

Masaaki Shirakawa: The roles, missions and challenges of the central bank

Speech by Mr Masaaki Shirakawa, Governor of the Bank of Japan, at the Japan National Press Club, Tokyo, 25 January 2013.

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Introduction

Today, I am very pleased to appear before the venerable Japan National Press Club. The first public speech that I gave as the Governor of the Bank of Japan was at this venue, just one month after my appointment. We have experienced many things in the five years since then, and central banks around the world, including the Bank of Japan, seem to be going through the most turbulent times.

Looking back on the spring of 2008, I still remember my hesitation to embrace a view expressed during a meeting between G-7 finance ministers, central bank governors, and major financial institutions – held on the day after my appointment – that the worst might be over. In fact, one of the largest U.S. investment banks, Lehman Brothers, went bankrupt in September of that year. This led to extremely high stress levels in international financial markets, and global economic activity fell off the cliff. The last months of 2009 saw the European debt crisis, which was to subsequently intensify in waves, erupt in Greece. The financial crises that occurred around the globe strengthened the risk-averse attitude of investors, leading to heightened demand for the yen as a safe haven. Accordingly, the yen's exchange rates staged a turnaround from a depreciating trend into 2007, and the yen appreciated rapidly. Furthermore, in March 2011, we experienced a most tragic disaster – the Great East Japan Earthquake. Needless to say, these events affected Japan's economy in the most profound manner. Meanwhile, in a slightly different vein but just as important as these three events is the rapid aging of the population that Japan's economy is experiencing, and the procrastination relative to making the necessary adjustments to this situation is giving rise to various vexing issues, including the decline in growth and deterioration in government finances.

Central banks around the world, including the Bank of Japan, have done everything they can in response to these events. When faced with a potential breakdown of market functioning, the time-honored course of action for central banks is to act as the “lender of last resort”. Following this principle, central banks made every effort to stabilize financial markets and the financial system, thereby averting a repeat of the Great Depression of the 1930s. Nevertheless, given the enormity of debt incurred during the global credit bubble preceding the crisis, global economic recovery remains anemic more than four years after the collapse of Lehman Brothers. In metaphorical terms, one could say that, even if the acute symptoms of the crisis are cured, we have not been able to put behind us the chronic symptoms arising from paying off excessive debt.

Looking at monetary policy, short-term interest rates are effectively at zero in many developed economies, including Japan. Central banks' liquidity provision and balance sheets have also expanded to unprecedented levels. In addition, they are expanding the range of assets they would buy. The Bank of Japan is buying not only government securities, but also risk assets such as commercial paper, corporate bonds, exchange-traded funds, and real estate investment trusts. In spite of mobilizing these measures – the so-called non-traditional policy measures by central banks of developed economies including the Bank of Japan – economic recovery is far from satisfactory, as I noted a moment ago. Issues differ from one economy to another. For example, the United States and Europe are suffering from high unemployment. The unemployment rate in the euro area stands at 11.8 percent, and in the United States, despite coming down from its peak, the rate is at 7.8 percent. In the case of Japan, the unemployment rate had risen only modestly, and is relatively low compared with

Europe or the United States, standing at 4.1 percent. On the other hand, inflation in Japan is low, and the year-on-year rate of change in the consumer price index (CPI) is around 0 percent. Japan has not shaken off deflation. Meanwhile, in all developed economies the importance and long-term benefits of fiscal consolidation and structural reforms aimed at enhancing competitiveness are appreciated, but their implementation tends to lag, reflecting pains that initially accompany these items. Against this backdrop, demands and expectations on central bank policies are more heightened than ever.

As you know, the debate on monetary policy has never been so lively as that seen in recent months. In addition, the Bank of Japan introduced additional steps at this week's Monetary Policy Meeting to provide monetary accommodation in a decisive manner – namely, the “price stability target” and the “open-ended asset purchasing method”. The Bank also issued a joint statement with the government on strengthening policy coordination. Although I am aware of the fact that your interest in these measures is running high, I have already explained them in detail at the press conference following the Meeting and elsewhere. In view of this, my speech today carries the title “The Roles, Missions, and Challenges of the Central Bank”. I will spend about two thirds of my allotted time talking about what a central bank is and the remaining one third on the Bank's most recent decisions; hopefully, this will enhance the public's understanding of the decisions in a broader context. It would be my greatest pleasure if, by describing the essence of central banking, I could succeed in providing any useful input for people who are contemplating issues related to monetary policy and the Bank.

