supervisory agencies should enhance the quality and number of inspectors to enable them to properly assess the corporate governance frameworks of financial institutions. They should also establish a system by means of which each agency's supervisory measures are challenged by outside third parties, to enable them to constantly improve the quality of their supervision.**

A substantial increase in the number and quality of personnel engaged in bank inspection will be essential to the realization of Proposal 1. In order to determine through inspection whether a financial institution is properly performing the PDCA process, inspection personnel will also be required to be well versed in the institution's operations. More than insufficient risk management at financial institutions, the failure of inspection personnel in some of the affected countries to inquire into and correct that management due to insufficient numbers and quality can be seen to lie behind the level of seriousness reached by the current financial crisis.

It seems to have often been the case in certain countries that the personnel of the regulatory agencies failed to properly comprehend the risks taken by financial institutions or did not regard such risk-taking as a problem, despite the fact that they had been provided with insufficient explanations by the institution. To resolve such problems, it will be essential for regulatory agencies to have a specific number of inspection personnel with many years of experience in the banking business or who have been engaged in banking inspection for a specific length of time (at least five years). It will naturally be costly to secure specific numbers of excellent personnel to inspect instruments or products developed using complicated financial engineering. The imposition of these costs on the financial institution being inspected may be considered.

While the quality of the inspections conducted by the regulatory agencies is crucially important, checking this quality from outside is rather difficult. The creation of a system whereby the regulatory agencies of major economies regularly conducted mutual evaluations of the quality of their inspections via an international organization would represent one solution to this difficulty. Active exchange of opinions on lessons learned and improvements to the system of oversight, particularly between the regulatory agencies of countries that suffered major problems because of the financial crisis and those of countries located outside their specific regions, will be important in the establishment of a framework of governance for the oversight of financial institutions and the constant improvement of its quality by means of learning from each other.

**Proposal 3: Regulatory agencies should introduce restrictions on remuneration for the senior managers of financial institutions, and should also consider this remuneration factor as a risk element in calculating the capital adequacy ratio.**

Compensation payable to management executives should be determined from the perspective of encouraging risk-taking over a longer time horizon. To enable this, financial institutions should introduce systems designed to prevent excessive influence by near-term accounting income (i.e. systems in which current earnings will be gradually returned in the form of compensation over a long period). The important point here, however, is that the effectiveness of this initiative would be limited if some financial institutions, by not introducing such a mechanism, were able to “steal a march” on others which had introduced one. For this reason, rules or regulations should be formulated to oblige the financial industry worldwide to introduce such systems.

In addition, with regard to the level of compensation, as long as compensation is assumed to be optional, it will be necessary to apply a certain check to excessive risk-taking by financial institutions by means of regulations. In cases in which compensation is linked to income, no framework will be established that provides negative compensation for negative income (i.e. loss). The optionality of compensation (risk-taking increases the volatility of compensation, but always upwards and never downwards) ultimately provides an incentive for high-risk, high-return behaviors.

One benchmark for regulating the compensation level could be, for instance, the level of compensation in an industry (industry-wide average) that is earning a stable income over a long period (one example is a public utility industry). Put another way, this would mean ensuring a long time horizon for management by constraining the dynamism of the financial industry. There is basically a trade-off between the dynamism of the financial industry under the oversight of the regulatory agencies and management that seeks to prevent stresses of the type that have been generated by the current financial crisis. If we assume the prevention of another financial crisis as a precondition, restricting the dynamism of the financial industry can be seen as essential.

Rather than regulating the level of compensation using an absolute value representing a proportion of figures for another industry, it would be desirable to apply regulation by adopting the level as a factor in determining the required equity capital under capital adequacy ratio requirements (or as a factor in determining the scope of permissible operations). Regulation using any absolute value is not realistic because it is likely to rapidly become obsolete in the financial industry environment, which is undergoing considerable changes. On the other hand, if the level of compensation is incorporated into the capital adequacy ratio requirements, the level of capital buffers (minimum capital requirements

plus principal capital reserves required under Pillar II) required of a financial institution by the regulatory agencies could be made variable in accordance, for example, with the indicators that express the level of compensation for executives and directors.

**Proposal 4: The authorities should establish the function of analyzing the reactions of financial institutions to the potential needs of users.**

Even if the excessive dynamism of the finance industry (responses to user needs with increased profits as the main incentive) is constrained to some extent, as suggested in Proposal 3, such constraint should not cause financial institutions to be managed in such a way that they are unable to satisfactorily meet companies' or individuals' needs. One potential means of preventing such an outcome would be to assign some existing organization the task of expressing users' needs and the level of satisfaction of those needs numerically, and making this data constantly available. This would increase the "visibility" of users' needs and their level of satisfaction, making it easier for the regulatory agencies to examine to what degree a financial institution is contributing to its users (one of the most important stakeholders), how much of a gap exists between the needs of users and the service-providing capacity of financial institutions, and how much potential exists to narrow such a gap.

Specifically, the organization assigned the function might first verify, by business type and user type, the existence of gaps between the service required from the financial industry and the service actually provided, and perform a benchmark-based analysis for each individual financial institution. The organization could regularly make information available regarding variations in such gaps between different financial institutions and the causal background of this variation.

Given the purpose of the survey, we suggest that it should be performed by the regulatory authority that implemented the regulation to curb the dynamism of the financial industry. However, because it will be essential to carefully determine the needs to be satisfied, a council or similar body might also be considered as a candidate organization, in order to enable expert opinion to be reflected in the operation of the system.

## **5.2 Proposals for the implementation of flexible crisis-preventive macro-prudential policy**

### **(1) Traditional approaches**

We will provisionally define a macro-prudential policy as a policy designed to maintain the stability of the overall financial system by means of oversight of individual financial institutions or capital and liquidity requirements applicable to financial institutions in general. It may then be seen that from a microeconomic perspective (a perspective in which solvency problems at individual financial institutions result in instability of the financial system at the macro level), policies of this type have been implemented by the banking regulatory agencies, whereas from a macroeconomic perspective (a perspective in which the conditions of the macro-economy and the financial market lead to uneasiness in the financial system or reflect the signs of such uneasiness), these policies have been implemented principally by central banks.

The study group, however, is of the opinion that macro-prudential policies have not to date been implemented in a systematic manner based on the two perspectives. A consideration, for example, of the regulatory agencies of any major economy reveals that there has been insufficient analysis as to how the problems of individual financial institutions “rebound” upon macroeconomic problems, or of the type of repercussion effects macroeconomic problems have on individual financial institutions, and consequently these factors are insufficiently reflected in policy. Similarly, looking at the macroeconomic perspective employed principally by central banks, there is insufficient analysis of information on solvency at individual financial institutions (due in part to limited access to information) or their patterns of behavior. In many cases these factors are positioned as a “supplement to monetary policies,” and analyzed using only macroeconomic figures. Furthermore, it has been pointed out that in many countries systems of cooperation between banking regulatory agencies and central banks in this area have been inadequate (see “The run on the Rock,” Volume 1, House of Commons Treasury Committee (2008)). Even in cases in which the central bank serves also as the banking regulatory authority, the results of the current financial crisis suggest that there may not have been sufficient collaboration between monetary policy departments and prudential policy departments.

The difficulty of macro-prudential policies is that national consensuses, in the strict sense of the word, have not been established with regard to their objectives, tools, and implementing organizations. This is a significant point of difference between macro-prudential policies and the oversight of individual financial institutions or monetary policy. With regard to policy objectives, the policies may share the goal of maintaining the stability of the financial system; however, their policy implications differ greatly depending on whether, for instance, the financial system includes only banks, or banks and a considerable percentage of non-banks. In relation to the maintenance of the stability of the financial system, it is also difficult to concretely define “stability,” because there are no objective indicators of this parameter. In particular when the degree of stability of the financial system is

assumed to follow, like business conditions, a certain cycle, the definition of “maintenance of the stability of the financial system” may differ greatly depending upon what type of cycle the stability is assumed to follow. If the cycle is similar to a business cycle, events will occur relatively frequently that threaten the stability of the financial system. If, on the contrary, a more serious problem is assumed to define a cycle, a crisis to be dealt with may come only at a stage when the previous crisis has been forgotten.

It is also important to distinguish between the stability of the management of financial institutions (which is the target of a micro-prudential policy) and the stability of the financial system as a whole (which is the target of a macro-prudential policy). In this respect, for instance, if maintaining the diversity of the behaviors of participants in the financial system is considered to lead to stability in the financial system, we should keep in mind the possibility that uniform regulation at a microeconomic level may increase the instability of the whole system.

With regard to policy tools, at present there are no clearly defined macro-prudential policy tools. It will be necessary to deal with each situation employing as tools the oversight of individual financial institutions and capital adequacy ratio requirements, the province of the banking regulatory agencies, and monetary policies, the domain of the central bank. Monetary policies can be considered to contribute to easing a normal cycle in the sense that they are intended to address phases of a cycle that relates to the management of financial institutions. As discussed above, however, the cycle to be addressed by a monetary policy may differ from the cycle that will be dealt with by a macro-prudential policy. With regard to the causes of the current financial crisis, it has been argued that excessive emphasis on leveling-out the business cycle led to increases in the amplitude of the cycle that affects the stability of the financial system. In recent years numerous central banks have periodically published analytical reports (usually termed Financial Stability Reviews or FSR) that focus on the evaluation of the stability of the financial system from a different perspective to the implementation of monetary policies. Raising awareness of issues by means of this type of communication with the markets and the private economy may be positioned as a macro-prudential tool.

By contrast with the abovementioned policy tools possessed by central banks, supervisory measures or inspection-based actions taken as required under the circumstances prevailing at the given time have a stronger tendency, being focused more on microeconomic than on macroeconomic events, to rigorously address problems that have occurred at financial institutions *ex post facto*, and are thus backward-looking (i.e., procyclical). In a similar manner, capital adequacy ratio requirements also have a procyclical aspect, because risk asset assessment is by nature backward-looking. Therefore, from the perspective of leveling out the cycle that relates to the stability of the financial system, policy

tools focusing on the management of individual financial institutions will be unlikely to serve as macro-prudential policy tools. Relaxation of the application of a policy in a crisis, as in the case of the current crisis, for fear of its negative impact on the macro-economy (for instance, partial flexibilization of capital adequacy ratio requirements applicable to banks), may be considered as a macro-prudential policy from the perspective of leveling out the cycle.

As entities responsible for the policies discussed above, we may consider the banking regulatory agencies or the central bank. However, if the banking regulatory agencies were selected, they would face the issue of how to deal with the conflicts arising from being the single entity responsible for policies focusing on the prevention of a financial crisis, and policies focusing on overcoming a financial crisis (for example, even if a serious problem occurred in the financial system, the regulatory agencies would be likely to delay addressing the problem if the response would be very costly fiscally). At the same time, because measures to address a financial crisis will be accompanied by fiscal measures, the decision regarding the measures will inevitably be subject to a political process, while policies to prevent a financial crisis must by its nature, as in the case of monetary policy, be decided independently of the governing politics or the government in power at the time. This raises the question as to whether the same entity can implement these two types of policy. On the other hand, in the case of the central bank, the problem will be how to deal with conflicts arising between monetary policy and macro-prudential policy.

## **(2) Recent discussions and countermeasures**

Below we present an overview of the main points of discussions, and countermeasures put in place, relating to ①mitigation of procyclicality and ②systems for macro-prudential oversight (systems for oversight of the soundness of the entire financial system). Expectations are being placed on these measures as initiatives to prevent a financial crisis.

### **(Mitigation of procyclicality)**

The slowing of real economies generated by spreading global financial uncertainty in the current financial crisis increased interest in procyclicality in advanced countries. As a result, it was suggested at the 1st G20 Summit on Financial Markets and the World Economy (the Washington Summit, held in November 2008), that the regulatory agencies of the participating countries and the participating international organizations make recommendations to mitigate procyclicality. In discussions led by the FSB and the BCBS, participants discussed the introduction of capital adequacy ratio requirements that are vary with business cycles (in good economic conditions, a financial institution would be

required to set aside an equity capital buffer that exceeds the minimum capital adequacy ratio requirements and in a sluggish economy the institution would be able to tear down the buffer), and a framework designed to check the adequacy of equity capital buffers based on the stress tests conducted by the banking regulatory agencies.

The adoption of a provisioning system for accounting purposes called “dynamic provisioning” was also laid on the table for discussion from the perspective of mitigating procyclicality. This system, which has already been adopted in Spain, requires a financial institution to set aside extra general loan loss reserves in favorable economic conditions and permits it to dismantle the surplus reserves in an economic downturn. More specifically, if statistically calculated “expected loss” exceeds the institution’s actually set-aside loan loss reserves (in favorable economic conditions), the institution is required to set aside the difference for reserves, and if the expected loss falls below the actually set-aside reserves (in an economic downturn), the institution is allowed to dismantle the reserves. However, the fact that reserves on an expected loss basis are inconsistent with the accounting system has been indicated as a practical problem of the system.

