

Three downside risks in the economy

Summary

The economic recovery of the Japanese is facing three inherent risks. The first is that the government's prospects for eliminating deflation are too optimistic. The second is, although the government may have no choice but to intervene in the market to ensure a lower yen, there is an increasing risk that there will be resistance from overseas, and a great risk that they will be subject to massive exchange rate losses. Third, if the US continues to have "twin deficits", this will result in higher US long-term interest rates, and this increases the risk that the recovery in the US economy (that is currently supporting the Japanese economy) will be compromised.

After the burst of the economic bubble, the Japanese economy has gone through two phases of economic recovery -- first in 1997 and second in the year 2000. However, neither of these recoveries were robust enough to lead to a full-fledged economic expansion, and deflation has gradually become worse. This current economic recovery that was triggered by the stock cycle in 2002, is gaining attention to see if the third time is indeed "lucky", and if it will lead to a comprehensive economic recovery. In the early stages of the recovery, mainly large-scale manufacturers dependent on exports were the ones experiencing business recovery. However, we are now seeing more favorable economic indicators for capital investment and employment, and it would appear as though the recovery is spreading.

Despite this development, if we look at the Gross Domestic Product (GDP) deflator as an indicator of prices in the Japanese economy as a whole, deflation has not improved. There are also concerns about the yen appreciating under a current account surplus, and also the sustainability of the US economy that is currently maintaining "twin" budget and current account deficits.

In the current report of the Financial Markets Research Group of the Japan Center for Economic Research (JCER), "An Economic Analysis of Deflation, the Appreciating Yen, and Long-term Interest Rates", we analyzed the downward factors to the sustainability of the recovery of the Japanese economy. That is, we looked at the three variables -- deflation, an appreciating yen and the US interest rates -- as possible downward risks to the economic recovery and conducted a positive analysis.

Elimination of deflation in fiscal 2005 too optimistic

In the October-December quarter of 2003, growth of real GDP was an annualized 6.4% over the previous quarter, thanks to the growth in exports and in

capital investment. However, the GDP deflator in this quarter was an annualized minus 4.4% over the previous quarter, and over the same period in the previous year it was minus 2.7%, and so as far as the deflator is concerned, deflation is accelerating.

The Bank of Japan and some private sector economists have pointed out that the rate of deflation based on the GDP deflator is over-estimated. The rapid decline in prices of IT-related goods is driving up the real growth rates of capital investment. This means that the GDP deflator is weighted by recent real expenditure, the effects of the lower prices of investment goods would be overstated, and the GDP growth rates would be estimated at too high a rate as well.

The private plant and equipment investment deflator fell between 5 and 6 percent in 2003 over the previous year, and is declining by about 3 percentage points more than the deflators of the other components, that have fallen between 2 and 3%. However, even if the deflator was over-estimated by 3 percentage points, the share of nominal private fixed investment to nominal GDP is only 15% and would only affect the GDP deflator by less than 0.5 percentage points. Moreover, as many of the data (indicators) used to estimate the GDP deflator do not fully reflect quality improvements, the deflator is underestimated as a result. Thus for these reasons, we will use the current GDP deflators to analyze deflation in Japan.

We know that inflation and deflation are closely related to the capacity utilization of the economy as a whole. If the rate of utilization is too low, then there is downward pressure on prices and first the rate of inflation decreases and if this continues, then deflation occurs. On the other hand, if the capacity utilization rate is too high, inflation accelerates. When the economy is at a normal rate of utilization whereby neither inflation nor deflation occurs, the rate of GDP growth is called potential GDP, and the difference between the actual GDP growth rate and this potential GDP is called the GDP Gap. When the actual GDP grows at a slower rate than the potential GDP, then we call this a deflationary gap.

