Masaaki Shirakawa: The turmoil in global financial markets and economic and financial developments in Japan

Speech by Mr Masaaki Shirakawa, Governor of the Bank of Japan, at the Kisaragi-kai Meeting, Tokyo, 5 November 2008.

*   *   *

Introduction

I am very privileged to have the opportunity to speak before such a large audience.

As you all know, global financial markets are currently experiencing a type of turmoil not seen since the 1930s. Strains in the markets have mounted significantly, especially since the bankruptcy filing of Lehman Brothers in September. It is difficult for a central bank to choose the right words to express this situation, but the blunt phrase "financial crisis" was used in the joint statement by major central banks released in October. The degree of strains in financial markets, although they have recently improved somewhat, has increased to a level that has obliged us to use such a strong phrase. The turmoil in financial markets that began in the summer of 2007 as well as its impact on economic activity were, at first, limited to the U.S. and European economies, but have since gradually spread to Japan as well as to emerging economies. This global turmoil has now become the largest problem facing the world economy, although the degree of impact varies by country.

In my speech today, I would like to first discuss developments in global financial markets and overseas economies, given that current developments in Japan's economy are being overwhelmingly influenced by them. After that, I will discuss the outlook for Japan's economic activity and prices, and then the Bank of Japan's conduct of monetary policy, including the reduction in the policy interest rate decided at the Monetary Policy Meeting held on October 31. And lastly, I would like to touch on how a financial crisis should be dealt with and how, from a longer-term perspective, similar crises can be prevented in the future, based on our experience with the one that occurred in Japan.

I. Developments in global financial markets and overseas economies

I will begin by discussing developments in global financial markets and overseas economies.

Looking back, until recently the world economy enjoyed a sustained period of benign economic conditions. The statement released after the meeting of the Group of Seven (G-7) finance ministers and central bank governors in April 2007, for example, indicated, "Although risks remain, the global economy is having its strongest sustained expansion in more than 30 years and is becoming more balanced." All of you here are familiar with developments in the world economy since then, but the understanding that high world economic growth had continued for a long time was, without any question, true until the recent past. In actual numbers, growth rates of around 5 percent continued from 2004 through 2007. Even with such high growth rates, inflation rates did not rise noticeably until around 2006. A major factor supporting this combination of low inflation and high economic growth was the entry of emerging economies into the market economy, which expanded global supply capacity, providing an environment for low inflation. In this situation, there was a prolonged period of low interest rates worldwide. In the beginning, the low interest rates seem to have been partly affected by arguments stressing the risk of deflation, and later by optimism that non-inflationary sustained growth would continue, supported by the fact that benign economic conditions actually continued.

In any event, the issues the world economy currently faces gradually accumulated in the benign environment of high growth, stable prices, and accommodative financial conditions.

First, the rapid growth of emerging economies multiplied the demand for resources such as crude oil, and led to a surge in commodity and energy prices. And second, investors and financial institutions eased their credit standards and a global credit bubble emerged as evidenced by the U.S. subprime mortgage problem. Looking back on phenomena that occurred in this period, such as the substantial rise in asset prices, the surge in commodity and energy prices, and the significant increase in leverage by market participants, we now understand that they were generated by the overheating of financial and economic activities. The current global financial crisis and the slowdown in the world economy can therefore be viewed as part of the process of correcting imbalances that have accumulated.

A. Developments in global financial markets and policy responses

I will now discuss the problem of the current financial crisis. The problem surfaced when the economic entities that originated securitized products faced funding difficulties due to a decline in the prices of those products and malfunctioning of their market. Subsequently, the situation gradually deteriorated through the repetition of heightening and subsiding of pessimism in the market. Since the bankruptcy filing of Lehman Brothers in mid-September, strains in global financial markets, particularly those in the United States and Europe, have sharply intensified. Looking back at the financial crisis in Japan after 1997, the defining incident that triggered it was the default of Sanyo Securities in the money market. After that incident, a sense of vigilance for counterparty risk intensified in the market and screening of trading partners and contraction of the market started to set in. The recent conditions in global financial markets after the collapse of Lehman Brothers could be described as such a market contraction taking place on a global scale, leading to a heightened sense of counterparty risk particularly in the U.S. and European markets. Loss of trust is disastrous for markets. In the money market, where financial institutions exchange funds without collateral, the volume of trade dropped sharply, and trades offered were restricted to overnight funds, implying that there was a serious liquidity shortage. As a result, concerns among financial institutions and investors over funding became widespread in addition to concerns over a lack of capital, and this led to stricter lending and investing standards. This situation, if had no action been taken, would have deteriorated further.

