Japanese Monetary Policy: 1998-2005 and Beyond

Takatoshi ITO
Faculty of Economics, University of Tokyo

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Abstract: Abstract: The Bank of Japan has been operating monetary policy under a deflationary environment since 1998. The newly independent Bank of Japan struggled to establish its credibility in quickly deteriorating economic environment with a limited set of instruments, an already-low policy interest rate. The zero interest rate policy was adopted in February1999, but was terminated in August 2000 with a hope that the economic recovery would continue. This turned out to be a mistake. The Bank of Japan had to reverse the policy to much more relaxing in March 2001. The quantitative easing (QE)—providing enough liquidity so that excess reserves would be maintained at the Bank of Japan—was introduced. The QE framework has been in place until present. Concrete exit conditions were issued in October 2003, in that the inflation rate, backward and forward (expectation), has to be positive before the quantitative easing would end. With economic recovery and diminishing the degree of deflation in 2005, some Board members have proposed to lower the target of quantitative easing. It remains to be seen when the exit conditions (defined as necessary conditions, but not sufficient) are satisfied and the Bank of Japan makes a decision to terminate the QE framework. The experience of the Bank of Japan under deflation will give lessons for the monetary policy of other central banks near or in deflation.

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1. Introduction (Executive Summary)

The objective of this paper is to review challenges and practice of monetary policy in Japan from 1998 to present. The Bank of Japan has been operating monetary policy under a deflationary environment since 1998. The year 1998 happened to be the one when the Bank of Japan gained its independence. In March 1998, the new Governor was appointed and two Deputy Governors were appointed. The new law was enacted, and newly empowered Monetary Policy Board took charge in deciding monetary policy with enhanced transparency in April 1998. The newly independent Bank of Japan struggled to establish its credibility in rapidly deteriorating economic environment with a limited set of instruments, including an already-low policy interest rate and low confidence in the financial stability.

The growth rate became negative and the inflation rate also became negative in Japan in the early 1998. Three events contributed to weakening of the Japanese economy in 1997-98: Mainly due to tax increases in April 1997, Japan's banking crisis that erupted in November 1997 and the Asian currency crisis that started in July 1997 but became much worse by the spring of 1998. The usual policy response to the combination of stagnation and deflation would be to relax both fiscal and monetary policy. The fiscal position changed from tightening in April 1997 to relaxing with a large stimulus expenditure package by the fall of 1997. But, monetary policy was not easy to relax further, because the official discount rate was 0.50% and the policy interest rate (uncollateralized call rate) was slightly below the official discount rate. Monetary policy basically did not change in 1998, except lowering the call rate from just below 0.50% to 0.25% in September 9, and making a decision to use CP operations in November 13.

With increasing evidence of the extremely weak economy became obvious, e.g., four quarters of negative growth according to the GDP statistics at the time, the Bank of Japan decided to cut the policy rate to a level as low as possible, namely virtually zero in February 1999. This was the beginning of the zero interest rate policy (ZIRP).

With some bright signs of economic recovery amid of the IT stock price bubble, the Bank of Japan started to explore termination of ZIRP in the spring of 2000. The increase of the policy rate by 0.25% in August 2000 was quite controversial inside and outside the Bank. The decision was made with 7 to 2 votes in the Monetary Policy Meeting (MPM).

The rate hike of August 2000 turned out to be a mistake, as the economy went into a recession only two months later and deflation got much worse in the following months. The Bank reversed its course in March 2001, by adopting not only the ZIRP but quantitative easing (QE), that is to provide more than sufficient liquidity to the banking system so that commercial banks place excess reserves at the current account of the Bank of Japan. The target for the current account at the Bank of Japan has become a policy instrument. The Bank has been operating under the QE framework since this decision. The target was raised several times to the current target band of 30 to 35 trillion yen, while the required reserve is only 6 or 7 trillion yen.

What else monetary policy can do under deflation and ZIRP has become a hotly debated question in the policy as well as academic circle. Several non-conventional monetary policy measures were proposed and debated. One of such measures was to increase the amount of long-term bond purchases. The Bank increased the amount of monthly purchases of JGB from 400 billion yen in 1998, in several steps, to 1200 billion yen by October 2002.

The Bank did not adopt other proposals of non-conventional monetary policy measures, including to purchase foreign government bonds, to purchase equities, to purchase real estate (funds), to adopt inflation targeting, and to cooperate with the Ministry of Finance to carry out nonsterilized interventions.

When the nominal interest rate being zero and deflation becoming worse, the real interest rate (the nominal interest rate minus the inflation rate) has to rise. Therefore deteriorating economy, putting pressure to lower prices, would reinforce itself by increasing the real interest rate.

As signs of economic recovery became clearer, an exit from QE became a popular topic in 2005. Since April 2005, some Board members have proposed to lower the target amount of current account at the Bank of Japan. The market now expects that the Bank will make a move to exit from QE and raise the interest rate by the summer of 2006.

2. Japanese Monetary Policy, 1998-2003

2.1. New Bank of Japan, 1998

Japan's monetary policy since 1998 has been assigned to fight deflation and to get the economy out of a long stagnation. Although it is interesting to examine macroeconomic policy and the role of monetary policy that led to the difficult position of 1998, those policy issues are yielded to the rich literature of the bubble and burst of the Japanese economy from mid-1980s to mid-1990s. See Cargill, Hutchison and Ito (1997), Ito and Mishkin (2005) for a summary and assessments of Japanese monetary policy since mid-1980s. See also Ito (2004a) for reasons for long stagnation of the Japanese economy. Below, we examine monetary policy decisions after 1998 only.

The Bank of Japan law was revised in 1997 and became effective on April 1, 1998. Due to a corruption scandal, Governor was replaced just before the new law took place. Governor Hayami was originally a Bank of Japan staff, but left the bank seventeen years earlier, and had worked for a private sector as Chairman and had retired from that company. Two Deputy Governors were Mr. Yamaguchi, an insider, and Mr. Fujiwara, a journalist. The latter was a surprising appointment.

The Bank of Japan Law of 1998 is in every sense a state-of-the-art modern central banking law. The central bank is given a mandate of price stability (Article 2), and there is no mention of aggregate demand or full employment as a part of its objective. The institutional independence is guaranteed in the sense that Governors and Monetary Policy members will not be dismissed unless physically or mentally incapacitated; their terms of appointment are five years; government officials attend the MPM only as non-voting members. See Cargill, Hutchison, and Ito (2000: chapter 4) for a detailed comparison of the old and new Bank of Japan Laws. Using a measure of central government independence scores developed by Cukierman, Webb, and Neyapti (1993), Cargill, Hutchison, and Ito (1997; ch.4) concluded that the score of independence for the Bank of Japan rose substantially, from near bottom among the 18 advanced countries to a middle of the pack.

Transparency of monetary policy decision was greatly enhanced. The Monetary Policy Board, that had existed under the old law, was revamped both in the appointment criterion and disclosure of the meeting minutes. Under the old law, there was no disclosure of minutes or transcript. It was often said that real decision making was done internally (internal executive meeting) and the MP Board was rubber-stamping the decision that was already made. Under the new law, members of the MP Board are appointed on the basis of their expertise, and detailed minutes of MPMs are publicly disclosed several weeks after the meeting—comparable to the Federal Reserve Board. The MP Board is composed of 9 members: Governor, two Deputy Governors, and six experts on monetary affairs and economics.

2.2. Policy Decisions of the Hayami regime, 1998 - 2003

2.2.1. ZIRP

The new team of MP Board immediately faced a challenging situation: The average growth rate had been extremely low, at around 1% since 1992; and the financial institutions had become very weak. In particular, major financial institution failed in November 1997, and the psychology of the economy turned extremely negative in the spring of 1998. The growth rate turned negative in the first quarter of 1998, the fragile financial institutions were downgraded by credit rating agencies and demanded to pay higher interest rate in the inter-bank market (Japan premium), and prices started to decline. See 1998 figures in Figure 1 and Figure 2. (Note that the GDP numbers in Figure 1 are the new estimates as of November 2005. The real-time growth rates published by the Cabinet Office and used as a basis of policy making as of 1998 was different, due to different estimate method and available statistics.)