The Basel Committee on Banking Supervision is expected to make public concrete recommendations for the mitigation of procyclicality based on the discussion described above by the end of 2009.

### (Stronger macro-prudential oversight systems)

The de Larosiere Report(European Commission,2009), concerning the strengthening of macro-prudential systems for the oversight of the entire financial system, was prepared at the request of the European Commission by a group of leaders of the European financial world headed by Jacques de Larosiere (ex-Governor of the Bank of France), and published on February 25, 2009. Below, we present an overview of the recommendations of the report.

#### (Key recommendations made by the de Larosiere Report)

- A new body called the European Systemic Risk Council (ESRC), to be chaired by the ECB President, should be set up under the auspices and with the logistical support of the ECB.
- The ESRC should be composed of the members of the General Council of the ECB, the chairpersons of CEBS, CEIOPS and CESR as well as one representative of the European Commission. Whenever the subject discussed justifies the presence of insurance and securities supervisors, the Governor could choose to be represented by the Head of the appropriate national supervisory authority;

- The ESRC should pool and analyse all information, relevant for financial stability, pertaining to macro-economic conditions and to macro-prudential developments in all the financial sectors.
- A proper flow of information between the ESRC and the micro-prudential supervisors must be ensured.
- An effective risk warning system shall be put in place under the auspices of the ESRC and of the Economic and Financial Committee (EFC).
- The ESRC should prioritise and issue macro-prudential risk warnings: there should be mandatory follow up and, where appropriate, action shall be taken by the relevant competent authorities in the EU.
- If the risks are of a serious nature, potentially having a negative impact on the financial sector or the economy as a whole, the ESRC shall inform the chairman of the EFC. The EFC, working with the Commission, will then implement a strategy ensuring that the risks are effectively addressed.
- If the risks identified relate to a global dysfunction of the monetary and financial system, the ESRC will warn the IMF, the FSF and the BIS in order to define appropriate action at both EU and global levels.
- If the ESRC judges that the response of a national supervisor to a priority risk warning is inadequate, it shall, after discussion with that supervisor, inform the chairman of the EFC, with a view to further action being taken against that supervisor.

### **(3) Desirable countermeasures - Proposals**

In the opinion of the study group, the most important cause of the current financial crisis after the governance environment of financial institutions was the management of macroeconomic policies, which allowed a financial bubble to be formed. In a situation in which a financial bubble of this type is emerging as a macroeconomic event, no matter how much we appeal to individual financial institutions regarding the importance of risk management, it will be difficult for their individual efforts to prevent the formation and collapse of the bubble.

On the other hand, given that the scope of the macro-prudential policies designed to level out credit cycles affecting the financial system, and the authorities responsible for those policies, are not clearly defined, it would be useless to seek to hold any individual regulatory agencies responsible for the bubble. What is important is to learn the lessons of the current crisis, and to clearly define exactly which authorities are responsible for which functions in preventing the occurrence of financial bubbles.

(Concrete measures)

**Proposal 5: Regulatory agencies and central banks should further enhance their policy coordination and dialogue to enable them to jointly conduct effective macro-prudential policy.**

**Proposal 5.1: As an objective of macro-prudential policy, the authorities should be clearly charged with preempting the massive financial crises that could occur once every 10-20 years.**

**Proposal 5.2: As a tool of macro-prudential policy, the authorities should decide the macro-stress scenarios to be assumed by financial institutions in order to assess their capital adequacy. These scenarios should vary with the different phases of the credit cycle.**

Details of the objectives, scope, policy tools, and policy implementers of the macro-prudential policies proposed by the study group are presented below.

### *Objectives*

To control in advance the formation of a financial bubble that might threaten the stability of the financial system (i.e., to level out the cycle to which a financial bubble may be considered to be subject) and, thereby, to prevent the occurrence of a financial crisis. Here, a financial bubble is defined as the formation, against the background of long-term easing of credit and excessive euphoria regarding the future of the economy, of financial asset value made possible only because it is predicated upon cash flows and other factors of a type that are unsustainable over the long term from the perspective of fundamentals.

A financial crisis as assumed here is a situation in which—amid increasing difficulty of the entire financial system to function normally due to shortages of equity capital or liquidity exhaustion—typically some major financial institutions (including systemically important non-banks) find themselves in danger of bankruptcy; this situation affects, at the same time, the management of other institutions, and by extension funding intermediation throughout the entire macroeconomy. The frequency of this type of financial crisis can reasonably be assumed to be one crisis every 10 to 20 years, a period long enough for the memory of the previous crisis to have faded.

## *Scope*

Monitoring for signs of financial crisis and the application of policy measures should not be limited solely to banks, but should encompass financial institutions defined more broadly, including nonbanks such as securities companies, insurance companies, and funds. Basically, important institutions with the potential to significantly affect the stability of the financial system (i.e., entities popularly seen as being “too big to fail,” or TBTF) should fall within the scope of these proposals.

## *Policy tools*

Essentially, the financial regulatory agencies must explicitly define indicators that express the signs of a financial bubble and, in response to trends in these indicators, implement policies that will influence risk-taking behaviors at financial institutions. Numerous candidates for indicators that will express the signs of a financial crisis are currently being discussed. There is no need to narrow these down at present, but given that a reading of, for example, the IMF’s Global Stability Review (GFSR) and the Financial Stability Review (FSR) issued by the Bank of England (BOE) indicates that the situation in the credit market leading up to the financial crisis (i.e., the market’s underestimation of risks) had been clearly recognized as abnormal since before the crisis, we can affirm that indicators exist which will at least enable us to perceive an abnormal situation. The more difficult factor, in the sense of a limited range of choices, is rather policy tools to correct an abnormality that has been identified.

We may indicate the variable adequacy capital ratio policy which is currently being discussed worldwide as an example of a policy tool that can influence risk-taking behaviors at financial institutions. Under this proposal, the level of required equity capital would be changed in accordance with each phase of a credit cycle; increased equity capital requirements would be placed on financial institutions, for example, in a phase in which a bubble was rapidly inflating. While the study group basically agreed on the necessity for such a policy, the opinions of members diverged on numerous points in relation to deciding technical details (for instance, the type of fine adjustments to be made based on target variables) at this stage, given insufficient accumulation of information regarding objective variables and instrumental variables. As will be discussed below, however, requiring financial institutions to possess excess equity capital to enable them to respond based on the constant assumption of being placed under significant stress would also be detrimental to the macroeconomy. Again, relaxing regulations in an ad hoc manner each time a crisis emerges is also likely to be detrimental to the very system of regulation. For this reason, the study group is of the opinion that at this stage, a moderate policy response should be made within the scope outlined below.

- Required equity capital should not be lower than the current minimum equity capital requirements under Basel II (8% of risk assets). In addition to these requirements, the regulatory agencies should require additional buffers from financial institutions under Pillar 2 of Basel II as appropriate in the specific phase of the credit cycle.
- The size of additional buffers should correspond to the consequences of the macro stress scenarios formulated by the regulatory agencies (to be discussed below). For instance, if the regulatory agency determines that the current risk measurement continues to be affected by the past excessively lax credit risk assessment environment and this has caused risks to be underestimated, the authority should introduce a macro stress scenario designed to correct this underestimation, and should require additional buffers based on this scenario.
- The additional buffers referred to above should be positioned as objectives that each financial institution should make its best efforts to achieve. A financial institution should not be required to disclose the means by which it raises the required capital, as long as it maintains its core Tier 1 capital above the established minimum level.
- These policies should be applied to systemically important financial institutions.
- As a measure enabling the easing of the policies in the event that a financial crisis becomes serious, capital procurement by all financial institutions should be provided, to a specific extent, with unconditional government guarantees, after the limitations imposed by the minimum equity capital requirements (8% capital adequacy ratio) have been taken into consideration.

### *Policy implementers*

Giving consideration to the potential for a variety of conflicts to arise, the study group concluded that, rather than assigning responsibility for the implementation of macro-prudential policies to a single organization, cooperation and dialog between regulatory agencies and central banks should be further enhanced in the future to enable the two organizations to jointly monitor the degree of stability of the financial system from a macroeconomic perspective and act to prevent the occurrence of any event likely to threaten such stability. The study group further concluded that, in order to prevent conflicts of interest, the authorities should make judgments regarding macro-prudential policies independently of responses to collapses of financial institutions, the management of monetary policy, and political influence, and should manage the policies with a strong awareness of these factors.

To enable them to detect in advance situations which threaten the stability of the financial system, these authorities should be familiar with the operation of financial institutions and risk management procedures, and have a considerable capacity for macro-prudential research, supported by personnel

who are well-versed in macroeconomic mechanisms. In the interests of clarifying the nature of the financial crises that should be assumed, and of ensuring transparency in the process of implementation of macro-prudential policies, it would be desirable for the authorities to discuss the macro stress scenarios which will serve as one benchmark for variable capital requirements with financial institutions, and to compile the results of these discussions in a form which can be made available overseas.

## **5.3 Weaknesses of risk management in individual financial institutions and proposals for addressing these weaknesses**

### **(1) Traditional approaches**

Individual financial institutions have traditionally employed the following risk management approaches (see 6.2 for more information concerning liquidity risk management).

- Scope of risks: Market risks; Credit risks; Operational risks; Risks related to cross-shareholdings (in the case of Japanese banks); Liquidity risks; Strategic risks; Compliance risks, etc.
- Risk measurement methods: VaR, if risk factor data are available; Stress tests if data are unavailable or if limitations of VaR need to be supplemented; Scoring through CSA, etc. When measuring risks, for example, in the case of VaR, it is necessary to establish a level of confidence (or risk appetite) in advance at a desirable level for each organization.
- Risk management methods: Management of risks through stress tests; control of the amount of risk measured using the abovementioned approaches to within a specific limit (this limit is basically derived from risk appetite and is usually determined through allocation of “economic capital”); Management of risks using CSA or other qualitative approaches.
- Utilization of results of risk measurement: Verification of capital adequacy by comparison of aggregate risks and own capital; Verification of capital efficiency by derivation of risk return indicators and determination of new economic capital allocation based on the calculated capital efficiency.

The abovementioned risk management approaches have the following characteristics:

- Economic loss-related risks tend to be classified based on business activities or responsible business units (rather than causes of economic loss). Risk management approaches also tend

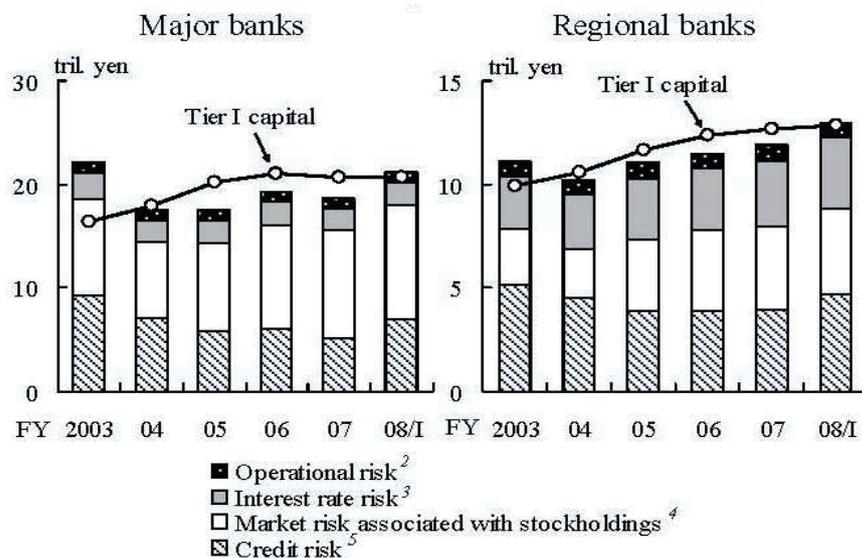
to be divided in line with risk categories.

- Risks are quantified in the order market risks, credit risks and operational risks. In this order, the level of dependence of risk management on quantified risk is highest (In reverse order, risk management is more highly dependent on qualitative approaches <CSA-based, scorecard-based and expert judgment-based risk management approaches>).
- When quantifying risks, the confidence level (risk appetite) tends to be determined based on exogenous factors (regulations, the intentions of government authorities, a follow-the-crowd mentality, the current capital adequacy level), rather than endogenous factors (autonomous management decisions).
- Since VaR, which plays an important role in the quantification of risk, only considers uncertainty in the period covered by the data used, in general it is useful for managing uncertainty from a short-term perspective, but is not helpful for long-term management beyond the period covered by the data. However, in many cases this latter point is not explicitly considered.
- Stress tests are employed only for limited purposes, as a tool for evaluating economic capital or capital adequacy. It is standard procedure throughout the industry to utilize stress tests as a means of compensating for the limitations of VaR, i.e. to base them on historical scenarios incorporating significant past fluctuations not falling within the observation period, or scenarios incorporating significant fluctuations exceeding the assumed normal distribution. However, it is only rarely that conservative, highly-probable, and forward-looking scenarios are prepared and explicitly employed as a tool for identifying, evaluating and controlling risks.
- When expressing risks for an entire corporation, analysts tend to simply add up risks measured for each category (or add up risks with a partial consideration of correlations). In addition, the relationships among risks tend to be determined in line with a bottom-up approach (estimating a correlation among risk factors in advance), rather than a top-down approach (identifying spillover effects on various risk factors in line with the risk scenario).
- The extent to which the capital efficiency as shown in the measured risks (economic capital) is employed for corporate management purposes tends to be dependent on the accuracy of risk measurement or judgments regarding the importance of other factors. The degree of this dependence varies significantly among financial institutions.