I. Four episodes illustrating the role of the central bank

Now, what does a central bank do? In order to answer this question, I would like to start by referring to three well-known quotes on central banking. The first is by the U.S. comedian Will Rogers, who enjoyed enormous popularity in the 1920s and 1930s. He compared central banking with the fire and the wheel, calling these the three greatest inventions of mankind. It may be a bit of an exaggeration to count central banking as one of the three great inventions, but the quote conveys how important the central bank is to the lives of people. The second quote is from William McChesney Martin, who served as the Chair of the Board of Governors of the Federal Reserve System for nearly 20 years in the 1950s and 1960s. He said that the role of the central bank is to “[take] away the punch bowl just when the party is getting good”. The third quote is from Helmut Kohl, the German Chancellor who oversaw the reunification of East and West Germany. “As the Federal Chancellor, I sometimes have a problem with the Bundesbank. As a citizen, I'm glad that it exists.” The last two remarks refer to the role of the central bank, relating this to its independence.

Instead of using these figurative remarks, one could approach the question from a systematic angle and say that the central bank pursues “price stability” and “financial stability”. Looking at central bank laws around the world, the objectives of the organization written into them reflect the historical influences at the time of their adoption, and tend to be more complex and somewhat ambiguous in older laws. Nevertheless, the overwhelmingly prevailing trend over the last 20 years, including the Bank of Japan Act, is to establish two pillars: “price stability” and “financial system stability”. I also believe that the pursuit of these two is the fundamental role of the central bank. At the same time, these abstract ideas alone cannot give a good idea of what role the central bank is actually playing in the economy.

Having said this, in the following sections, I will try to illustrate the roles and missions of the central bank by looking at specific episodes from the last five years. I will attempt to take up as many aspects of a central bank's operations as possible. The episodes are the Lehman shock, the European debt crisis, the Great East Japan Earthquake, and the rapid aging of Japan's economy.

Lehman shock

Let me begin with the collapse of Lehman Brothers in September 2008, which sent huge shockwaves throughout the global financial market. This event showed that real economic activities are significantly affected by impairment of the financial system. The stability of the financial system is akin to the air around us, although its importance is usually taken for granted. Nonetheless, it is one of the most important factors in the smooth functioning of the economy.

This episode demonstrated the many roles played by central banks. The first and most evident was their role as the “lenders of last resort”. The Bank of Japan also acted promptly as the lender of last resort. In Japan, the problem was most acute in the funding market for U.S. dollars. In a very short period of time, both financial institutions and non-financial firms were finding it difficult to secure dollar funds. Perceiving this problem, the Bank also supplied dollar funds in the Japanese market – the dollars being obtained from the Federal Reserve through foreign exchange swap arrangements. The yen interbank market, meanwhile, was relatively stable, but as the conditions in the commercial paper and corporate bond markets rapidly deteriorated, reflecting concerns over credit risk, the Bank decided to purchase commercial paper and corporate bonds in the market. This was an unusual action for a central bank, in that it resulted in the bank incurring credit risk of individual firms.

The second role, which may not be glamorous but which I wish to emphasize, was the central banks’ catalytic role in improving the payment and settlement systems. For example, six years before the Lehman shock, in September 2002, a system was introduced that linked the two settlement legs of foreign exchange transactions, e.g., the dollar and yen legs in the case of settling dollar-yen trades. The disruptions in the financial markets caused by the collapse of Lehman Brothers would have been much larger if such a system were not in place before the event. Central banks, including the Bank of Japan, played a leading role in the six years leading up to the launch of the system.