The Bank of Japan started to fight deflation, but it was more tentative than decisive. Governor Hayami repeatedly suggested that he regarded deflation was not necessarily a bad thing, and that aggressive monetary policy might not be called for. See Ito (2004b) for quotes from the MPM discussions and Governor speeches for these views. After statistics showed that the Japanese economy was experiencing negative growth for several quarters and deflation was getting worse, the Bank of Japan adopted the zero interest rate policy (ZIRP) on February 12, 1999. The precise statement said that "The Bank of Japan will provide more ample funds and encourage the uncollateralized overnight call rate to move as low as possible." The Bank of Japan planned to lower the interest rate to 0.15% immediately, and then would lower it to zero in a few weeks. (See Appendix 1 for precise languages.) So, it took a few weeks to get to zero. In April, Governor Hayami mentioned that the ZIRP would continue "until deflationary concerns are dispelled." (See Okina and Shiratsuka (2004) for dating Governor Hayami's words as April.) However, no precise definition of "deflationary concerns" or "dispelled" was offered.

A question on this decision of ZIRP is whether it was too late. Signs of weakening economy were abundant in 1998, and why it took so long to make a decision of ZIRP. In 1998, the Bank of Japan made two small changes toward easing. First, on September 9, the Bank of Japan decided to lower the call rate (policy interest rate) from below but near 0.50% to 0.25%. This was a clear monetary easing. On November 13, the Bank of Japan decided to help financing corporations by using open market operations of CPs.

One possible explanation why ZIRP was not introduced until February 1999 was that it was regarded as the last card, since no more interest rate cut is possible after the nominal interest rate hit the zero, the lower bound. (The nominal interest rate cannot be negative, otherwise cash hoarding will replace bank deposits, and the financial system will suffer massive disintermediation.) The last card should be kept for a sharp, abrupt decline in economic activities or a near meltdown of the financial system. However, keeping the last card in hands may have resulted in slow, but steady decline in economic activities, and overtime, it had the same effect.

In order to gain some insights on why the ZIRP was not introduced in 1998, we can check the voting record of MPM members. It is quite revealing how the Monetary Policy Board members were divided over the issue of additional easing. From June to August, 1998, the no-change decision was made with 8 votes in favor and 1 vote against. Mr. Nakahara dissented the decision, by arguing that additional easing were needed. When the lowering the policy interest rate was decided in MPM of September 9, 1998, Ms. Shinotsuka dissented that raising the interest rate would hurt households by depriving interest income. She continued to put a dissenting vote from September 1998 to February 1999. Even Mr. Nakahara did not dissent the no-change decision from September 9 to November 13, 1998, that is, he was content with the policy interest rate of 0.25%. But, Mr. Nakahara started to demand more easing from November 28, 1998 to January 1999, just before the ZIRP was introduced. Therefore, in the MPMs of November 28, December 15, 1998, and January 19, 1999, two dissenting votes were recorded, but one leaning toward easing, and another leaning toward tightening. The logic of Ms. Shinotsuka's opposition to 0.25% was that it was extraordinarily low interest rate and it hurt household's interest income. In the January meeting, she also suggested that the low interest rate was subsidy to commercial banks. See Table 1 for voting records of MPM Board members.

Maybe, Ms. Shinotsuka did not understand the difference between the nominal interest rate and the real interest rate, thus 0.25% was too low the interest rate. Anyway, for those who took a wait-and-see position between September 1998 to February 1999, the split dissention of Mr. Nakahara and Ms. Shinotsuka was comfortable one. They could just say that they were in the middle. Governor's view, that was expressed in speeches and press conferences, was also similar to Ms. Shinotsuka in that deflation was not something serious and worrisome.

After the zero interest rate was introduced, the economy started to recover. This was partly due to the boom in the IT-industry related stock prices. The Japanese financial system was stabilized by the second capital injection to the banking system at the end of March 1999. The Japanese premium, that the Japanese banks had to pay to the western banks in the interbank market, disappeared in April 1999. (See Ito and Harada (2004, 2005).) The world-wide IT-stock price increases (later labeled as the IT stock price bubble) helped confidence to rise stimulating consumption and investment. The GDP growth rate rose in 1999Q2 to a positive territory, and after a slight dip in 1999Q3, the growth rate became high in the 1999Q4. The inflation rate also showed some signs of getting out of deflation (but the inflation rate was still negative) in the spring of 2000.

On February 12, 1999, the MPM passed the zero interest rate decision with 8-1 votes, with Ms. Shinotsuka dissenting. From March 1999 to July 2000, the split similar to earlier period occurred. Mr. Nakahara argued that the ZIRP was not enough and proposed more actions including quantitative easing, while Ms. Shinotsuka argued to terminate the ZIRP.

2.2.2. Termination of ZIRP

When Governor Hayami and some Board members started to suggest that the zero interest rate policy might be terminated in the spring of 2000, many economists and government officials questioned the basis of possible policy change. The economy was only on a fragile recovery path, and the internal and external environment was turning worth, as the IT stock bubble had burst. The US economy was slowing down due to the collapse of the IT stock prices. Domestic consumption and investment were also slowing down. However, the Bank of Japan pushed the agenda. It is said that the Bank wanted to raise the interest rate in the July MPM meeting, was pushed back by one month because it feared a negative impact of the failure of the Sogo Department Store. As the department store failure turned out to be not so negative to the overall economy, the motion was tabled in the MPM of August 2000

During the August 11 MPM meeting, the government officials who attend the meeting without voting power, argued that it would be too early to raise the interest rate. The government officials, based on a clause in the Bank of Japan law, submitted a motion to delay the voting of interest rate hike by one month. This was maximum resistance and show of displeasure that the government can do against the independent central bank. The delay-motion was voted down by the votes of 1 in favor to 8 against. Then, the motion of interest rate hike was passed by the 7 in favor and 2 against. Mr. Nakahara sided with the government proposal to table the vote for the termination, and also opposed to the termination of the ZIRP. Mr. Ueda, who always voted with a majority until this point since his appointment at the Board in April 1998, dissented the termination of the ZIRP saying that it might be to early to tell the economy was on the firm ground and that costs for wait-and-see with ZIRP would not be so high.

The MPM decision was to raise the call rate from 0% to 0.25%, showing the majority of the Board member's confidence that the economy was on the firm recovery path: "At present, Japan's economy is showing clearer signs of recovery, and this gradual upturn, led mainly by business fixed investment, is likely to continue. Under such circumstances, the downward pressure on prices stemming from weak demand has markedly receded." (See, for a full text concerning the policy decision, Appendix 2.)

However, what followed in the economy in the fall of 2000 confirmed the fear of the critics of the Bank decision. The recession started two months after the interest rate hike, and the CPI inflation rate sharply turned negative (see Figure 2). The economic conditions deteriorated toward the end of 2000.

2.2.3. Inflation Targeting

Many critics were calling for the Bank of Japan adoption of inflation targeting in order to show the Bank of Japan's resolve for fighting deflation. Adoption of the inflation targeting framework with decisive actions may influence inflation expectation. Ito

(2004b) examined the MPM minutes to see whether the MPM came close to adopt the inflation targeting framework during the course of fighting deflation. Inflation target advocates argued that the inflation targeting framework will have positive influence on inflation expectations and that would help fight against deflation, by changing the forward-looking real interest rate. Moreover, by clarifying the goal of the policy may be necessary for an independent central bank to be accountable for its action.

There are several arguments opposing the inflation targeting framework. First, the most commonly heard arguments against inflation targeting was that credibility will be lost, rather than built, if inflation targeting is announced when there is no instrument to get out of deflation. Second, inflation targeting would not influence inflation expectation, since inflation expectation is backward looking. Third, some regarded inflation targeting was a way to increase the inflation rate no matter what, in order to help debtors in the economy—large indebted corporations and the national government with large fiscal debts. Once generated, inflation would be difficult to stop. Fourth, if inflation targeting is believed, then the long-term interest rate will go up immediately (via the Fischer-equation) and that would be bad for the economy. Mr. Hayami also argued, in an early stage of his regime, that restoring inflation would delay structural reform. See Ito (2004, pp. 246-251 for pros and cons of inflation targeting.)

