
Japan's Monetary Policy Over the Past 10 Years*

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I. Contrast in Macroeconomic Performance before and after 1975

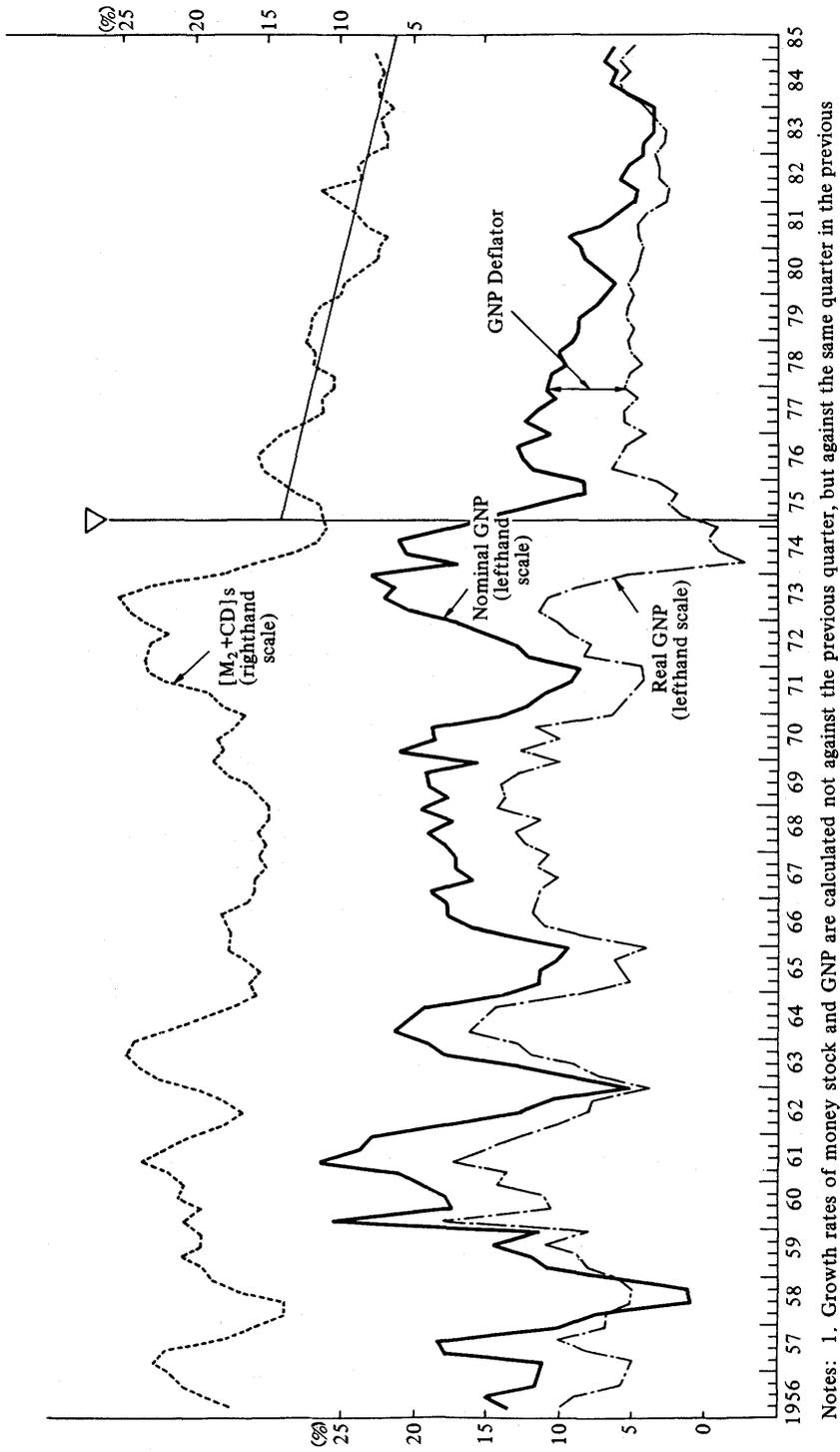
Japan's monetary policy over the past ten years and the resultant macroeconomic performance can best be understood by referring to a few statistical indicators on Figure 1. This figure shows the rates of change in money stock, nominal GNP and real GNP over the same quarter in the previous year since 1956. I have selected [M_2 +CD]s as the measure for money stock since the Bank of Japan has paid closest attention to this indicator as an intermediate objective since 1975. The following points are worth noting from this figure.

