

## **Kazumasa Iwata: The role of the price stability anchor in extricating Japan from deflation**

Summary of a speech given by Mr Kazumasa Iwata, Deputy Governor of the Bank of Japan, at the Panel Discussion "Monetary Policy Strategies: A Central Bank Panel", at the Symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, 27 August 2005.

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### **Introduction**

I would like to talk about the issues relating to monetary policy strategies for the future, in the light of Japan's experience in the last decade of stagnation as well as deflation, and the subsequent struggle to overcome deflation under the zero bound on the nominal interest rate.

After a pause in growth triggered by the bursting of the mini-bubble in the digital electronics sector in spring 2004, Japan has resumed growth exceeding the potential growth rate, with the rate of change in the consumer price index, excluding institutional and special factors such as oil, telephone charges, rice and fresh food, registering virtually zero in recent months.<sup>1</sup> Currently we have good prospects to exit from a decade-long period of deflation. In this context, I would like to draw some lessons from previous policy developments for the future conduct of monetary policy, focusing on the role of the price stability anchor.

### **The quantitative easing policy and the price stability anchor**

Japan is apparently viewed as a country that has not adopted an inflation targeting policy. Yet it is my personal view that Japan implements implicitly a price stability target within the framework of current quantitative easing policy (bank reserve target policy) which was introduced in March 2001. This is primarily because of the strict observance of the commitment on the policy duration to secure price stability.

The preceding "zero interest rate policy" in the period from February 1999 to August 2000 failed to bear fruit, in part due to the weak commitment on policy duration. In contrast, under the quantitative easing policy, the Bank of Japan clarified and strengthened the commitment on the duration of the policy by presenting in October 2003 the three conditions for ending this policy. The three conditions can be summarized by a phrase such as "stably above zero of the core consumer price index on a year-to-year basis" or "never return to deflation."

This commitment sends a signal to the market that the Bank of Japan finds it important to secure price stability to achieve positive inflation rates, although the numerical upper limit is not announced.<sup>2</sup> It serves as an anchor of price stability to prevent a deflationary spiral under the condition of the zero bound on the nominal interest rate.

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<sup>1</sup> Japan's economy resumed its recovery process after a pause in growth triggered by the IT sector-related inventory stock adjustment. The bursting of the mini-bubble in the digital electronics sector was associated with the downward cyclical phase of the liquid crystal and silicon cycle initiated in spring 2004. Subsequently, a non-IT sector-related inventory stock adjustment due to the deceleration of exports, notably for China, curtailed industrial production activity and the growth rate. Currently, the inventory stock adjustment process is almost over. In addition, domestic private final demand in the first half of 2005 was sufficiently strong to register growth above the potential growth rate (about 1 percent).

<sup>2</sup> On the lack of an upper limit, there is some similarity to the lack of a lower limit for the numerical definition of price stability below 2 percent during the initial stage of monetary operations by the European Central Bank.

## **Price level indeterminacy under the zero bound on the nominal interest rate**

Under the Bank of Japan's quantitative easing policy, not only the uncollateralized overnight call rate but also the rate of longer maturity of at least one year has virtually reached zero. It is well known that monetary policy aimed at fixing the market interest rate faces difficulties in controlling the money supply and the inflation rate. The difficulties are augmented under the zero interest rates, because the association between the money supply and the price level becomes much looser than normal. Therefore, it is all the more important for the central bank to provide the price stability anchor to the market.<sup>3</sup>

Moreover, the zero bound on the nominal interest rate erodes the market mechanism in the financial market as well as market discipline, thereby distorting the allocation of funds on the market.

In the past several months, we encountered a difficulty in achieving the bank reserve target due to undersubscription to our offers in open market operations, and allowed a temporary deviation from the lower limit of the reserve target in early June, end-July, and early August. The intention was to maintain the bank reserve target in the face of diminishing demand for excess reserves by banks. In other words, the measure was designed to solve the trade-off between strict implementation of the commitment and flexibility. It may be noted that the additional flotation of government bonds to frontload the rollover of existing government bonds concentrated in fiscal 2008 has made it more difficult to maintain the reserve target.<sup>4</sup>

Bank of England Governor Mervyn King (2004) once pointed out the importance of debt management policy, namely, the shortening maturity structure of government debt, to Japan's exit from deflation. The cash management by the government sector also seems relevant to facilitate the efficient implementation of monetary policy.