The discussion on the inflation targeting in MPMs, measured by "word counts" in the Minutes, peaked in the fall of 1999, responding to the critics outside the Bank. But, the discussion was shelved in the spring of 2000, as it was decided to commission a study to the staff on price stability. After six months, the Bank of Japan issued a report called "On Price Stability" in October 2000. In this report, the Bank was quite negative on defining numerically an appropriate inflation rate: The Bank refused to endorse any price index as an appropriate measure of inflation; and the Bank refused to define price stability, by saying price stability is defined "as a situation which is neither inflationary nor deflationary." It sounds like a tautology, since inflation and deflation cannot be defined without defining price stability. The report stated that: "In view of current development of prices in Japan, it is difficult to set specific numerical values to the definition of price stability that are consistent with the sound development of the economy. Furthermore, even if some numerical values were announced, they would not serve as a reliable guidepost in the conduct of monetary policy, and the exercise would not likely contribute to enhancing transparency of the conduct of monetary policy. Therefore, it is not deemed appropriate to define price stability by numerical values." This kind of assessment is quite far from conventional wisdom in the literature of inflation targeting. By this negative assessment, the inflation targeting was not discussed at all in MPMs in 2000 and the first half of 2001. See Ito (2004b: pp. 245-246) for the second wave and third wave of inflation targeting discussions in MPMs, mostly in negative tones toward it, in the second half of 2001 and the late 2002.

<u>2.2.4. QE</u>

By the end of year 2000, economic activities had slowed down substantially, and the stock prices had declined substantially. The MP Board members, realizing that something had to be done, started to explore the ways to stimulate the economy. Many outsiders speculated that the Bank will reverse to the ZIRP. The Governor issued "instructions to the Bank's staff" (MPM document) on January 19 asking the staff to come up with the idea "examine the possible room for further improvements in the way of liquidity provision to the market, with a view to ensuring the smooth functioning and stability of the financial market." In the February 9 MPM, the official discount rate was cut from 0.5% to 0.35% and the so-called Lombard-type lending scheme was introduced (namely, capping the interbank rate at 0.35% for anyone who has collateral). In the February 28 MPM, the official discount rate was cut to 0.25%, and the policy interest rate was cut from 0.25% to 0.10%. However, these changes did not make any impact on the market.

The Bank of Japan made a substantial policy change in the MPM meeting of March 19, 2001. The Bank of Japan decided that the policy instrument was changed from the interest rate to the current account of the Bank of Japan, the sum of required and exess reserve, and excess reserves will be maintained. The Bank emphasized that the decision was extraordinary under the extraordinary circumstances: "[T]he Bank has come to a conclusion that the economic conditions warrant monetary easing as drastic as is unlikely to be taken under ordinary circumstances." (This quote is translated by the Bank of Japan. See Appendix 3 for a full text.) The required reserve was about 4 trillion yen at the time, and the target was set to be 5 trillion yen. Enough liquidity to the market is provided to the system, so that the banks would place excess funds to the Bank of Japan account that bears zero interest rate. By implication, the zero interest rate would result.

The change of the instrument is regarded as a strong step toward quantitative easing (QE). Whether providing higher monetary base at the zero interest rate make any difference was, and still is, controversial. However, at least it had psychological effect that the Bank of Japan had become more serious about exploring ways to fight deflation.

The decision of March 19, 2001 was also accompanied by a more explicit condition on when quantitative easing will end. Conditions for making a decision of exit from QE and ZIRP are clarified as follows: "The new procedures for money market operations continue to be in place until the consumer price index (excluding perishables, on a nationwide statistics) registers stably a zero percent or an increase year on year." This is innovative in two respects. First, the exit condition clearly stated that the CPI (excluding fresh food) is a measure to watch. This is a reversal of the position mentioned in the October 2000 document. Second, the new exit condition was much clearer than the earlier exit condition ("until the deflationary concerns are dispelled"), in that the numerical condition, "a zero percent or an increase year on year," is mentioned. This can be seen as a step toward inflation targeting (but still far away from a full-fledged inflation targeting framework. However, how "stably" is defined remained ambiguous.

The Bank of Japan also announce in the March 2001 decision that it would increase the amount of monthly government bond (JGB) purchases, that was set to be 400 million at the time. This decision was to answer calls for additional measures even at the zero interest rate. By purchasing assets that are riskier than short-term government papers would help asset reallocation in the economy, so that the private sector would take more risk. It was also expected that the Bank of Japan purchasing longer-term assets would flatten the yield curve, so that investment that is sensitive to a long-term interest rate, rather than a short-term interest rate, will be stimulated. This is some additional thing the central bank can do even under ZIRP.

The economy remained weak in 2001. The economic growth rate registered four consecutive quarters of negative growth rate from 2001Q2, and the inflation rate remained about minus 1 percent from early 2001 to early 2003. The Bank of Japan tried several steps to enhance QE. First, it increased the target amount of current account balance in several steps (August, 2001, December 2001, and October 2002). Second, the Bank increased the purchase of JGB in four steps (August 2001, December 2001, February 2003, and October 2002) from 400 million yen to 1.2 trillion yen. Third, the official interest rate was reduced from 0.50 percent to 0.35 percent in February 2001, then to 0.25 percent in March 2001, and to 0.10 in September 2001.

2.3. Why Did the Bank of Japan policy fail?

Monetary policy during the Hayami regime gives an impression that it was behind-the-curve in easing the monetary policy, and timid in trying non-conventional policies, not to mention a mistake in tightening in August 2000. (Cargill, Hutchison, and Ito (2000) called this as an independence trap, namely, the Bank tried to be less active in order to lower the probability of mistakes, so that they could quickly establish credibility after obtaining independence. However, the attempt did not succeed.) Mr. Hayami and the majority of the Board rejected several measures, and then switched the position, without ample explanations for the switch. For example, an increase in the purchase of government bonds was rejected earlier as an option, but was implemented later. Quantitative easing, an increase in excess reserve, was also rejected earlier, but suddenly adopted in March 2001. These switches gave an impression that the Bank of Japan is trying to do something, but only reluctantly. The failure is not tactical, but strategic. There was no firm framework to guide the policy, such as an inflation targeting framework.

3. Monetary Policy, 2003-2005

New Governor and two Deputy Governors were appointed in March 2003, upon expiration of the five year term for the previous team of top management. Newly appointed Governor Fukui used to be Deputy Governor of the Bank of Japan, before he resigned and took a position in the private sector in 1998. Governor Fukui was keen on building a better relationship with the government and was skillful in communicating to the public that he would be fighting deflation with commitment. The rhetoric of fighting deflation was much better in his speeches soon after he took the office. He argued that he would be patient before terminating quantitative easing. See Fukui (2003).

Mr. Fukui raised the target of current account balance from April 2003 to January 2004 to the level of 30-35 trillion yen. The increase of the target gave the impact on the economy to flatten the yield curve. Oda and Ueda (2005) argue that increasing amounts of current account target helped keeping the yield curve flatter, since QE influenced on the expectation on how long ZIRP will continue in the future.

In October 2003, MPM issued the document of improving transparency, in which the exit condition was clarified. Earlier, the inflation rate (excl. fresh food) must be zero or above stably. The document defined the meaning of "stably." There are two conditions for judgment. First, the backward-looking inflation rate has to be on average at zero or above. Second, the forward-looking inflation rate has to be forecasted by the Board members to be at zero or above. Details will be described in the next section on exit conditions. But, even under the new definition, it was far from full-fledged inflation targeting, since the timeframe of overcoming deflation was not committed, and no upper bound for tolerance was given.

The stock prices had declined significantly in 2002 and again in the spring of 2003. The Nikkei 225 index recoded a low of 7600 in April 2003, less than one-fifth of the peak at the end of 1989. But, the stock market regained confidence for the rest of the year, so did the economy as a whole. The growth rate increased to near 6% (quarter to quarter rate, annualized) in 2003Q4 and 2004Q1. Optimism spread to the economy. The size of deflation shrank from about 1 percent to near zero by the end of 2004.

The Bank of Japan adopted some of nonconventional measures proposed by critics, including purchases of long bonds. However, other measures were not tried, including to purchases of foreign-currency denominated bonds, to purchase equities (indexed equity fund listed in the exchange), to purchase real estate (funds), to adopt inflation targeting, and to cooperate with the Ministry of Finance to carry out nonsterilized interventions. Two quick notes on these non-conventional measures are added. First, although the Bank of Japan bought equities from commercial banks in 2002, it was stated as a measure to stabilize the financial system and not to be a part of monetary policy. Second, despite it was observed that monetary base and the amount of intervention in 2003 rose somewhat in parallel, the suggestion of unsterilized interventions was rebuffed as "mere coincidence" by Deputy Governor Iwata. See Ito (2004c) for detailed description.

