

Manipulation of Monetary Policy under Deflationary Economy --Strategy to Revive the Japanese Economy--

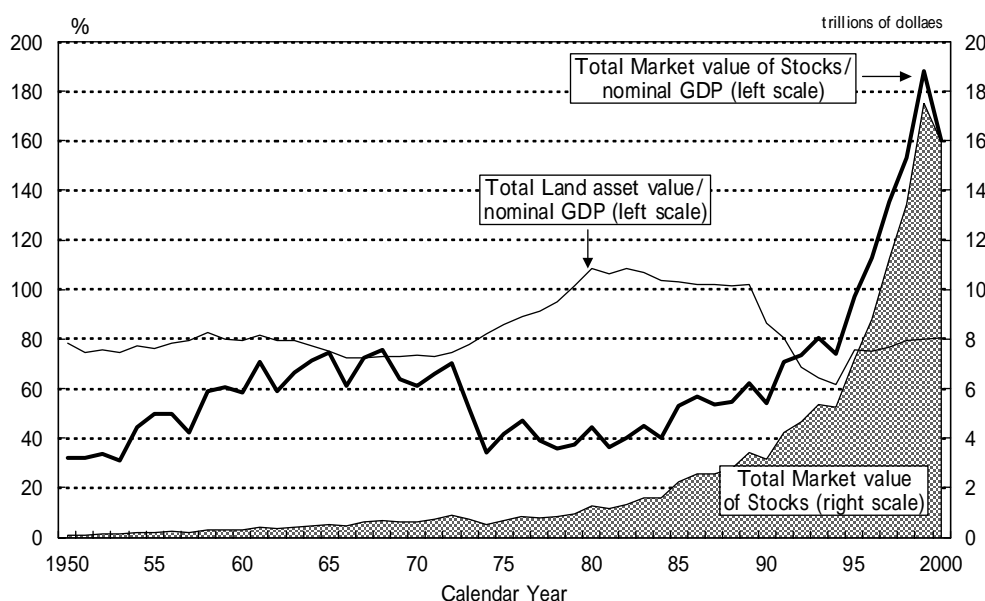
1. Accumulated imbalances of Japan and the US.

As the economic recovery in Japan is beginning to stall, the country is now being faced with two threats. One is the risk that the US will plunge into a recession of its own, and the other is that Japan itself will face a fiscal collapse. When we examine the investment-savings balances of the two countries, we see that Japan is facing a budget deficit while the US is facing a budget surplus. Despite this, Japan's current account surplus and the US's current account deficits are at record high levels. The accumulation of this imbalance in Japan has been contingent on the continuing ascent of the US stock markets, the smooth inflow of capital into the US, and the trouble-free financing of Japan's budget deficit. However, if even one of these conditions are to break down, then this imbalance can no longer be sustained and an adjustment will have to take place in the global economy.

1.1 The risk of a decline in US stock prices

In the US, the market value of stocks (total market value of shares listed on the New York Stock Exchange and Nasdaq) peaked at 1.9 times the US nominal GDP at the end of 1999, and has leveled off to about 1.6 times at the end of 2000 (Figure 1). In particular, Nasdaq -- whose listings are composed largely of high tech OTC stocks -- peaked at 5,048.62 points on March 10, 2000, and in the year from this date, it has fallen 60% in value. However, compared to the first half of the 1990s when the total market value of US stocks was in the range of 0.5 to 0.8 times GDP, the current level is still very high.