At any rate, it is best to preempt the emergence of the zero bound on the nominal interest rate, even though room remains for the central bank to affect the expected future path of short-term rates by implementing the commitment on policy duration longer than is usual. However, strict implementation of the commitment tends to limit flexibility in conducting monetary policy.

## **Effect of quantitative easing policy on interest rates**

A number of proposals have been made to overcome Japan's deflation. One of them recommends widening the application of zero interest rates to longer maturity until the deflation disappears. In the process of raising the bank reserve target, the extent of zero interest rates has been widened to cover at least one year. This effect arises due to the commitment to maintain an ultra-expansionary policy longer than anticipated by the market participants under normal circumstances. We name this the "policy duration effect."

The increase in the bank reserve target seems to have exerted a signaling effect to solidify the commitment and thus strengthen the policy duration effect, aside from the ample liquidity

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The ECB redefined price stability by adding a lower limit of 1 percent, yet the final goal is set closer to 2 percent.

<sup>3</sup> It may be noted that in Japan all the market interest rates are not zero, in contrast to the assumption adopted by several theoretical models.

<sup>4</sup> The amount of government deposits and government surplus in the Bank of Japan accounts is about 35 trillion yen, in part due to the frontloading of rollover of existing government bonds and the increase in tax revenue. Inefficient cash management arising from rigid accounting rules results in a significant revenue loss. Moreover, the fluctuation of budgetary funds in Japan is quite large, compared with other major countries. This tends to limit the capability to implement an ultra-easy policy.

provision to avoid systemic risk and a deflationary spiral. Both of the effects worked to support the recovery and prompt the restructuring process of debtor companies under the strain of balance-sheet adjustment, through the maintained low interest rates.

The price stability anchor implicit in the commitment is not specified in terms of a time frame, but is highly data-dependent, as it is defined by the achievement of positive inflation rates.

Market participants, who once appeared to be skeptical of our scenario of registering a 0.3 percent rise in the core CPI in fiscal 2006, now seem to anticipate the likely end of the current policy regime within one year, as observed in euroyen futures market interest rates. This has led to a pickup in interest rates over a wide range of maturities. In this sense the market informs us when the exit is coming.

President of the San Francisco Federal Reserve Janet Yellen once asked me why deflation has subsided despite the existence of the output gap. My answer was, "It is because of the speed limit effect." The narrowing output gap was brought about by the lengthy and sustained recovery phase in and after 2002. It may be noteworthy that the effect of the speed limit (narrowing the output gap) dominated the effect of the level of the output gap on the deceleration of deflation.<sup>5</sup> Now we have reached the stage where it can be said that a long time is not needed to satisfy the conditions to end the quantitative easing policy.

### **Dynamic price stability target policy**

To the extent that the combination of the provision of the price stability anchor with the monetary easing policy based on our clear commitment has succeeded in bringing Japan's economy to a virtually zero inflation rate, compared with deflation of the core CPI of about 1 percent in 2001, it seems reasonable to maintain the key elements underlying the quantitative easing policy framework at succeeding stages.

About two years ago, I described the step-by-step approach to attain ultimate price stability as a "dynamic price stability target policy" for extricating Japan from deflation, in contrast to the "timeless perspective" price level target policy. I identified the three phases of the dynamic adjustment process moving out from the deflationary equilibrium to the normal equilibrium, thereby avoiding the over- and undershooting of the inflation rate and the long-term interest rate, notably during the transition period.

Recently, former Federal Reserve Governor Laurence Meyer (2005) has presented a three-step strategy for the future of Japan's monetary policy. He identifies three phases: namely, the quantitative easing policy, the zero interest rate policy, and the interest rate policy. In between, there are two transitional phases: One is dismantling the bank reserve target to the required reserve level (about 6 trillion yen), or the shrinkage of zero interest rates to the uncollateralized overnight call rate. Another is raising short-term interest rates to the neutral level to achieve price stability over the longer term. I personally find it desirable to provide an appropriate anchor of price stability in numerical form when we embark on a new policy regime such as the return to the zero interest rate policy.