Cross-shareholding is a business practice Japanese financial institutions share with German financial institutions and few others. Risk management related to cross-shareholdings has the following characteristics:

- Cross-shareholding risks are usually measured using the same method as other risks (VaR). In the past, many financial institutions set shorter holding periods, but more recently many have set longer holding periods to reflect their long-term shareholdings and cross-shareholding policies.
- In terms of management of economic capital, the ratio of cross shareholding risks is extremely high for major banks. Although they have significantly reduced their cross-shareholdings recently, cross-shareholding risks account for more than half of their overall risks (Chart 11).
- In accordance with grandfathering under the Basel II regulations, financial institutions may, for 10 years after disclosing their shareholdings, use the standard approach to calculate their capital requirement on their shareholdings acquired prior to such disclosure (at a risk weight of 100%). In the case of new shareholdings, or if 10 years have elapsed since disclosure, financial institutions select one of the following options: ① Calculation in line with the IRB's risk weight function based on PD and LGD (=90%), ② Calculation using a simplified method (listed shares: risk weight of 300%; unlisted shares: risk weight of 400%), or ③ VaR (confidence level: 99%; holding period: 3 months). However, these risks usually account for a smaller percentage than economic capital-related risks.
- In part because Japanese financial institutions recognized that they faced significant cross-shareholding risks at the time of Japan's banking crisis, major banks decreased their cross-shareholdings by up to a half (Chart 12). More recently, however, because share prices have been rising steadily the level of cross-shareholdings has remained steady.
- Since commencing economic capital management with a particular focus on capital adequacy, risk management analysts have been facing the dilemma of striking a balance between cross-shareholding for the purpose of establishing long-term business relationships with customers and the magnitude of asset price fluctuation risks. Hedging on cross-shareholdings is not widely employed because of difficult hedging requirements in accounting and high hedging costs.
- From the macroeconomic perspective, through their cross-shareholdings, financial institutions are still the largest risk capital suppliers in Japan. If cross-shareholding was to be made more difficult for financial institutions, the question would arise as to which other entities would supply capital to this extent.

**Chart 11: Risk amounts and Tier 1 capital at Japanese banks**



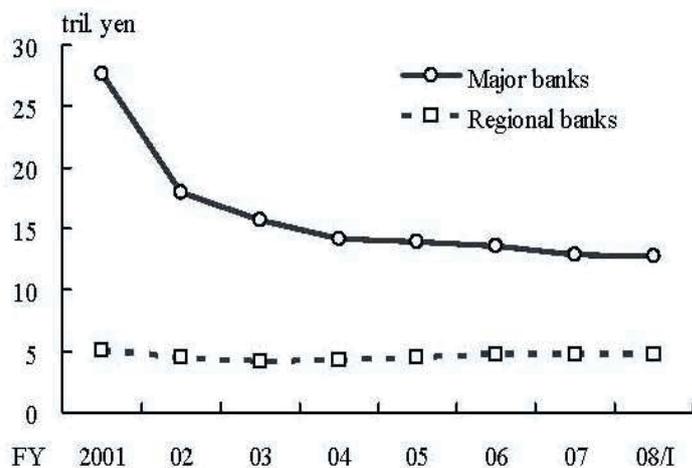
Notes: 1. Bank of Japan estimation.

2. Operational risk is defined as 15 percent of gross profits based on the Basel II basic indicator approach.
3. Interest rate risk is limited to yen-denominated bond portfolios and calculated by the same method as in Chart 3-13.
4. Market risk associated with stockholdings is measured using TOPIX as a risk factor, given 1-year holding period and 99 percent VaR.
5. Credit risk is calculated by subtracting the expected loss (EL) from the maximum loss (EL + UL) based on the Basel II risk weight formulas with a confidence interval of 99 percent. In the estimation, borrowers classified as requiring "special attention" or below (in terms of credit quality) are considered to be in a state of default. The relaxation of requirement for restructured loans is not taken into account.

Source: BOJ (2009a), P.29, Chart3-1

Notes: Interest rate risk is estimated based on the assumption that market interest rates rise by 100 basis points for all maturities (BOJ, 2009a, P.35, Chart3-13)

**Chart 12: Shareholdings of Japanese banks**



Notes: 1. Figures are based on acquisition prices.  
2. On a consolidated basis.

Source: BOJ (2009a), P.15, Chart1-31

## **(2) Recent discussions and countermeasures**

Since the financial crisis, reports released by international organizations consisting of financial authorities or by national regulatory agencies, for example, the SSG (SSG, 2008], the FSF (FSF, 2008), the BCBS (reports on liquidity risks, stress tests and enhancement of the Basel II framework: BCBS, 2008a, 2008b, 2009a), the UK FSA (guidelines on stress test and liquidity risk management, the *Turner Review*: FSA, 2008a, 2008b, 2009a), the JF, (report on risk concentration: JF, 2008) and the Bank of Japan (report on liquidity risk management: BOJ, 2009b) have questioned current risk management practices and called for their improvement, as outlined below.

- Insufficient involvement of top management in risk management
- Lack of top-down risk management approaches encompassing the entire corporation (negative effects of vertically-segmented risk management practices)
- Lack of recognition of and insufficient countermeasures towards limitations of VaR
- Insufficient utilization of stress tests, including to supplement the abovementioned limitations of VaR
- Insufficient liquidity risk management
- Making easy use of ratings evaluated by external credit-rating authorities
- Insufficient recognition of uncertainties of risk concentration, reputational risks, model risks, etc.

Stress tests were a strong focus of the study group's discussions. The following chart shows an overview of principles of sound practice for financial institutions as described in the BCBS's "Principles for sound stress testing practices and supervision" (BCBS, 2009a).

**Chart 13: Principles for sound stress testing practices and supervision**

1. Stress testing should form an integral part of the overall governance and risk management culture of the bank. Stress testing should be actionable, with the results from stress testing analyses impacting decision making at the appropriate management level, including strategic business decisions of the board and senior management. Board and senior management involvement in the stress testing programme is essential for its effective operation.
2. A bank should operate a stress testing programme that:
  - Promotes risk identification and control
  - Provides a complementary risk perspective to other risk management tools
  - Improves capital and liquidity management; and
  - Enhances internal and external communication.
3. Stress testing programmes should take account of views from across the organisation and should cover a range of perspectives and techniques.
4. A bank should have written policies and procedures governing the stress testing programme. The operation of the programme should be appropriately documented.
5. A bank should have a suitably robust infrastructure in place, which is sufficiently flexible to accommodate different and possibly changing stress tests at an appropriate level of granularity.
6. A bank should regularly maintain and update its stress testing framework. The effectiveness of the stress testing programme, as well as the robustness of major individual components, should be assessed regularly and independently.
7. Stress tests should cover a range of risks and business areas, including at the firm-wide level. A bank should be able to integrate effectively across the range of its stress testing activities to deliver a complete picture of firm-wide risk.
8. Stress testing programmes should cover a range of scenarios, including forward looking scenarios, and aim to take into account system-wide interactions and feedback effects.
9. Stress tests should be geared towards the events capable of generating most damage whether through size of loss or through loss of reputation. A stress testing programme should also determine what scenarios could challenge the viability of the bank (reverse stress tests) and thereby uncover hidden risks and interactions among risks.
10. As part of an overall stress testing programme, a bank should aim to take account of simultaneous pressures in funding and asset markets, and the impact of a reduction in market liquidity on exposure valuation.

11. The effectiveness of risk mitigation techniques should be systematically challenged.
12. The stress testing programme should explicitly cover complex and bespoke products such as securitised exposures. Stress tests for securitised assets should consider the underlying assets, their exposure to systematic market factors, relevant contractual arrangements and embedded triggers, and the impact of leverage, particularly as it relates to the subordination level in the issue structure.
13. The stress testing programme should cover pipeline and warehousing risks. A bank should include such exposures in its stress tests regardless of their probability of being securitised.
14. A bank should enhance its stress testing methodologies to capture the effect of reputational risk. The bank should integrate risks arising from off-balance sheet vehicles (SIVs) and other related entities in its stress testing programme.
15. A bank should enhance its stress testing approaches for highly leveraged counterparties in considering its vulnerability to specific asset categories or market movements and in assessing potential wrong-way risk related to risk mitigating techniques.

Source: BCBS (2009a)

With regard to cross-shareholding risks, which were another focus of the study group, it was reported that the Financial System Council's Sectional Committee on the Financial System called for a prohibition on or limitation of cross-shareholding as soon as possible, because a decline in share prices during an economic recession would cause the financial status of banks to deteriorate, which would have negative impacts on the real economy due to the unwillingness of banks to extend new loans (*Nihon Keizai Shimbun*, June 11, 2009). It should be noted that when share prices dropped sharply in 2008 the government (the Banks' Shareholdings Purchase Corporation) and the Bank of Japan began purchasing equity shares held by banks.

### **(3) Desirable countermeasures – Proposals**

As has been made clear by the current financial crisis, addressing risk management problems in individual financial institutions will not provide a decisive solution for the prevention of a new financial crisis, but it would provide a strong support for a governance environment that would help to prevent a financial crisis and for government initiatives on macro prudence. From this perspective, international organizations and government authorities have already released various reports that generally suggest appropriate improvements to current risk management practices, as discussed above.

Among the various issues mentioned above, the study group discussions focused intensively on desirable stress tests and desirable cross-shareholding risk management practices, the latter of which are an issue specific to Japan.

(Desirable stress testing)

**Proposal 6: With regard to stress tests for individual institutions, special attention should be paid to the importance of senior managers' involvement in the scenario-making process, and the validation of capital adequacy by scenarios that are generated by senior managers. Furthermore, companies should consider granular scenarios focusing on root causes and forward-looking scenarios, and are expected to capture explicitly the transmission structure of initial shocks from multiple perspectives. They should share understandings of macro-stress scenarios with the authorities and have enough capital to overcome reasonably plausible scenarios.**

With regard to a desirable form of stress testing that would complement the limitations of VaR, many members of the study group pointed out that it would be important to ①prepare forward-looking stress scenarios that are not influenced by historical data, ②conduct reverse stress tests that examine stress events after estimating a specific stress level, ③understand contagion mechanisms that span multiple years, and ④utilize stress test results for risk management purposes. Possible issues with regard to implementation were also pointed out, as follows: ①How should analysts judge whether a stress test has a probable scenario?; ②How should analysts select appropriate risk drivers (i.e., Is it enough to simply select easily understandable risk drivers)?; and ③Is it possible to understand the actual contagion mechanism (going beyond a macroeconomic model, for example)?

As realistic solutions at the present moment, many of the members of the study group suggested that financial institutions should focus attention on the following points when conducting stress tests.

- Top management should be deeply involved with the stress scenario drafting process.
- In addition to being compatible with regulatory requirements, the degree of stress in stress scenarios should pose threats to corporate management stability and capital adequacy from the corporate management perspective. A scenario might be considered in which, due to a sharp decline in profits (for example, net operating income declines by half), or economic loss/valuation loss, capital adequacy falls short of the level required for stable corporate management (e.g., a specified level above the minimum capital requirement).
- When drafting scenarios incorporating this degree of stress, financial institutions should also prepare a significantly less likely scenario (for example, a scenario that is “not totally unlikely” for an economic fluctuation cycle over the next 5-10 years) (the reverse stress test concept). This would enable financial institutions to take realistic actions in line with how probable their scenarios are.