Figure 1 Total market value of US stocks as a share of nominal GDP



Note 1) The US stock total market value is the sum of the total market values of the New York Stock Exchange and Nasdaq (Nasdaq figures from 1985)

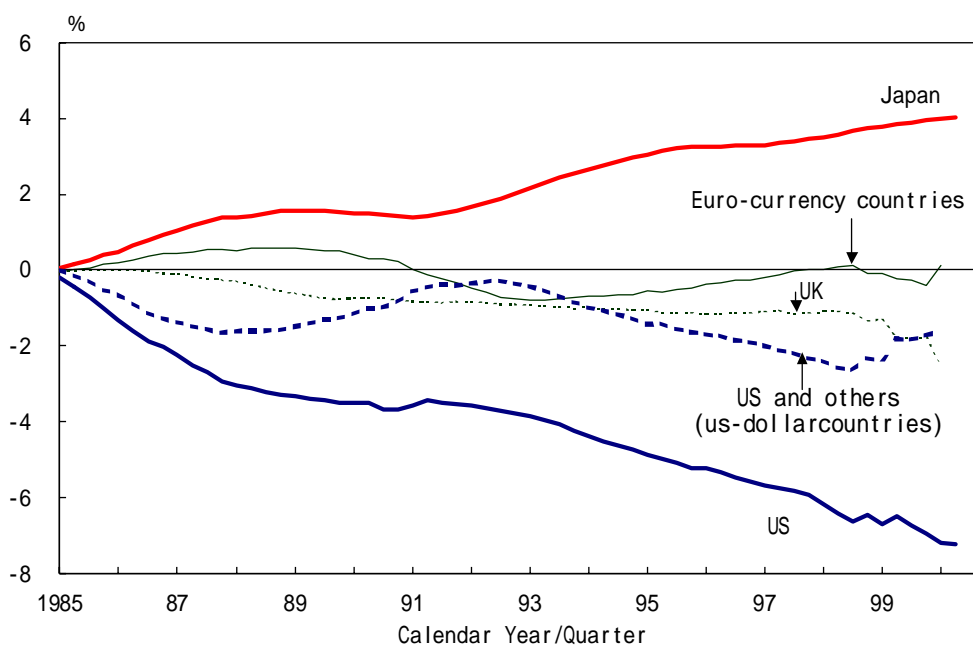
Note 2) The US total value of land assets have been estimated from the market value of real estate holdings of the household sector (including private nonprofit institutions serving households) and the non-financial sector.

Source) "Balance Sheets for the US Economy", "Flow of Funds Accounts of the United States" Federal Reserve Board, "Survey of Current Business" Department of Commerce

However, if the US stock prices were to experience a significant decline, then the favorable economic environment of the late 1990s could unwind and lead to the US economy degenerating into a severe economic recession. The US household saving rate -- stable at around the 8% level until 1992 -- has fallen to about zero from around 1999 due to the increased consumption resulting from the wealth effects of a rising stock market. However, the saving rate is expected to rise again if the stock market were to merely stop growing. If the market value of the US stock markets were to fall to the levels they were at in the first half of the 1990s, then it is highly likely the currently negative household saving rate would rise to over 7%. Negative wealth effects would lead to a decline in private consumption and a rapid increase in the saving rate that would be a major setback to not just Japan but to the rest of the world as well.

It is not likely, however, that the value of the dollar would fall to any great extent against the backdrop of the growing accumulated current account deficit. Most of the deficit has been absorbed by the regions whose currencies are pegged to the dollar such as South America and Asia, and the share of Japan's surplus is relatively small. (Figure 2)

Figure 2 (Accumulated Current Account Balance + Accumulated Direct Investment Balance)/World Nominal GDP