4. Exit Conditions

The Bank of Japan has imposed itself conditions to terminate ZIRP and/or QE. When ZIRP was introduced in February 1999, the policy was said to continue until deflation concerns are dispelled. However, ZIRP was terminated in August 2000 amid deflation. The decision was based on the hope of getting out of deflation. This was a mistake in communication, judgment, and result. The exit condition from ZIRP had not been explicit—no precise definition of "deflation concerns" or "dispelled." It was not clear at all which price indicator would be used and which rate of change would be regarded as deflation. The exit was attempted when the CPI inflation rate was still negative, without clear sign that deflation would be ending soon. Surely, the monetary tightening turned out to be a failure, because the inflation rate became more negative deflation was aggravated, and a recession started in the few months after the exit.

When the ZIRP was readopted with an additional policy measure, quantitative easing (QE) in March 2001, the exit condition became much clearer. The March 2001 policy switch was significant in several respects. First, "the outstanding balance of the current accounts at the Bank of Japan becomes the operation target." This seems to indicate that the Bank of Japan was willing to do more than just ZIRP. Second, the QE was said to continue "until the consumer price index (excluding perishables, on a nationwide statistics) registers stably above a zero percent year on year." CPI (excluding fresh food) was mentioned as a price index for judging inflation and deflation. Also, the numerical condition, zero or above, was mentioned as an exit condition. These are advancement compared to the experience of the earlier ZIRP episode. The only ambiguity was "stably."

The exit condition, in particular the interpretation of "stably," was further clarified in October 2003. The MPM issued the following three conditions for terminating the QE.
"(1) the most recently published core CPI should register a zero percent or above, but also that such tendency should be confirmed over a few months." It should be pointed out here that "core CPI" is the CPI excluding fresh food, but including energy prices. (The Bank of Japan changed the translation from CPI, excluding fresh food (or perishables), to core CPI, but the definition is the same.)

"(2) the Bank needs to be convinced that the prospective core CPI will not be expected to register below a zero percent."

In particular, for (2), "many Policy Board members need to make the forecasts that the core CPI will register above a zero percent during the forecasting period." The forecasts are made public twice a year in the "Outlook."

"(3) The above conditions are only the necessary condition. There may be cases, however, that the Bank will judge it appropriate to continue with quantitative easing even if these two conditions are fulfilled."

These three conditions (or two numerical necessary conditions and a judgmental condition) made it clearer that both backward-looking and forward-looking inflation rates have to be zero or above. Although these exit conditions are far more transparent than before, there remain several questions: Why not one percent or above instead of a zero percent or above? Why not announcing a ceiling on the desirable inflation rate in addition to the floor? When will these conditions likely be achieved? Will the Bank do some measures to accelerate speed of achieving these conditions?

Using the inflation rate as a guideline for a change in monetary policy sounds like a part of inflation targeting. Indeed, the exit conditions of March 2001 are a half-hearted inflation targeting. Answering these questions positively would lead the Bank of Japan to a serious inflation targeting framework.

5. Recent Debate

From the spring of 2005, Governor and many Bank Board members gave speeches and press interviews, arguing that the economy is recovering and deflation would end by mid-2006. Obviously, high GDP growth rates and strong profit figures of major corporations gave support to the view that deflation would end soon.

In the Outlook of April 2005, the Bank changed the coverage of inflation expectation to include the range of forecasts of the inflation rate for FY 2006 (the inflation rate of 12 – 24 months later) expressed by MPC members. This may be due to the desire to show that the second exit condition can be satisfied immediately. The median view was that deflation will be finally over by FY2006. The view was reflected in the voting results in MPMs.

Until March 2005, the decision to target the BoJ current account balance of 30-35 trillion was carried unanimously in the MPM meetings (since February 2004 when the target was raised to 30-35 trillion yen). In April 6, one dissenting vote (Mr. Fukuma) appeared, and the opposition increased to two votes (Messrs. Fukuma and Mizuno) in the April 28 and May 20 MPMs. They proposed that the current account balance target should be lowered to 27-32 trillion yen. Then one member (Mr. Mizuno) went step further and proposed to lower the target to 25-30 trillion yen, while the other member (Mr. Fukuma) maintained his proposal of moving the target to 27-32 trillion yen. Their earlier arguments, in April and May, were as follows. First, since the financial market stability was restored, excess liquidity is no longer necessary. Second, maintaining the huge balance would require time to raise the interest rate, timing may become too late when tightening is required. Third, by maintaining the zero interest rate without excess reserves, the same stimulative effect can be achieved. Fourth, demand for liquidity is declining, so that lower the target would not disrupt the market. (See "Minutes" of MPM on April 28, 2005, available on the Bank of Japan home page.)

Dissenters' reasons for the proposal of lowering the target amount changed slightly by September 2005. First, the zero interest rate is regarded to have distorted the market mechanism and causing the market participants unaware of the possible risk of interest rate volatility. Second, in order to maintain the high balance, it has become necessary to conduct market operations with relatively long maturities, implying that it would take time to lower the target amount before raising the interest rate, reducing the timeliness and flexibility of the Bank's conduct of monetary policy. Third, gradual reduction of the target amount is appropriate. Fourth, maintaining the zero interest rate without excess liquidity is enough to support economic recovery. Fifth, financial institutions' precautionary demand for liquidity has become lower. (The first four reasons are mentioned by Mr. Fukuma and the the third and fifth reasons were mentioned by Mr. Mizuno. See Minutes of MPM on September 8, 2005, available on the Bank of Japan home page.)

Although the inflation rate measured against the year earlier is still negative, it s expected to turn to positive in the next several months. First, the month-to-month inflation rates have registered positive rates in recent months. See Table 2. Second, one-off effects of rice and utilities price decline of last autumn will be out of the range of twelve months by end-2005. Third, the past forecasts of Monetary Policy Board members may have a bias toward lower prices (overestimating the degree of deflations). If the downward bias persists even in the positive territories of inflation rate, the actual inflation rate may turn out to be higher than 0.5% next year. It is also the case that the Policy Board members underestimate strength of the economy in terms of GDP growth rate. (See Figures 5 and 6.)

According to this view, the inflation rate would be certainly positive in 2006. Those who take a view to tighten next spring also cite the past performance in forecasts of inflation rate and GDP growth rate by the Board members. The Board members tended to be more pessimistic than actual in the 2004. The economy was stronger than the Board forecasts. Therefore, if there is a bias in forecasts, it would be favorable in overcoming deflation.

Now the views expressed by Messrs. Fukuma and Mizuno can be critically reviewed. First of all, why hurry? The current inflation rate (September 2005) is minus 0.1 % (compared to 12 months earlier), and the median of MPC members' forecasts of the inflation rate of FY 2006 is mere 0.5%. Is this a concern for a central bank with a mandate of price stability? Second, a concern on the Bank possibly becoming "behind the curve" because of large current account is precisely opposite. Namely, in order to get out of deflation, it is most important to take monetary policy that will convince the public that deflation will be ending soon (e.g., Bernanke (2000, 2003), Krugman (1998), Eggertsson and Woodford (2003)). In the sense, it is important to send a signal that the central bank is "behind the curve." A credible way to announce that the Bank will be behind the curve is to pile up excess liquidity. Therefore, Mr. Fukuma's analysis is correct in that it would take time to take out liquidity from the system. The difference is that he thinks that getting out of deflation is a sure thing and preventing the inflation rate to go higher than, say 1 percent, is a risk, while many critics think that maintaining the higher balances is still good thing in having expectation effects in making sure that deflation will be over next year and the inflation rate going higher than, say 1 percent, is not a risk at all.

There are substantial voices that would oppose early termination, or preparation for termination, of quantitative easing. First, the CPI inflation rate is still negative. Even if the CPI inflation rate becomes negative, it may be do to the energy price increases. It is debatable whether the supply shock (oil price increases) should be countered by monetary tightening. It is unfortunate that no CPI inflation rate, excluding both fresh food and energy, is not published in Japan.