The world economy has accumulated various imbalances in the past several years, and adjustments to correct them are inevitable. Nevertheless, we must prevent further adjustments or turmoil that may be triggered by some shocks. Recognizing this, the participants at the October G-7 meeting shared a strong sense of crisis and confirmed that each member country would promptly implement necessary policy measures with determination, in order to ensure the stability of global financial markets and confidence in the financial systems. The results of the discussions were published as a set of concise and clear principles, the G-7 Plan of Action.

Many countries have been implementing decisive measures including responses in line with the Plan of Action, and these measures can be summarized as follows.

The first was to carry out aggressive provision of liquidity to ensure financial market stability. Central banks have been providing massive liquidity to the markets, and, with respect to U.S. dollar liquidity, central banks including the Bank of Japan have cooperated internationally to introduce a framework of liquidity provision and have been providing a large amount of dollars in the market of each country. However, while central bank liquidity provision is an indispensable measure for preventing a systemic risk from manifesting itself and for ensuring financial market stability, it is not a silver bullet to fundamentally resolve the financial system problem. We should be fully aware that liquidity provision by a central bank is a measure to gain time until more fundamental solutions have been worked out.

The second measure taken was a comprehensive guarantee of financial institutions' debts. During financial system instability, the concern of depositors and investors tends to intensify exponentially once it passes a tipping point. Leaving such a situation unresolved could amplify their concern and thus lead to uncontrollable turmoil. Therefore, governments in the United States, Europe, and other countries, in quick succession, announced that they would expand deposit insurance coverage substantially and guarantee financial institutions' debts.

The third measure was to put in place a framework that used public funds to purchase impaired assets held by financial institutions and inject capital into financial institutions. Given that the financial system problem is essentially a problem of a capital shortage, it is necessary to identify the amount of capital shortage and compensate for it. However, as Japan's past experience suggests, it is extremely difficult to accurately gauge, on a real-time basis, the size of impaired assets and a capital shortage when a negative interaction is at work in the financial and economic systems. To ensure financial stability, someone must make a judgment on the capital shortage from a macroeconomic perspective, and that someone can only be the public authorities. The public authorities must decide on a substantial public funds injection if it is judged necessary after thoroughly factoring in future downside risks.

While it appears that the condition of global financial markets has somewhat improved as a result of a series of measures being taken by the public authorities, strains in the financial markets are highly likely to continue for the time being.

B. Developments in overseas economies

Given the situation in global financial markets, economic activity in the United States has been sluggish with continued adjustments in the housing market. The losses incurred by financial institutions were at first mainly on securitized products related to the subprime mortgage problem, but recently losses on consumer and commercial real estate loans have been on the rise. Despite the reduction of the Federal Reserve's target for the federal funds rate from 5.25 percent to 1.0 percent within the short period of a little over a year, the actual interest rates applied to funding by financial institutions, firms, and households are generally rising due to wider credit spreads. The tightening in financial conditions is exerting downward pressures on the economy, and this is leading in turn to deterioration in the asset quality of financial institutions. In other words, a negative interaction is operating between the financial system and economic activity, and the outcome of events is still not clear.

In Europe, financial institutions' lending attitudes have become tighter as in the United States. Demand in the area is slowing due to the deterioration in the terms of trade reflecting the earlier increases in commodity and materials prices, and export conditions are worsening reflecting developments in the world economy. In this situation, economic activity in Europe has also been sluggish. Emerging economies and commodity-exporting countries continue to show high growth, albeit at a somewhat slower pace. However, in the NIEs and the ASEAN economies, domestic demand has been showing weakness, and the pace of increase in exports is slowing due to the deceleration of the U.S. and European economies.

