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March 21, 2014

Bank of Japan

## **How to Overcome Deflation**

*Speech at a Conference Held by the London School of  
Economics and Political Science in London*

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## **Introduction**

It is indeed my honor to be given an opportunity today to speak at this conference hosted by the London School of Economics and Political Science.

Just one year has passed since I became Governor of the Bank of Japan on March 20, 2013. In short, this past one year was one marked by the challenge of overcoming deflation. The word deflation might remind you of the price decline associated with rapid contraction of the economy during the Great Depression of the 1930s. Some might even look back to the much earlier episode of the downtrend in prices for more than 20 years that the United Kingdom experienced in the second half of the 19th century. What is deflation actually like? Why is deflation a problem? As I would expect that nobody here has actually experienced those past deflations, you might be able to conceive of answers to these questions, but it could be difficult to have a true sense of the reality of those situations. Therefore, in my speech today, I will talk about Japan's experience of 15 years of deflation and how we are trying to overcome that.

Let me first ask you a question. What is the average annual rate of decline in consumer prices in Japan in the past 15 years? The answer is minus 0.3 percent. Unlike the rapid and substantial price decline during the Great Depression in the 1930s, a feature of Japan's deflation is that an extremely moderate price decline has continued for a long period. The unemployment rate was 5.5 percent at its worst and there has been no such scene as jobless people predominating in a town, as was the case in the Great Depression.

This is not to say that there weren't any problems simply because the decline in prices was moderate. If we were to regard the price decline during the Great Depression as a fierce and acute symptom, Japan's deflation has come to show a symptom akin to a chronic lifestyle disease. Once an expectation that prices will fall becomes built-in among the public, real interest rates, which are obtained by subtracting expected rates of inflation from nominal interest rates, will increase. Of course, a central bank can cope with such a situation if it can lower nominal interest rates, but in Japan the policy rate had already been lowered to 0.5 percent in 1995 and there was little room to further reduce nominal interest rates. An increase in real interest rates restrains business fixed investment and household

spending, and thus economic activity in Japan remained stagnant. In addition, under deflation, holding cash and deposits becomes a better choice than making investment, and incentives to launch new businesses by taking risks become weakened. In this situation, Japan's economy lost vitality and the growth rate declined. It can be said that a moderate price decline has gradually undermined Japan's economy.

Therefore, what we should do to restore the vitality of Japan's economy and let the economy grow in a sustainable manner is to achieve the 2 percent price stability target and overcome protracted deflation. As I will describe later, to overcome deflation, the Bank of Japan introduced last April quantitative and qualitative monetary easing, dubbed QQE -- an unprecedented bold monetary easing -- and has been pursuing this policy. Today, so as to enhance your understanding of the Bank's initiatives to overcome deflation, I will address three questions. First, why has Japan's economy been unable to overcome deflation? Second, how are we trying to get out of deflation? And lastly, how far have we come in the process of overcoming deflation?

### **I. Why Has Japan's Economy been Unable to Overcome Deflation?**

As I mentioned earlier, deflation has been continuing in Japan since the late 1990s, but the economy has not been in recession during the whole period. Instead, a recovery phase of more than six years, from the beginning of 2002 to early 2008, marked the longest post-war economic recovery. Since 1999, to overcome deflation, the Bank adopted ahead of other central banks various unconventional policy measures, such as the zero interest rate policy, quantitative easing policy, a commitment to the duration of these policies, and purchases of risk assets. If we had named the commitment to the duration of the zero interest rate policy introduced in 1999 an eye-catching "forward guidance," the Bank might have received an honor as the inventor of this policy tool.

However, despite the tailwind in the real economy and considerable efforts by the Bank, Japan's economy could not overcome deflation. What was lacking? To state the answer first, what lacked was the central bank's strong and clear commitment to achieve its price stability target and its actions to work on inflation expectations through that commitment.

To begin with, if we look into the causes of Japan's price declines, various factors have had an effect at each point in time. To name several, these were an adjustment of excess capacity and employment after the bubble period, low-priced imports from emerging economies and firms' low-price strategies, financial institutions' nonperforming loan problems and financial system uneasiness, and an excessive appreciation of the yen. As actual prices declined due to those factors, deflationary expectations that prices will not rise but instead decline were generated among people. Subsequently, even if those factors that induced price declines diminished, once deflationary expectations became entrenched, people would make decisions and take actions on the assumption that prices would not rise. Through this process, deflationary expectations themselves created in a self-fulfilling manner an economy in which prices did not easily rise. Explained by using the jargon of economics, Japan's economy is in a situation in which the Phillips curve, which expresses a negative relationship between inflation and unemployment, has shifted downward due to a decline in people's inflation expectations. Even when the economy is trapped in such a situation, we can raise prices temporarily by rejuvenating economic activity through stimulative policies. However, if the Phillips curve remains shifted downward, the economy will eventually return to a deflationary state once economic activity declines over the business cycle. This is why Japan's economy could not overcome deflation after all, despite experiencing an economic expansion several times while deflation was continuing.