It seems necessary to retain the transparent commitment on policy duration in order to prevent abrupt changes of long-term interest rates in the transition process to reach a new

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<sup>5</sup> In Japan, the output goal is not explicitly stated in the newly established Bank of Japan Law of 1997, in contrast to the case of the United States, where the dual mandate of maximum employment and price stability is prescribed in the Federal Reserve Act. Yet it is absolutely necessary to pay due attention to the movement of the output gap, notably the size of narrowing of the deflationary gap. In the process of overcoming deflation, the output goal may not be in serious conflict with the goal of price stability.

equilibrium, with the risk of entailing inflation (overshooting) or deflation (undershooting) being preempted.<sup>6</sup>

### **Dynamic price stability target policy and the timeless perspective policy**

The dynamic price stability target policy is "strategically coherent" (to borrow a phrase from Professor Bennett McCallum [2005]) to attain final price stability, but it is not a "timeless perspective policy" that puts emphasis on the time consistency of monetary policy.<sup>7</sup> The price level target policy recommends achieving the prescribed path of price levels with a constant rate of inflation, regardless of the initial conditions. Yet it seems difficult to accept temporary overshooting of the inflation rate and long-term interest rates in the transition path returning to the desired price level path from persistent deflation, in particular under the circumstances of the large-scale accumulation of government debt and the persistent budget deficit in Japan.

However, we recognize the importance of "history dependence" in conducting monetary policy. In this context, I would like to stress that maintaining the same reserve target level at the current stage implies an increased degree of monetary easing, since the excess supply of bank reserves is intensified and the maturity of short-term monetary operation instruments is lengthened, with the result of extension of zero interest rates in the market. Moreover, according to several surveys, the expected inflation rates turn out to be positive in recent periods. This implies that the short-term real interest rate is negative despite the zero bound on the nominal interest rates. If the core message of "history dependence" implies that the monetary policy effect becomes more expansionary at the point close to the exit, the Bank of Japan's current policy is in line with the spirit inherent in the price level target policy.

### **The role of fiscal policy**

Let me conclude my remarks by referring to the role of fiscal policy to extricate Japan from deflation. We observe that the government announced the fiscal policy target to achieve a primary budget deficit of zero in about ten years, and the automatic stabilizer effect dominated fiscal policy management after 2001 under the Koizumi administration.

The coordination between monetary and fiscal policy becomes more important, if the economy were to fall into deflationary equilibrium (or the Friedmanian equilibrium), where the size of deflation rate is equal to the natural interest rate. On fiscal policy, we can identify the two different types; namely, the Ricardian and the non-Ricardian. If the present value of government debt in the future becomes zero regardless of changes in the path of prices, it is classified as a Ricardian policy.

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<sup>6</sup> This implies that we should have some safety margin on the final numerical objective (aside from the bias inherent in the price index), given the likely negative macroeconomic shock to the lower natural interest rate of Japan's economy over the future which is conducive to the zero bound on the nominal interest rate.

<sup>7</sup> This issue may be related to issues such as the discretion versus rule-based policymaking, or the risk management approach under uncertainty versus rule-based policymaking. It seems sensible to adopt the risk management approach under the Knightian uncertainty (Greenspan [2004]). Chairman Greenspan is critical of the "too inflexible" management of rule-based monetary policy. Yet "activist" rule-based policymaking seems to possess sufficient flexibility in uncertain circumstances. For instance, the Bayesian decision process under the risk management approach involves a learning process. Learnability plays an important role in rule-oriented monetary policy to secure stability of the equilibrium. Rule-based monetary policy has flexibility to implement a systematic revision of a contingent plan and prescribes the updating process in a "timeless manner," while discretionary policy revises a contingency plan period by period. In any case, there may arise no conflict or inconsistency between the risk management approach and the provision of the price stability anchor to market participants.

As long as the fiscal rule aiming at reducing the primary budget deficit over the medium term implies a moderate increase in the nominal government bond supply, then fiscal policy that is passive (or Ricardian) under the normal equilibrium with a positive rate of changes in prices becomes active (or non-Ricardian) under the deflationary equilibrium. Thus, there is a good reason to expect that the gradual consolidation of the fiscal balance facilitates the economy's exit from deflation, coupled with a monetary easing policy based on the price stability anchor.