II. Developments in Japan's economy

A. The current situation of and outlook for Japan's economy

1. The current situation of Japan's economy

Let me now move on to the current situation of and outlook for Japan's economy.

From the beginning of 2002 until recently, Japan's economy enjoyed a moderate but prolonged period of economic expansion. It was the longest postwar expansion, and with hindsight, this was the result of the high and prolonged growth of the world economy that I mentioned earlier as well as restructuring efforts of Japanese firms. Since the end of 2007, however, the pace of growth has slowed, and has become increasingly sluggish recently with the deterioration in the world economy. There are two main reasons behind these developments.

The first reason is the sharp deterioration in the terms of trade, reflecting the surge in energy and materials prices toward the summer of 2008. The deterioration in the terms of trade is more pronounced in Japan than in other major economies, since Japan depends heavily on imports of commodities and most of its exports consist of manufactured products. The significant deterioration in the terms of trade has weakened corporate profits and household real income and exerted downward pressure on domestic private demand.

The second reason is the slowdown in overseas economies. Japan's exports in real terms showed high growth until this spring, but later decelerated and have leveled off recently. Growth in exports to the United States has been sluggish since the end of 2006, but that of exports to Europe and Asia has also recently started to slow.

As for prices, the year-on-year rate of increase in the consumer price index (CPI) for all items excluding fresh food has risen to around 2.5 percent against the background of the continued pass-through of the rise in energy and materials prices. This is the highest rate in 16 years excluding fiscal 1997, when the increases in the CPI reflected the rise in the rate of consumption tax. The Bank's current assessment, however, is that, second-round effects – price inflation that exceeds the level of increase caused by the pass-through of the rise in energy and materials prices – have not emerged.

2. The outlook for economic activity and prices

The outlook for Japan's economic activity is the largest concern at the moment. The Bank released the October 2008 *Outlook for Economic Activity and Prices* (Outlook Report) on October 31, which contains projections through fiscal 2010. Given that monetary policy takes effect with a considerable time lag, it is necessary that a central bank make long-term projections of future economic activity and prices. The Bank has extended the projection period for the October Outlook Reports, and the recent report presented projections through fiscal 2010. Currently, the uncertainties regarding the world economy and the global financial markets have increased significantly, making future projections of economic activity and prices more difficult than usual. Accordingly, it is necessary to stress that a careful assessment of not only the baseline scenario but also risk factors is even more important than usual.

Bearing that in mind, I would like to explain the baseline scenario. It is expected that increased sluggishness in economic activity in Japan will remain over the next several quarters and that it will take some time for the necessary conditions for Japan's economic recovery to be satisfied. It is likely to be sometime after the middle of fiscal 2009 that the economy will return gradually onto a moderate growth path and that the growth rate will pick up toward its potential – estimated to be around 1.5 percent or somewhat higher. The rate of real GDP growth on a fiscal-year basis is likely to be around 0 percent in fiscal 2008 and around 0.5 percent in fiscal 2009, and the growth rate for fiscal 2010 is expected to be around the potential growth rate.

The future of Japan's economy relies heavily on the recovery of overseas economies and also on the stability of global financial markets, which will form the basis for the recovery of the world economy. Growth in overseas economies is likely to continue to slow in coming quarters. Key factors for the future course of the world economy will be how and when the adjustments in the housing market progress and measures introduced to stabilize the financial system start to take effect in the United States. It is likely that improvements in the U.S. economy as well as the recovery in the growth rate of overseas economies as a whole will become evident only sometime after the middle of fiscal 2009.

With regard to future developments in prices, the rate of increase in the CPI for all items excluding fresh food is expected to decline gradually until the middle of fiscal 2009, as energy and materials prices stabilize, while aggregate supply and demand conditions are expected to loosen, with real GDP growth falling short of the potential growth rate. On a fiscal year-on-year basis, the CPI (excluding fresh food) is projected to rise by around 1.5 percent in fiscal 2008 and remain more or less flat in fiscal 2009. Thereafter, it is projected to increase somewhat and register an increase in the range of 0.0-0.5 percent in fiscal 2010, as commodity prices are likely to rise gradually reflecting the recovery in overseas economies and the aggregate supply and demand balance in the economy is likely to improve moderately. What is important in the conduct of monetary policy when faced with a decline in the inflation rate is developments in medium- to long-term inflation expectations. In this regard, medium-term inflation expectations have barely changed during the recent period of price rises, and it is not anticipated in the current projections that they will change during the coming period of price decline.