First, during the 1956-73 period, which I'll refer to as the era of rapid economic growth, the rate of increase in money stock showed a wide range of fluctuation. Under the pegged exchange rate system, it declined to around 15% during periods when tight monetary policies were pursued to cope with a balance of payments crisis. It rose to around 25% during periods of monetary relaxation when the payments problems subsided. With a time lag of few quarters, the same pattern of fluctuations in the growth rate of nominal GNP was observed suggesting a causality from money stock to nominal expenditure. Further, these fluctuations in the growth rate of nominal GNP were also accompanied by fluctuations in the growth rate of real GNP and the inflation rate in terms of the GNP deflator. In this figure, the inflation rate in terms of the GNP deflator is represented by the difference between the growth rate

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Figure 1 Money Stock and GNP (Nominal and Real) in Japan



Notes: 1. Growth rates of money stock and GNP are calculated not against the previous quarter, but against the same quarter in the previous year.
 2. "M₂+CDs" data (before 1979/I, "M₂" data) are an average of end-of-month observations. For example, the first quarter is an average of the data at the end of January, February and March.

of nominal GNP and the growth rate of real GNP. In this period, then, the discretionary changes in monetary policy which created wide swings of the monetary growth rate, permitted rapid economic growth averaging 10% a year at a cost of 6% average inflation, but resulted in instability in terms of both real growth rates and inflation rates.

Let us now turn to see the macroeconomic performance of the Japanese economy since 1975 when the immediate impact of the first oil crisis was over. On average, the real growth rate of the Japanese economy during this period has dropped to one half of its pre-oil-crisis level, from 10% to 5%.¹ Since 1975, when the Bank of Japan began to watch the money supply as an intermediate target, fluctuations in the growth rate of money stock have become small. They have remained in a range of $\pm 2.5\%$ deviation from the trend line as you can see in the chart. At the same time, the trend rate of monetary growth itself has been declining gradually, dropping from 15% to 7-8% recently. Consequently, the rate of growth of nominal GNP has also declined in the same way. It is interesting to note, however, that the decline in the growth rate of nominal GNP manifested itself as a decline in the inflation rate as measured by the GNP deflator alone, without affecting the growth rate of real GNP. The economic growth rate in real terms has remained 5% throughout this period, except for a temporary decline around 1982. That brief decline was due to an external demand shock caused by the concerted disinflationary policy of the major industrialized countries responding to the double digit inflation following the second oil crisis.

In short, the primary lesson of this figure is that discretionary monetary policy involving radical changes in the monetary growth rate can be destabilizing as it has strong effects on both the inflation rate and the real growth rate. At the same time, it shows that low inflation and macroeconomic stability can be achieved through stabilizing the rate of monetary growth and reducing it gradually over time.

II. Flexible Real Wages

How can we interpret this experience? My argument is that the Japanese economy behaves quite like the Classical model of a labor market implies, and that implementation of monetary policy for the past ten years has been such that expectations of inflation held by the participants of the labor market have not deviated by a

1. This decline in the real growth rate after 1975 can partly be explained by slower growth in the physical and human capital stocks. However, it should be primarily attributable to rise in the capital coefficient as a result of the substitution of energy- and raw material-saving new capital for resource-using old capital since the first and second oil crises.

great deal or for a long time from the actual inflation path. Therefore, the economy has been gradually moving down along the long-run Phillips curve, implying stable real growth and a decreasing inflation rate.²

Let me elaborate further. The critical point by which the Classical world and the Keynesian world differ is that in the Keynesian system, nominal wages are sticky, while in the Classical world, real wages are flexible.