- When drafting risk scenarios for stress tests, financial institutions should, rather than considering risk triggers based on conventional risk categories, examine possible triggers in line with the root cause categories (for example, root cause categories employed for loss event categories in operational risk management). (Of course, loss event categories for operational risk management purposes are insufficient by themselves to cover all risks.) By this means, financial institutions will be able to ensure appropriate granularity for the triggers of their risk scenarios and easily confirm the exhaustiveness of their stress scenarios.
- Financial institutions should analyze the possible impacts of various factors on their financial and risk structures based on the loss events serving as root causes. On the basis of the findings of such analyses, financial institutions should identify primary risk factors that would directly impact on their capital adequacy, for example through loss or valuation loss (these primary risk factors would include interest rates, share prices, foreign exchange rates, real estate prices, the financial indicators of debtors which affect their credit ratings, and various prices in the financial market).
- When drafting risk scenarios, financial institutions should, paying due attention to recent economic/financial environments, focus on the forward-lookingness of the risk scenario obtained from the contagion mechanisms as described below.
- It is desirable for financial institutions to explicitly identify, from as multifaceted a perspective as possible, the contagion mechanism leading to primary risk factors after risks become manifest. For example, after drafting a matrix including impacts on Japan's macro-economy or regional economies (personal consumption, capital spending, public investment, exports, etc.), impacts on various financial market/asset prices (equity, real estate, etc.), impacts on overseas economies or overseas financial markets, and monetary flows between Japan and the rest of the world, it will be important for financial institutions to carefully verify each contagion mechanism, including the feedback from primary impacts, and also to appropriately document whether such verification is possible and how accurate the verification is. This will make it easier to verify the exhaustiveness of the contagion mechanism.
- It would be desirable for the abovementioned contagion mechanisms to capture dynamism for at least two years (for example, semiannually) from the occurrence of possible causes.
- It is desirable for input data to be accurate and abundant when conducting these stress tests, but due attention should also be paid to the trade-off with expeditiousness and flexibility. In the long term, it will be desirable for financial institutions to establish information systems capable of expeditiously using accurate and abundant data. However, before such systems are established, expeditiousness and flexibility should be emphasized.
- Benchmarking employing macro stress scenarios formulated by regulatory agencies in Japan

and abroad is available as a tool for verifying how probable and objective the scenarios are. (The regulatory agencies should prepare macro stress scenarios with strong consideration of the possibility of benchmarking by private financial institutions in this manner.) In addition, rather than simply referring to scenarios, it will be important for financial institutions to share their scenario selection methodologies (perspectives regarding the origins of stress and contagion mechanisms) with the regulatory agencies. An excessive convergence on a single stress scenario among banks would increase systemic vulnerability to unexpected stresses, and the regulatory agencies should therefore avoid imposing a common scenario on financial institutions.

- Financial institutions should maintain at least sufficient capital adequacy to enable them to overcome highly plausible stress scenarios.

### (Desirable cross-shareholding risk management)

As long as the existing accounting system remains unchanged, it will be necessary to consider a desirable risk management approach for cross-shareholdings predicated on that accounting system. Some of the members of the study group pointed out that from the perspective of the soundness of the financial system, it would be difficult for financial institutions to continue assuming cross-shareholding risks as long as the current regime remains unchanged.

On the other hand, other members of the study group argued that the supply of risk capital and the stability of corporate governance achieved by Japanese banks through cross-shareholdings should be viewed in a positive manner. In this case, because assuming share price fluctuation risks is not the ultimate purpose, it would be desirable to limit cross-shareholding risks to event risks (i.e., risks that exclude market-linked general market risks but are derived from factors specific to each financial institution, such as bankruptcy or a change in credit rating) or to entirely neutralize them (i.e., avoiding profit/loss resulting from share price fluctuation by totaling the valuation profit/loss of the hedging instruments) by using hedging instruments against general market risks. However, agile hedging is difficult at present due to a lack of hedging instruments and the stringent requirements of hedge accounting. The difficulty of hedging due to accounting issues is not limited to cross-shareholding, but has also become apparent in the case of CDS hedging in the current financial crisis.

### **Proposal 7: The authorities should restrict financial institutions' equity holdings from the viewpoint of the stability of the financial system.**

Given that it would be difficult to expect banks, with their long-term responsibility for industrial

finance, to modify their business practices spontaneously, the regulatory agencies should consider placing restrictions on cross-shareholdings from the perspective of the soundness of the financial system, rather than leaving the situation to the business judgments of individual banks. In doing so, it will be necessary for the authorities to give due consideration to recent calls for amendment of the international accounting standards.

**Proposal 8: The authorities should also introduce institutional measures that would facilitate equity risk hedging by financial institutions. The Japanese Banks Shareholdings Purchase Corporation, which will purchase equity from Japanese financial institutions, should design an ETF as a part of its exit policy so as to facilitate the emergence of risk capital providers other than financial institutions in Japan.**

The study group members agreed that regulatory requirements on recognizing hedging effects (for example, hedges on cross-shareholdings and hedges on loans) should be significantly relaxed, and that it will be necessary to encourage the accounting community to adopt a similar orientation (In this case, it would also be necessary to introduce new regulations to prevent easy profit-taking and ensure that no conflicts of interest occur). Many of the study group members pointed out that even if financial institutions were compelled to sell their cross-shareholdings through tighter regulations, the designation of a tentative entity to hold those shares would contribute to stabilizing the financial system. The study group members agreed that in this case, because an equity purchase organization would plan the establishment of ETFs in advance (or the diversification of risk capital suppliers through the sale of ETFs), it would be desirable to clearly designate this type of exit and encourage financial institutions to sell their cross-shareholdings.

## **5.4 Proposals for an accounting system framework from the perspective of financial system stability**

### **(1) Traditional approaches**

This section will mainly focus on fair value accounting and derecognition criteria.

International Financial Reporting Standards (IFRS) define fair value as “the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm’s length transaction” (IAS 39) and basically require valuations based on market prices (where market participants engage in active transactions). In Japan, fair value is “the fairly measured value based on

transaction prices formed in a market or other quoted market prices such as indicative prices or indices (hereinafter referred to as “market prices”). If market prices are not available, rationally calculated values shall be used as the fair values” (See ASBJ Statement No. 10.) This is almost the same definition as that of the IFRS.

In the case of banks, fair value is applicable to trading account transactions. In addition, fair value is also required for banking account transactions under the category of “other securities” in cases in which a market price is available. The valuation profit/loss in this case is not reflected in P/L, but is directly reflected in the net asset section.

In the United States, SFAS 157, which defines fair values applicable to various transactions, defines fair value as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” In other words, fair value in the United States is based on the “exit price” receivable in selling an asset, rather than the “entrance price” payable in acquiring an asset. In addition, fair value has three different categories: Level 1, Level 2 and Level 3. (Furthermore, these are organized into a hierarchical structure which gives the highest priority to Level 1).

Level 1 refers to a disclosed price in a market in which specific assets/liabilities are actively traded. If such a price is available, this price must be used by priority. Level 2 is a price level estimated from one of the following data (if such data are available for a specific asset/liability): ① Disclosed price of a similar product actively traded in the market; ② Disclosed price of a specific asset/liability not actively traded in the market; ③ Price based on information concerning a factor that would affect price formation for a specific asset/liability; and ④ Price estimated from observable market data using correlations or other factors. Finally, Level 3 refers to a price estimated using the best information available if the aforementioned data are entirely unavailable. It usually refers to prices estimated in models.

With regard to derecognition criteria, although real estate-related loans were dropped from balance sheets through SIV-based securitization at the time of the current financial crisis, risks have returned to originators for reputational reasons, leading to massive losses. Analysts generally point out a lack of effective control standards (or an insufficient concept of “main beneficiary”), the negative effects of the rule approach, and insufficient learning of lessons from the Enron scandal as problems of derecognition criteria in the United States. They also point out that although Japan has effective control standards, the nation faces similar problems to the United States in terms of derecognition criteria for securitization vehicles. (In Japanese accounting standards, a special purpose company

satisfying the requirements of Paragraph 7, Article 8 of the Financial Statements Regulations is assumed not to be a subsidiary. Due to this rule, Japan's asset liquidation vehicles are effectively excluded from consolidated accounting.)

## **(2) Recent discussions and countermeasures**

What actually happened from 2007 to summer 2008 under these frameworks? With the drying up of market transactions, a large number of financial institutions shifted their valuation methods from Level 1 to Level 2 or 3, while audit firms issued major warnings concerning definitions of the drying up of market transactions and Level 3 valuation methods. In October 2007, the Center for Audit Quality (CAQ), the trade organization for US audit firms, released a white paper on fair value measurement in low-liquidity markets (CAQ, 2007). In addition, the Global Public Policy Committee (GPPC), an international trade organization for accounting firms, released a very similar paper in December 2007 (GPPC, 2007). According to these papers, if market prices or market data which can be referred to exist, analysts should not simply ignore these data as abnormal values, but should rather evaluate prices by incorporating liquidity risk premiums derived from such data as much as possible. In response to this firm stance on the part of audit firms, financial institutions again reviewed their Level 1, 2 and 3 categories.

This trend has reversed since autumn 2008. First, the Emergency Economic Stabilization Act in the US included a provision concerning a review of mark-to-market accounting. Specifically, the act clearly authorizes the US Securities and Exchange Commission (SEC) to stop applying SFAS 157. In addition, the SEC released a document entitled "Clarifications on Fair Value Accounting" on September 30 (SEC, 2008). According to the SEC document, because transaction prices not resulting from active transactions do not represent fair values, corporations may give an assessment based on theoretical prices, inclusive of that corporation's judgments. Japan has not clearly introduced the fair value hierarchy, but Japanese firms presumably make judgments in a similar manner to US and European firms.

The International Accounting Standards Board (IASB), which has significant influence on European banks, also released a similar paper to the SEC's on October 13, 2008 (IASB, 2008). At the same time, the IASB expressed the position that it would flexibly accept transfer of products that have been categorized in trading accounts to different accounts for which mark-to-market accounting is unnecessary (e.g., loans in banking accounts or held-to-maturity securities). Finally, in Japan, the Accounting Standards Board of Japan (ASBJ) issued a document that approves, to a limited extent, a change in categories concerning the purpose of holding bonds (Practical Issues Task Force Report No.

26, “Tentative Solution on Reclassification of Debt Securities”) on December 5.

The IASB is currently examining a variety of proposed revisions, seeking to push ahead with the convergence of international accounting standards. An outline of proposed revisions concerning classification of financial products is shown below.

(Current categories)	(New categories suggested)		
	<Asset valuation>	<Recognition of profit/loss>	<Transfer to shareholders' equity>
Trading	Fair value	Current net income	Earnings retained
Securities available for sale (AFS) (equity)	Fair value	Current net income	Earnings retained
		Other comprehensive income (OCI)	Accumulative OCI
Securities available for sale (AFS) (bond)	Fair value	Current net income	Earnings retained
	Amortized cost	—	—
Held to maturity (HTM)	Amortized cost	—	—
Loans and receivables (L&F)		—	—

The IASB and the Financial Accounting Standards Board (FASB) jointly established the Financial Crisis Advisory Group (FCAG), made up of external experts, in order to investigate the impact of the current financial crisis or a change in supervisory/regulatory practices due to the financial crisis on the establishment of new accounting standards. The FCAG released its final report in July 2009 (FCAG, 2009). Chart 14 shows an outline of the final report.

**Chart 14: Outline of FCAG final report**

Effective financial reporting
<ul style="list-style-type: none"> <li>• Financial reporting plays an integral role in the financial system by striving to provide unbiased, transparent and relevant information about the economic performance and condition of businesses. Effective financial reporting requires high quality accounting standards.</li> <li>• The confidence of all these users, including investors, in the transparency and integrity of financial reporting is critically important to global financial stability and sound economic growth.</li> <li>• Where regulatory standards differ from accounting standards in ways that could have significant effects on financial reporting, the effects of those differences should be disclosed.</li> </ul>

<b>Limitations of financial reporting</b>
<ul style="list-style-type: none"> <li>• All users, including investors, should recognize that financial reporting provides only a snapshot in time of economic performance and cannot provide perfect insight into the effects of macro-economic developments.</li> <li>• It should be understood that financial reporting is dependent on data generation methods and price-setting methods.</li> </ul>
<b>Convergence of accounting standards</b>
<ul style="list-style-type: none"> <li>• Because of the global nature of the financial markets, it is critically important to achieve a single set of globally converged financial reporting standards that provide consistent, unbiased, transparent and relevant information, regardless of the geographical location of the reporting entity.</li> </ul>
<b>Standard setter independence and accountability</b>
<ul style="list-style-type: none"> <li>• To develop effective standards, accounting standard setters must enjoy a high degree of independence from various undue pressures.</li> <li>• On the other hand, they must also have a high degree of accountability through appropriate due process.</li> </ul>

Source: Compiled from FCAG (2009)

Below, we consider discussions at the Financial Stability Forum (FSF) and the International Monetary Fund (IMF) regarding fair value accounting and reserve requirements from the perspective of procyclicality.

### (Discussions at the Financial Stability Forum [FSF])

The FSF's procyclicality report, released in April 2009 (FSF, 2009b), includes concrete proposals for the mitigation of procyclicality in the accounting system. For example, one proposal regarding fair value accounting suggests that if accounting standards setters or government authorities supervising the soundness of financial institutions do not possess sufficient data or models for estimating fair values, they should consider changing the accounting system to allow the holding of valuation reserves of fair value-appraised financial products or adjustment of the fair values. The application of fair value accounting to inactively traded financial products will enable conspicuous uncertainty with regard to the value of those products to be avoided.