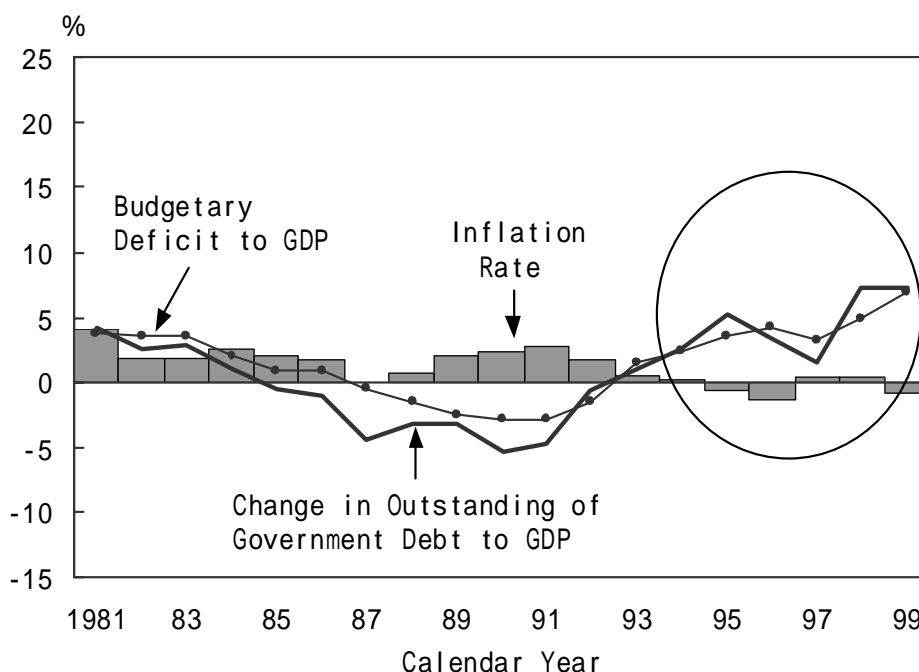
Note) Total GDP of OECD countries was used for World Nominal GDP

Source) “Balance of Payments Monthly”, Bank of Japan, “Survey of Current Business”, Department of Commerce, “Eurostatistics”, “Balance of Payments”, Eurostat, “International Financial Statistics”, IMF, “Economic Outlook”, “Quarterly National Accounts”, OECD

1.2 Risk of a fiscal collapse in Japan

Aside from external factors, there also exists the risk in Japan that the accumulation of the budget deficit will lead to a fiscal collapse in Japan. Italy experienced a critical budget deficit in about 1990 when the outstanding government debt as a share of GDP had exceeded 100%, and every year the budget deficit was above 10% of GDP. However, because prices were rising at the time at the rate of about 7% annually, the value of the debt held by the government would fall by 7% as a share of GDP. Thus, the deficit was not as serious as it would appear at first glance. In contrast to this, Japan’s current situation is much more severe than the Italian case because the continued budget deficit increases the accumulated government debt, and the deflationary environment exacerbates the real debt burden (Figure 3). In particular, in 1998 the budget deficit was 5.0% of nominal GDP, while the outstanding debt as a share of GDP would rise 7.3 percentage points over the previous year (excludes debts of Japan National Railways and National Forestry of the central government). The difference between the two – that is 2.3 percentage points – reflects the increase in the real debt burden resulting from deflationary pressures.

Figure 3 Japan’s budget deficit as a share of GDP and changes in outstanding debt



Note 1) Budget deficit and outstanding debt are “Budget Deficit” and “Net Outstanding Debt” from the General Government. General Government = Central Government + Local Governments + Social Insurance Funds. Excludes debts from Japan National Railways and National Forestry of 1998.

Note 2) Change in Outstanding Debt is the change from the previous year.

Note 3) The inflation rate is the year-on-year change of the GDP deflator.