6. Concluding Remarks

This paper reviewed Japanese monetary policy from 1998 to present. The beginning year of analysis was set at 1998 because it was the year the Bank of Japan gained legal independence. Transparency, such as MPM minutes disclosure, has been greatly enhanced since 1998. The critical review of the first five years of its independence reveals that the Bank of Japan policies were not aggressive enough to ease monetary policy. Moreover, it made a mistake of tightening amid deflation in August 2000. Adoption of quantitative easing in March 2001 was significant, but could not prevent the economy from sliding into deflation and economic stagnation in 2001 and 2002.

Governor Fukui took office in March 2003. He quickly changed the course toward more aggressive in fighting deflation with expanding monetary base, and also used better rhetoric in convincing the public that the Bank of Japan will be patient, i.e., not to raise the interest rate, on the way out of deflation. The economy gained momentum in 2004 and into 2005. Now the debate is when, not whether, the Bank of Japan will terminate the quantitative easing. Some (two members of the Board) have argued that gradual reduction of quantitative easing should start now. They have voted against the majority decision of the stay-the-course since April 2005. Many others think that it is too early to judge the timing of termination of quantitative easing.

References:

Bernanke, Ben. S. (2000), “Japanese Monetary Policy: A Case of Self-Induced Paralysis?”, in Ryoichi Mikitani and Adam S. Posen, eds., Japan’s Financial Crisis and its Parallels to U.S. Experience, Institute for International Economics, 2000.

Bernanke, Ben. S. (2003), “Some Thoughts on Monetary Policy in Japan,” speech before the Japan Society of Monetary Economics, Tokyo, Japan (available from Federal Reserve Board home page).

Cargill, Thomas; Michael Hutchison, and Takatoshi Ito (1997), *The Political Economy of Japanese Monetary Policy*, Cambridge, MA: MIT Press.

Cargill, Thomas; Michael Hutchison, and Takatoshi Ito (2000). *Financial Policy and Central Banking in Japan*, Cambridge, MA: MIT Press.

Eggertsson, Gauti B. and Michael Woodford (2003), “Optimal Monetary Policy in a Liquidity Trap,” NBER Working Paper 9968.

Fukui, Toshihiko (2003). “Challenges for Monetary Policy in Japan,” Bank of Japan Quarterly Bulletin, vol. 11, no. 3: 15-24.

Ito, Takatoshi (2004a). “Debt, Deflation, and Declining Growth: New Challenges of the Japanese Economy”, in Robert Solow (ed.), *Structural Reform and Economic Policy*, Palgrave, Macmillan, June 2004: 131-170.

Ito, Takatoshi (2004b). “Inflation Targeting and Japan: Why has the Bank of Japan not adopted Inflation Targeting?” in Christopher Kent and Simon Guttmann (eds.) The Future of Inflation Targeting, August 2004: 220-267.

Ito, Takatoshi (2004c). “The Yen and the Japanese Economy, 2004.” C. F. Bergsten and J. Williamson, (eds.) *Dollar Adjustment: How Far? Against What?, ch.8*, Washington, D.C.: Institute for International Economics: 171-196

Ito, Takatoshi (2005). “Interventions and Japanese Economic Recovery” in IEEP, (Springer-Verlag) special issue, forthcoming.

Ito, Takatoshi and Kimie Harada, "Credit Derivatives Premium as a New Japan Premium" *Journal of Money, Credit and Banking*, vol. 36, no.5, October 2004: 965-968.

Ito, Takatoshi and Kimie Harada, “Japan Premium and Stock Prices: Two Mirrors of Japanese Banking Crises,” *International Journal of Finance and Economics*, vol. 10: 195-211.

Ito, Takatoshi and Frederic S. Mishkin (2006). ”Two Decades of Japanese Monetary Policy and the Deflation Problem,” in T. Ito and A. Rose, (eds.) Monetary Policy with Very Low Inflation in the Pacific Rim, NBER-University of Chicago Press: forthcoming.

Krugman, Paul (1998), "It's Baack! Japan's Slump and the Return of the Liquidity Trap," Brookings Papers on Economic Activity 1998, vol. 2, pp. 137-187

Oda, Nobuyuki and Kazuo Ueda (2005), "The Effects of the Bank of Japan's Zero Interest Rate Commitment and Quantitative Monetary Easing on the Yield Curve: A Macro-Finance Approach," Bank of Japan Working Paper Series, No. 05-E-6, April.

Okina, Kunio and Shigenori Shiratsuka (2004). "Policy Commitment and Expectation Formation: Japan's Experience under Zero Interest Rates," North American Journal of Economics and Finance, vol. 15: 75-100.

Appendix 1. Zero-interest rate policy (ZIRP), February 12, 1999

"(1) The Bank of Japan today held a Monetary Policy Meeting, a regular meeting of the Policy Board on monetary policy. By majority vote, the Policy Board determined to ease further the stance of money market operations for the inter-meeting period ahead as follows:

> The Bank of Japan will provide more ample funds and encourage the uncollateralized overnight call rate to move as low as possible.
> To avoid excessive volatility in the short-term financial markets, the Bank of Japan will, by paying due consideration to maintaining market function, initially aim to guide the above call rate to move around 0.15%, and subsequently induce further decline in view of the market developments."

Appendix 2. Termination of ZIRP, August 11, 2000

"1. In February 1999, the Bank of Japan adopted the zero interest rate policy, unprecedented both in and out of Japan, to counter the possibility of mounting deflationary pressure and prevent further deterioration in economic conditions. Furthermore, it announced in April 1999 to continue the zero interest rate policy until deflationary concern is dispelled.

2. Over the past one year and a half, Japan's economy has substantially improved, due to such factors as support from macroeconomic policy, recovery of the world economy, diminishing concerns over the financial system, and technological innovation in the broad information and communications area. At present, Japan's economy is showing clearer signs of recovery, and this gradual upturn, led mainly by business fixed investment, is likely to continue. Under such circumstances, the downward pressure on prices stemming from weak demand has markedly receded.

Considering these developments, the Bank of Japan feels confident that Japan's economy has reached the stage where deflationary concern has been dispelled, the condition for lifting the zero interest rate policy."

Appendix 3. Quantitative Easing, introduced in March 19, 2001

"3. In light of this, the Bank has come to a conclusion that the economic conditions warrant monetary easing as drastic as is unlikely to be taken under ordinary circumstances. Accordingly, the Bank decided at its Monetary Policy Meeting of today to take the following policy actions.

(1) Change in the operating target for money market operations
The main operating target for money market operations be changed from the current uncollateralized overnight call rate to the outstanding balance of the current accounts at the Bank of Japan. Under the new procedures, the Bank provides ample liquidity, and the uncollateralized overnight call rate will be determined in the market at a certain level below the ceiling set by the Lombard-type lending facility.

(2) CPI guideline for the duration of the new procedures
The new procedures for money market operations continue to be in place until the consumer price index (excluding perishables, on a nationwide statistics) registers stably a zero percent or an increase year on year.

(3) Increase in the current-account balance at the Bank of Japan and declines in interest rates
For the time being, the balance outstanding at the Bank's current accounts be increased to around 5 trillion yen, or 1 trillion yen increase from the average outstanding of 4 trillion yen in February 2001 (see Attachment). As a consequence, it is anticipated that the uncollateralized overnight call rate will significantly decline from the current target level of 0.15 percent and stay close to zero percent under normal circumstances.

(4) Increase in outright purchase of long-term government bonds
The Bank will increase the amount of its outright purchase of long-term government bonds from the current 400 billion yen per month, in case it considers that increase to be necessary for providing liquidity smoothly. The outright purchase is, on the other hand, subject to the limitation that the outstanding amount of long-term government bonds effectively held by the Bank, i.e., after taking account of the government bond sales under gensaki repurchase agreements, be kept below the outstanding balance of banknotes issued."

Appendix 4. Clarification, on the exit condition, October 10, 2003

“2. More Detailed Description of the Commitment to Maintaining the Quantitative Easing Policy

With the aim of laying the foundation for sustainable growth of Japan's economy, the Bank is currently committed to maintaining the quantitative easing policy until the consumer price index (excluding fresh food, on a nationwide basis, hereafter the core CPI) registers stably a zero percent or an increase year on year. Such commitment is underpinned by the following two conditions.

First, it requires not only that the most recently published core CPI should register a zero percent or above, but also that such tendency should be confirmed over a few months.

Second, the Bank needs to be convinced that the prospective core CPI will not be expected to register below a zero percent. This point will be described in such materials as the analysis and the forecasts of Policy Board members in the Outlook Report. To be more specific, many Policy Board members need to make the forecasts that the core CPI will register above a zero percent during the forecasting period.