Having analyzed why protracted deflation occurs, let's turn to the second question: what is required to get out of protracted deflation and achieve the 2 percent price stability target in a sustainable manner? As the problem lies in the fact that people have a deflationary sentiment that prices will fall, we have to dispel such sentiment. We have to convince people that a situation in which prices will increase by around 2 percent every year is nothing special, and change the economy to one in which people make decisions and behave based on that assumption. In other words, it is necessary to raise people's expected rates of inflation to 2 percent and re-anchor them at that level. The Bank had repeatedly implemented various leading-edge policies. While a series of such policies stimulated economic activity, they fell short of showing a strong and clear commitment to achieve the price stability target by any means. As a result, these were insufficient to work on inflation expectations and failed to raise them. Therefore, even in the face of a temporary

rise in prices, the rise was not sustained and the economy could not get out of deflation for a long period.

## **II. How to Overcome Deflation**

Let me next talk about how the Bank is now trying to raise people's inflation expectations and overcome deflation. It is clear from the results of past policies that deflationary sentiment that has been embedded under protracted deflation cannot be easily dispelled. There have been only a few examples. Looking back, one can immediately think of the U.S. New Deal Policy of the 1930s as an episode in which people's inflation expectations substantially rose in a short period of time through policy measures. At the same period in Japan, a similar series of macroeconomic policy measures called the "Takahashi Economic Policy," named after the finance minister who took the initiative, were implemented. In these policies, an exit from the gold standard enabled foreign exchange rates to adjust in line with actual economic conditions, and macroeconomic policies that combined aggressive fiscal and monetary policies were implemented. By contrast, the powerful monetary tightening by Chairman Volcker of the U.S. Federal Reserve (Fed) from the end of the 1970s to the beginning of the 1980s can be noted as an episode in which inflation expectations were substantially lowered. All these events are associated with the policy authorities' strong will to drastically change the economic situation, and with a bold policy conversion that underpinned such will. Therefore, to convert people's deflationary expectations and raise their expected rates of inflation, it is necessary to demonstrate the Bank's strong resolution and commitment toward overcoming deflation and to implement decisive policy that is sufficient to achieve that goal. We also have to make the conversion of expectations happen under a zero lower bound for nominal interest rates.

Taking these points into account, at the Monetary Policy Meeting on April 4 last year, the Bank introduced the unprecedented large-scale monetary easing policy of the QQE. It was a policy, upon strongly committing to achieve the 2 percent price stability target with a time horizon of about two years in mind, to increase the monetary base by an unprecedented amount of about 60-70 trillion yen to underpin the commitment. As a result, the monetary base will be doubled in two years. In addition, aiming to achieve the 2 percent price stability target, the Bank committed to continuing with the QQE as long as it is necessary

for maintaining the target in a stable manner.

The Bank clearly committed to achieving the 2 percent price stability target, with a time horizon of about two years in mind, and also to continue with the unprecedented large-scale monetary easing of the QQE as long as it is necessary for maintaining the target in a stable manner. We considered that such a combination would raise people's inflation expectations in a forward-looking manner. We also assumed that, as a result, if actual prices start to increase, that would affect inflation expectations in a backward-looking manner as well. And with an increase in the number of people who believe in the Bank's commitment, the forward-looking influence would also be strengthened.

Let me be more specific about the transmission mechanism of the QQE. Three transmission channels are assumed: containing interest rates and risk premiums through massive asset purchases, portfolio rebalancing, and raising inflation expectations. What I would like to focus on in particular is the channel starting from a rise in inflation expectations.

As a rise in inflation expectations shifts the Phillips curve upward, under the same level of economic activity, the actual inflation rate will be higher. In addition, a rise in expected rates of inflation, if nominal interest rates rise by less than that, will lower real interest rates and stimulate economic activity. That is, if the Bank can contain nominal interest rates through massive asset purchases while raising expected rates of inflation, it can lower real interest rates. In the case of central banks in the United States and Europe, as inflation expectations have already been anchored at the price stability target, they have no choice but to reduce nominal interest rates in order to lower real interest rates. However, in the case of Japan, as inflation expectations have been below the level of the price stability target, there is room for lowering real interest rates through raising inflation expectations. A decline in real interest rates will stimulate business fixed investment and consumption, and raise the actual inflation rate by narrowing the output gap. Once prices start to rise, this will further induce a rise in inflation expectations, which in turn work on real interest rates to decline again. In such a manner, a virtuous cycle starting from a rise in inflation expectations will take hold.

### **III. How Far Have We Come?**

So, how far have we come toward the goal of achieving the 2 percent price stability target and overcoming deflation? To state the conclusion first, Japan's economy has been following a path toward achieving the 2 percent price stability target as expected, and we are halfway there.

