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Bank of Japan

**Some Remarks
On the Financial Crisis over the Past Year**

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Introduction

I am honored to be invited to speak today at the fourth annual Euromoney Japan capital markets congress.

The collapse of Lehman Brothers one year ago triggered unprecedented disruptions in the global financial markets. Fortunately, financial conditions have improved recently to a great extent, but they have not yet fully recovered from the crisis. Today, by looking back on the financial and economic developments in the past year, I will provide some of my impressions of those developments.

I. Economic and Financial Developments after the Collapse of Lehman Brothers

The global financial markets changed drastically after the collapse of Lehman Brothers in September 2008. Market participants became increasingly cautious about taking counterparty risk, causing trading volume to decrease sharply and market liquidity to decline significantly. Credit spreads widened and the prices of financial products, including securitized products, plunged. Consequently, financial institutions experienced business difficulties or failed one after another in many countries, thereby aggravating financial system concern. Credit provisions from financial institutions to firms and households declined markedly, leading to a global credit contraction. Confidence, which is the most crucial element in the financial system and markets to function smoothly, was virtually lost.

Meanwhile, economic conditions deteriorated simultaneously and rapidly around the globe. Final demand--namely, housing investment, private consumption, and business fixed investment--plunged, leading to large-scale adjustments in inventory and production. This deterioration in economic conditions, together with a spread of anxiety among firms and households, exacerbated the malfunctioning of the financial system, and in turn deteriorated economic conditions further, causing a downward spiral --the emergence of the so-called adverse feedback loop between financial and economic conditions.

Also in Japan, the functioning of commercial paper and corporate bond markets was impaired, and strains in Japan's short-term money markets increased as reflected in a rapid expansion of the LIBOR-OIS spreads. Nevertheless, the stress imposed on financial markets and the financial system in Japan after the collapse of Lehman Brothers was low relative to that in the United States and Europe because financial institutions in Japan had little exposure to securitized products. However, the slowdown in economic growth was rapid in Japan, compared with that in the United States and Europe. Against a backdrop of a global accumulation of inventories of durable and capital goods and the ensuing large-scale reduction in production to adjust the level of inventories, exports of automobiles, electrical machinery, and general machinery--industries in which Japan excels--declined in an unprecedented manner. Accordingly, production declined considerably.

The factor behind the sudden contraction of financial and economic activities on a global basis, including Japan, was an accumulation of various excesses during the mid-2000s, particularly in the United States and Europe, and the adjustments of the balance sheets of firms and households emerged in the process of the unwinding of excesses. During the mid-2000s, the world economy constantly registered unprecedented high levels of growth at around five percent. Despite this high growth rate, prices continued to be generally stable, and accommodative financial conditions continued for a long time around the world. The continued benign environment of high growth, low inflation, and accommodative financial conditions led to the prevalence of optimism for the future (which in retrospect is hard to believe). Meanwhile, overconfidence also spread in the sophistication of financial technologies that were developing remarkably at the time. In those circumstances, imbalances such as the increase in credit and leverage as well as the rise in asset prices accumulated worldwide. Developments since last autumn can be described as essentially the adjustment of the accumulated imbalances; in other words, the bursting of a global credit bubble.

Nevertheless, world economic conditions have been showing signs of leveling-out since

the spring of this year. That is because the global financial markets have gradually started to stabilize because the provision of ample liquidity by central banks around the world, the aggressive public capital infusion and debt guarantees by the governments for U.S. and European financial institutions, have dissipated market participants' extreme anxiety. The progress with inventory adjustments on a global basis due to large reduction in production, and the manifestation of the effects of large-scale economic stimulus measures implemented around the globe have also contributed. Thanks to such developments, a positive trend has been emerging in Japan's economy. Exports and production have been recovering, especially in the automotive and electronic parts industries. Fiscal measures including public investment have also been underpinning economic activity.