Source) “Economic Outlook”, OECD

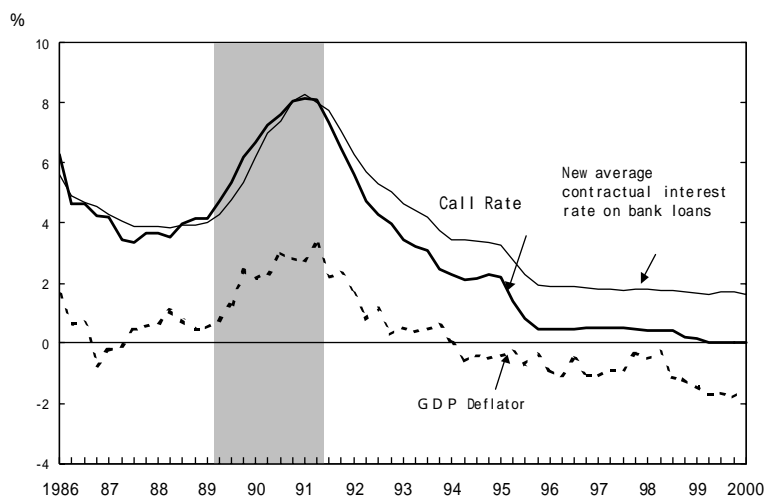
In Japan, there has been a slow erosion of the confidence of the people in the social insurance system, including the public pension scheme. Confidence in government debts such as national government bonds and local government bonds has also been shaky as they are continuously being downgraded by rating agencies. If the confidence of domestic and foreign investors in the Japanese government were to collapse, a massive shift of funds from yen-denominated financial instruments to dollars or to real estate and other real assets would occur. This would lead to an extensive devaluation of the yen, an increase in prices and long-term interest rates, and would lead to a fiscal inflation that would be out of control. If confidence in Japan – the second largest economy in the world – were to plummet in the market, then major confusion in the world economy would be imminent. In order to avoid fiscal inflation, it is imperative that public finances be immediately rebuilt, but this cannot be achieved without monetary support.

2. Assessing the monetary policy of the 1990s

2.1 The effects of the deregulation of deposit interest rates, and high real interest rates due to deflation.

Why was the Japanese economy unable to undergo a full-fledged economic recovery in the 1990s? One reason lies in the monetary policy of the time. The lending rate of banks was slightly lower than the call rate in the late 1980s during the previous monetary easing. However, during the monetary easing phase after the 1990s, lending rates were not falling at the same rate as short term market rates, and remains quite a bit higher than the call rate (Figure 4). After the Official Discount Rate was lowered to 0.5% in the autumn of 1995, the call rate was about 0%, while the average contractual interest rate on bank loans was about 2% higher than this. Banks were trying to recover their increased funding costs that resulted from the deregulation of deposit rates, by marking up their lending rates. In other words, until the previous period of monetary easing, banks had been profiting from regulated deposit rates because it allowed them to fund at a low cost.

Figure 4 Nominal interest rates and changes in prices



Note) Change in GDP deflator = $(t+2)/(t-2) * 100$

Source) "Financial and Economic Statistics Monthly", Bank of Japan

For large manufacturers who can access the capital markets for their funding, the cost of funds would be equivalent to market interest rates. However, for the small and medium sized enterprises and large non-manufacturers who find it difficult to fund from the capital markets and are thus more dependent on bank loans, borrowing costs would be close to the lending rates posted by banks. The reduction in interest rates in the 1990s was the Bank of Japan's first monetary policy measure after the liberalization of deposit interest rates. If the Bank of Japan (BOJ) had continued their monetary policy based on the short-term market interest rates after the liberalization of deposit interest rates, then they may have underestimated the negative effects of the lending rates failing to fall at the same rate as short-term market interest rates.

Moreover, in a deflationary economy (where the rates of inflation are negative, as we have seen in Figure 4), real interest rates will, of course, be higher as the real interest rate is the nominal interest less the inflation rate. If there is no sign of recovery in corporate investment, we can surmise that real interest rates in the form of bank lending rates were not adequately eased, even under the zero interest rate policy of the BOJ. In other words, the real cost of funding for the corporate sector was not low enough. The BOJ, after the burst of the economic bubble in 1991, has maintained a policy of monetary easing. Unfortunately, the real stimulatory effects on the actual economy have not been as pronounced as one would expect by looking at just the nominal interest rates.

2.2 The non-easing effects of the monetary policy of the 1990s – an examination using MTI

In the first half of the 1990s, money was actually being tightened rather than eased. We examine the effects of monetary policy as follows using the MTI (Monetary Thrust Index), an indicator of

monetary policy.

MTI is defined as a weighted real interest rate of market interest rates and lending rates, less potential GDP growth (used as a proxy variable for the return on capital). For nominal interest rates, we used a weighted sum of uncollateralized overnight call rates and new average contractual interest rate on bank loans (overall). For expected inflation rates we used ex-post inflation rates (the GDP deflator), and for the expected return on investment we use potential GDP. From these results we see that although the BOJ has been gradually reducing interest rates since 1991, the inadvertent effect of this monetary policy has been to tighten money for all of the 1990s (Figure 5).