The third role was to prevent bubbles and ensure the stability of the economy and financial system. Looking at the economic stagnation after the Lehman shock, one is confronted with the question of why an extraordinary credit bubble was allowed to form into the middle of 2000s, which was the root cause of the global financial crisis. In this regard, it is often said that the policy responses of the Federal Reserve after the bursting of the bubble were more aggressive than those of the Bank of Japan. Nevertheless, when one examines the economic performance of the United States and Japan over the six years after the bursting of their respective bubbles, recovery in the United States in terms of real GDP is more sluggish than that of Japan in the 1990s. A precise comparison of economic performance is beside the point. The important lesson from the experiences of the two economies is that, when borrowing by firms and households ballooned, resulting in a credit bubble, the consequences were quite serious. When a bubble bursts, firms and households are forced to prioritize their debt pay-downs. In the case of this particular episode, this resulted in reduced investment and consumption, depressing economic activity more generally, and brought about a prolonged period of low growth. It may seem unbelievable in hindsight, but the overwhelmingly prevailing view overseas, before the collapse of the most recent credit bubble, especially among the members of academia and policy makers in the United States was that aggressive monetary policy could adequately deal with the consequences of the collapse of bubbles. In other words, “mopping up” after the fact was regarded as important. The reason why monetary policy remained loose during the bubble was partly because prices were stable. This was the case both for the United States and Japan. In Japan, prices rose by only fractions of 1 percent in 1987 and in 1988. While it was true that credit was expanding and asset prices were rising rapidly, there was no recognition of the risk that economic stability in the long term could be compromised through such accumulating imbalances. Of course, the causes of bubbles are complex, and sometimes can only be attributed to people jumping on the bandwagon. Bubbles do not result solely from monetary easing, and they cannot be completely prevented through good financial regulation and

supervision. Having said that, I must also stress that appropriate monetary policy, as well as adequate regulation and supervision, do have important roles to play in preventing bubbles or an excessive build-up of debt. In this regard, what I find notable is that there was a remarkable shift in conventional wisdom regarding bubbles and monetary policy over the course of just five or six years. Furthermore, I feel that we tend to forget the fact that bubbles and financial crises have happened repeatedly. One must, therefore, remain humble when taking the wheel of policy.

European debt crisis

The second event that I wish to take up is the European debt crisis. As we know, this crisis emerged following the extensive revision of past fiscal balance statistics by the Greek government. Adding to the three roles of the central bank that I have just mentioned regarding the Lehman shock, there are a few facts and lessons to be learned with respect to the European debt crisis regarding the relations and interactions between the central bank and markets, governments, and society at large.

The first is the importance of fiscal prudence. While it was widely viewed that confidence in fiscal sustainability would be essential to maintaining confidence in the currency, the European debt crisis demonstrated that fact in real time. When government finances become unsustainable, the options to correct this are, conceptually, fiscal consolidation, default of government debt, or inflating away the real value of debt. If the government defaults, or if it will not pay its debts, financial institutions that hold government debt would see their capital eroded, and in the extreme, people would lose confidence in the safety of bank deposits, which are debts of banks. Even if the situation does not deteriorate that far, banks would cut back on lending to the private sector and the real economy would suffer as a result. If the central bank would then buy government debt in order to prevent such damage, the consequent excessive issue of money would result in inflation. In all the cases, the value of the currency would be impaired. In sum, confidence in the currency hinges on the prudent management of government finances over the medium to long term.

The second is the appropriate distance between the central bank and financial markets. The fluctuations in government bond yields since the introduction of the euro starkly illuminate this issue. In the euro area, there was an expectation that the economic fundamentals of the member countries would converge through the introduction of the single currency. Accordingly, the government bonds of the member countries quickly came to enjoy terms of issuance mirroring those of Germany. For over ten years, bond yields for the peripheral economies, including Greece, Ireland, and Portugal, remained at the same level as that of Germany. However, when the yields began to rise, they did so significantly. Looking at the yield spread over Germany, while the Greek spread may be a little extreme, the Spanish spread was just 0.7 percent three years ago. At its widest, this reached 6.4 percent in late July 2012 and now stands at 3.5 percent. Even if I will have to reserve my judgment on what the normal spread is, the experience shows that confidence – the determinant of spread – is fragile.