The FSF report also proposes consideration of possible improvements in the quality of accounting models in order to enable careful examination of whether or not fair value accounting may be applied to financial products owned by nonbank financial institutions. The FSF made this proposal because it

recognizes that previous expansion of the scope of fair value accounting has encouraged market transactions that react excessively to price fluctuations. In addition, the FSF report also insists that the initiatives it proposes should be implemented in collaboration with the Basel Committee on Banking Supervision (BCBS).

On the other hand, in its proposals regarding the loan-loss reserve framework, the FSF report points out that accounting standards setters, such as the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB), would play important roles in this area. The FSF also requests the BCBS to reconsider the Basel II restrictions from the perspective of mitigating procyclicality, taking into consideration the loan-loss reserve framework.

### (Discussions at the International Monetary Fund [IMF])

In its *Global Financial Stability Report* (IMF, 2009) released in April 2009, the IMF also discusses the relationship between the present accounting system and procyclicality. The IMF report calls for joint efforts to improve the accounting system in a manner contributing to the mitigation of procyclicality, for example by requesting accounting standards setters and supervisory agencies to allow higher loan-loss reserves during periods of rapid credit expansion (mainly economic boom periods) and to reexamine possible price-setting methods for uncertain asset values in trading accounts.

The following are the main proposals that have presently been made in order to mitigate the procyclicality of fair value.

- ① Expansion of the scope of application of model prices (Level 3)
- ② Introduction of a valuation reserve (a reserve for valuation stress in response to uncertainties in model valuations)
- ③ Approval of change in categories relating to purpose of holding bonds
- ④ Full application of fair value (if the scope of application is extended to liabilities, net impact will be reduced)
- ⑤ Adoption of a reserve regime (adoption of a concrete dynamic provisioning scheme, or the use of expected loss models in place of incurred loss models) or macro-prudential policies compatible with economic cycles (business cycles or longer-term asset cycles)
- ⑥ Implementation of stress tests and increase of capital buffers

With regard to derecognition criteria, the abolition of qualified special purpose entities (QSPEs),

which have frequently been used for off-balance sheet finance, has been proposed. (However, this rule will become effective in January 1, 2010, one year later than the initial schedule.) It is assumed that in the case of the United States, the effective control standards will be realized through convergence with the IASB.

### **(3) Desirable countermeasures– Proposals**

#### **(Problems)**

Broadly speaking, the following two problems have been indicated with regard to fair value accounting during the current financial crisis: ①It is procyclical; and ②Ambiguous definitions, standards, and business practices in relation to judgments concerning the applicability of theoretical prices have increased uncertainty regarding the evaluation of fair values.

Fair value can be considered to inherently possess objectivity as the greatest common denominator of subjective values among diverse market participants. From the viewpoint of investors in particular, this objectivity in itself can be considered to be helpful in collecting the latest cash flow data at various times and excluding distorted price evaluations resulting from idiosyncratic factors (for example, accounting operations). However, this objectivity exists at a single point in time (as an evaluation that represents the greatest common denominator among market participants at the same point in time); the value will not necessarily be objective from the perspective of a time series (it is not an evaluation that represents the greatest common denominator among market participants spanning different points in time). Therefore, if the evaluation of the majority of market participants for some reason deviates significantly from the most likely price evaluation based on a time series (the image held of the average when mean reversion is historically observable) in the direction of amplification of the cycle, it can be considered to generate a procyclical effect. Broadly speaking, price evaluations in the market may deviate significantly from the historical trend at any given time due for example to: ① euphoria, ② liquidity conditions, ③ increased uncertainty, or ④ rumors.

Evaluations in fair value accounting acknowledge future profits in advance. The criticism has been made that this has led to easy-going cash flow management and over-evaluation of earnings (which has in turn expanded the amplitude of cycles).

By contrast, evaluation based on acquisition price would mitigate procyclicality if the acquisition price was closer to the most likely price evaluation based on a time series than the fair value. However, because they will be unable to incorporate the latest cash flow data, among other reasons, it will be

difficult for investors to evaluate idiosyncratic factors at the same point in time.

The study group concluded that even if fair value accounting in itself does not bring about cycles, it inevitably amplifies cycles. However, from the accounting perspective, the members of the study group do not view as inherently problematic the fact that ensuring objectivity in an idiosyncratic sense (for example, preventing accounting fraud, or ensuring transparency in corporate financial activities) is considered more important than ensuring objectivity in a cyclical or historical sense.

The IASB indicates two reasons why evaluation based on fair values is superior to alternative approaches: ①For financial products the future cash flow of which may fluctuate significantly, evaluation based on the acquisition price is not useful in estimating the future cash flow; only fair value evaluation is useful in this case; and ②while for financial products the future cash flow of which will remain largely fixed, evaluation based on the acquisition price is useful in estimating the future cash flow, fair value evaluation also provides information on the future cash flow. The IASB also points out the problem of boundary issues resulting from the existence of these two measurement methods, in addition to the problem of applicability in asset-impairment accounting (the concept of asset impairment can be avoided in the case of fair value evaluation).

(Concrete countermeasures)

**Proposal 9: Accounting rule setting bodies should demonstrate their views of the definition of the conditions under which model prices can be used as fair prices in a flexible and prompt manner against variable macroeconomic conditions. Japanese accounting rule-setting bodies are also expected to take initiatives in this area.**

The study group members agreed that the accounting community should, first, take measures to reduce uncertainty resulting from vague definitions of the situations in which the theoretical price would hold true. More specifically, the accounting community should establish appropriate frameworks capable of defining an “inactive market,” identifying in advance the minimum necessary elements for the calculation of theoretical prices, and expressing an accounting community consensus in response to changes in the situation (Japan should adopt measures independently, rather than simply following overseas trends).

**Proposal 10: The procyclicality of fair value accounting should be mitigated by measures outside the accounting system. In the case of some transactions, however, for which profits are recognized up-front, a portion of the profits should be required to be temporarily deducted from capital as a regulatory requirement.**

The study group members were basically in agreement that appropriate approaches other than the accounting system should be employed to neutralize the effects of procyclicality. More specifically, as discussed in 5.2 above, one potential measure is the employment of variable macro-prudential policies compatible with the credit cycle. However, the earnings of some financial products are recognized up-front for accounting purposes, and their final appraised values are uncertain, and some members of the study group therefore argued that the regulatory agencies should examine the introduction (for example) of capital allowances for these products.

**Proposal 11: The authorities should establish a framework that entitles them to stop the application of fair value prices or Level 1/Level 2 prices when a financial crisis intensifies.**

The study group members agreed on the importance of a framework enabling the regulatory agencies to directly intervene in the accounting system in order to suspend the application of fair value accounting or of Level 1 or 2 prices (if a consensus to this effect has been reached in negotiations between the banking supervisory agencies and the central bank). This type of framework would be similar to that in effect in the United States, where the SEC has these rights. The study group members recognized that an organization responsible for correcting cyclical or systematic problems, rather than an accounting standards setting body, which focuses on correcting idiosyncratic problems and at the same time has difficulty in flexibly amending rules, should make decisions on the phase of the credit cycle or the applicability of fair value accounting when a systematic problem occurs.

Of course, taking this kind of approach might sometimes further destabilize the financial system by increasing anxiety in the market. It would therefore be essential for the regulatory agencies to make the decisions indicated above with considerable prudence, constantly keeping in mind this possibility. In addition, to establish this type of framework, it would be necessary to identify in advance the conditions for recognition of a crisis that would trigger suspension of the application of fair value accounting. At the same time, it should be emphasized that such a suspension is an entirely exceptional action, and the original system should be restored as soon as possible after the normalization of the market.

**Proposal 12: With regard to derecognition criteria the regulatory agencies should not wait for the reactions of the accounting standards-setting bodies and instead should request all financial institutions to perform a strict “look-through” for all transactions under the Basel II Accord.**

It has become clear that, regardless of their accounting standards, if regulations require financial institutions that have adopted Basel II to look through the assets backing up their securitized papers, derecognition criteria do not generate any significant problems. Based on this lesson, regulatory agencies other than the Japanese authorities should also, rather than simply waiting for the accounting community to revise the derecognition criteria, request all financial institutions to perform a strict look-through.

However, because some financial institutions, such as non-banks, have not adopted Basel II and are not required to perform look-throughs as indicated above, it is still important to examine possible revision of derecognition criteria for accounting purposes. In this regard, it has been pointed out that Japan's standards might be looser than those applied in the United States. Japan was lucky and did not suffer serious problems during the current financial crisis, but the nation should also immediately reexamine derecognition criteria for accounting, in particular for securitized papers, based on the lessons learned from the current financial crisis.

## **6. Proposals concerning lack of framework for overcoming crises and corrective measures**

### **6.1 Proposals for sharing extreme stress on “solvency” between the public and private sectors**

#### **(1) Traditional approaches**

It is important for financial institutions and the market to share a clear understanding of the types of responses which will be effected by the regulatory agencies in relation to specific levels of financial crisis in order to control uncertainty when a crisis does occur. In the current financial crisis, the vagueness of the bailout criteria possessed by some government authorities, as exemplified by their unexpectedly allowing the bankruptcy of major financial institutions, further intensified confusion in the market. In fact, supervisory agencies have long followed the principle of “constructive ambiguity,” intentionally employing vague bailout criteria in order to prevent moral hazard in financial institutions. While this approach is suitable for addressing problems of individual financial institutions (problems resulting from idiosyncratic factors), amidst problems resulting from systematic factors it has intensified anxiety and uncertainty in the entire system, further deepening the financial crisis.

This is also borne out by Japan's past banking crisis. (For example, Nakaso (2001), based on Japan's

experiences of banking crisis, indicates that the concept of constructive ambiguity does not work effectively when a financial crisis has already occurred.) In Japan, following the bankruptcies of some major financial institutions, a common understanding regarding the regulatory agencies' backstops (i.e., which financial institutions would be subject to bailout actions in which cases, and how extensive the bailout would be) formed naturally in the market, and this common understanding has played a certain role in mitigating anxiety in the market in recent years.

The following table (Chart 15) shows an outline of the Japanese regulatory agencies' responses to bankruptcies of major financial institutions.

**Chart15: Japanese regulatory agencies' responses to bankruptcies of major financial institutions**

Financial institution	The Hokkaido Takushoku Bank	Long-Term Credit Bank of Japan	The Nippon Credit Bank	The Resona Bank	The Ashikaga Bank
Timing	November 1997	October 1998	December 1998	June 2003	December 2003
Response to bankruptcy	Bankruptcy (The bank was liquidated after business transfer to Hokuyo Bank and Chuo Trust and Banking Company)	Nationalization (Following temporary nationalization, the bank's shares were sold to New LTCB Partners in March 2000)	Nationalization (Following temporary nationalization, the bank's shares were sold to Softbank and other firms in September 2000)	Bailout (The bank's capital was enhanced to maintain orderly credit conditions for the national and regional economies)	Nationalization (Following temporary nationalization, Ashikaga Holdings acquired all shares in the bank in July 2008)
Scale of deposits/liabilities	¥7,142.2 billion (Deposit balance as of the end of March 1997)	¥17,851.2 billion (Deposit/bond balance, as of the end of March 1998)	¥7,481.7 billion (Deposit/bond balance, as of the end of March 1998)	¥22,354.1 billion (Deposit balance, as of the end of March 2003)	¥4,941.7 billion (Deposit balance, as of the end of March 2003)
Amount of public funds injected	¥3,372.6 billion (Monetary grants and asset acquisition)	¥4,033.7 billion (Monetary grants and asset acquisition)	¥3,525.5 billion (Monetary grants and asset acquisition)	¥1,900.0 billion (Subscription of ordinary and	¥258.3 billion (Monetary grants and asset acquisition)

				preferential shares)	
Governing laws	Deposit Insurance Act	Financial Revitalization Act (Conversion into a Special Publicly Managed Bank)	Financial Revitalization Act (Conversion into a Special Publicly Managed Bank)	Deposit Insurance Act (Measures in accordance with Article 102, Item 1)	Deposit Insurance Act (Measures in accordance with Article 102, Item 3; Conversion into a Special Publicly Managed Bank)
Liability of management	Pursued (The Deposit Insurance Corporation of Japan accused former top executives of breach of trust and aggravated breach of trust)	Pursued (In accordance with the applicable laws, the Deposit Insurance Corporation of Japan is required to take action to ensure that the former top executives meet their civil liabilities for breach of their official responsibilities.)	Pursued (In accordance with applicable laws, the Deposit Insurance Corporation of Japan is required to take action to ensure that the former top executives meet their civil liabilities for breach of their official responsibilities.)	Pursued (Reduction or return of the severance benefits of the former top executives) * Approved in the rehabilitation plan	Pursued (In accordance with applicable laws, the Deposit Insurance Corporation of Japan is required to take action to ensure that the former top executives meet their civil liabilities for breach of their official responsibilities.)
Shareholders' responsibilities	Pursued ( Shares transferred to the liquidation post)	Pursued (In accordance with applicable laws, shareholders requested the Deposit Insurance Corporation of Japan to pay the	Pursued (In accordance with applicable laws, shareholders requested the Deposit Insurance Corporation of Japan to pay the	Pursued (Capital reduction)	Pursued (Shares declared invalid in accordance with applicable laws.)

		share price calculated from net assets at the time of bankruptcy.)	share price calculated from net assets at the time of bankruptcy.)		
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Sources: Formulated based on the Financial Services Agency website, the Deposit Insurance Corporation of Japan website, and other published materials.