In particular, when the GDP deflator was falling in the end of the 1990s, although the BOJ maintained a zero interest rate policy, the effect was a tightening of money. As far as we can judge from the MTI, a monetary tightening had been in effect from the intentional monetary tightening of the late 1980s (shaded area in figure) for over ten years afterwards. We see this as having further stifled an economy that had burst from the economic bubble and led to the long-term stagnation of the economy.

Figure 5 MTI from 1981 to 2000



Note 1) $MTI = (\text{weighted sum of the uncollateralized call rate and new average contractual interest rate on bank loans}) - \text{change in GDP deflator} - \text{potential GDP growth}$

Note 2) The shaded area is the period that the official discount rate was being raised.

3. Corporate profits overvalued due to deflation and changes in accounting principles

We could have guessed that the monetary policy of the 1990s was one of tightening rather than easing by the deep decline we saw in corporate investment in the period and the damage inflicted on the balance sheets. The excess investment of the bubble period came back to haunt Japan in the form

of a collapse in land prices and bad debts of banks. A vicious circle was created when the banks burdened with bad debts recalled their loans from the corporations, whose businesses would then suffer, resulting in further bad debts for the banks. The corporate sector now does not have the capacity to make investments, as real interest rates have stabilized at high levels, and the deflationary environment has resulted in an increase in their real debt burdens.

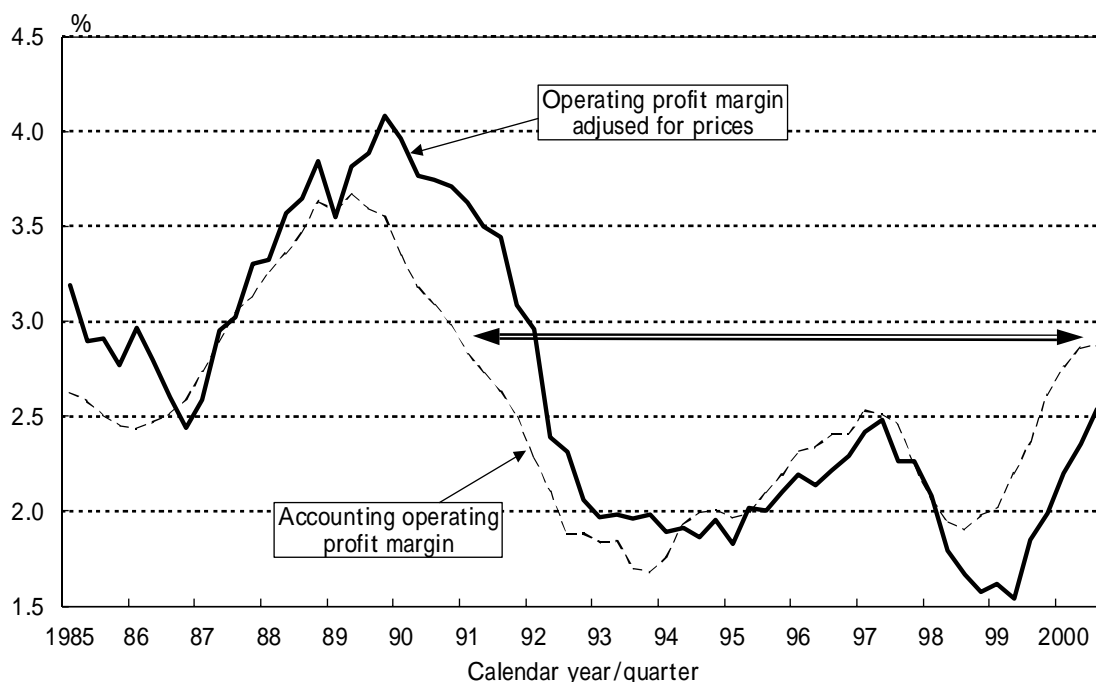
Corporate profits appeared to improve quite a bit in fiscal 1999. However, we now view this as an overvaluation in the books due to lower nominal interest rates and such revisions in the accounting regulations as the introduction of tax effect accounting and changes in enterprise tax rules. As a result, the profits we see on the financial statements of the corporations may have to be reassessed as being much lower than they appear at first glance.