B. Uncertainty regarding the outlook for Japan's economic activity and prices

In sum, the most likely outlook is that increased sluggishness in Japan's economic activity will remain over the next several quarters, but in the longer run, the economy will return onto a sustainable growth path with price stability. However, this outlook is attended by a significant level of uncertainty.

The first and the largest risk factor is the outcome of financial crises in the United States and Europe. If the negative interaction operating between financial markets and economic activity in the United States and Europe should worsen, this may lead to a further slowing in these economies and may further delay their recovery. If growth of the world economy slows as a whole due to a subsequent slowdown in emerging economies, not only will Japan's exports decline but also the slowdown in the world economy may reduce business fixed investment by altering firms' expectations of an increase in global demand.

The second risk factor concerns developments in energy and materials prices. It is assumed that, in the medium term, these prices will rise moderately, supported by growing demand especially in emerging economies. However, this assumption is, again, accompanied by uncertainty. If the current fall in these prices, which implies an improvement in Japan's terms of trade, mainly reflects the slowing of the world economy, it should be borne in mind that this also implies a decrease in Japan's exports. On the other hand, if commodity prices should surge again, inflationary pressures may increase globally, which could raise the specter of a subsequent economic slowdown. In the latter case, it is possible that the factors behind the recent sluggishness in Japan will become more acute.

The third risk factor concerns a possibility that, if strains in global financial markets and financial crises in the United States and Europe should result in significant fallout in Japanese financial markets and financial institutions, financial conditions will become less accommodative and pressures acting to depress economic activity may become more marked.

Turning to the outlook for inflation, there are also uncertainties attending inflation that could cause it to deviate either upward or downward from the rate projected. With regard to the Bank's projection that the inflation rate will likely decline, however, the upside risks to this projection seem to have decreased relative to the past.

C. Conduct of monetary policy

I would now like to explain the Bank's thinking regarding the conduct of monetary policy based on the outlook for Japan's economic activity and prices I have described. Japan's economy, in the longer run, is most likely to return onto a path of sustainable growth with price stability; however, the outlook is attended not only by increased downside risks to economic activity but also by decreased upside risks to inflation relative to the recent past. Given the above assessment and outlook for the economy, the Bank decided on the following measures at the Monetary Policy Meeting held on October 31.

First, the Bank decided to lower the policy rate or the target for the uncollateralized overnight call rate by 20 basis points, from around 0.5 percent to around 0.3 percent. And second, the Bank further increased the flexibility of money market operations to ensure stability in money markets in order to facilitate the provision of sufficient liquidity toward the year-end and the fiscal year-end, when market liquidity usually becomes tight. More precisely, a facility called the Complementary Deposit Facility was introduced as a temporary measure to pay interest on current account balances, and the interest rate was set at 0.1 percent. Under this facility, the Bank will pay interest on current account balances – excess reserve balances, to be exact – that financial institutions hold with the Bank, and the interest rate applied will form the floor of market interest rates, since financial institutions will not have any incentive to offer funds in the call market below this rate. The new facility will enable the Bank to smoothly provide sufficient liquidity without causing large fluctuations in the call rates.