During the current financial crisis, public funds have been injected into numerous financial institutions in the United States and Europe due to capital shortages. However, in none of the cases of financial bankruptcies of major financial institutions did the institution in question use public funds to enable it to smoothly continue its business operations and avoid falling into legal bankruptcy, while calling on its top executives and shareholders to rigorously assume their responsibilities. The bankruptcy cases to date fall into either of the following two categories: ① A financial institution underestimates its capital shortage (avoiding financial bankruptcy) by using only relatively weak stresses in stress tests, and fills the gap with an injection of public funds (therefore, in these cases, management liability may not be sufficiently pursued); or ② the regulatory agencies allow bankruptcy (Lehman Brothers) or bailout by other banks (Wachovia, Washington Mutual, Merrill Lynch). In short, to date we have not seen a solution that lies between these two cases (i.e., recognizing financial bankruptcy and calling on executives and shareholders to fulfill their responsibilities, while injecting public funds to avoid a legal bankruptcy that would spread out risks).

## **(2) Recent discussions and countermeasures**

Considering recent trends amongst regulatory agencies in Europe and the United States, it would seem that they consider bailouts of financial institutions to be taboo. Discussions in Europe and the United States are not oriented towards determining how financial institutions should overcome problems with support from public authorities when facing stresses resulting from systematic factors. Rather, they focus on how to mitigate the issue of financial institutions being “too big to fail” (i.e., the issue of the bankruptcy of systemically important financial institutions being unacceptable in order to protect the entire financial system). In other words, they focus on how to establish conditions making the bankruptcy of any financial institution acceptable during a financial crisis.

Two approaches to the realization of this concept are being discussed. One approach is, taking into consideration systematic factors, to demand an increase in the capital requirement and an increase in the percentage of core Tier 1 capital. This implies the evaluation of capital adequacy on a going

concern basis (the preparation of sufficient capital to stably continue business operations at a certain level even if facing a liquidity crisis) rather than on a gone concern basis (the preparation of sufficient capital to ensure that net assets will exceed insurance-covered deposits if the financial institution becomes bankrupt). The other approach involves a variety of efforts including placing restraints on the size of financial institutions, simplifying their business operations, and prompting them to consider possible solutions for their own bankruptcy (i.e., living wills), in order to reduce the systemic importance of individual financial institutions.

As this indicates, the regulatory agencies in Europe and the United States are displaying a strong tendency to demand solutions from the self-help efforts of individual financial institutions, even in the case of macro problems (systematic problems). On the other hand, they are maintaining the concept of constructive ambiguity in order to prevent moral hazard. In addition, because the present regulatory framework overlooked a risk profile gap among financial institutions, regulatory agencies are tending to enhance restrictions across the board, with the financial institutions carrying the largest risks set as the benchmark (i.e., applying enhanced restrictions and increased capital requirements even to financial institutions taking only small risks). As mentioned above, because financial institutions did not engage in risk management as expected by the supervisory agencies, it is likely that this enhancement of regulations and increase in capital requirements has a strongly punitive characteristic.

### **(3) Desirable countermeasures– Proposals**

#### **(Problems)**

As we have seen up to this point, the current countermeasures being effected in Europe and the United States display the following problems.

First, because the regulatory agencies do not clearly distinguish between idiosyncratic factors and systematic factors which simultaneously affect large numbers of financial institutions, they demand that all countermeasures should be adopted by individual financial institutions. Essentially, individual financial institutions should address stresses resulting from idiosyncratic factors, but they should not take responsibility for countermeasures that address systematic factors (with some exceptions, such as business cycle factors). As indicated at the beginning of this report, the members of the study group recognize that systematic factors which affect the entire system played a greater role in triggering the current financial crisis than idiosyncratic factors, and that it was a matter of policy failures of regulatory agencies rather than mistakes made by individual financial institutions.

The imposition of additional capital requirements on individual financial institutions therefore represents an excessive burden which increases the pressure on the macro economy at the same time as it generates a gap between the entity that should take responsibility (i.e., the regulatory agencies) and the entity that actually takes responsibility (i.e., financial institutions). This approach is also inconsistent with risk triggers (possibly generating moral hazard for the regulatory agencies). From the perspective of nations which have not experienced significant problems in their systems of supervision of financial institutions in the current financial crisis, it is nonsensical to place increased capital adequacy requirements on financial institutions, assuming the existence of the same situation as in nations suffering from serious systematic problems.

Naturally, the supervision of financial institutions requires effective policies in addition to a sufficient number of high-quality personnel with long-term experience in risk management in financial institutions. As pointed out in 5.1, some members of the study group raised the question as to whether this fundamental requirement was being satisfied by some nations. In addition, it was also pointed out that the political environments in some nations might not have allowed the introduction of more stringent regulations or stricter supervisory practices against a background of ongoing economic growth. If this is so, the immediate response to the current financial crisis that should be effected in the countries at the epicenter of the crisis is to significantly enhance the supervisory framework for financial institutions and to establish appropriate frameworks capable of effecting a permanent improvement in the quality of the supervisory regime.

Another problem, this time with respect to bailout criteria for financial institutions, is that the policy of constructive ambiguity is being maintained. Of course, from a practical perspective, it would be virtually impossible for the regulatory agencies to actively indicate to financial institutions that they are prepared to take on fiscal burdens in a financial crisis. However, in discussions being engaged in at present, the concept of stressing the importance of individual financial institutions in imposing higher capital requirements (i.e., capital management predicated on a going concern rather than a gone concern basis) ultimately recognizes the existence of TBTFs, while the orientation towards reducing the systemic importance of individual financial institutions is tantamount to not recognizing the existence of TBTFs in the future. In policy terms, it is difficult to judge which of these directions regulatory agencies seek to proceed in.

The study group recognizes that it is both possible (to a certain extent) and necessary to reduce the systemic importance of individual financial institutions, but many members argued that it would not be possible in practice to completely eliminate TBTFs. The essence of the problem therefore remains: While recognizing the existence of TBTFs, how should the regulatory agencies address the issue of

TBTFs? The important point here is that unnecessarily suggesting to TBTFs the possibility that they may become bankrupt in a financial crisis would generate the negative effect of further expanding uncertainty in the market, rather than the positive effect of restraining moral hazard. It will therefore be important for regulatory agencies, after imposing appropriately high capital requirements on TBTFs (i.e., financial institutions judged as being systemically important), to establish practical frameworks enabling these financial institutions to continue operations smoothly in a crisis, while avoiding legal bankruptcy.

The level of capital requirement is a further problem in current countermeasures. It is undoubtedly correct to impose higher capital requirements on TBTFs carrying systemic risks than on other financial institutions. The problem is whether or not the level of such capital requirements is significantly higher than 8%, the current minimum capital requirement. The members of the study group did not indicate any objections to demanding 8% as a buffer; however, there were objections to the imposition of higher capital requirements, for the reasons discussed below.

First, as mentioned above, an increase in the minimum capital requirement contains a punitive element. There is no justification for imposing punitive sanctions across the board, extending to financial institutions which did not suffer massive losses in the current financial crisis. In addition, it is necessary to examine what kinds of roles the regulatory agencies have played in the current financial crisis. As also indicated above, if failures on the part of regulatory agencies in certain nations represent a major factor in the current financial crisis, it can be considered unreasonable to demand higher minimum capital requirements in nations outside the epicenter of the financial crisis. In any event, the level of minimum capital requirements is dependent on the accuracy of supervision by the supervisory agencies. The imposition of uniform measures throughout the world without explicit consideration of this factor is distinctly problematic.

In addition, while it will be necessary to establish buffers at a level slightly higher than the minimum capital ratio as long as the possibility exists that the measured amount of risk does not provide an accurate indication of potential losses during a stress event, the members of the study group considered that the question of whether or not the regulatory agencies are able to prevent expansion of losses by quickly addressing a crisis is more important than the question of what level additional capital requirements should be set at. In this sense, rather than adopting an exclusive focus on the importance of capital adequacy, it is more important for supervisory agencies to be able to evaluate whether or not financial institutions are capable of rapidly taking corrective actions when the signs of a crisis appear. It is also possible that the imposition of extremely high capital requirements might encourage financial institutions to take greater risks in fields beyond the view of the supervisory

agencies.

(Concrete countermeasures)

The study group suggests the following responses to the problems indicated above.

**Proposal 13: The authorities should clarify the degree of stress to be supposed by financial institutions for their capital adequacy assessment and should also enhance their capacity to assess the adequacy of financial institutions' stress tests**

It will be necessary for regulatory agencies to indicate clearly to financial institutions the level of stress to be assumed in assessing their capital adequacy. This proposal has two main meanings. First, regulatory agencies should clearly define their position regarding risks from systematic factors. What level of systematic factors do the authorities consider that financial institutions should absorb by themselves? In addition to the impacts of normal business cycles, do the government authorities also take into consideration the collapse of a bubble that might occur once in several decades? Alternatively, do they consider the possible emergence of a larger financial crisis?

As long as the regulatory agencies do not clarify such expectations, the responsibility for addressing a financial crisis remains ambiguous, and might be entirely imposed on financial institutions. While individual financial institutions should be required to take complete responsibility for risks resulting from idiosyncratic factors, requiring them to take excessive responsibility for risks related to systematic factors would impose tremendous burdens on the macro-economy. In addition to playing the leading role in initiating effective responses, the regulatory agencies should to some extent assume responsibility for systematic factors. Given this, the division of specific roles between the regulatory agencies and private financial institutions can be considered necessary when addressing stresses under "perfect storm" conditions (a stress event in which all negative conditions overlap).

The clear indication of the level of stress to be assumed by financial institutions is also important from the perspective of public-private role division. Naturally, the regulatory agencies would not exempt financial institutions from their responsibilities even if a stress event occurred involving stresses at a higher level than that assumed by the authorities. However, if an individual financial institution failed to take appropriate measures in response to an event involving stresses higher than the authorities' projections, it would be more difficult to overtly criticize the financial institution than it would be in the case that the regulatory agencies failed to identify the appropriate stress level.

**Proposal 13.1 Financial institutions should assess their capital adequacy based on the macro-stress scenarios indicated by the authorities which are charged with conducting variable macro-prudential policy.**

It would be desirable for the stress levels that financial institutions should assume to be linked to the stress levels assumed in the variable macro-prudential policies discussed in 5.2. If the regulatory agencies display a prudent stance against the excessive underestimation of credit risks in the market in the stress scenarios they formulate, those scenarios will automatically generate the desirable capital adequacy level for financial institutions.

**Proposal 13.2 The authorities should establish a framework in which they would propose the declaration of a “financial crisis” to be approved by the cabinet and could implement various emergency measures to stabilize the financial system once a “financial crisis” is declared.**

When a financial crisis deteriorates, the regulatory agencies would face difficulty in reducing the level of stress to be assumed, despite their awareness of the problem of procyclicality. Just as the declaration of a financial crisis by the Prime Minister at the Financial Crisis Countermeasure Conference during Japan’s banking crisis enabled the implementation of a variety of measures by the regulatory agencies to stabilize the financial system, it might be useful in this case to establish a framework enabling (assuming that a consensus has been reached between the banking supervisory agencies and the central bank) the government (including the Deposit Insurance Corporation of Japan and the Ministry of Finance, which are responsible for addressing bankruptcies in a financial crisis) to issue a declaration of “financial crisis” that would trigger special policy measures for across-the-board bailout of the financial system. By this means, if the actual level of stress significantly exceeds the stress level projected in advance by the regulatory agencies, the government would adopt temporary policy measures to protect the stability of the financial system, enabling an appropriate public-private division of roles. At the same time, this would also clarify the concept and the scope of the minimum backstops required to protect the stability of the financial system, as mentioned above.

What form should a bailout take following a declaration of an emergency? As discussed above, it is important to consider here how to transfer the business operations of TBTFs to government control in a manner compatible with bankruptcy laws, and in the process to impose certain responsibilities on the top executives and shareholders. The essence of this concept is, while imposing higher capital requirements on TBTFs, to avoid the manifestation of systemic risks on the basis of certain rules when the institutions are facing corporate management difficulties, i.e., to achieve a smooth transition to a

new framework while avoiding legal bankruptcy.