In an inflationary environment, the real value of debts are falling and this translates into profits for the company, but not in a form recognized in financial statements. In the same way, in a deflationary environment, the real value of debts are increasing but this is not booked as losses in the financial statements. In the first half of the 1990s, the GDP deflator was growing at a rate of about 1.5% over the previous year. However, in the second half of the year 2000, it has fallen by 2% over the previous year.

In Figure 6, we contrast the ordinary profit as a share of sales (ordinary profit margin) of non-financial corporations (broken line) as reported in financial statements, against the estimated real ordinary profit margin from which we eliminated the effects of the changes in prices and in the enterprise tax system (solid line). These past few years, the real profit margins of corporations have actually been 0.5 percentage points lower than would appear in their books after we correct the data for the effects of deflation and changes in accounting principles. In the early 1990s, on the other hand, profit margins were actually 0.8 percentage points lower than the book values that include profits incurred from inflation.

Therefore, the current real operating profit margins are lower than they appear and thus, quite a bit lower than they were in the early 1990s. As long as general prices continue to fall and interest rates maintain their low levels, the real debt burdens of corporations will not be lightened. We anticipate that if the weaker companies are not weeded out of the market even under a shrinking market size, then economic reform will be even further delayed.

Figure 6 Operating profit margin, corrected for price changes



Note) Adjusted Operating Profit Margin = (Operating Profit + Profits and losses from purchasing power – enterprise tax amount) / Total Sales (After consumption tax deduction)

Source) “Business Outlook Survey”, Ministry of Finance “Financial Statements Statistics of Corporations by Industry”

From the fiscal year ending March 2001, shortfalls to contributions to retirement benefits will be logged on the balance sheet as a liability, and from the fiscal year ending March 2002, cross-holdings of shares will be booked at market value. The performance of pension assets in fiscal 2000 has been about the worst ever, and if this kind of investment environment continues, then the yield on these assets will actually be negative. Upon the introduction of retirement benefit accounting, the amortization costs of retirement benefit debts will increase, thus resulting in a delayed recovery of corporate performance.

With the market value assessment of cross-share holdings taking effect in fiscal 2001, major banks are now selling off their cross-share holdings. However, the sell-off of these shares leads to falling stock prices, and result in an aggravated bad debt problems for the banks. The unhealthy nature of the subordinated debts and the mutual cross-share holding relationships that exist between major banks and life insurance companies has also been highlighted, as there exists the risk that a recurrence of the bad loans problems in the banks will generate another crisis in the financial system.

Changes in prices and in accounting principles will distort actual corporate profits, and the company runs the risk of making mistakes in making investment decisions.

4.Banks must urgently increase their spreads

If the real burden of debt repayments swell in a deflationary environment, corporations are faced with an even greater risk of collapse than before. The existence of such a “reserve” of non-performing loans can hit the banks hard if the bad debt problem were to intensify.

The recovery of the health of the financial system is needed in order for the economy to have a sustained recovery. However, the current financial system is unable to stand on its own regardless of whether public funds are injected or not.

Looking at the profitability picture of the banks in Japan from their financial statements (Table 1), we see that the gross profit -- fund management and fee income less operating expenses -- ((D) in Tables 1) is lower than the amount of bad debt write-offs (E). As a result, operational profits/losses (F) (gross profit less write-offs) have been negative for seven consecutive years. This reveals that banks cannot cover the loss of default of its borrowers with their income flow (excluding the selling off of stocks and real estate).

