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Some Thoughts on Monetary Policy in Japan

Remarks by

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I am delighted to address this meeting of the Japan Society of Monetary Economics. I would particularly like to thank Professor Shimizu both for inviting me and for helping to arrange a series of meetings with officials at the Bank of Japan, the Ministry of Finance, and the Financial Services Agency. Those meetings have given me a first-hand look at the difficult challenges that the current economic situation poses for Japan's leaders and for the Japanese people.

The economic situation here is indeed enormously complex. It involves not only structural, monetary, and fiscal problems but also underlying political and social forces, which have at times limited the flexibility of policy. The sometimes frustratingly slow pace of change in Japan is all the more reason, however, for this nation's economists to speak out and present clear, persuasive arguments that will help guide the policy debate and urge leaders to effective action. At stake is not only the economic health of your country but also, to a significant degree, the prosperity of the rest of the world. From my side of the ocean, it seems that many people are looking to the United States to take the responsibility for leading the world into economic recovery. Clearly, however, faster growth in Japan and other major industrial countries would support a stronger, more balanced, and more durable recovery than one driven by U.S. growth alone.

Although changes in macroeconomic policy in Japan during the past decade have generally been slow and deliberate, there has also been some willingness to experiment, not least by the Bank of Japan (BOJ). For this reason, the recent appointment of a new leadership team at the BOJ has stimulated considerable interest and expectation around the world. Although Governor Fukui and his colleagues have so far not made radical breaks with previous BOJ policies, there is reason to hope that they will be open to fresh ideas and approaches.

In that spirit, my remarks today will be focused on opportunities for monetary policy innovation in Japan, including specifically the possibility of more-active monetary-fiscal cooperation to end deflation. In focusing primarily on macroeconomic policies and the deflation problem, however, I do not wish to imply that more microeconomic measures--such as bank restructuring and recapitalization, development of more liquid capital markets, revitalization of the distressed corporate sector, and broader structural reform--are not essential and urgent. Indeed, all these elements are crucial if Japan's economy is to return to a more satisfactory rate of growth. However, I do think that ending deflation and carrying out banking, financial, corporate, and structural reforms can and should be pursued on parallel tracks, with progress being made wherever possible. Indeed, a definitive end to the deflation in consumer prices--by restoring confidence and stimulating spending--would do much to help moderate the unemployment and financial distress that might otherwise arise as the results of aggressive programs of reform and restructuring.

I preface the body of my remarks with two important caveats. First, the opinions I give today are strictly my own and should not be attributed to my colleagues on the Board of Governors of the Federal Reserve or on the Federal Open Market Committee; nor do they reflect any official position of the United States government. Second, the remarks that follow were prepared before my visit to Japan and therefore do not reflect the discussions that I held this week with Japanese officials. Obviously, then, no inference should be made about those meetings from the comments to follow.[1]

Today I would like to consider three related issues that bear on contemporary monetary policy in Japan. First, I will discuss the option of asking the Bank of Japan to announce a quantitative objective for prices, as well as how such an objective might best be structured. Rather than proposing the more familiar inflation target, I will suggest that the BOJ consider adopting a price-level target, which would imply a period of reflation to offset the effects on prices of the recent period of deflation. Second, I would like to consider an important institutional issue, which is the relationship between the condition of the Bank of Japan's balance sheet and its ability to undertake more aggressive monetary policies. Although, in principle, balance-sheet considerations should not seriously constrain central bank policies, in practice they do. However, as I will discuss, relatively simple measures that would eliminate this constraint are available. Finally, and most important, I will consider one possible strategy for ending the deflation in Japan: explicit, though temporary, cooperation between the monetary and the fiscal authorities.

What Objective for Japanese Monetary Policy?

Before setting off on a trip, one should know one's destination. In that spirit, a discussion of Japanese monetary policy should begin with some discussion of the policy objective. I leave until later how the objective can be achieved.