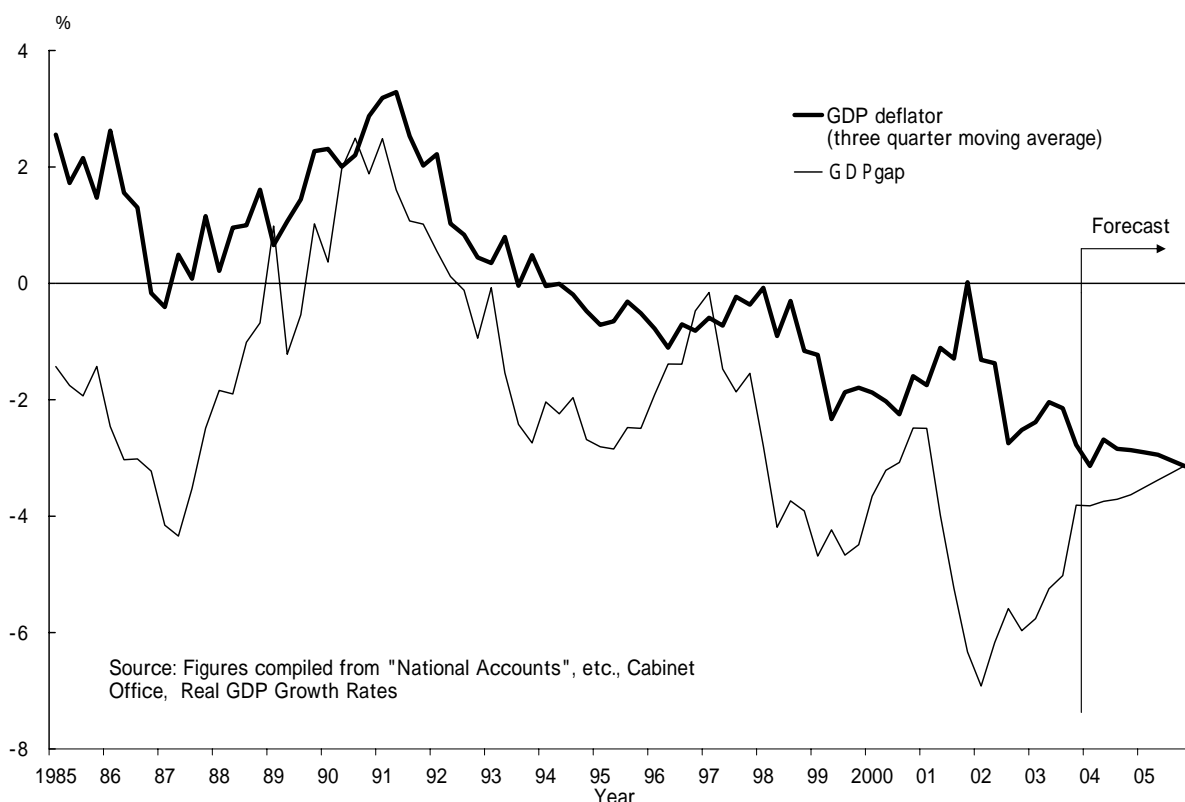
We analyzed the relationship between the GDP Gap and deflation using data for capacity utilization of capital equipment, total hours worked and the rate of inflation of the GDP deflator. With these results, we forecast deflation as shown in Figure 1. The deflationary gap was at its peak in the beginning of 2002 at 6.9%, but since then and with the recovery of the economy, it has shrunk to 3.8% at the end of last year.

However, as we can see from the figure, the deflationary gap may be shrinking, but deflation is on an accelerating trend. We use the real GDP growth rates as forecast by the Organization of Economic Cooperation and Development (OECD) and find that although the GDP gap will close somewhat through 2005, deflation will accelerate slightly. In the October-December quarter of 2005, the rate

of deflation will be an annualized minus 3.14% over the previous quarter, accelerating by 0.37 percentage points in two years.

These results should be interpreted only loosely as none of the industrialized countries including Japan has had experience with deflation after the Second World War. However, we do believe that the government's medium term outlook where their goal is to eliminate deflation in fiscal 2005 is a bit too optimistic.

Figure 1. GDP Gap and forecast of deflation



Large risk looms in rapid increase in foreign exchange reserves.

In the beginning of 2003, the yen was trading at about 120 yen to the dollar, and by the end of the year the yen had appreciated to 107 yen. In this time, there was over 20 trillion yen of dollar buying, yen selling intervention. The government intervention into the foreign exchange market was much greater than the current account surplus of the same year that was at 15.8 trillion yen. Furthermore, in the two first months of 2004, another 10 trillion yen went into the market to prop up the yen.

In the supplementary budget for fiscal 2003, 100 trillion yen was earmarked for funding for intervention, an increased amount over the previous year. In fiscal 2004, there is expected to be another increase to 140 trillion yen. The government's strong stance to guide the market to a lower yen is apparent in their quiet market interventions.