**Proposal 13.3: The regulatory/supervisory agencies should enhance their capability for assessing financial institutions' stress management using stress scenarios and thereby avoid the excessive dependence of supervisors on the outcome of VaR for SREP and the introduction of one-size-fits-all type regulations by regulators. The supervisory agencies also need to further enhance the number and quality of staff for this purpose.**

The clear notification of financial institutions as to the regulatory agencies' expectations regarding stress levels to be assumed would, in addition to clarifying the position of the authorities (as mentioned above), be significant in enabling a shift away from a reliance on VaR or leverage ratio, given that there is no certainty as to how accurate these parameters are in expressing tolerance to stresses.

At the least, the study group recognized the difficulty in continuing to determine capital requirements on the basis of the VaR concept despite the fact that the problems of the method in measuring capital adequacy have become apparent in the current financial crisis. In addition, the concept of leverage ratio, which is entirely counter to the concept of risk-sensitive risk management that has been promoted by Basel II, might be an effective tool if the regulatory agencies in question have a low level of capability of evaluating risks; however, it is difficult for normal countries, in particular countries outside the epicenter of the financial crisis, to unreservedly accept the concept.

The important factors in the evaluation of the stress tolerance of individual financial institutions by the financial institutions themselves or the regulatory agencies are: ①The thinking regarding the stress events that individual financial institutions are facing; ②The actions projected by the financial institution in order to address these stress events; and finally ③The existence of financial supervisory agencies which are capable of correctly assessing and evaluating these factors. The study group recognized that judging capital adequacy on the basis of objective evaluation of a variety of factors would in itself represent a meaningful initiative towards financial stabilization; the simple imposition of higher capital adequacy requirements, in addition to being unable to achieve financial stabilization, has the potential to generate significant negative impacts. The study group also concluded that with regard to ③ above in particular, it would be important to establish an appropriate framework for mutual review of the supervisory regimes of regulatory agencies, as discussed in 5.1 above.

**Proposal 13.4: The authorities should clarify whether some small/medium sized regional financial institutions and systemically important security houses/insurance companies**

**should be included in the category of TBTFs. The authorities should also request higher capital and higher standards of risk management for these selected institutions.**

It will be necessary to discuss how to deal with security/insurance firms that have not previously been seen as subject to government bailout. In the case of Japan, securities and insurance companies have traditionally fallen into this category. However, as these firms become increasingly systematically important, it will be necessary to prepare in advance for future emergencies. Discussion of this issue might include the question as to whether more stringent risk management and capital adequacy requirements should be imposed in return for recognition as a systemically important firm.

There is also the question as to how small and medium-sized financial institutions should be considered as TBTFs. It will be necessary to clearly adopt one of the following positions: ① The government will bail out small and medium-sized financial institutions, but will require them to enhance their capital adequacy and risk management practices; or ② The government will not bail out these institutions (in this case, the government will not be required to enhance their capital adequacy or their risk management practices).

## **6.2. Proposals for sharing extreme stress on “liquidity” between the public and private sectors**

### **(1) Traditional approaches**

Many commentators have pointed out that liquidity risk management represents the most significant risk management problem that has attracted attention in the current financial crisis. Problems in this area present themselves not merely from the perspective of individual financial institutions, but also from the perspective of supervision by the regulatory agencies.

Central banks, which adjust the supply and demand of funds in the short-term money market, usually have the primary responsibility for managing the liquidity of financial institutions. “The Bank of Japan’s Approach to Liquidity Risk Management in Financial Institutions” (BOJ, 2009b), for example, provides detailed information on how a specific central bank involves itself with liquidity risk management in individual financial institutions. This report shows that the Bank of Japan’s approach is basically highly dependent on the frequency of data collection and the amount of data collected regarding the liquidity positions of individual financial institutions, in addition to the level of communication and mutual trust between central bank personnel and cash management staff at

individual financial institutions. In addition, the diversity of the “menu” of fund supply mechanisms prepared against emergencies is also an important factor.

Major nations share this basic framework, but its actual operation varies significantly. At least from the viewpoint of addressing a liquidity crisis, the Bank of Japan is more effective than other major central banks in terms of the frequency of interviews between central bank officers and individual financial institutions and the amount of data collected, the building of relationships of mutual trust through daily communication, and the range and usability of fund supply mechanisms. (However, it must be borne in mind that attention has been drawn to the negative side of these factors, such as the Bank of Japan’s excessive intervention in cash management in financial institutions under normal conditions, and the possible moral hazard resulting from this intervention).

For example, the range of types of eligible collateral in Japan is more diverse than in Europe and the United States because the Bank of Japan accepted risk assets including securitized papers from an early stage (Chart 16). In addition, common collateral is employed for open market operations (i.e., daily financial asset trades with financial institutions, conducted to regulate supply and demand in the money market) and standing facilities (i.e., supply of funds through short-term lending at a predetermined interest rate upon requests from financial institutions), a distinctive characteristic not found in Europe and the United States.

**Chart16: Eligible collateral for the central banks of major nations (as of July 2008)**

	Federal Reserve		ECB		BOE		BOJ	
	Operations	Lending	Operations	Lending	Operations	Lending	Operations	Lending
Government securities	Eligible	Eligible	Eligible		Eligible	Eligible	Eligible	
Agency securities	Eligible	Eligible	Eligible		---	---	Eligible	
Municipal bonds	---	Eligible	Eligible		---	---	Eligible	
Corporate bonds and CP	---	Eligible	Eligible		---	---	Eligible	
ABSs, MBSs, and ABCP	---	Eligible	Eligible		---	---	Eligible	
Loans	---	Eligible	Eligible		---	---	Eligible	
Foreign government securities	---	Eligible	---		Eligible	Eligible	---	
New measures from Aug. 2007	<ul style="list-style-type: none"> <li>- Made clear the range of eligible collateral including structured products (on Aug. 23, 2007)</li> <li>- TAF accepted collateral eligible for primary credit (on Dec. 12)</li> <li>- TSLF accepted parts of structured products as eligible collateral (on Mar. 20 and May 2, 2008)</li> </ul>		---		<ul style="list-style-type: none"> <li>- Exceptional 3-month term auction accepted parts of structured products (on Sep. 19, 2007)</li> <li>- Regular 3-month operation accepted parts of structured products (on Dec. 12)</li> </ul>		---	

Note: Items in Table are representative products only.

Source: Financial Market Department, BOJ (2008), Chart21

In addition, the stigma problem (a reluctance on the part of financial institutions to borrow from the central bank, because in doing so they may be seen by the market as having liquidity problems), as seen in Europe and the United States, did not emerge in Japan. This is influenced by the fact that in Japan, the interest rate of the standing facility is just 25bp higher than the standard interest rate, serving as a much weaker penalty than in the case of Europe and the United States. Finally, the Bank of Japan enjoys an additional advantage over other central banks because it has a testing function enabling it to collect information on the solvency of individual financial institutions.

With regard to these points, the European Central Bank (ECB) presents a sharp contrast to the Bank of Japan. The ECB system is basically not designed to collect solvency information on individual financial institutions and information regarding cash management at individual banks. Due to this system design, in addition to the stigma problem concerning standing facilities, even if a liquidity crisis is limited to a small number of banks, the ECB is unable to provide direct loans to these banks based on liquidity shortage information. Instead, the ECB engages in open market operations based on vague information that money might be unevenly distributed in the entire market. In the case of a liquidity crisis in particular, it can easily be seen that the latter approach is inaccurate and inefficient. In addition, by employing open market operations, one of the main instruments of monetary policy, the ECB makes itself more prone to coming into conflict with monetary policies.

On the other hand, as pointed out in “Liquidity Risk: Management and Supervisory Challenges” (BCBS, 2008a), the liquidity risk management schemes operated by financial institutions also vary significantly among different nations. Broadly speaking, some nations impose explicit liquidity regulations, while others focus on the examination of the internal control practices of financial institutions. At least based on the experience of Japan, we can suggest that no significant problems will arise even in the absence of explicit liquidity regulations, assuming that the central bank closely tracks the liquidity positions of individual banks on a daily basis, rapidly indicates appropriate solutions to banks with liquidity problems, and is capable of putting countermeasures into effect when liquidity problems deteriorate.

The situation in Japan as described above has resulted mainly from the financing methods employed by Japanese banks, in addition to Japan’s experiences in its banking crisis. With regard to the former factor, Japanese banks stably obtain the majority of funds through deposits and rarely depend on volatile market funds. With regard to the latter factor, based on their experience of the past crisis, individual financial institutions in Japan tend to spontaneously be conservative regarding liquidity positions, closing their eyes to costs to a certain extent (see also BOJ, 2009b on this point). These factors have enabled Japan to operate a system that does not depend on liquidity regulations.

Despite these advantages however, the Bank of Japan might, like other central banks, have difficulty in detecting risks in advance and effecting appropriate countermeasures in the case of foreign-owned financial institutions that mainly procure their funds overseas, or systemically important financial institutions which have no direct transactions with the central bank.

## **(2) Recent discussions and countermeasures**

As a brief overview of recent trends in proposals concerning the enhancement of liquidity risk regulations, the following section considers the suggestions of the Basel Committee on Banking Supervision (BCBS) and the United Kingdom Financial Services Authority (UK FSA), which has been the most rapid among national authorities to take action.

### **(Main proposals of the BCBS)**

In a report concerning the potential amelioration of the liquidity risk management problems which have become apparent in the current financial crisis (BCBS, 2008b), the BCBS urges banks and supervisory agencies to take the following actions.

First, the report calls for banks to establish robust liquidity risk management frameworks capable of withstanding a wide variety of stress events. For example, it is suggested that banks should conduct stress tests at regular intervals in order to be aware of potential liquidity fluctuations and to verify that they are sufficiently able to withstand the liquidity risks they face. The report also suggests that banks prepare financing plans (contingency plans) for emergency situations such as a rapid decline in liquidity, and disclose information on the soundness of their liquidity risk management frameworks and their current liquidity risks at regular intervals to enable market participants to make judgments on these factors based on sufficient information.

The report also calls for supervisory agencies to regularly examine the adequacy of the liquidity risk management frameworks employed by banks, and whether or not the liquidity risks they face are maintained at an acceptable level. In addition, the report also emphasizes the importance of effective cooperation with other major stakeholders (in particular, cooperation with the central bank in the case of emergencies).

### **( Main proposals of the United Kingdom Financial Services Authority < UK FSA > )**

The UK FSA has also released a report (FSA, 2008a) which outlines possible improvements in liquidity risk management practices.

The two principles of “adequate liquidity” and “self-sufficiency” play a central role in new liquidity regulations proposed by the FSA. Adequate liquidity means that all enterprises under government supervision must have sufficient liquidity, while self-sufficiency refers to the principle that an

enterprise may not depend on other group enterprises with regard to its liquidity problems.

The report also suggests a new quantitative evaluation framework (Individual Liquidity Adequacy Standards) for liquidity risk management purposes. Financial institutions subject to this framework will conduct an Individual Liquidity Adequacy Assessment in which they evaluate the types and quality of their liquidity resources, and the supervisory agencies will examine the results of these liquidity evaluations in a Supervisory Liquidity Review Process. In addition, as part of this framework, the supervisory agencies will issue guidance (Individual Liquidity Guidance) to financial institutions concerning the amount and types of desirable buffers.

In line with this new quantitative evaluation framework, the UK FSA also proposes a new framework for the liquidity reports submitted to the supervisory agencies by financial institutions. The amount of data required will increase, and reports will be submitted more frequently. By collecting a variety of data on the liquidity positions of individual financial institutions in this way, the supervisory agencies will be able to grasp the liquidity conditions for the entire market.

### **(3) Desirable countermeasures – Proposals**

(Concrete countermeasures)

**Proposal 14: The authorities should consider explicitly the variant regimes by means of which each country's central bank understands and deals with the stressed liquidity positions of individual financial institutions, and incorporate them in a common global liquidity risk regulation which may be introduced.**

To enable stable liquidity to be maintained in the entire financial system, it is important for individual financial institutions to conduct liquidity management with awareness of the actual stresses they face, and for the regulatory agencies to establish appropriate frameworks for response which are constantly aware of stresses. Liquidity regulations, which require financial institutions to possess a certain level of liquid assets, will be effective to some extent in a situation in which not all financial institutions have adopted a conservative liquidity management stance. However, it is more important for the central bank, the final lender, to establish a framework enabling it to quickly gauge the liquidity positions of individual banks and to rapidly address any problems. From this perspective, the study group believes that, if uniform global regulations applicable to many different nations are introduced, they should incorporate explicit consideration of the following differences between nations:

- Capacity of the central bank to collect information on the liquidity positions of individual banks (frequency of data collection and amount of data collected)
- Scope of monitoring of liquidity by the central bank (Will the central bank only monitor the liquidity positions of banks? Will the monitoring cover other systemically important financial institutions? What about monitoring of the liquidity positions of foreign-owned financial institutions?)
- Effectiveness of the guidance concerning liquidity positions provided by the central bank to financial institutions
- Effectiveness of the methods used by the central bank to address the liquidity shortages of individual financial institutions (methods of supplying funds, scope of eligible collateral, etc.)
- Level of access of central bank to information regarding solvency of individual banks

Basically, the lower the level of these factors, the more prone the central bank will be to overlook lax liquidity risk management practices in individual financial institutions, and the less likelihood there will be that the central bank will be requested for additional liquidity supply (even in the case of an emergency). The study group considers that it will be necessary to establish a global framework that would encourage the introduction of more explicit and stricter liquidity regulations the lower the score applied to a specific country's liquidity regime when these factors are quantified. If it is difficult to incorporate these elements in liquidity regulations, then the study group considers that across-the-board regulations should not apply on a global scale.