The above conditions are the necessary condition. There may be cases, however, that the Bank will judge it appropriate to continue with quantitative easing even if these two conditions are fulfilled.”

Appendix 5: Dissenting voices in the stay-the-course decision of the MPM (Minutes, September 8, 2005)

Mr. T. Fukuma dissented from the above proposal for the following reasons. First, as market participants' views on the economy and interest rates were changing, provision of massive amounts of funds based on the current target range for the outstanding balance of current accounts at the Bank was hindering smooth formation of interest rates based on the market mechanism, and could also increase interest rate volatility risk. Therefore, the Bank should correct this situation as long as the maintenance of the current framework of the quantitative easing policy would not be hindered. Second, if the Bank continued to conduct market operations with relatively long maturities in order to maintain the outstanding balance of current accounts at the Bank within the target range, a longer period of time would be needed for the process of termination of the quantitative easing policy, thereby reducing the timeliness and flexibility of the Bank's conduct of monetary policy. Third, termination of the quantitative easing policy should be done gradually in a step-by-step manner, while carefully examining economic and financial developments. And fourth, it was possible to support the ongoing economic recovery and thereby emergence from the current situation of slight price declines by maintaining the zero interest rate environment based on the Bank's commitment in terms of policy duration.

Mr. A. Mizuno dissented from the proposal for the following reasons. First, there had been no change from the downtrend in financial institutions' precautionary demand for liquidity, and thus lowering the outstanding balance of current accounts at the Bank as a response to this was reasonable policy conduct. And second, to ensure financial market stability in the period around the termination of the quantitative easing policy, it would be appropriate to start lowering the outstanding balance in line with developments in the market, rather than lowering it intensively over a short period of time.

Fig. 1 Growth Rate, 1994:II-2005:III

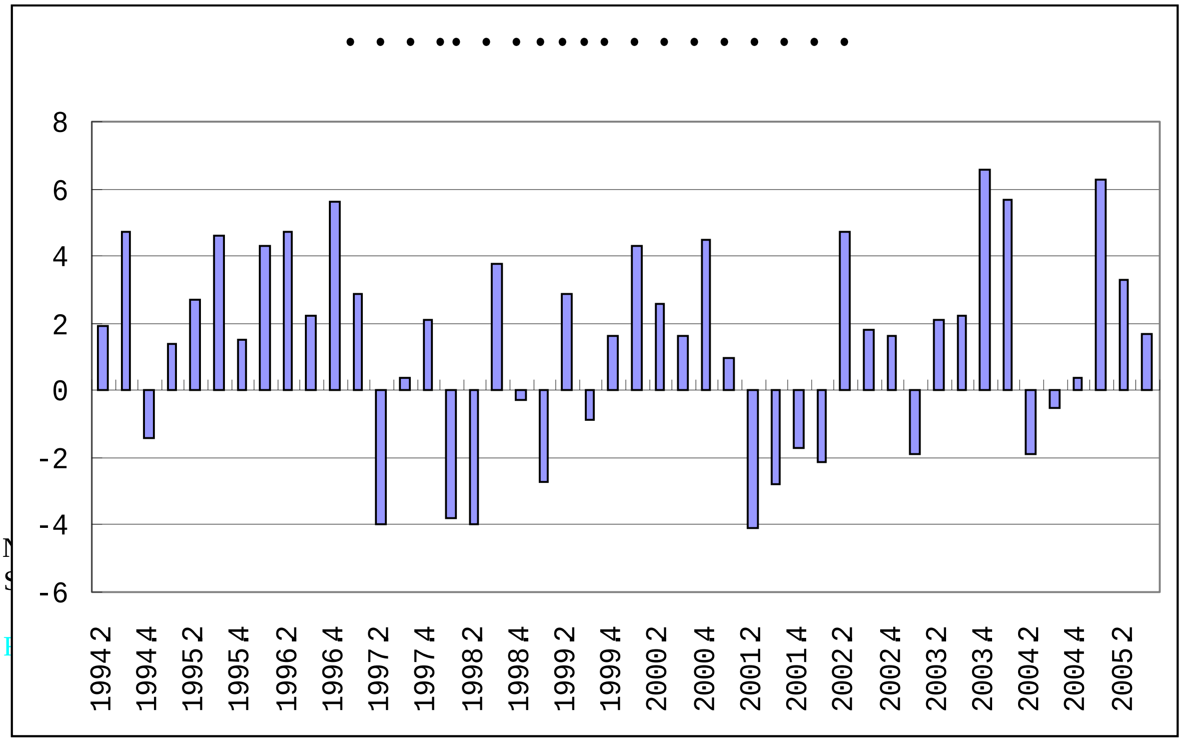

Figure 2: Inflation rate

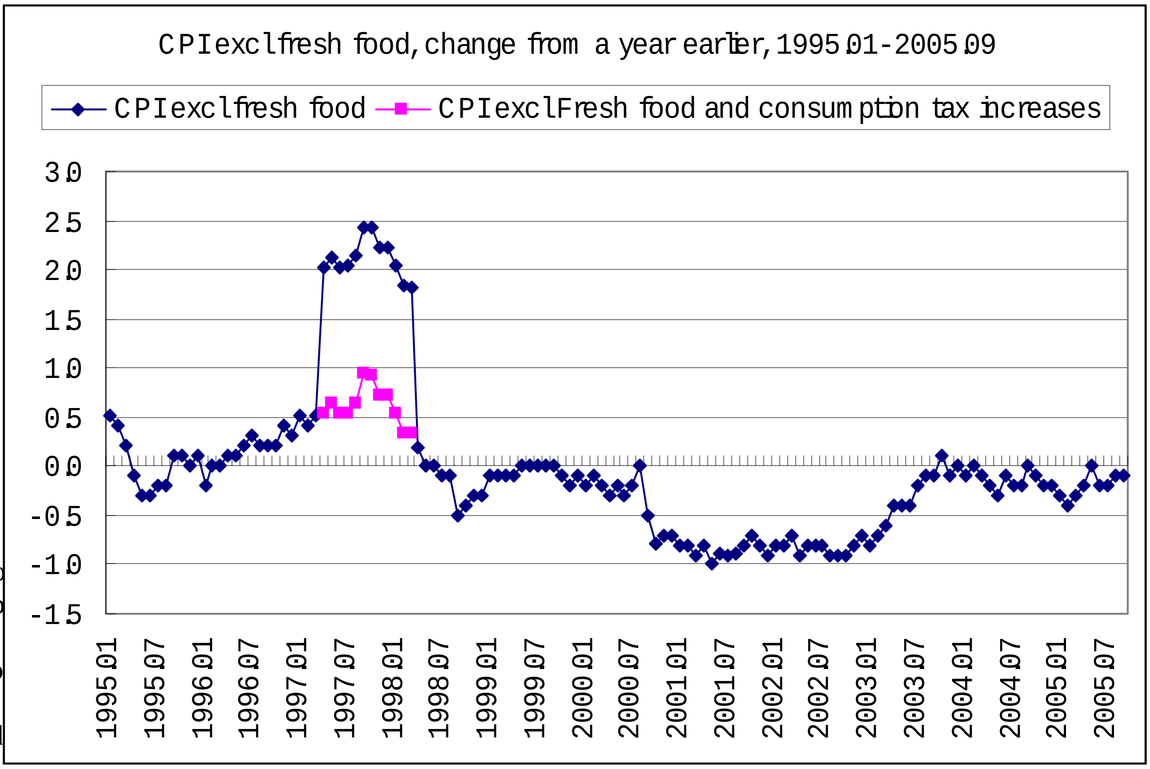

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Fig. 3 JGB Purchase and Current Account Balance Target