The Bank of Japan Law, passed in 1998, sets price stability as a primary objective for the central bank. As with our own Federal Reserve Act, price stability is not, however, precisely defined in the Law. Currently, the BOJ has promised that the zero-

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[1] A number of Board staff provided useful comments and assistance for this talk. Special thanks are due to Linda Kole and Dave Small for their help.

interest-rate policy will be maintained until deflation is brought to an end, a policy that might be deemed consistent with the price stability objective.

Two objections to this conclusion might be raised, however. First, the BOJ's statement seems to imply that the current level of policy stimulus might start to be withdrawn as soon as measured inflation returns to zero; in particular, no explicit commitment has been made to *maintain* inflation at zero, much less at some positive rate, in the longer run. But the presence of measurement bias in Japanese price indexes suggest that a measured inflation rate of at least one percent is likely required in order to achieve true price stability in the long run. Moreover, inflation above zero will be needed if real interest rates in Japan are to be negative for a period, as many observers think is necessary for full recovery. In short, it would be helpful if the zero-interest-rate policy were more explicit about what happens after the deflationary period ends.

Second, over the past five years, since the onset of the current deflationary episode--and, incidentally, since the passage of the new Bank of Japan Law--the price level has trended down, registering a cumulative decline (depending on the price index) of between 4 and 9 percent. For example, over this period the GDP deflator has dropped nearly 9 percent, the private consumption deflator has fallen 5-1/2 percent, and wages and salaries are down 4-1/2 percent. One might argue that the legal objective of price stability should require not only a commitment to stabilize prices in the future but also a policy of actively reflating the economy, in order to restore the price level that prevailed prior to the prolonged period of deflation.

As you may know, I have advocated explicit inflation targets, or at least a quantitative definition of price stability, for other leading central banks, including the

Federal Reserve. A quantitative inflation target or range has been shown in many countries to be a valuable tool for communication. By clarifying the objectives of the central bank, an explicit inflation target can help to focus and anchor inflation expectations, reduce uncertainty in financial markets, and add structure to the policy framework. For Japan, given the recent history of costly deflation, however, an inflation target may not go far enough. A better strategy for Japanese monetary policy might be a publicly announced, gradually rising *price-level target.*

What I have in mind is that the Bank of Japan would announce its intention to restore the price level (as measured by some standard index of prices, such as the consumer price index excluding fresh food) to the value *it would have reached* if, instead of the deflation of the past five years, a moderate inflation of, say, 1 percent per year had occurred. (I choose 1 percent to allow for the measurement bias issue noted above, and because a slightly positive average rate of inflation reduces the risk of future episodes of sustained deflation.) Note that the proposed price-level target is a moving target, equal in the year 2003 to a value approximately 5 percent above the actual price level in 1998 and rising 1 percent per year thereafter.[2] Because deflation implies falling prices while the target price-level rises, the failure to end deflation in a given year has the effect of increasing what I have called the price-level gap (Bernanke, 2000). The price-level gap is the difference between the actual price level and the price level that would have obtained if deflation had been avoided and the price stability objective achieved in the first place.

[2] Of course, the choice of 1998 as the benchmark year is somewhat arbitrary. It seems however a good compromise choice between the more aggressive tack of trying to make up for the extensive unanticipated disinflation that occurred in the half decade prior to 1998 and the strategy of ignoring past deflation altogether and using 2003 as the base year.

A successful effort to eliminate the price-level gap would proceed, roughly, in two stages. During the first stage, the inflation rate would exceed the long-term desired inflation rate, as the price-level gap was eliminated and the effects of previous deflation undone. Call this the *reflationary* phase of policy. Second, once the price-level target was reached, or nearly so, the objective for policy would become a conventional inflation target or a price-level target that increases over time at the average desired rate of inflation.[3]

Although restoration of the pre-deflation price level by means of a price-level target might be a reasonable interpretation of the BOJ's price stability objective, I would not want to push the purely legal argument too far. For example, based on a mandate for price stability, I would not ask either the BOJ or the Federal Reserve to restore the price level prevailing in their respective nations in 1950! Rather, I think the BOJ should consider a policy of reflation before re-stabilizing at a low inflation rate primarily because of the economic benefits of such a policy. One benefit of reflation would be to ease some of the intense pressure on debtors and on the financial system more generally. Since the early 1990s, borrowers in Japan have repeatedly found themselves squeezed by disinflation or deflation, which has required them to pay their debts in yen of greater value than they had expected. Borrower distress has affected the functioning of the whole economy, for example by weakening the banking system and depressing investment spending. Of course, declining asset values and the structural problems of