The Keynesian assumption that nominal wages are stickily stresses such institutional factors as long-term wage contracts or a high cost of wage adjustments. I would argue that Japan is far from this assumption and is closer to the Classical world than the Keynesian world.³

First, it is usual practice for base wages to be revised every year. Wage contracts of two or more years are not common. Moreover, in Japan, bonuses and overtime pay account for one fourth to one third of annual income, and this element is even more flexible than base wages. It is traditional for the bonus amounts to reflect the firm's short-time profit performance, and hence, they fluctuate twice a year very flexibly. Overtime pay reflects the prosperity of the business activity through extra working hours, and this too is of course flexible. Therefore, the cost of wage adjustment during the course of a year is not high.

Wage determination in the spring labor offensive has been shown by many empirical tests to be sensitive not only to past and expected consumer price increases but also sensitive to labor market conditions and corporate profits.

The flexibility of real wages makes it realistic to assume that the firm is almost in continuous equilibrium. Another reason for this continuous maintenance of equilibrium for Japanese corporations can be found in the high rate of growth of labor productivity. Equilibration of real wage with the marginal product of labor is of course consistent with corporate profit maximization. For Japan, not only is the real wage flexible, but the marginal product of labor on the other side of the equation is rising at speeds faster than in other industrialized nations. These factors also help the firm stay on its labor demand curve easily. As a matter of fact, corporate profits have been relatively stable since 1978. These facts show that the Classical world, in which flexible real wages equilibrate labor supply and demand, is closer to Japanese reality.

2. This interpretation of Japan's macroeconomic performance is consistent with that of Michael Parkin in his paper, "Is the Business Cycle a Keynesian or a Classical Phenomenon?", which used the Japanese data and was presented to the Konstanz Seminar on Monetary Theory and Monetary Policy, June 1985.
3. For the view that the real wage in Japan is flexible enough to ensure the labor market equilibrium, see Hashimoto, Masanori, "Bonus Payments, On-the-Job Training, and Lifetime Employment in Japan", *Journal of Political Economy* 87, 1979.

III. Features of Monetary Targeting

Now let me discuss another aspect of the interpretation of Figure 1, that is, Japan's implementation of monetary policy for the past decade, which has squared expected rates of inflation with actual rates.

There are three principal features of monetary targeting as practiced by the Bank of Japan since 1975.⁴ First, broad money [M_2+CD]s is chosen as the most important intermediate target. Second, the period of targeting is not a week, a month or a quarter but a year. Third, the target is not announced, but the forecast is announced quarterly in terms of the percentage increase over the previous year in the average money stock of the quarter concerned.

In Japan, the correlation of current quarter nominal expenditure with M_1 was higher than that with [M_2+CD]s. But an even higher correlation of current nominal expenditure is seen with 4-6 quarter lagged [M_2+CD]s. For a central bank the important thing to control is the monetary indicator with the closest relationship to potential income and expenditure in future periods. In the case of M_1 , the contemporaneous relationship runs causally from nominal expenditure to M_1 , implying the control of M_1 does not give the central bank control over current income. Since M_2 has stronger correlations with future income than M_1 , we choose [M_2+CD]s rather than M_1 as an intermediate target.

Current [M_2+CD]s influences nominal expenditure over the next eight quarters. In other words, the money supply in any given quarter has only a small influence over future nominal income in any given quarter. From the viewpoint of stabilizing income and expenditure, and hence prices, it is rather meaningless to attempt to control money supply strictly over the period of a single month or a quarter. It is important to stabilize the average growth over a one- or two-year period at an appropriate target level. In both Japan and the U.S., the fluctuations of narrow money seasonally adjusted versus the previous period are the largest, while fluctuations of broad money over the same period of the previous year are the smallest. Hence, in the U.S., attention is drawn to the most volatile indicator, while in Japan it is drawn to the most stable one.