Third, there is the issue of the interaction between central bank actions and society at large. Since the beginning of the crisis, market sentiment repeatedly shifted between optimism and pessimism. When tensions arose, the European Central Bank (ECB) supplied funds to the market so as to stabilize financial markets. When those actions succeeded in mitigating the tensions, there was a loss of momentum regarding reforms that were discussed under market duress. As a result, tensions returned and the ECB had to inject more liquidity. This was repeated over the last three years. Liquidity injection by the ECB is a policy to “buy time”. Structural reforms in the economy and government finances must be pursued during the bought time. This is a difficult balancing act, in which the central bank must maintain the stability of the economy and the financial system while keeping enough momentum in society for implementing reforms.

These experiences and lessons from the European debt crisis seem to offer rich material for us in Japan to contemplate regarding the role of the central bank.

Great East Japan Earthquake

The third event to examine when considering the role of the central bank is the tragic Great East Japan Earthquake. The earthquake confirmed the vital role played by the central bank in maintaining the essential physical integrity of the financial system infrastructure. Confidence in the central bank faces a severe test when a disaster strikes, and in order to pass that test, the bank must succeed in guarding the physical in addition to the functional stability of the financial system and the markets of the economy. As we know, the tremor struck just before 3PM on a Friday, as financial institutions were winding down the week's business. As a result, there was very little remaining activity in the market, but the Bank took steps to ensure that all settlement of yen funds for the day would be completed without any disruption. On the following Monday, the Bank cut short its Monetary Policy Meeting to one day, and with a view to preventing negative effects on the real economy from the deterioration in business confidence and heightened risk aversion in financial markets, decided to increase its purchase of financial assets (mostly riskier assets). It also supplied ample funds to the market to prevent disruptions in the financial markets. The offer of funds amounted to 21.8 trillion yen on that Monday alone. Meanwhile, the BOJ-NET, which is the backbone of the Japanese payments system, functioned without a hitch. Furthermore, the Bank took care to make sure that damaged banknotes and coins – for example, those swept away by the tsunami and soaked in water – could be exchanged as quickly as possible by setting up temporary exchange desks and sending extra staff to the stricken areas.

In a country like Japan, which is prone to earthquakes, it is important to maintain the physical integrity of infrastructure. The Bank believes that it was able to discharge its responsibilities in the wake of the earthquake. The Bank has deployed significant resources to this end. It is now in the process of further enhancing its business continuity planning, including responses to potentially deadly earthquakes in the South Sea Trough and in the Tokyo area.

Rapid aging of Japan's population

The last theme I'll use to illustrate the role of central banking is the rapid aging of Japan's population. The reason why I look at aging in relation to the role of central banks is because it offers insights into the implications of the potential growth rate, which is a given in the short term with respect to the conduct of monetary policy. Economic developments determined by the supply side of the economy and other real factors are beyond the direct control of the central bank. While the central bank hopes to positively influence the supply side through bringing about a stable financial and economic environment, monetary policy tries to influence prices and economic activity through acting upon the demand side – the spending decisions of economic agents. When demand lies below the potential of the economy, there is a negative output gap. When demand lies above the potential of the economy, there is a positive output gap. Currently, the negative output gap in Japan is about 2 percent, and during the process of closing this gap, growth will accelerate. When the gap is closed, growth will be in line with the increase in the potential of the economy – in other words, the potential rate of growth. The problem faced by Japan's economy is that this potential growth rate is gradually declining. To a large part, this decline is brought about by aging, which is progressing at a speed heretofore unequalled by any other economy. The aggregate economic activity of an economy is determined by the number of people working and the amount of output produced by each working person, i.e., value added per worker. In the case of Japan, if one assumes that the present rates of labor participation for gender and age will remain stable, the numbers of workers will decline at an annual rate of –0.6 percent during the 2010s. In other words, from the perspective of the number of workers, real GDP is going to decline at an annual rate of –0.6 percent. This is a very strong headwind. Meanwhile, looking at the rate of increase in value added per worker, the average for G-7 economies over the last 20 years is 1.3 percent. For Japan, the figure is 1.5 percent for the relatively

good times between 2000 and 2008. These numbers enable us to make a calculation of the potential growth rate, which is below 1 percent.