As for the economic outlook, the upward momentum in the world economy is likely to continue for a while. The recent clear recovery of emerging economies is a reassuring factor. Against this background, Japan's economy is expected to start recovering from the second half of Japanese fiscal 2009. Of course, as I have previously mentioned, the world's firms and households are now in the process of balance sheet adjustments. Therefore, the momentum for recovery in the world economy greatly depends on how the balance-sheet adjustments evolve, and Japan will not be immune from the influence of such developments. Consequently, there still will be considerable uncertainty about the outlook. The Bank of Japan, paying due attention to various risk factors, will continue to monitor carefully financial and economic developments both at home and abroad.

II. Some Remarks

After confirming the current financial crisis and large swings in economic activity, I have come up with several impressions or questions. First, how effective is the advancement of financial technologies in controlling risk? Second, how to solve the issue that prolonged benign market conditions can actually encourage economic entities and market participants to engage in excessive action, and thus might just lead to future large swings in the economy. Third, is it possible to maintain high market liquidity

even under any type of shock? And fourth, how market participants' extreme anxiety can be controlled? All of those questions are difficult to answer. Today, I will outline my thoughts on the first two interconnected questions as a basis for your discussion.

Financial technology advancement and risk control—the importance of 'self discipline'

To begin with, let us consider if the advancement of financial technologies is effective in controlling risk, or has the experience of the current financial crisis proven it to be ineffective. Financial engineering, which has evolved rapidly in recent years, was first developed as a technique to control risks, that is, to break down and manage risks associated with financial products. Indeed, the advancement of financial technologies has made it possible to design a variety of financial products according to the specific risk preference of various investors, and, as a result, financial markets have become broader and more versatile.

Securitized products, which triggered the current financial crisis, included various innovations to control the risks associated with normal lending and securities investment. For example, the bankruptcy remoteness of cash flows obtained from underlying assets as well as the creation of a risk buffer by setting multiple tranches enhanced the safety of investments and facilitated credit risk transfers. In addition, credit default swap transactions also allowed easy credit risk transfers. These methods were believed to be capable of controlling accurately the risks associated with securitized products.

However, the reality was different. As turmoil actually occurred, massive risks surfaced, and it became clear that the methodology of risk control initially envisaged did not work. Importantly, the root of the problem in fact lay in the loose assessment of simple risk factors, rather than the complex technology of securitization itself. Specifically, the basic standards of risk management, such as the credit risk of the original debtor, risk monitoring, liquidity risk of investment vehicles, and the degree of correlation between the risk factors, were neglected. In addition, we should not forget that there was a lack of preparedness for the tail risks that occurred when great stress was imposed on the financial markets. If we consider the foregoing, the heart of the

problem can be attributable to two elements: lax risk assessment due to a behavioral pattern of market participants who put the pursuit of profit first, and the so-called agency problem based on information asymmetry.

Of course, the resolution of the problem is not easy. Strengthening of regulations and introduction of further advanced financial technology cannot control all the risks nor completely resolve the agency problem. In addition, as long as the pursuit of profit is a basic incentive for market participants, lax risk assessment under certain market conditions might result from human nature.

While I do not deny the importance of enhancing risk management through the advancement of financial technology, it is perhaps difficult to control human nature and psychology with financial technology. What is of the utmost importance is for market participants to avoid a deep sense of complacency in relying on financial technology for risk management, and to remain vigilant in maintaining the crucial risk awareness, that is known as 'self-discipline.' In my view, the unsolved part of uncontrollable risks and agency problems might be somewhat solved by this 'self-discipline.' We need to recognize again that regulations and advanced financial technology are not a substitute for 'self-discipline.' In that regard, future financial supervision and regulation that are currently being discussed on a global basis, should be carefully crafted from the viewpoint of whether they would function to strengthen the internal 'self-discipline' of market participants, rather than merely being an externally imposed compliance regime.

Preempting excessive behavior of market participants—the sharing of 'common sense'

I will now turn to the issue of whether there are ways to preempt the excessive behavior of economic entities and market participants.