Figure 2 shows the foreign exchange reserves of Japan and the exchange rate after Japan shifted to a floating exchange rate in 1973. By adjusting the yen/dollar exchange rate by the relative Japan and US price index, we find the real rate of exchange, corrected for the effects of the yen appreciation due to the improved international competitiveness that resulted from the inflation rate differential. We find the long-term trend in the foreign exchange reserves using the real foreign exchange reserves adjusted for the lower purchasing power of the US dollar and the increase in Japan's GDP.

In the graph we see the increase in the foreign exchange reserves and the yen's appreciation are positive figures. We observe from the movements in these indicators that in the years between 1975 and 1995, the real foreign exchange reserves and the real exchange rate were very closely correlated. That is, in times when the yen was rising, foreign exchange reserves also rose from dollar buying intervention, and in times of yen depreciation, foreign exchange reserves fell. However, since 1998, this relationship has weakened, and the foreign exchange reserves are increasing unilaterally.

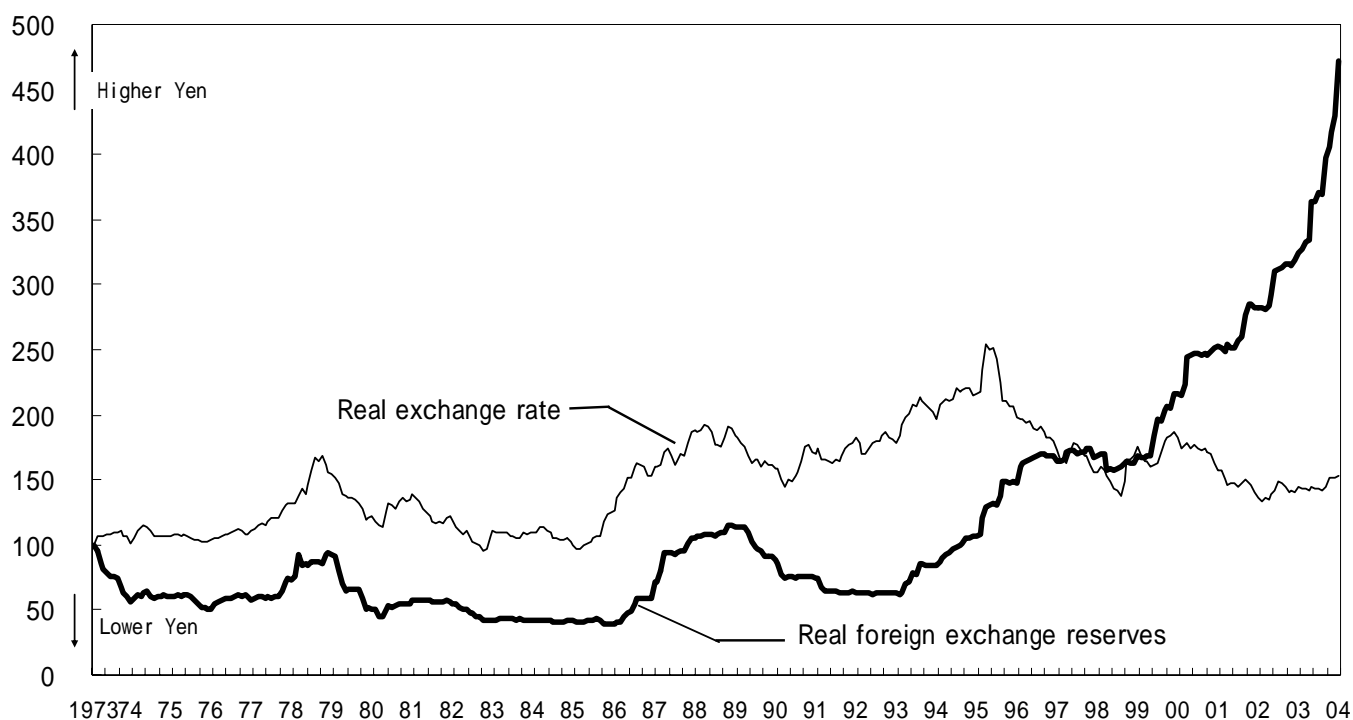
The foreign exchange reserves that have ballooned through massive dollar buying operations are being invested in US Treasury instruments and foreign currency deposits. As a result, the foreign exchange special funds account (that controls the foreign exchange reserves) is undertaking a huge foreign exchange risk. From 1970 to the end of 2003, the special funds account incurred an accumulated foreign exchange loss of 7.4 trillion yen. However, the investment return on the reserves was greater than the opportunity cost of funding yen by 3.7 trillion yen, and the increase in the value of the Euro and the higher price of US bonds, resulted in a 6.6 trillion yen accumulated gain, and so there was a net profit of 2.9 trillion yen.