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[3] Some differences between inflation targeting and price-level targeting are interesting but they need not detain us here. See Cecchetti and Kim (2003) for a comparison. In my view, most contemporary inflation-targeting regimes actually practice a combination of inflation targeting and price-level targeting (or price-path targeting), in that overshoots or undershoots of inflation are usually partly, but not entirely, subsequently reversed.

Japanese firms have contributed greatly to debtors' problems as well, but reflation would, nevertheless, provide some relief. A period of reflation would also likely provide a boost to profits and help to break the deflationary psychology among the public, which would be positive factors for asset prices as well. Reflation--that is, a period of inflation above the long-run preferred rate in order to restore the earlier price level--proved highly beneficial following the deflations of the 1930s in both Japan and the United States. Finance Minister Korekiyo Takahashi brilliantly rescued Japan from the Great Depression through reflationary policies in the early 1930s, while President Franklin D. Roosevelt's reflationary monetary and banking policies did the same for the United States in 1933 and subsequent years. In both cases, the turnaround was amazingly rapid. In the United States, for example, prices fell at a 10.3 percent rate in 1932 but rose 0.8 percent in 1933 and more briskly thereafter. Moreover, during the year that followed Roosevelt's inauguration in March 1933, the U.S. stock market rallied by 77 percent.

Eggertsson and Woodford (2003) have advanced a second argument for a price-level target for Japan in an important recent paper on monetary policy at the zero bound. These authors point out (as have many others) that, when nominal interest rates are at or near zero, the central bank can lower the real rate of interest only by creating expectations of inflation on the part of the public. Eggertsson and Woodford argue that a publicly announced price-level target of the type just described is more conducive to raising near-term inflation expectations than is an inflation target.[4]

One way to understand their argument is to imagine that the public expects the leaders of the central bank to take more aggressive actions, the further they are from their

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[4] Wolman (1998) provides an earlier analysis with a similar conclusion.

announced objective. Now suppose that, in an economy experiencing a stable deflation, the central bank leadership announces a fixed inflation target but then makes no progress toward that target during a given period. Then in the next period, the central bank is in the same position as previously, in terms of its distance from its objective; hence, by hypothesis, the central bank has no incentive to increase its effort to meet the announced target, and the public has no reason to expect it to do so. In this respect the inflation target is too "forgiving" an objective; failure is not penalized, nor is greater effort demanded. In contrast, under a price-level-targeting scheme, continuing deflation combined with an upward-sloping path for the price-level target causes the size of the price-level gap to increase over time.

Thus, failure by the central bank to meet its target in a given period leads to expectations of (and public demands for) increased effort in subsequent periods--greater quantities of assets purchased on the open market, for example. So even if the central bank is reluctant to provide a time frame for meeting its objective, the structure of the price-level objective provides a means for the bank to commit to increasing its anti-deflationary efforts when its earlier efforts prove unsuccessful. As Eggertsson and Woodford show, the expectation that an increasing price level gap will give rise to intensified effort by the central bank should lead the public to believe that ultimately inflation will replace deflation, a belief that supports the central bank's own objectives by lowering the current real rate of interest.

A concern that one might have about price-level targeting, as opposed to more conventional inflation targeting, is that it requires a short-term inflation rate that is higher than the long-term inflation objective. Is there not some danger of inflation overshooting, so that a deflation problem is replaced with an inflation problem? No doubt this concern has some basis, and ultimately one has to make a judgment. However, on the other side of the scale, I would put the following points: first, the benefits to the real economy of a more rapid restoration of the pre-deflation price level and second, the fact that the publicly announced price-level targets would help the Bank of Japan manage public expectations and to draw the distinction between a one-time price-level correction and the BOJ's longer-run inflation objective. If this distinction can be made, the effect of the reflation program on inflation expectations and long-term nominal interest rates should be smaller than if all reflation is interpreted as a permanent increase in inflation.