I do not wish to say here that low growth is inevitable. Demography cannot be changed quickly. Nevertheless, it is possible to raise the growth potential by changing the many elements that can be influenced by deliberate actions. First of all, the number of workers can be increased by raising the labor participation rate of women and elderly people. For example, if by 2030 the participation rate of women increases to the level now seen in Sweden, the participation rate of the 60 to 64 age group is raised to the current level of the 55 to 59 age group, and there is an in-line increase in participation by people aged 65 and older, the labor supply during the 2010s will increase by 0.2 percent annually, not -0.6 percent as I mentioned a short while ago. Meanwhile, in order to accelerate the increase in the value added per worker, it is essential to develop goods and services that are in demand both domestically and abroad, and build successful businesses on them. For example, in terms of cultivating domestic demand, businesses must, in a timely manner, provide services that fulfill new potential demand arising from aging. In order to encourage businesses to take up such a challenge, there is a need to aggressively create a more favorable environment through such means as deregulation, for example. If growth potential is enhanced through these efforts, the business outlook will improve and inflation will gradually become higher.

II. Overcoming deflation as early as possible and achieving sustainable growth with price stability

Following these views on the roles of the central bank, let me now turn to the challenges faced by central banks. Of the many challenges, the greatest for Japan and hence the Bank of Japan is obviously to overcome deflation as early as possible and return to the sustainable growth path with price stability. The Bank realizes the utmost importance of meeting this challenge, and thus has pursued aggressive monetary easing.

There are two elements to the Bank's decision at the Monetary Policy Meeting held earlier in the week.

“Price stability target” and the “open-ended asset purchasing method”

The first is the introduction of the “price stability target”, at 2 percent. The Bank recognizes that the inflation rate consistent with price stability on a sustainable basis will rise as efforts by a wide range of entities toward strengthening competitiveness and growth potential of Japan's economy make progress. Based on this recognition, the Bank sets the price stability target at 2 percent in terms of the year-on-year rate of change in the CPI. Under the price stability target specified above, the Bank will pursue monetary easing and aim to achieve this target at the earliest possible time. Taking into consideration that it will take considerable time before the effects of monetary policy permeate the economy, the Bank will ascertain whether there is any significant risk to the sustainability of economic growth, including from the accumulation of financial imbalances.

The second element is the introduction of the “open-ended asset purchasing method”. The Bank will pursue aggressive monetary easing, aiming to achieve the above-mentioned price stability target, through a virtually zero interest rate policy and purchases of financial assets, as long as the Bank judges it appropriate to continue with each policy measure respectively. As the Bank has already announced, the size of the current Asset Purchase Program is set to increase by nearly 40 trillion yen over the course of this year. Furthermore, the Bank has introduced from the beginning of this year a scheme to provide financing to financial institutions, up to the amount of net increases in lending at each financial institution. More than 15 trillion yen would be provided through this scheme by the spring of 2014. Meanwhile, with respect to the Asset Purchase Program, after completing the current purchasing method, from January 2014, the Bank will introduce a method of purchasing a certain

amount of financial assets every month without setting any termination date. The outlook just published by the Bank for the CPI inflation rate for the 2014 fiscal year is 0.9 percent excluding the effects of the increase in the Consumption Tax rate. From the beginning of 2014, for some time, the Bank will buy financial assets totaling about 13 trillion yen every month, including 2 trillion yen in long-term Japanese government bonds. Consequently, the size of the Asset Purchase Program alone will increase by about 10 trillion yen over the course of 2014, and the size of the Program is expected to stay at that level from then on. The Bank will thus provide strong monetary stimulus without interruption.