**Proposal 15: The central bank should take the initiative in promoting the standardization of trade contracts and setting up a central clearing house for transactions the scale of which has increased to a level at which they could influence the stability of the entire financial system.**

Transactions in certain financial products (CDS transactions in the case of the current financial crisis) have expanded to a scale at which they cannot be ignored from the perspective of the stability of the financial system. To maintain the stability of liquidity related to such transactions in this situation, the central bank should take initiatives in ①identifying transactions in financial products that have a significant impact on the stability of the financial system, ②standardizing the contract documents for such transactions, and ③establishing a central clearing house for such transactions ( because concentration of the transactions will result in increased efficiency and greater ease of information collection, each nation should establish no more than one central clearing house). Even before the current financial crisis, some observers called for these policy measures in relation to CDS transactions. However, no entity took a leading role in this regard, and the measures were not realized.

The central bank is basically the most appropriate entity to internalize externalities such as market collapse, liquidity loss, and the manifestation of systemic risks. Of course, if the clearing house which is established carries excessive risks, it would be impossible to prevent the problem from worsening with the bankruptcy of certain banks. Given this, when establishing such a clearing house, it would be necessary for the central bank to verify whether or not an appropriate and clear loss-sharing mechanism has been put into place.

**Proposal 16: The regulatory agencies should consider liquidity risk explicitly as a risk element in the calculation of the capital adequacy ratio.**

Liquidity risks should be prevented with liquidity buffers and should be placed outside the framework of capital requirement, which takes care of capital adequacy to deal with other risks. On the other hand, since the quality of capital adequacy in evaluation of counterparty risks in the market is emphasized, financial institutions that heavily depended on short-term financing through the ABCP went bankrupt, while financial institutions that raised funds through deposits did not undergo bankruptcy resulting from liquidity crisis. In addition, these phenomena also influence discussions pertaining to capital restrictions (quality of own capital and buffer). On the basis of these viewpoints, some of the study group members insisted that the quality of own capital should be incorporated in the liquidity regulations (i.e., requesting financial institutions with low capital quality to increase the percentage of stable funding, such as deposits), and that the liquidity risk position should be explicitly incorporated as a risk factor of the capital requirement (i.e., demanding a higher core Tier 1 percentage in the case of financial institutions dependent on the ABCP and other market-based funding). Of course, since the raising of core capital is unrealistic after liquidity risks become tangible, the liquidity risks should not directly be incorporated in the calculation of capital adequacy. They should rather be incorporated as a risk factor for measuring the “own capital buffer,” which is accumulated under favorable conditions.

**Proposal 17: Individual financial institutions should understand liquidity risk elements on a sufficiently granular basis and determine the level of liquidity buffers based on the outcome of various forward-looking stress tests.**

Finally, the study group considers that there is still considerable scope for individual financial institutions to further enhance their liquidity risk management practices. Understanding liquidity risks basically commences with the identification of instability factors for each method of procuring funds. For example, if a financial institution raises funds through market-based financing, (because deposit insurance will not cover this type of financing) instability factors would include market evaluation of

the corporate management of the financial institution and events suggesting a shortage of liquidity, and the sensitivity of these factors is high. Arguments regarding the level of core Tier 1 capital also belong to this category. By contrast, if a financial institution raises its funds from deposits, instability factors would include rumors or information that would make depositors (in particular, depositors that have bank deposits in excess of the guaranteed cap for deposit insurance) feel anxious regarding the corporate management of the financial institution. Generally speaking, the sensitivity of these instability factors is lower than that of the instability factors for market-based funding, but this is very difficult to forecast. Basically, the study group considers that it is important to determine the level for liquidity buffers by examining these liquidity risk factors in detail and projecting a variety of possible stresses in a forward looking manner, rather than by quantifying the risk amount (using VaR or another approach based on a limited amount of data).

The Leaders' Statement made at the recent Pittsburgh G20 Summit (September 24-25) pointed towards the enhancement of capital standards for financial institutions and the restriction of variable compensation for senior executives. Studies looking towards the realization and implementation of these measures will be ongoing, and the members of the study group hope that the proposals made in this report will contribute to further deepening the related discussions.

(End)

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# Annex 1 (Results of preliminary questionnaire)

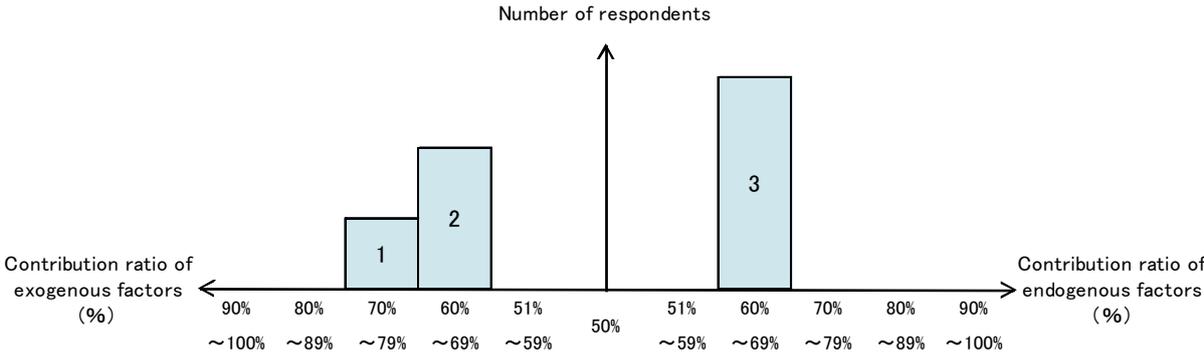
Before holding the study group meetings, a preliminary questionnaire was conducted in which six members were asked questions regarding the background to the losses suffered by financial institutions in the current financial crisis. This section briefly explains the results of the preliminary questionnaire concerning factors in the current financial crisis.

(Main responses to the preliminary questionnaire)

- With regard to individual financial institutions, which has been greater, the contribution ratio of endogenous factors or that of exogenous factors? (distribution of responses/histogram)

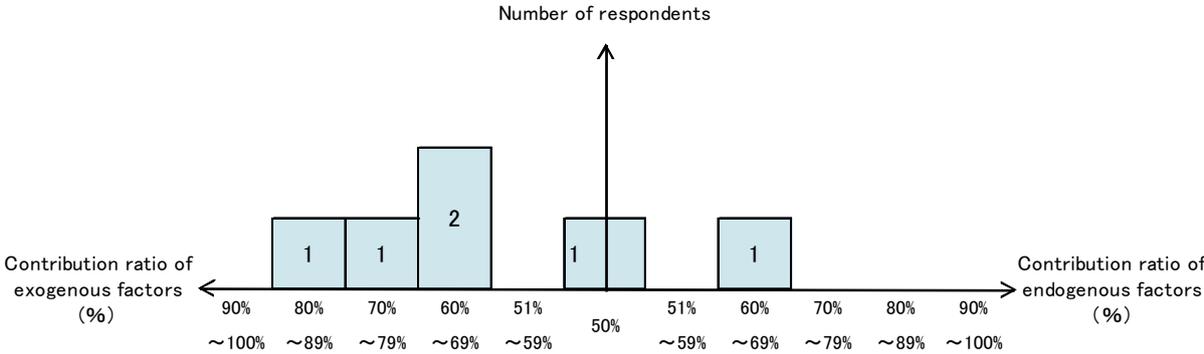
### (1) Financial institutions in Europe and the United States

As shown below, opinions were divided among the respondents.



### (2) Financial institutions in Japan

As shown below, respondents generally answered that exogenous factors have had the greatest impact.



- Main responses regarding financial institutions in Europe and the United States
  - The reason(s) for the greater impact of endogenous factors
    - ✓ A governance framework that encouraged excessive risk-taking was a corporate

management problem.

- ✓ Increased exposure to securitized papers, a point of discussion even before the current financial crisis, was a corporate management problem.
- ✓ The policy actions taken by the regulatory agencies were limited in comparison to the trends of deregulation and the rise of global capitalism.
- The reason(s) for the greater impact of exogenous factors
  - ✓ It was difficult to respond to a significant business cycle (e.g., asset bubble) based on the judgments of individual financial institutions.
  - ✓ Crowd behaviors of market participants ( heavy dependence of financial institutions on the market)
  - ✓ The scope of possible response by risk management at individual financial institutions was limited.

With regard to individual financial institutions, the members of the study group held different opinions concerning whether factors should be recognized as endogenous or exogenous. This is because correction of the aforementioned problems by individual financial institutions would be “physically” possible, and from this perspective these factors could be considered as “endogenous” ( however, it may not have been possible to correct all the problems physically); at the same time, because it would be virtually impossible for corrective measures to be applied in practice without incentives to encourage their application, they might also be considered as “exogenous factors.” Whatever the case, the study group formed a consensus that it is difficult to overcome governance-related problems through the efforts of individual financial institutions in isolation.

- Main responses regarding financial institutions in Japan
  - The reason(s) for the greater impact of endogenous factors
    - ✓ Past loss from cross-shareholdings was a corporate management problem.
  - The reason(s) for the greater impact of exogenous factors
    - ✓ The main cause was the Japanese economy’s heavy structural dependence on overseas markets (background to increased credit costs).
    - ✓ The drive for earnings is relatively low compared to that of financial institutions in Europe and the United States.

Summing up these responses to our preliminary questionnaire, while the members of the study group held differing opinions concerning whether endogenous or exogenous factors had the greatest impact on individual financial institutions due to their differing perspectives on how factors should be classified, they agreed that the impact of factors common to the entire industry (i.e., systematic

factors) was greater than that of factors resulting from the judgments made by or the form of management of individual financial institutions (i.e., idiosyncratic factors).

**The main responses to our preliminary questionnaire regarding the comparison of factors forming the background to losses between financial institutions in Europe/the United States and those in Japan were as follows.**

(Main responses to the preliminary questionnaire)

- Main factors specific to Japan
  - ✓ Owning cross-shareholdings (a business model employing cross-shareholdings)
  - ✓ The heavy structural dependence of the Japanese economy on overseas markets (background to increased credit costs)
- Main factors common to Europe/the United States and Japan
  - ✓ Moderate financial supervisory regulations
    - Insufficient weighting of risk in capital adequacy ratio requirements
    - Lack of financial supervision to address the economic bubble (a business cycle)
  - ✓ Lack of substantive risk management approaches
    - Insufficient recognition of risk stress events
    - Defects in internal check-and-balance capabilities
- Main factors specific to Europe/the United States
  - ✓ Governance framework that encouraged excessive risk-taking
    - Excessive compensation
    - Corporate management excessively dependent on ROE
  - ✓ Crowd behavior in the market (heavy dependence of financial institutions on the market)

Summing up these responses, in the opinion of the respondents, the main factor in losses that was specific to financial institutions in Japan was “owning cross-shareholdings.” By contrast, the main factor in losses that was specific to financial institutions in Europe/the United States was “a governance framework that encouraged excessive risk-taking.”

(End)

## **What's NIRA?**

The National Institute for Research Advancement (NIRA), founded in 1974 under the National Institute for Research Advancement Act, has conducted comprehensive research in order to contribute to the resolution of a variety of complex contemporary social, economic and lifestyle issues. NIRA has changed its juridical status as an incorporated foundation since November 29, 2007, although NIRA's aims are unchanged, and NIRA will continue to conduct its activities for the public interest.

The new NIRA will seek to present bolder policy proposals and make information available in a timely fashion in order to stimulate policy discussion and contribute more actively to the policy-making process. As globalization advanced and Japan's population ages, Japanese society is facing profaned structural changes, a situation that urgently requires the nation's research institute to adopt new roles. NIRA therefore views its change in organizational status as an opportunity to reform its research system to meet the demands of a new era.

NIRA's research will address issues facing Japan, with a focus on the three areas of national economic and social policies, international relations, and regional issues.

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ISBN978-4-7955-8540-9 C3030