A Barrier to More Aggressive Policies: The BOJ's Balance Sheet

Discussing the optimal objectives for Japanese monetary policy is all very well, but what of the argument, advanced by some officials, that the Bank of Japan lacks the tools to achieve these objectives? Without denying the many difficulties inherent in making monetary policy in the current environment in Japan, I believe that not all the possible methods for easing monetary policy in Japan have been fully exploited. One possible approach to ending deflation in Japan would be greater cooperation, for a limited time, between the monetary and the fiscal authorities. Specifically, the Bank of Japan should consider increasing still further its purchases of government debt, preferably in explicit conjunction with a program of tax cuts or other fiscal stimulus.

Before going into more detail about this possibility, however, I want to discuss a specific institutional factor that currently constrains--somewhat artificially, I would argue--the ability of the Bank of Japan to pursue more aggressive policies, including both so-called non-conventional and more-orthodox policies. This institutional constraint, often cited by BOJ officials, is the condition of the BOJ's balance sheet, and the fear, in particular, that a successful program of reflation might inflict capital losses on the BOJ and thereby weaken its institutional position.

Like other central banks, the Bank of Japan has a balance sheet, with assets, liabilities, and capital. Also like other central banks, the BOJ purchases interest-bearing assets with money that it creates and thus typically earns significant profits, or seignorage. Some of these profits are used to cover the expenses of the BOJ itself, subject to review by the Ministry of Finance (MOF). The BOJ also has reserves for possible losses on securities and foreign exchange transactions and is permitted by the Article 53 of the Bank of Japan Law to retain 5 percent of the surplus from the settlement of profits and losses as a reserve fund. The portion of the surplus not retained by the Bank is paid to the national treasury.

From the point of view of conventional private-sector accounting--which, as I will discuss, is not necessarily the correct standard in this case--the BOJ's balance sheet has become noticeably riskier in recent years. For example, the BOJ's most recent financial statement showed that of the 68 percent of its assets held in the form of government securities, about two-thirds are long-term Japanese government bonds (JGBs). This represents a very substantial increase over customary levels in the BOJ's holdings of long-term government debt. Because yields on government bonds are currently so low, these holdings expose the BOJ's balance sheet to considerable interest-rate risk (although any losses would be partly offset by unrealized capital gains on earlier acquisitions of bonds). Indeed, ironically, if the Bank of Japan were to succeed in replacing deflation with a low but positive rate of inflation, its reward would likely be substantial capital losses in the value of its government bond holdings arising from the resulting increase in long-term nominal interest rates.

With such concerns in mind, BOJ officials have said that a strengthening of the Bank's capital base is needed to allow it to pursue more aggressive monetary policy easing. In fact, the BOJ recently requested that it be allowed to retain 15 percent (rather than 5 percent) of the surplus for the 2002 fiscal year that just ended to increase its capital, and the Ministry of Finance has indicated that it will approve the request. Even with this additional cushion, however, concerns on the part of the BOJ about its balance sheet are likely to remain.

The public debate over the BOJ's capital should not distract us from the underlying economics of the situation. In particular, the private shareholders notwithstanding, the Bank of Japan is not a private commercial bank. It cannot go bankrupt in the sense that a private firm can, and the usual reasons that a commercial bank holds capital--to reduce incentives for excessive risk-taking, for example--do not directly apply to the BOJ.[5] Indeed, putting aside psychological and symbolic reasons, important as these may be in some circumstances, there appear to be only two conceivable effects of the BOJ's balance sheet position on its ability to conduct normal operations. First, if the BOJ's income were too low to support its current expenditure budget, the Bank might be forced to ask the MOF for supplemental funds, which the BOJ might fear would put its independence at risk. This consideration by itself should not necessarily make the BOJ less willing to undertake more aggressive monetary policies,

[5] There does not appear to be any provision in the Bank of Japan Law that addresses whether the Bank can or cannot have negative net worth, or what would happen if it were to report negative net worth.

however, because purchasing additional assets with non-zero yields, even if these assets are risky or illiquid, normally increases the Bank's current income. Second, an imaginable, though quite unlikely, possibility is that the Bank could suffer sufficient capital losses on its assets to make it unable to conduct open-market sales of securities on a scale large enough to meet its monetary policy objectives.