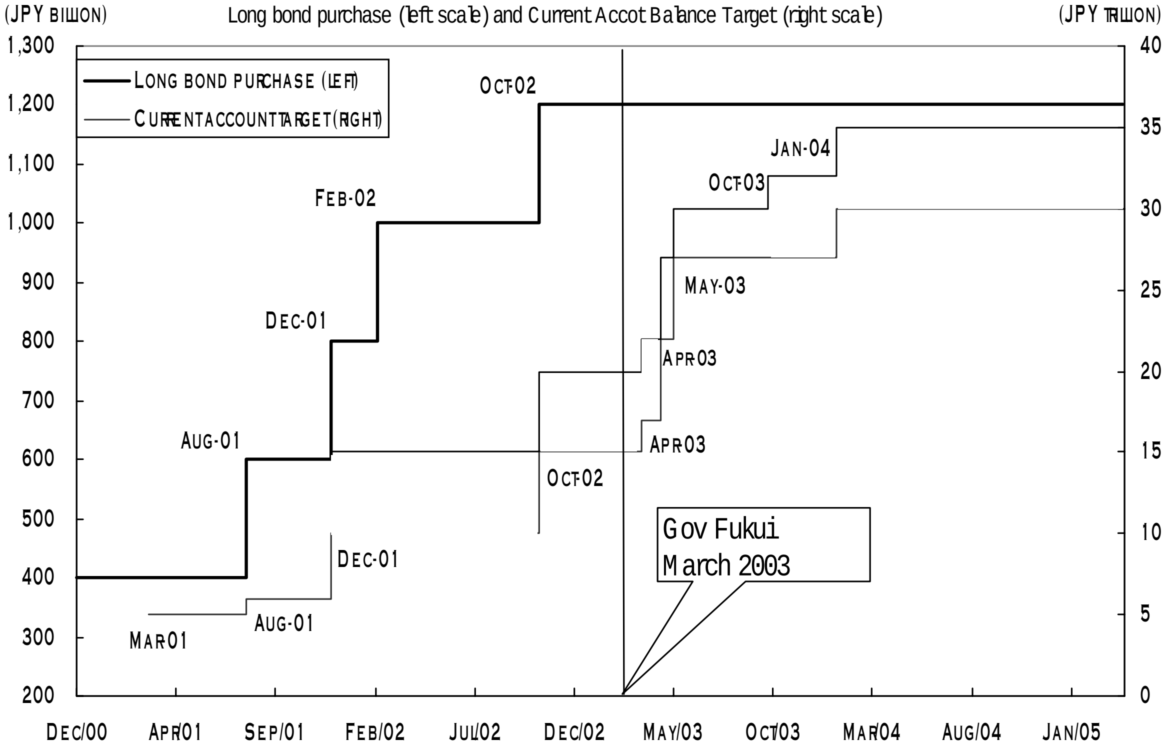

Fig 4 Movement of the official discount rate and the call rate

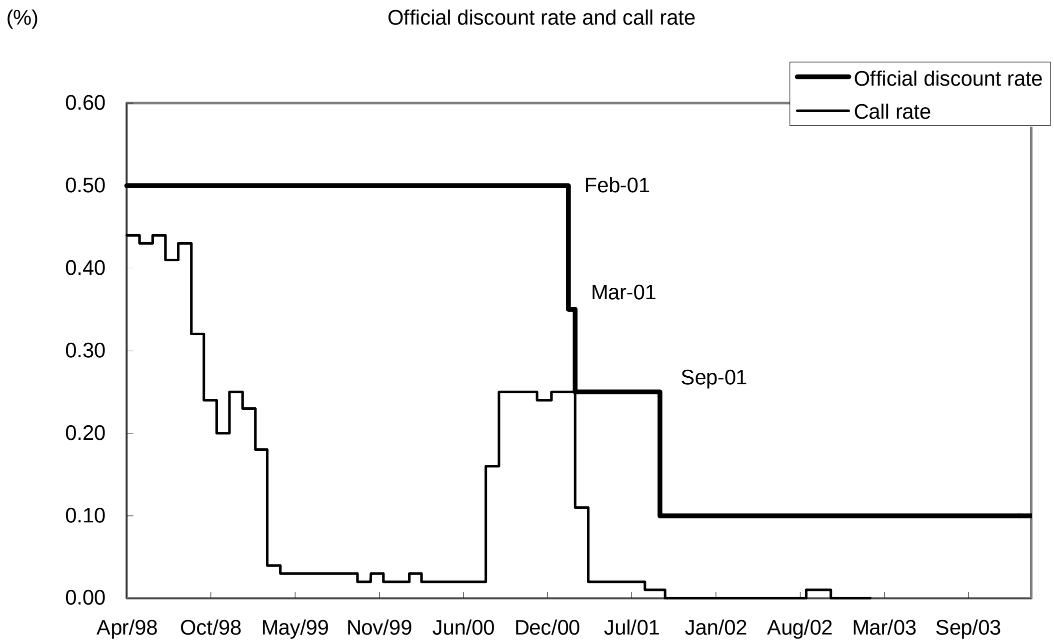

Table 1: Voting Record

Month/date	Unanimous'	Votes	Decision	Bias in Dissent
1998/4/9	• =yes		near 0.5%	
1998/4/24	•			
1998/5/19	•			
1998/6/12	× =no	7-2		++ (more easing)
1998/6/25	×	8-1		+
1998/7/16	×	8-1		+
1998/7/28	×	8-1		+
1998/8/11	×	8-1		+
1998/9/9	×	8-1	0.25%	- (more tightening)
1998/9/24	×	8-1		-
1998/10/13	×	8-1		-
1998/10/28	×	8-1		-
1998/11/13	×	8-1		-
1998/11/28	×	7-2	Lower to 0.25%	+and-
1998/12/15	×	7-2	•	+and-
1999/1/19	×	7-2	•	+and-
1999/2/12	×	8-1	Toward 0.15%	-
1999/2/25	×	7-2	Toward 0.15%	+and-
1999/3/12	×	7-2	•	+and-
1999/3/25	×	7-2	•	+and-
1999/4/9	×	7-2	•	+and-
1999/4/22	×	7-2	•	+and-
1999/5/18	×	7-2	•	+and-
1999/6/14	×	7-2	•	+and-
1999/6/28	×	7-2	•	+and-
1999/7/16	×	7-2	•	+and-
1999/8/13	×	7-2	•	+and-
1999/9/9	×	7-2	•	+and-
1999/9/21	×	7-2	•	+and-
1999/10/13	×	6-2	0%	+and-
1999/10/27	×	6-2	0%	+and-
1999/11/12	×	6-2	•	+and-
1999/11/26	×	6-2	•	+and-
1999/12/17	×	6-2	•	+and-
2000/1/17	×	7-2	•	+and-
2000/2/10	×	7-2	•	+and-
2000/2/24	×	7-2	•	+and-
2000/3/8	×	7-2	•	+and-
2000/3/24	×	7-2	•	+and-
2000/4/10	×	7-2	•	+and-
2000/4/27	×	7-2	•	+and-
2000/5/17	×	7-2	•	+and-
2000/6/12	×		•	+and-
2000/6/28	×	7-2	•	+and-
2000/7/17	×	7-2	•	+and-
2000/8/11	×	7-2	Raise to 0.25%	- and -
2000/10/13	×	8-1	0.25%	+
2000/10/30	×	8-1	•	+
2000/11/17	×	8-1	0.25%	+
2000/11/30	×	8-1		+
2000/12/15	×	8-1	•	+

Table 2

CPI Inflation rate (ex fresh food), 2005

	Month-to-month, annualized	Over the same month a year ago
Jan	**-0.8**	**-0.3**
Feb	**-0.1**	**-0.4**
Mar	**+0.3**	**-0.3**
Apr	**+0.3**	**-0.2**
May	**+0.2**	**0.0**
Jun	**-0.1**	**-0.2**
July	**-0.1**	**-0.2**
Aug	**+0.2**	**-0.1**
Sept	**+0.2**	**-0.1**

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NEXT TWO FIGURES ARE MISLABELLED> They should be Figures 5 and 6, respectively