Achieving the target

A few moments ago, I explained that the Bank recognized that the inflation rate consistent with price stability on a sustainable basis would rise as efforts by a wide range of entities toward strengthening competitiveness and the growth potential of Japan's economy made progress, and, based on this, the Bank decided to set the price stability target at 2 percent in terms of the year-on-year rate of change in the CPI. Looking back at historical rates of inflation, the average year-on-year inflation rate, even during the bubble years – the latter half of 1980s – was 1.3 percent. If one takes the average between 1985 and 2011, the average inflation rate was 0.5 percent. In order to bring about sustainable growth with price stability, I believe that serious efforts from a wide range of entities are essential. As I noted in relation to the rapid aging of the population, it is not appropriate to become pessimistic regarding the possibility of raising the growth potential. Indeed, quite often we see comparisons of current real GDP levels with that before the Lehman shock, and find that Japan, like many European economies, is still undershooting the level of GDP seen in 2007. In contrast, when one looks at the current *per capita* real GDP, major economies including the United States are still below 2007 levels, but Japan's output loss is relatively small. Furthermore, in terms of the rates of increase in GDP per worker, while the U.S. and European economies have not regained 2007 levels, Japan has surpassed its 2007 level. In other words, Japan realizes low growth as an economy because its workforce is declining, but each Japanese worker is contributing more to increasing output at a faster pace than U.S. or European workers. This shows that not only is it inappropriate to become excessively pessimistic, we should actually be more confident about our potential. If I may add a few words on the recent joint statement between the Japanese government and the Bank of Japan regarding the strengthening of policy coordination, there is a clear recognition of the role that each entity will play: the Bank will pursue aggressive monetary easing and the government will formulate and promote measures for strengthening competitiveness and the growth potential of Japan's economy. It also states that the government and the Bank will work together to overcome deflation early and achieve sustainable economic growth with price stability. This is very significant.

The importance of flexibility in monetary policy

The decision on the "price stability target" by the Bank was both a decision on a "target" and a flexible inflation targeting framework. As such, let me also explain the latter element. Obviously, the effects of monetary policy permeating economic activity and thereafter prices require a considerable and variable time lag. The conduct of monetary policy has to be flexible by examining various risk factors, including those related to financial imbalances, in addition to the assessment of current developments and outlook for economic activity and prices, from the perspective of achieving sustainable growth with price stability. Such understanding has been widely shared around the globe; particularly, in the aftermath of the global financial crisis, major economies of the world have come to emphasize flexibility in the conduct of monetary policy – by, for example, publicly articulating the importance of paying due attention to financial system stability. Over the last year, there has been an increasing awareness of such understanding in Japan as well.

In such circumstances, it is judged transparent and appropriate to use the expression, "target", in order to explain the Bank's thinking on price stability.

The purpose or principle of monetary policy by the Bank is clearly stated in the Bank of Japan Act – namely, it is “achieving price stability, thereby contributing to the sound development of the national economy”. Obviously, therefore, the Bank will manage monetary policy as guided by this aim and pursue the new price stability target set under this aim. With a view to achieving sustainable growth with price stability, the Bank will examine the current state of the economy and prices and the outlook thereof, and ascertain whether there is any significant risk, including financial imbalances. Such a policy framework is the same as those currently adopted by many other central banks. In this regard, if one is to call this “flexible inflation targeting”, the Bank’s framework may be regarded as such.

Looking at the practices of overseas central banks, irrespective of the adoption of inflation targeting, no specific date has been set for achieving price stability. The Bank’s view on price stability is based on a similar understanding in that the Bank aims to achieve price stability on a sustainable basis.