In short, one could make an economic case that the balance sheet of the central bank should be of marginal relevance at best to the determination of monetary policy. Rather than engage in what would probably be a heated and unproductive debate over the issue, however, I would propose instead that the Japanese government just fix the problem, thereby eliminating this concern from the BOJ's list of worries. There are many essentially costless ways to fix it. I am intrigued by a simple proposal that I understand has been suggested by the Japanese Business Federation, the Nippon Keidanren. Under this proposal the Ministry of Finance would convert the fixed interest rates of the Japanese government bonds held by the Bank of Japan into floating interest rates. This "bond conversion"--actually, a fixed-floating interest rate swap--would protect the capital position of the Bank of Japan from increases in long-term interest rates and remove much of the balance sheet risk associated with open-market operations in government securities. Moreover, the budgetary implications of this proposal would be essentially zero, since any increase in interest payments to the BOJ by the MOF arising from the bond conversion would be offset by an almost equal increase in the BOJ's payouts to the national treasury.[6] The budgetary neutrality of the proposal is of course a consequence of

[6] An alternative approach would be for the MOF to offer the fixed-floating swap to the BOJ only for its holdings of government bonds above some specified level. An advantage of this approach is that it would provide more current income to meet BOJ expenditure needs.

the fact that, as a matter of arithmetic, any capital gains or losses in the value of government securities held by the BOJ are precisely offset by opposite changes in the net worth of the issuer of those securities, the government treasury.

Although the MOF could insulate, without budgetary cost, the BOJ's balance sheet from interest-rate risk on its holdings of government bonds, a similar program offered by the MOF to private-sector holders of bonds, such as commercial banks, would not be costless from the MOF's point of view, if inflation and interest rates were subsequently to rise.[7] However, if the MOF entered into the proposed swap agreement with the BOJ, new purchases of government bonds from the private sector by the Bank of Japan *would* be costless to the national treasury. Thus, conditional on the swap arrangement being in force, open-market purchases of government bonds by the BOJ would combine an expansionary monetary policy with a reduction of interest-rate risk in the banking system at no budgetary cost.[8] The simple step of immunizing the BOJ's balance sheet thus opens a number of interesting policy options.

The bond conversion (or interest-rate swap) just described is all that would be needed to protect the BOJ's balance sheet against any side effects from operations in government bonds. Incidentally, the approach could be extended to insulate the BOJ's balance sheet against potentially adverse effects of other types of asset purchases that the

[7] However, these losses would be offset to some degree if nominal GDP were to grow with inflation, raising tax revenues. As an historical note, the U.S. Treasury initiated a bond conversion program at the time of the Treasury-Federal Reserve Accord in 1951, which allowed some private holders of long-term bonds as well as the Federal Reserve to avoid capital losses implied by the un-pegging of long-term nominal rates at that time. Because some private bondholders were assisted as well as the central bank, the budgetary cost to the government was not zero; most of the costs of protecting private long-term bondholders were absorbed by the Treasury. See, for example, Eichengreen and Garber (1991) for a discussion.

[8] I assume here that the BOJ does not sterilize the effects of its purchases of bonds, that is, it allows current account balances to rise by the amount of its purchases.

government might want to encourage. For example, to facilitate expanded purchases of asset-backed commercial paper, the government might agree, on request of the BOJ, to exchange government debt of the same maturity for the commercial paper. The net effect would be that the fiscal authority would assume the credit risk flowing from the nonstandard monetary policy action, as seems appropriate.

What should the Bank of Japan give up in exchange for the Ministry of Finance's removing a significant amount of risk from the BOJ's balance sheet? One option would be for the Bank to use its increased ability to bear risk to undertake new policy actions that would entail accepting other types of risk onto its balance sheet. Today I will argue for a different approach and suggest that the Bank of Japan cooperate temporarily with the government to create an environment of combined monetary and fiscal ease to end deflation and help restart economic growth in Japan. To do this, the BOJ might have to scrap rules that it has set for itself--for example, its informal rule that the quantity of long-term government bonds on its balance sheet must be kept below the outstanding balance of banknotes issued.