Table 1 Profitability profile of all banks in Japan

(trillion Yen)											
Fiscal year	1989	90	91	92	93	94	95	96	97	98	99
Profits from Investment Activities	7.5	7.1	8.9	9.8	9.2	9.7	10.8	10.7	10.0	9.6	9.7
Other profits(B)	2.5	2.6	2.2	2.5	2.8	2.1	3.3	3.7	3.6	3.1	2.5
Operating expenses(C)	6.6	7.1	7.5	7.7	7.7	7.8	7.8	8.0	8.0	7.5	7.3
Of which human resource expense	3.5	3.7	3.9	4.0	4.0	4.0	4.0	4.0	4.0	3.6	3.5
Gross profit((D)=(A)+(B)-(C))	3.3	2.6	3.5	4.5	4.3	4.0	6.3	6.4	5.6	5.2	4.9
Write-Offs(E)	1.4	0.8	1.0	2.0	4.6	6.2	13.3	7.3	13.5	13.5	6.3
Operational Profits/Losses((F)=(D)-E)	-1.9	-1.8	2.5	2.5	-0.4	-2.2	-7.0	-1.0	-7.9	-8.3	-1.4
Gains and Losses from Asset Sales(G)	2.8	2.0	0.7	0.0	2.0	3.2	4.4	1.2	3.6	1.4	3.8
Final Profits and Losses((F)+(G))	4.7	3.8	3.3	2.5	1.7	1.0	-2.6	0.2	-4.2	-6.9	2.3
Total Assets at end of Period	943.6	927.6	914.4	859.5	849.8	845.0	848.2	856.0	848.0	759.7	737.2
As a share of total assets (%)											
	1989	90	91	92	93	94	95	96	97	98	99
Profits from Investment Activities	0.80	0.77	0.97	1.14	1.08	1.15	1.28	1.25	1.18	1.27	1.32
Other profits	0.26	0.28	0.24	0.29	0.33	0.25	0.39	0.43	0.42	0.40	0.33
Operating expenses(I)	0.70	0.77	0.82	0.90	0.91	0.92	0.92	0.94	0.94	0.99	0.99
Of which human resource expense	0.37	0.40	0.42	0.46	0.47	0.48	0.48	0.47	0.47	0.48	0.48
Gross profits	0.35	0.28	0.39	0.53	0.50	0.48	0.75	0.75	0.67	0.68	0.66
Write-Offs	0.15	0.09	0.11	0.24	0.55	0.74	1.57	0.86	1.59	1.77	0.85
Operational Profits/Losses	0.20	0.19	0.28	0.29	-0.04	-0.26	-0.83	-0.11	-0.93	-1.09	-0.19
Gains and Losses from Asset Sales	0.30	0.22	0.08	0.00	0.24	0.38	0.52	0.14	0.43	0.18	0.51
Final Profits and Losses	0.50	0.41	0.36	0.29	0.20	0.11	-0.31	0.02	-0.50	-0.91	0.32

Source) “Financial Statements of All Banks” Japanese Bankers Association,

In actuality, (1)the average spread the banks had been making on lending had been about 0.5 percentage points, but the average rating of the borrowers had been about BB, and this would lead to a statistical loss of over 1% per annum (2) the losses incurred from defaults on loans in the four years from 1996 to 1999 have been about 1.4 to 2.8% of total loans. Thus, the spread that the banks have been making are suspected to be negative. Unfortunately, injecting capital into a banking sector in such a state will not resolve the fundamental problem. Banks will not be stable until they can cover for the default risk of their borrowers with the spreads they are charging.

Regarding efforts to reduce expenses, an appropriate reduction in human resource costs is necessary. However, because (1) expense ratios are already low compared to banks of other major countries and (2) the responsiveness of the banking system is very slow – it is not realistic to expect

any large cuts in human resource expenses.

Banks must increase their lending interest rates and insure that they will get an interest revenue commensurate with the risk of default. In order to cover the average losses from non-performing loans, returns from fund management activities must increase an average of 4 trillion yen a year. However, to attain this, the lending rates must be increased by about 0.8 percentage points for an outstanding loan value of 500 trillion yen.