The Bank is implementing the easing measures that I have just explained, and aims to achieve the target at the earliest possible time. The effects of easing will be amplified and brought forward if and when firms and other economic agents aggressively take advantage of the accommodative financial conditions. Nevertheless, it is not possible at this juncture to accurately predict how and when that would happen. In addition, considering that Japan has a prolonged experience of low inflation, it also is not possible to foresee the potential changes in the behavior of firms and households as the year-on-year rate of increase in the CPI accelerates. Furthermore, the severity of the government’s fiscal problems makes it difficult to gauge the reactions of domestic and overseas financial markets. The Bank is fully committed to pursuing achievement of the target as early as possible, under the aim stated in the Bank of Japan Act, i.e., “achieving price stability, thereby contributing to the sound development of the national economy”. In my view, this policy stance of the Bank’s is consistent with the prevailing views of the Japanese people. For example, looking at the results of the Opinion Survey on the General Public’s Views and Behavior, which is conducted by the Bank on a quarterly basis, the desirable “price stability” for most of the population is a state where prices would rise gradually, reflecting the steady improvement of the economy in a balanced manner, accompanied by increases in employment and wages and improvements in corporate profitability. In other words, Japan must return to a path of sustainable growth with price stability.

The last words: organizational aspects of the central bank

Today, I have dwelled on the roles of the central bank and the most recent decisions by the Bank. Before concluding, let me make a few points on the basis for the central bank to appropriately discharge its responsibilities, referring to some issues that are often outside the public’s awareness. In particular, I would like to look at the organizational aspects of the central bank. At every firm, at every organization, business is carried out by individual people, and the corporate culture – including the tacit knowledge formed through tradition and the interactions of members – is most important. There are four aspects that I wish to note.

Firstly, a central bank is a bank. Accordingly, the day-to-day banking operations are very important. Monetary policy, including the asset purchases that I have explained, is dependent on banking operations such as settlement services, management of haircuts, etc. These banking operations are not simple and mechanical affairs. It is often said that “the devil is in the details”, and the knowledge and feel for banking operations is essential to understanding subtle financial developments. This is all the more so in times of crises.

Secondly, in a point related to the importance of the banking operations that I have just mentioned, the management of policies – both monetary and financial system stability policies – must fully mobilize the information and intuition obtained from all corners of the broad central banking functions. Unfortunately, the importance of the wide-ranging functions

of the central bank is not widely recognized. In fact, media attention on the Bank is concentrated on monetary policy. While monetary policy is indeed important, this is only one piece of the many functions performed by the central bank for the purpose of maintaining the stability of the economy and the financial system. Looking at the allocation of time in my day-to-day schedule as governor, and also at the headcount for various functions, I feel that these functions as a whole are contributing to maintaining the stability of the economy and the financial system. With the increasing emphasis placed on macroprudential policy following the Global Financial Crisis, many central banks are vested with macroprudential policy by themselves or with other institutions. This reflects not only the fact that the central bank is connected to various aspects related to finance, including the macroeconomy, financial markets, financial institutions, and payments and settlements infrastructure, but also the fact that the bank is sensitive to information that is obtained from those connections.

Thirdly, the central bank must stick to a constant learning process in the broadest sense. Looking at what happened over the course of the last 25 years, including the formation and bursting of the bubble, financial crisis, deflation, and rapid aging, few economies had initially correctly realized the significance of these developments. Nevertheless, it eventually became evident that such changes in the environment had profound effects on the economy. In this regard, the central bank must always be sensitive to the changes in the economy and financial markets, and be humble enough to listen to people with different viewpoints and opinions. Considering that the central bank must make decisions that affect the lives of many people in a world full of uncertainties, the importance of humility cannot be overstated.

Lastly, a global perspective is essential. While it may sound obvious in a world of globalizing economies and finance, I again stress this point here. A global perspective means not only that what happens overseas will affect Japan, but also that what happens in Japan will affect other economies. In hindsight, Japan has faced many problems ahead of other developed economies – for example, the bursting of the bubble and the financial crisis and subsequent low growth and rapid aging. The Bank of Japan has been trying to explain to the outside world its experiences and the lessons to be garnered from them, but it was not easy to convince the overseas audience until the bubbles burst in the United States and in Europe, and even now, I have a feeling that our points are not fully driven home. Japan and the Bank must put more efforts into this, in terms of global intellectual exchanges.

Last year, the Bank of Japan reached 130 years old. Over its long history, the operations of the Bank have changed and it now faces new challenges. In any case, the Bank aims to contribute to the stable and sustainable development of Japan's economy through achieving the stability of prices and the financial system.

Thank you for your attention.