Monetary and Fiscal Cooperation

There is no unique solution to the problem of continuing declines in Japanese prices; a variety of policies are worth trying, alone or in combination. However, one fairly direct and practical approach is explicit (though temporary) cooperation between the monetary and the fiscal authorities. Let me try to explain why I think this direction is promising and may succeed where monetary and fiscal policies applied separately have not.

Demand on the part of both consumers and potential purchasers of new capital equipment in Japan remains quite depressed, and resources are not being fully utilized. Normally, the central bank would respond to such a situation by lowering the short-term nominal interest rate, but that rate is now effectively zero. Other strategies for the central bank acting alone exist, including buying alternative assets to try to lower term or liquidity premiums and attempting to influence expectations of future inflation through announcements or commitments to expand the monetary base. The Bank of Japan has taken some steps in these directions but has generally been reluctant to go as far as it might, in part because of the difficulty in determining the quantitative impact of such actions and in part because of the Bank's view that problems in the banking system have "jammed" the usual channels of monetary policy transmission. Ironically, this obvious reluctance on the part of the BOJ to sail into uncharted waters may have had the effect of muting the psychological impact of the nonstandard actions it has taken. Likewise the Bank of Japan has resisted calls to manage the value of the yen (see, for example, McCallum, 2000, or Svensson, 2001), citing its lack of authority to do so as well as the prospect of retaliation from trading partners.

The alternative approach to stimulating aggregate demand is fiscal policy--government spending increases or tax cuts. Here again the perception is that policy has been less than successful, although Posen (1998)--in a criticism reminiscent of those who have complained that the Bank of Japan should just "do more"--has argued that the problem is less that fiscal policy is ineffective than that it has not been used to the extent that one might gather from official plans and announcements. In Posen's view, Japan's debt problem is primarily the result of slow economic growth rather than active fiscal policies.

However, besides possibly inconsistent application of fiscal stimulus, another reason for weak fiscal effects in Japan may be the well-publicized size of the government debt. The severity of the government debt problem may be overstated in some respects--95 percent of the outstanding debt is domestically held, for example, and 59 percent is held by public institutions, so that the Japanese people truly "owe the debt to themselves"--but that the government's annual deficit is now about 8 percent of GDP is nevertheless a serious concern. Moreover, an aging Japanese population will add to the government's budgetary burden in coming decades.

In addition to making policymakers more reluctant to use expansionary fiscal policies in the first place, Japan's large national debt may dilute the effect of fiscal policies in those instances when they are used. For example, people may be more inclined to save rather than spend tax cuts when they know that the cuts increase future government interest costs and thus raise future tax payments for themselves or their children. (It is striking that, despite low interest rates, about 20 percent of the Japanese central government budget, or about 16.8 trillion yen this year, is devoted to servicing the national debt.) In economics textbooks, the idea that people will save rather than spend tax cuts because of the implied increase in future tax obligations is known as the principle of Ricardian equivalence. In general, the evidence for Ricardian equivalence in real economies is mixed, but it seems most likely to apply in a situation like that prevailing today in Japan, in which people have been made highly aware of the potential burden of the national debt. The principle of Ricardian equivalence does not apply exactly to increases in government purchases (for example, road building) but it may apply there approximately. If, for example, people think that government spending projects are generally wasteful and add little to national wealth or productivity, then taxpayers may view increased government spending as simply increasing the burden of the government debt that they must bear. If, as a result, they react to increases in government spending by reducing their own expenditure, the net stimulative effect of fiscal actions will be reduced. In short, to strengthen the effects of fiscal policy, it would be helpful to break the link between expansionary fiscal actions today and increases in the taxes that people expect to pay tomorrow.