Extensive discussions have taken place regarding the amount of reduction in the policy interest rate and the level of the interest rate to be applied to current account balances. Before explaining the discussions, the basic mechanism whereby monetary policy takes effect through financial markets needs to be recalled. As I said earlier in relation to the case of U.S. and European money markets since the bankruptcy filing of Lehman Brothers, financial institutions cannot take risks when there are concerns over funding in the market. In this situation, monetary easing measures will not produce sufficient effects even with the low level of short-term interest rates. In this sense, ensuring the functioning of money markets – in other words, ensuring the flow of funds among market participants – is an important precondition for monetary policy to produce its intended results. In Japan, where the policy interest rate had already been reduced to the extremely low level of 0.5 percent, further reducing the policy interest rate will lower the interest income to a level insufficient to cover various transaction fees, which in turn may reduce the volume of transactions in the market and bring about a reduction in market liquidity. To put it differently, the Bank must consider carefully not only the positive effects of monetary easing, but also the possible adverse effects that might hamper the proper functioning of the market mechanism and impede the flow of funds. In the current situation where the influence of the turmoil in global financial markets is gradually being felt in Japanese financial markets and considerable deterioration in the functioning of the market mechanism can be observed, liquidity shortage in markets is becoming an increasingly serious problem. Also with regard to the spread between the targeted interest rate and the floor interest rate, an excessively narrow spread will hamper free interest rate formation and impair the functioning of the markets. The reason behind the Bank's decisions, after extensive discussion, to set the policy interest rate at around 0.3 percent and the spread at 20 basis points was to strike a balance between the monetary easing effects of the reduction in the policy interest rate and its negative effects on the functioning of the market in the current difficult situation facing Japan's economy and financial markets.

The Bank has taken various decisive measures, besides those that I just mentioned, to ensure stability in financial markets. The most important among them was the introduction of U.S. dollar funds-supplying operations in September as a coordinated measure of central banks in major economies. With the global decline in the liquidity of dollar funding markets, the dollar funds-supplying operations seem to be making a contribution to supporting economic activity by easing concerns among Japanese financial institutions as well as nonfinancial firms over dollar funding. Furthermore, on October 14, the Bank decided to increase the frequency and the size of CP repo operations and to broaden the range of eligible collateral. Moreover, at the Monetary Policy Meeting held on October 31, the Bank lowered the basic loan rate applicable under the Complementary Lending Facility. Through this facility, the Bank extends loans to financial institutions in the amount they need within the value of collateral submitted. The basic loan rate, the interest rate applied under the facility, is the ceiling of overnight market rates. The reduction in the basic loan rate will further limit the rise in overnight call rates and help to ensure market stability.

If I were asked to provide the Bank's basic stance with regard to future monetary policy, I would have to repeat that given the increased uncertainty, the Bank will implement monetary policy appropriately by carefully assessing the future outlook for economic activity and prices, closely considering the likelihood of its projections as well as factors posing upside or downside risks. At the current juncture, particularly close attention should be paid to the risk of downward deviation in economic activity due to developments in the U.S. and European financial systems and global financial markets as well as their subsequent impact on economic activity.

The current shock that is threatening the world economy and Japan's economy can be regarded as part of the process of correcting the unsustainable growth in the world economy and expansion in leverage that continued over the past several years. With strains in financial markets continuing under the severe adjustment process, the most important contribution a central bank can make is to ensure stability in financial markets through its provision of liquidity. Market stability is also a vital precondition for the current low interest rates to produce their maximal monetary easing effects. Keeping in close contact with overseas central banks, the Bank will do its utmost to ensure market stability by conducting appropriate money market operations.

III. Lessons learned from the financial crisis

As the last topic of my speech, I would like to offer my views on how we can avoid financial crises, based on the experience of addressing Japan's financial system instability following the bursting of the bubble economy.

A. Policy responses to the current financial crisis

In response to the current financial crisis, governments and central banks worldwide have announced decisive measures in rapid succession in order to ensure the stability of global financial markets and confidence in the financial system, and have been implementing these measures while seeking international coordination. The most important of these measures are liquidity provision by central banks and injection of public funds into financial institutions by governments.

Not all the problems would be solved immediately even if public capital were injected into financial institutions on an appropriate scale, however. That is because this would not immediately correct the imbalances and excesses generated in each sector of the economy as we found in Japan; a comprehensive framework for reinforcing financial institutions' capital by using public funds was established in 1998 in Japan, but it was only after 2003 that the economy started to return to a full-fledged recovery path, with the resolution of the "three excesses" of production capacity, employment, and debt in the corporate sector, and the support of recovery in overseas economies.