The transmission mechanism of the QQE has been functioning as initially intended. According to various surveys and market indicators, we judge that inflation expectations have generally been rising. Due to the Bank's massive purchases of government bonds, long-term interest rates have been hovering in a stable manner at low levels. In fact, in the face of a rise in U.S. long-term interest rates from below 2 percent to about 3 percent in relation to speculation about the Fed's tapering of its asset purchases, Japan's long-term interest rates have been stable and recently at around 0.6 percent. As a result, real interest rates have been declining. There are also changes in bank behavior. The year-on-year rate of increase in bank lending has gradually accelerated and has been around 2.5 percent. Lending has increased not only to large firms but also to small firms, for which the year-on-year rate of change has turned positive, suggesting that lending has become widespread to a variety of businesses. Partly reflecting this development in bank lending, the year-on-year rate of increase in the money stock has gradually been accelerating, hovering around 4 percent in recent months.

In relation to this, last month, the Bank expanded lending facilities to support financial institutions' initiatives to increase lending that are similar to the Funding for Lending Scheme of the Bank of England. The Bank of Japan will provide funds to financial institutions up to double the amount of their net increase in lending and, like the Long-Term Refinancing Operations of the European Central Bank, provide long-term funds. It will provide funds with a four-year fixed rate of 0.1 percent. While the Bank's main engine of its monetary policy is the QQE, these facilities are designed to reinforce a transmission mechanism of the policy. We have been taking a stance of doing whatever we can to achieve the 2 percent price stability target.

Partly due to the effects of the QQE, Japan's economy has been growing above its potential growth rate led by domestic demand, with real GDP growth increasing year-on-year by 1.5 percent on average in 2013, and by 2.5 percent measured from fourth quarter to fourth quarter. On the employment front, the unemployment rate has declined to 3.7 percent, which is close to the structural unemployment rate of around 3½ percent. As for the outlook, Japan's economy is expected to continue on a moderate recovery with a virtuous cycle among production, income, and spending at work.

On the price front, the year-on-year rate of change in the consumer price index (CPI) excluding fresh food was minus 0.5 percent as of March last year, turned positive in June, and has been accelerating to mark plus 1.3 percent this January. It is still lower than that in the United Kingdom, but almost the same level as that in Germany and higher than that in most of the continental European countries. The rate of increase is likely to be around 1¼ percent for some time, subsequently return to the uptrend, and is likely to reach around the price stability target of 2 percent from the end of fiscal 2014 through fiscal 2015.

Achieving an inflation rate of more than 1 percent in less than a year since the introduction of the QQE was beyond many people's expectations. In fact, according to the ESP Forecast Survey, which compiles economists' forecasts, the projection of the year-on-year rate of growth in the CPI for this January-March quarter as of March last year was only plus 0.4 percent. While we introduced the QQE with confidence in its effects, for many people this development in the CPI seemed to have been a positive surprise. When something occurs that differs from expectations, people have a strong incentive to change their past views and behavior. Our work to change deflationary expectations that have been entrenched over time as well as people's behavior under such expectations has been progressing as expected, with the strong reinforcement of an actual rise in the CPI.

As the consumption tax will be raised to 8 percent from 5 percent this April, it is expected that there will be a decline in demand after the tax hike following the front-loaded increase in demand prior to the tax hike. Based on the experience of the economy going into recession when consumption tax was raised last time, in 1997, there are some concerns over the outlook for the economy this time as well. However, looking back at 1997, the

economy at one point recovered from a plunge following the consumption tax hike, but Japan's financial system instability and an outbreak of the Asian currency crisis substantially affected the subsequent economic deterioration. By contrast, at present, Japan's financial system has been maintaining stability and emerging economies in Asia have become more resilient due partly to an accumulation of foreign reserves and an establishment of safety nets. In addition, Japan's employment situation is far more favorable than that in 1997. Taking these points into account, the Bank believes that, while Japan's economy will temporarily decline immediately after the consumption tax hike, it will continue to grow above its potential growth rate as a trend with a virtuous cycle among production, income, and spending being maintained.

### **Concluding Remarks**

As I have mentioned, so far, with the QQE steadily exerting its intended effects, Japan's economy has been following a path toward achieving the 2 percent price stability target as expected. Of course, we are only halfway there and will steadily pursue the QQE. As the economy is associated with upside and downside risks, we will examine them and make adjustments as appropriate in order to achieve the 2 percent price stability target. By firmly continuing with such policy, I am convinced that we can achieve the 2 percent price stability target and overcome deflation.

In the past 15 years, Japan was not sleeping because it wanted to. It was only that, even if one person or one firm wanted to take on new challenges, rewards meeting such challenges could not be expected under a macroeconomic environment of persistent deflation. With the QQE and the government's various initiatives, we have unlocked this "fallacy of composition." Therefore, Japanese firms that originally were equipped with excellent technologies and human capital have started to take on new initiatives again, and the economy and prices have changed dramatically. We should not let this trend be reversed. To this end, we are making efforts with strong resolution. The day that Japan's economy can contribute more and more to the global economy is at hand.