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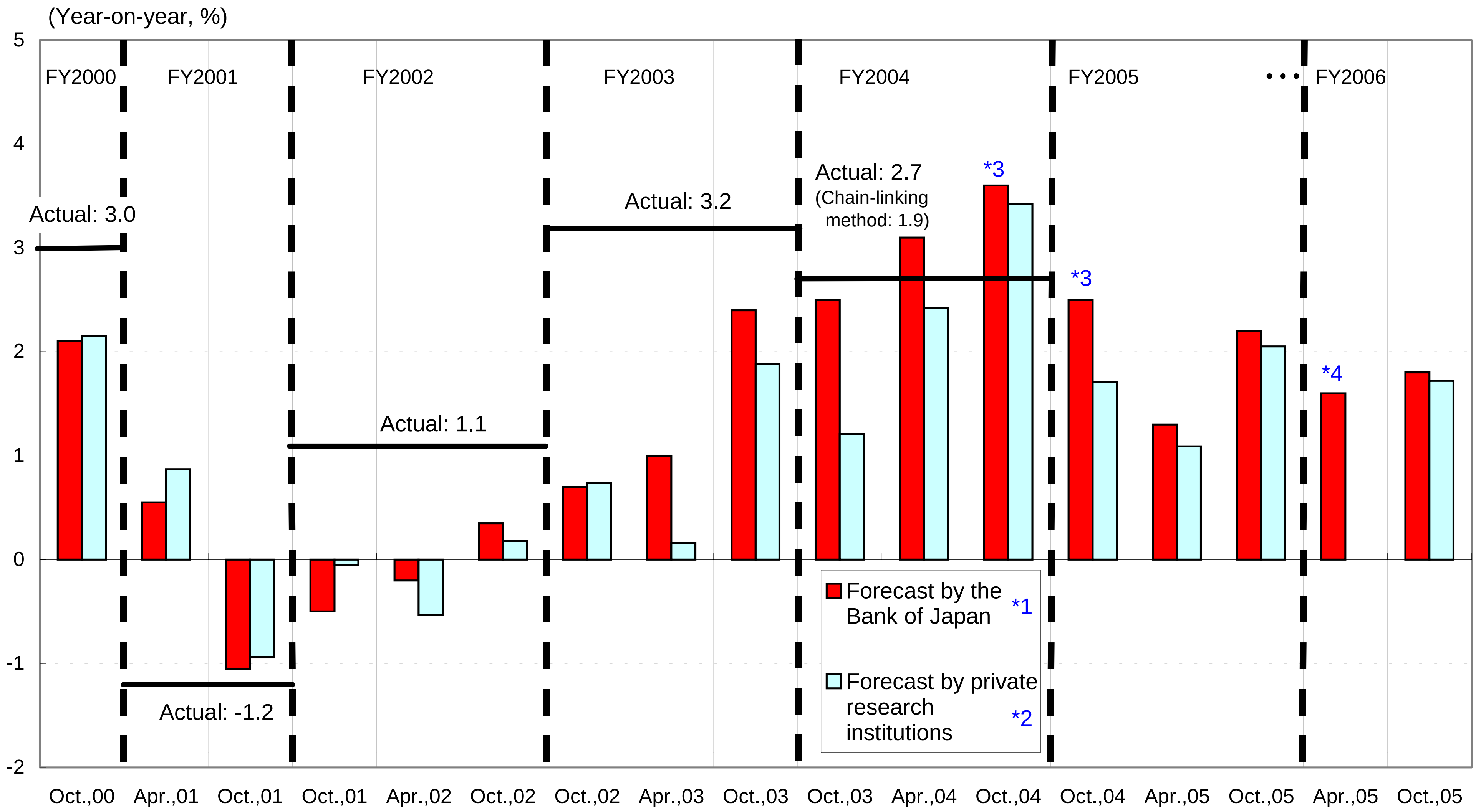
Figure1 Forecast of Real GDP Growth Rate and Actual Rate



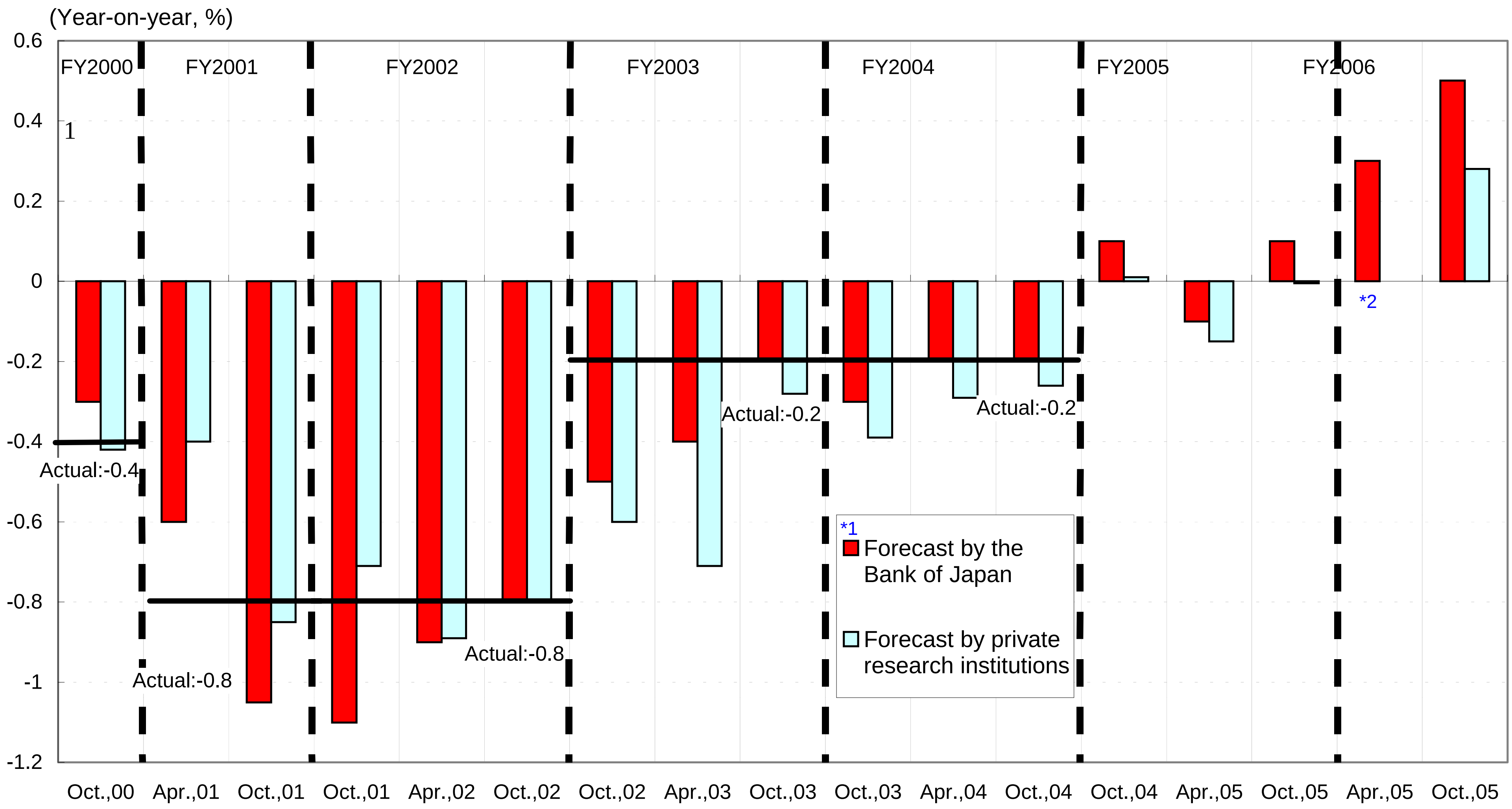
1• Forecast by the Bank of Japan: The average of the forecasts of the majority of Policy Board members from Oct.,2000 to Oct.,2002 and the median of the forecasts of the majority of Policy Board members after Apr.,2003•

2• Forecast by private research institutions: The average of forecasts by about 30 institutions•

3• "Policy Board members made forecasts for real GDP growth rates in the October Outlook Report using the fixed base-year method. At the time, they estimated that real GDP growth rates calculated using the fixed base-year method were slightly over l percent higher than if the (current) chain-linking method had been used. Hence, Policy Board member's median forecasts of real GDP growth rates would be equivalent to around 2.5 percent for fiscal 2004 and around 1.5 percent for fiscal 2005 in terms of the chain• linking method." Adopted from " Outlook Report" in April, 2005•

4• From 2005, the Bank started to make forecasts for the following year as of April.

Figure2 Forecast of CPI Changes and Actual Changes



1• Forecast by private research institutions: The average of the forecast rates of change in the CPI by about 30 institutions•
• Forecast by the Bank of Japan: The average of the forecast rates of change in the CPI (excluding fresh food) of the majority of Policy Board members from Oct., 2000 to Oct., 2002 and the median of the forecast rates of change in the CPI (excluding fresh food) of the majority of Policy Board members after Apr., 2003•
2• From 2005, the Bank started to make forecasts for the following year as of April•