As previously mentioned, the current financial crisis grew out of the need for an adjustment of the imbalances that accumulated through the mid-2000s. The creation of financial and economic excesses and their eventual adjustment is a cycle that has been repeated over and over around the world. In each of those cases, the causes and preventive measures were seriously discussed, and necessary improvements were made

in terms of system and regulation. Despite those efforts, we have allowed again the accumulation of imbalances and the occurrence of a financial crisis.

Why excessive financial and economic activities recur? It might be true that humans by nature cannot learn from history. It seems that each time a state of benign economy continued for a long time, plausible logic appeared to explain that 'this time was different.' The examples include: 'Tokyo is becoming a global financial center' used during the Japanese bubble of the 1990s, and the 'advent of a new economy' used in the case of the dot com bubble in the US; those examples go on and on. Each time it was extremely difficult to counter the new logic by merely relying on the lessons from history. Nonetheless, it would also be excessive to lay the onus solely on uncontrollable human nature.

To come closer to the heart of the problem, we need to focus on the market participants' incentives under a capitalist economic system. Market participants pursue their own profits as their number one priority, and are not usually interested in how their actions influence the performance of the market as a whole and eventually the performance of the economy as a whole. Even if those actions result in an accumulation of excesses in the economy and cause considerable economic fluctuations when the excesses are eventually adjusted, those actions are deemed rational, at least in the short term, as long as the individual market participants make profits. On the other hand, for the authorities in charge of setting policy, they do not arrest individual market participants' pursuit of profit. Their main incentive is to improve the performance of the economy as a whole.

The incentives of individual market participants and those of the policy authorities may conflict in the short run, but should be compatible over a longer period. Therefore, what becomes important is how to align the incentives on both sides over a longer perspective and to have this alignment reflected in the actions of both the actual market participants and the policy authorities.

Here again, it is not easy to give a correct answer. Nevertheless, in my view, if the

lessons learned from the past financial crises could be shared broadly between the policy authorities and market participants as one form of 'common sense,' it might change the nature of incentives and could reduce the excessive actions of market participants. When I say 'the lessons', they are not such dramatic ones. It can be as simple as 'when benign financial and economic conditions continue for a long time, there is a possibility that various excesses will accumulate, resulting in extremely large economic fluctuations.' Of course, it is easy to anticipate that there will be difficulties in utilizing the lessons, or 'common sense', in actual policy responses. However, whether such 'common sense' is shared broadly or not could make a big difference in the economic outcome.

Recently, the idea of macro-prudence has been discussed as a methodology for crisis prevention. While specific system designing is a future challenge, I believe that the sharing of 'common sense' between the policy authorities and the market participants could be a starting point for the discussion of establishing a macro-prudence system. By occasionally reminding ourselves of the lessons from the financial crises and sharing the lessons as 'common sense' with many people, we will ensure the flexibility of policy management and minimize the possibility of a future financial crisis.

The Bank of Japan's measures to facilitate corporate financing

In closing, turning to a different issue, I will briefly touch on the specific steps the Bank has taken since last year to facilitate corporate financing. In response to the substantial deterioration in corporate financing since the autumn of last year, the Bank has been taking a series of steps such as outright purchases of commercial paper and corporate bonds and special funds-supplying operations to facilitate corporate financing. While those measures were extraordinary as a central bank's policy measures, we judged it appropriate as temporary measures in light of the severe economic and financial conditions. As for how to treat those temporary measures, the Bank will decide by thoroughly examining the state of corporate financing and financial markets and considering the degree of their improvements. In doing so, a risk that the prolonged usage of temporary measures might impair an autonomous recovery in market functioning and result in a distortion of resource allocation, will also be taken into

account. If the Bank can share such a risk as 'common sense' with market participants, the Bank can conduct its policies in a timely manner. In addition, the incentives of the market participants and those of the policy authorities could be aligned in the context of achieving stable economic and financial conditions from a longer term perspective.

Thank you