My thesis here is that cooperation between the monetary and fiscal authorities in Japan could help solve the problems that each policymaker faces on its own. Consider for example a tax cut for households and businesses that is explicitly coupled with incremental BOJ purchases of government debt--so that the tax cut is in effect financed by money creation. Moreover, assume that the Bank of Japan has made a commitment, by announcing a price-level target, to reflate the economy, so that much or all of the increase in the money stock is viewed as permanent.[9]

Under this plan, the BOJ's balance sheet is protected by the bond conversion program, and the government's concerns about its outstanding stock of debt are mitigated because increases in its debt are purchased by the BOJ rather than sold to the private sector. Moreover, consumers and businesses should be willing to spend rather than save the bulk of their tax cut: They have extra cash on hand, but--because the BOJ purchased government debt in the amount of the tax cut--no current or future debt service burden

[9] The BOJ's announcement of a price-level target should be credible: It is feasible, and it is in the interest of the BOJ, the government, and the public.

has been created to imply increased future taxes. Essentially, monetary and fiscal policies together have increased the nominal wealth of the household sector, which will increase nominal spending and hence prices. The health of the banking sector is irrelevant to this means of transmitting the expansionary effect of monetary policy, addressing the concern of BOJ officials about "broken" channels of monetary transmission. This approach also responds to the reservation of BOJ officials that the Bank "lacks the tools" to reach a price-level or inflation target.

Isn't it irresponsible to recommend a tax cut, given the poor state of Japanese public finances? To the contrary, from a fiscal perspective, the policy would almost certainly be stabilizing, in the sense of reducing the debt-to-GDP ratio. The BOJ's purchases would leave the nominal quantity of debt in the hands of the public unchanged, while nominal GDP would rise owing to increased nominal spending. Indeed, nothing would help reduce Japan's fiscal woes more than healthy growth in nominal GDP and hence in tax revenues.

Potential roles for monetary-fiscal cooperation are not limited to BOJ support of tax cuts. BOJ purchases of government debt could also support spending programs, to facilitate industrial restructuring, for example. The BOJ's purchases would mitigate the effect of the new spending on the burden of debt and future interest payments perceived by households, which should reduce the offset from decreased consumption. More generally, by replacing interest-bearing debt with money, BOJ purchases of government debt lower current deficits and interest burdens and thus the public's expectations of future tax obligations. Of course, one can never get something for nothing; from a public finance perspective, increased monetization of government debt simply amounts to replacing other forms of taxes with an inflation tax. But, in the context of deflation-ridden Japan, generating a little bit of positive inflation (and the associated increase in nominal spending) would help achieve the goals of promoting economic recovery and putting idle resources back to work, which in turn would boost tax revenue and improve the government's fiscal position.

Conclusion

The Bank of Japan became fully independent only in 1998, and it has guarded its independence carefully, as is appropriate. Economically, however, it is important to recognize that the role of an independent central bank is different in inflationary and deflationary environments. In the face of inflation, which is often associated with excessive monetization of government debt, the virtue of an independent central bank is its ability to say "no" to the government. With protracted deflation, however, excessive money creation is unlikely to be the problem, and a more cooperative stance on the part of the central bank may be called for. Under the current circumstances, greater cooperation for a time between the Bank of Japan and the fiscal authorities is in no way inconsistent with the independence of the central bank, any more than cooperation between two independent nations in pursuit of a common objective is inconsistent with the principle of national sovereignty.

I have argued today that a *quid pro quo*, in which the MOF acts to immunize the BOJ's balance sheet from interest-rate risk and the BOJ increases its purchases of government debt, is a good way to attack the ongoing deflation in Japan. I would like to close by reiterating a point I made earlier--that ending deflation in consumer prices is only part of what needs to be done to put Japan back on the path to full recovery.

Banking and structural reform are crucial and need to be carried out as soon and as aggressively as possible. Although the importance of reforms cannot be disputed, however, I do not agree with those who have argued that deflation is only a minor part of the overall problem in Japan. Addressing the deflation problem would bring substantial real and psychological benefits to the Japanese economy, and ending deflation would make solving the other problems that Japan faces only that much easier. For the sake of the world's economy as well as Japan's, I hope that progress will soon be made on all of these fronts.

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