In the Japanese case, the figure announced to the public is a "forecast". But the forecast includes consideration of the behavior of the Bank of Japan, so that there is implicit Bank of Japan approval for the forecast level of money growth. To that extent, it may be construed as useful policy information to the public. The important

4. For the details of monetary targeting practiced by the Bank of Japan, see Shimamoto, Reiichi, "Monetary Control in Japan", *Central Bank Views on Monetary Targeting*, Federal Reserve Bank of New York, 1982 and Suzuki, Yoshio, "Money, Finance and Macroeconomics in Contemporary Japan", Yale University, forthcoming.

point is the successive achievement of lower inflation through money supply control, and the acquisition of public credibility in the Bank of Japan's will and ability to control money. The setting and the announcement of actual targets are not necessarily essential for this. Indeed, announcement of targets might be subject to political pressures and even prove harmful by shackling monetary policy when it is related to the official economic forecast of the government and causing disruption when the government changes its economic forecast. In Japan, announcement of "forecasts" is sufficient to provide the public with information about policy.

IV. Controllability of Money

Now let me explain the three principal transmission mechanisms of money stock control in Japan.⁵

The first one concerns the effects of inter-bank rates on bank lendings, as supplemented by "Window Guidance". Variations in the inter-bank interest rates, which the Bank of Japan controls through its daily operations of bills and its lending attitude at the discount window, has an impact on the lending behavior of deposit banks. The loan rates of deposit banks are less flexible than inter-bank rates because prime lending rates are linked to the official discount rate, and the cost of funds such as deposit yield are still regulated except for CDs and MMCs. Consequently, as the interest rates in inter-bank markets rise, banks cut loans to customers, and instead start to lend or to repay debts in the inter-bank markets. The Bank of Japan absorbs the resultant excess supply of funds in the markets through sales of bills. The reverse happens when inter-bank rates decline.

The Bank of Japan exercised "window guidance" to encourage this portfolio adjustment of banks. This amounts to moral suasion limiting the increase in the total loan volume of individual banks. There are two main reasons why private banks comply with window guidance. First, as the inter-bank rates rise, it becomes more profitable to follow window guidance and to cut lending. Second, since all banks cut lending at the same time, it is unlikely that a sharp reduction in bank lending, initiated by window guidance, would harm long-term customer relationships. Window guidance which was unaccompanied by a rise in inter-bank rates or which did not cover a wide range of banks was not effective.

5. For a detailed description of transmission mechanism and its changes, see Suzuki, Yoshio, "Interest Rate Decontrol, Financial Innovation, and Effectiveness of Monetary Policy", *Monetary and Economic Studies*, Vol.1 No.1, Bank of Japan, 1983. Also see Suzuki, Yoshio, "Monetary Policy in Japan: Transmission Mechanism and Effectiveness", *Monetary and Economic Studies*, Vol.2 No.2, Bank of Japan, 1984.

The second and third channels of policy transmission depend on the development of open markets in the last ten years for government bonds and CDs and for repurchase agreements. Interest rates in those markets have become more responsive to changes in the interest rates in inter-bank markets brought about by the Bank of Japan's daily operations.

One result has been financial dis-intermediation. The yields on fund raising instruments of financial intermediaries, such as deposits, do not change as flexibly as open market interest rates because they are regulated, except for MMCs and CDs. Thus, when rates rise, funds flow from financial intermediaries to open markets.

Another result has been the increased effect of interest rates on private expenditure. Both the business and personal sectors have come to make extensive use of open markets, so that interest rates in these markets are the opportunity cost of spending when using internal funds. Thus, rising interest rates in open markets tend to depress private spending by raising the opportunity cost.

Among these three channels, the first and second ones depend upon the rigidity of interest rates on lendings and deposits respectively. Therefore, the transmission of money stock control through these two channels will decline in the near future since the deregulation of interest rates is now proceeding. We shall have to rely much more on the third channel, the effects of interest rates on private spending, which will get stronger as deregulation makes all kinds of yields more flexible. So long as private expenditure is interest elastic, it is unlikely that this change in transmission channels will undermine the effectiveness of monetary policy.

V. Monetary Conditions for Economic Stability

In retrospect, the contributions of monetary policy over the past ten years to stability of macroeconomic performance can be summarized as follows.