Looking at the present condition of the U.S. economy, the sector that comes to mind first as having an "excess" is the housing market. Housing prices are still declining and it seems that it will take some time for the adjustment in the housing market to be completed. While it is difficult to specify the amount of excess in the household sector's debts, the past trend seems to suggest the existence of a certain amount of excess. Not only had the financial sector grown substantially, but also the overall financial activity in the economy had greatly increased. More globally, as symbolized by the recent case of Iceland, the financial sector had been growing in recent years but is now shrinking. Various adjustments to reduce the excesses are likely to continue for the time being, and during this period downward pressures will continue to weigh on economic activity. To enable such adjustments to proceed as smoothly as possible, it is important for the authorities to take necessary measures with determination, as steps toward ensuring stability in the financial markets and confidence in the financial systems. Fortunately, the measures for achieving the stability and confidence seem to have been put generally into place.

B. Preemptive policy measures

Next, I would like to consider what policy measures are necessary to prevent the emergence and worsening of a financial crisis. The correct set of answers has yet to be found, but I would like to offer some tentative suggestions.

1. Proper conduct of macroeconomic policy

The first is to pursue proper macroeconomic policy. There have been a range of discussions on the causes of the subprime mortgage problem, and there is a view that it is a new type of financial crisis. I believe that, although there were complex new securitized products and changes in the mechanism of crisis generation, what happened was the generation, expansion, and bursting of a traditional bubble, a phenomenon that has occurred repeatedly in the past. That is to say, in a favorable macroeconomic environment, asset prices increased markedly and leverage expanded substantially.

Japan's experience during the latter half of the 1980s and the first half of the 1990s, and the current U.S. subprime mortgage problem – or, more broadly, the turmoil in the U.S. and European financial markets – have in common the fact that the essence of the problem is the generation and bursting of a bubble.

How monetary policy relates to the bubble is extremely complex, and nobody can provide a clear answer at present, but it might not be a mere coincidence that Japan's bubble and many subsequent bubbles were generated when prices were stable or the rate of inflation was declining, a situation in which low interest rates were sustained. And in the current U.S. subprime mortgage problem, investors and financial institutions relaxed their risk assessment standards and leaned increasingly toward pursuing short-term profits by expanding their investments in securitized products, which included subprime loans as underlying assets, while increasing leverage. In the United States, the ratio of the outstanding balance of residential mortgages to nominal GDP rapidly increased from 49 percent in 2000 to 75 percent in 2006. An increase in leverage was not brought about by monetary policy only, and there had to be some convincing story that made the public's sentiment bullish. At the same time, the increase in leverage did not occur without an expectation that low interest rates would continue against a backdrop of prolonged global growth and low inflation, and associated credit expansion.

Given such experiences, the proper conduct of monetary policy is extremely important. While price stability is the objective of a central bank's monetary policy and thus is extremely important, if price stability is understood to mean always containing the growth rate of the CPI within a certain narrow range, it could, as various recent experiences show, lead to large economic fluctuations, and eventually result in the loss of price stability itself.

2. A macroprudential perspective

The second point crucial for preventing the emergence and worsening of a financial crisis is the importance of maintaining a macroprudential perspective.

Let me take the example of residential mortgage-backed securities (RMBSs), securitized products that have residential mortgages as underlying assets, which were the trigger of the current global financial crisis. Investment in RMBSs, in which borrowers of residential mortgages that consist of underlying assets are distributed widely across regions and professional classes, enables investors to diversify risk unique to where they live, for example, the level of natural disaster risk or bad debt risk. However, if a housing bubble common to every region and professional class is generated, the economic value of the RMBSs will rapidly decline together with the bursting of the bubble.

In this context, to ensure financial system stability, financial institutions for their part are required to manage risks properly, while the supervisory authorities and central banks need to have a macroeconomic perspective to cover not only individual risks that financial institutions incur, but also risks inherent in the financial system. The authorities and central banks use the term "macroprudential" to describe such a perspective, and it is important in checking whether proper risk management is in place through regulations, supervisions, and monitoring of individual financial institutions, as well as in conducting a risk analysis of the financial system as a whole and in disseminating information as necessary. Macroeconomic and market information converge at the Bank, as the monetary policy authority. At the same time, since the Bank is in a position to obtain information from individual financial institutions through its on-site examinations and off-site monitoring, it is strongly aware of the significance of having a macroprudential perspective. While it is not an easy task to establish a specific macroprudential methodology, the Bank has been recently making efforts to do so and publishing part of the fruits of these efforts in its *Financial System Report*. The Bank would like to continue to strengthen and exercise its macroprudential function.