If the yen continues to appreciate, deflation will be even more difficult to eliminate as profits of export-related sectors will deteriorate and the export and import prices will decline. The hands of the government are tied as far as fiscal and monetary policies go, and so there is no choice but to conduct these massive interventions. However, as at the end of February, the government held 780 billion dollars in foreign exchange reserves. Thus, if the yen appreciates by 10 yen, this will result in a latent loss of 7.8 trillion yen. Although this loss will not be realized until the dollars are sold, latent losses will of course deteriorate the credibility of the government.

Moreover, we should not forget that the current policy to guide the yen lower is one that assumes the tacit approval of the US government. If the US government decides that it is politically difficult to allow the yen to be kept at a low level, then intervention will become problematic, and a much higher yen should ensue.

Figure 2. Real foreign exchange reserves and real exchange rates (indices) (Feb. 1973 to January 2004)

Real exchange rate



Notes:

1. Monthly data. Index with value for February 1973 = 100
2. Real foreign exchange reserves: Foreign exchange reserves (in USD) x (Japan's prices/US prices)/Japan's nominal GDP
 Real exchange rate: nominal exchange rate x (US prices/Japan's prices)
 Nominal exchange rate: Interbank spot rate, monthly averages (1 USD= yen)
 Prices: GDP deflator

Sources: "Annual Report on National Accounts" Ministry of Public Management, Home Affairs, Posts and Telecommunications
 "Balance of Payments Monthly", Bank of Japan
 "International Financial Statistics", IMF

Strong upward pressure on long-term US interest rates

The current recovery in the Japanese economy is supported by external demand from the US and China. Although the US has maintained low interest rates through their economic recovery, there is concern that the fiscal and current account deficits (the “twin” deficits) will work to raise market rates.

We take the data from the G7 countries from the 1980s and analyze the determinants behind their long-term interest rates. The results are shown in the Table. For all the major countries, the main factors determining the interest rate on the 10-year bonds are almost the same – the inflation rate, real short-term interest rates, the accumulated current account as a share of GDP, and the government debt as a share of GDP.

Table 1. Determinants of US long-term interest rates

Determinant	Effect on long-term interest rate
Real short-term interest rate	With every 1 percentage point increase, long-term interest rates go up by 0.6 points.
Rate of inflation	With every 1 percentage point increase, long-term interest rates to up by 1 point.
Budget Deficit	With every 10 percentage point increase of the General Government debt as a share of GDP, long-term interest rates to up by 0.14 points
Balance of Payments	With every 10 percentage point increase in the accumulated current account deficit as a share of GDP, long-term interest rates go up 0.22 points.

The budget and current account deficits of the US are at a size of about 5% of their GDP, and this results in a 0.36 percentage point increase in long-term interest rates in two years. Moreover, the real short-term interest rates are currently marking a small negative rate, but if these rise to their normal historical rate of about 2%, then this will raise interest rates by 1.2 percentage points. The current US long-term interest rate is about 1 percentage point lower than the theoretical rate estimated through this exercise, but we believe this is due to the US dollar bond buying operations of the monetary authorities in Japan and China. If China and Japan reduce their dollar buying operations, then it is likely that this will put upward pressure on US interest rates. Thus, as a result of all these factors, there is a good chance that US long-term interest rates will rise about 2 percentage points, and will work against the US economic recovery.

As we have seen in the above analysis, we would be hard-pressed to say that the Japanese economy has freed itself of deflation. The current economic recovery

is in a precarious position, dependent on the government's policy to keep the yen at a low level, and the continued expansions of the overseas economies. We find ourselves in a position where we cannot say with confidence that this third time will in fact be "lucky".