The Bank of Japan has drawn people's attention to the long-term growth rate of broad money which is one of the most stable figures with respect to monetary growth not only in Japan but also in many other countries. And the Bank has succeeded in stabilizing that figure through the three transmission channels to the extent you see in the figure. The bank has always insisted that, so long as annual monetary growth remains stable at an appropriate level to the extent you see in the figure, home-made inflation will never occur even though oil price increases may cause once and for all rises in energy and related goods prices. This has actually been the case since the second oil crisis, as you can see in the figure. In 1980, immediately after the second oil crisis, the rise in inflation rates in terms of the GNP deflator was

limited to less than 5%, and the rate of price rises started declining as early as 1981.⁶ People have thus become confident of the Bank of Japan's will and ability to prevent home-made inflation and to keep price stability. Thanks to this, today's inflationary expectations are quite low and stable and do not deviate much from the actual inflation rate.

The Bank of Japan has also insisted that, so far as prices are stable, the economy will recover to the stable growth path without the stimulus of fiscal expansion or further monetary relaxation. Again, this was realized in 1984 as you can also see in the figure. Under the constant monetary growth of 7-8% since 1983 and the constant increase in government expenditure of 1-2% in real terms since 1982, the real economic growth rate recovered to 5-6% in 1984 led by the domestic private expenditure and the current account surplus.

VI. Policy Mix Convergence

An observer might argue that private demand, particularly business investment, could expand further so as to absorb the excess domestic savings as well as the external current account surplus, and that this would result in a long-run growth path higher than 5-6%. One must note, however, that in order to achieve this result, monetary growth must increase sufficiently to lower interest rates and encourage business investment. This would imply a widening of the interest rate differential between Japan and the U.S., if the U.S. expansionary fiscal policy and investment-favoring tax treatment are not changed. Thus, it would be accompanied by a further appreciation of the dollar vis-à-vis the yen. The final consequence will not necessarily be a decrease in the current account surplus. Therefore, monetary relaxation alone can not be a solution for international disequilibrium between Japan and the U.S. A policy mix change towards relatively tighter monetary policy together with an easier fiscal stance could be a solution for the international imbalance. Decrease in monetary growth or the constant monetary growth, accompanied by the expanding public sector deficit, will raise interest rates and lead to yen appreciation with a result of decline in the current account surplus, which will be also caused by the fact that the easier fiscal policy will absorb excess domestic savings at the same time.

From the international point of view, however, this solution implies that the world economy will enter an era of higher interest rates since the lower interest rates in Japan will converge to the higher levels in the U.S. Developing countries with

6. For the details of difference with respect to monetary growth and resultant performance of Japanese economy between the periods immediately after the first and the second oil crisis, see Suzuki, Yoshio, "Why is the Performance of the Japanese Economy So Much Better?", *The Journal of Japanese Studies*, 1981.

growing debt problems and some European countries with high unemployment will suffer from such world-wide high rates of interest. Japan itself will also fail to achieve the higher growth path or even to keep the present path in the long run.

The better solution from an international perspective will be a policy mix change, not in Japan, but in the U.S. towards relatively easier monetary and tighter fiscal policy.

If the U.S. government succeeds in cutting expenditure and thus the fiscal deficit, interest rates will decline, the dollar will depreciate, and the current account deficit will contract. This would be further strengthened by abolishing the tax-based investment incentives. From the international point of view, these policy changes will allow Japan and the European countries to decrease their interest rates, to stimulate their private investments and to realize higher economic growth. The world-wide lower rates of interest will also relieve the external debt problem facing some developing countries. In this case, it will not be impossible for the Japanese economy to shift up its stable growth path to a level higher than the current 5-6%, with a bit higher monetary growth.

VII. Conclusion

To sum up, the policy attitude of the Bank of Japan over the past ten years, which I have discussed this evening, is in my interpretation neither that of post-Keynesian "discretionary fine tuning" nor that of a "x% rule". It is discretionary in that it allows for gradual tuning of monetary growth, and it conforms to a rule in the sense that it stabilizes monetary growth as much as possible and gives information to the public about policy in the form of forecast announcements. An appropriate term may be "eclectic gradualism".