3. Improvement in market and settlement infrastructure

The third point important for preventing the emergence and worsening of a financial crisis is to steadily improve market and settlement infrastructures, and contain systemic disruptions if a financial crisis occurs. While the current global financial markets are in a state of strain, the turmoil would have been worse without the efforts that have been made in recent years by market participants and central banks to improve market and settlement infrastructures.

One example is the Continuous Linked Settlement (CLS) Bank established in 2002, with the cooperation of major central banks and private financial institutions, to reduce foreign exchange settlement risk. Under the previous settlement system, anyone selling the yen would be exposed to the settlement risk associated with the time difference between paying the yen in Japan time and receiving U.S. dollars in New York time. Now, since the CLS system links the fund settlement system of individual countries and carries out multiple currency settlements associated with foreign exchange transactions simultaneously, the settlement risk unique to foreign exchange transactions has been reduced. As vigilance for counterparty risk is intensifying since the Lehman shock, this system has been functioning very effectively to ensure smooth foreign exchange transactions and settlements. Since financial institutions in individual countries are increasingly relying on foreign exchange swap markets, which convert the home currency into foreign currency, to procure foreign currencies, it is highly significant that the smooth functioning of the foreign exchange market has been maintained.

In addition, there have been various developments both domestically and internationally to improve various forms of financial infrastructure through the concerned parties' steady efforts, and these are ongoing. From the viewpoint of enhancing financial markets' efficiency and strengthening resiliency against a crisis, the Bank will continue to actively support concerned parties' efforts to improve market and settlement infrastructures.

Closing remarks

At present, the world economy and Japan's economy are facing quite a severe situation. In my closing remarks, based on my experience with financial crises, I would like to share with you my convictions on three aspects of the role of a central bank.

First, I am convinced that the conduct of monetary policy is becoming ever more important. The recent experiences in various countries seem to suggest that it has become increasingly important to view monetary policy as a tool to achieve stable financial and economic environments that can be sustained over time, rather than a tool for fine-tuning to achieve macroeconomic stability.

Second, I am convinced of the importance of the aspect of a central bank as "the bank for banks," that is, its banking function. To cope with the current financial crisis, the central banks around the globe, including the Bank, have been implementing various operations to provide financial markets with ample liquidity, and have been striving to maintain financial stability. Provision of U.S. dollar funds is one typical example. Policy with respect to central bank collateral is also important. When market functioning has declined, particularly important are the types of assets a central bank accepts as collateral, and their prices. While the media tend to focus on monetary policy in the sense of interest rate policy, the current experience has strengthened my conviction that the function of a central bank as a bank is just as important.

Third, I am convinced of the importance of on-site examinations and off-site monitoring. As shown by the Federal Reserve Bank of New York's lending to Bear Stearns, and years ago by the Bank of Japan's provision of emergency liquidity assistance to Yamaichi Securities, whether a central bank extends lending to financial institutions as a lender of last resort for banks is critically important for financial system stability. Given that a central bank has such a role, collecting information through on-site examinations and off-site monitoring is indispensable in accurately gauging the liquidity and soundness of individual financial institutions. It is also important for a central bank to utilize such information in devising liquidity provision and in making a macro risk assessment. At present, there is ongoing deliberation in international forums such as the Financial Stability Forum concerning the system design of a global financial market and a financial system including the procyclicality of regulations – the effect whereby frameworks of regulations and supervisions for financial institutions amplify economic fluctuation through financial institutions' behaviors. More and more people are arguing that the presence of financial activity in the economy became too large. If such criticism becomes too strong, leading to a rejection of the proper roles played by financial activity, it would do great damage to the economy in the form of a decline in growth over time. Therefore, as a central bank, we will actively contribute to the discussion of specific system designs.

Thank you very much for your attention.