In order for the banks to secure the adequate spreads to cover their risks, the following must take place: (1) eliminate the condition imposed on banks receiving capital injections under the Bank Recapitalization Act that requires banks to increase lending to small and medium sized enterprises, (2) impose rigorous risk management practices on the banks, (3) extend loans of low rates by paying a 0.8% p.a. subsidy on the amount of loans extended, and correct the lending rates of government financial institutions (that compete with private banks).

Moreover, the system should be changed so that the subsidies paid to the governmental financial institutions are paid not to the financial institution but to the debtor in order to supplement the interest payment.

In order for the banks to charge larger spreads, government financial institutions must also raise their lending rates. If not, the government will have to continue to pour subsidies of several trillions of yen into the private banking sector. However, for the borrowing companies that are suffering from declining sales due to deflation, it will be impossible for financial institutions to raise their lending rates by a large margin.

5.Monetary policy options in a deflationary economy – quantitative easing and inflation targeting

Raising lending interest rates of the banking sector to regain their health (including the public financial institutions) or taking measures to rebuild public finances to avert fiscal collapse will undoubtedly worsen the current recession. For a government confronted with an economy in deflation, it is near impossible to implement such measures.

The only remaining alternative for Japan to shake itself free of this deflationary economy is to impose a radical monetary policy. With nominal interest rates exceedingly close to zero, the only action left for the BOJ is to target inflation of about 1.5% (for core consumer prices).

In order to achieve this, the BOJ will have to buy large amounts of medium to long-term national government bonds and foreign bonds and to increase the base money, thus implementing a quantitative easing of money.

When expectations of inflation are on the rise, and interest rates are also increasing, the corporate and financial sectors will be made to suffer. However, there is no painless way to cure the economy in its current state. In order not to “lose” the next ten years, Japan needs a monetary policy that will sweep away any concerns about deflation. If the BOJ implements both a quantitative easing and inflation targeting, then the expected rate of interest will rise, accompanied by a rise in nominal

interest rates, and long term rates will not fall by much. However, it is possible to lower real short-term interest rates through BOJ market guidance to lower levels than they are now.

In this case, weaker corporations that have real excess debt and have survived only thanks to the zero interest rate policy will see their cash flow aggravated, and may have to be liquidated or file for bankruptcy. On the other hand, for a healthy company, real funding costs will fall, and asset prices would also be expected to stabilize. These companies (whose fundamentals will have improved) should be able to pursue a more aggressive management style. This will be an exercise where the winners and losers will be made clear and structural changes in the economy will be more strongly encouraged.

A rise in interest rates will have grave effects on not just corporations, but also on the banking sector. With demand for corporate lending stagnant, banks are taking their funds and putting them into national government bonds. A hike in market interest rates would, in the long-term, increase profits from liquid deposits, and would allow lending rates to be raised commensurate to the risk of default. However, for banks who are holding a large quantity of national government bonds, the short-term effect of a hike in interest rates would be a double blow for banks – first, it would result in a decline in bond prices and second, spreads would temporarily shrink due to the mismatch between the tenors of the lending instrument and the funding of that lending.

For life insurers, higher interest rates will immediately resolve their negative yield problem. However, because their liability reserve (a liability) is not assessed at market value, it will look on the surface as though their bond holdings have devalued. Furthermore, a collapse in the banking sector as mentioned above would lead to losses incurred from their bank share holdings or their subordinated debts of banks. There is a risk that life insurers collapse as well.

As for the fiscal investment and lending program, a sudden rise in interest rates could create large losses here as well. For postal savings in particular, a shift in deposits could immediately increase funding costs. At the same time, most investments are of long terms, and we anticipate large losses to be incurred.

Quantitative easing will undoubtedly be accompanied by considerable side-effects. However, this is an unfortunate consequence of the policy mistakes that have led us into this current deflation. For the “lost” 10 years not be extended into a lost 20 years, it is imperative that we have the political leadership to fully manage the crisis, and it is absolutely necessary that we implement some drastic monetary policy.