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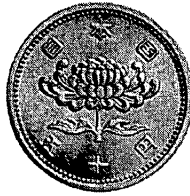
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## 1. Policy Instruments

### MONETARY POLICY

Monetary policy is conducted primarily by the Bank of Japan in cooperation with, or subject to the approval of, the Ministry of Finance. Commercial banking institutions in Japan are of various types; some private, others established and run by the government; some of a general nature, others fulfilling specialized functions. The most important category of banks is that known as "All Banks," consisting of "City Banks," "Trust Banks" and "Long-Term Credit Banks"; in terms of the amount of loans or the size of deposits, these constitute over 80 per cent of the commercial banking system. Other categories of bank-type financial institutions are usually restricted in nature to rather narrow purposes. They include such institutions as agricultural or industrial cooperatives, credit associations, or investment corporations. Monetary policy is concerned, by and large, although not exclusively, with the category of "All Banks"—where, in turn, it affects primarily the large (and heavily concentrated) "City Banks." The following are the actual or potential instruments at the disposal of the Bank of Japan.

*The Discount Rate.* This is the major instrument used in the conduct of monetary policy in Japan. The rate, or rates, apply to bills discounted at the Bank of Japan and to advances against collateral from the Bank to commercial banks (there are usually no overdrafts on the Bank). These loans and discounts have been very important in Japan not only as a means of bridging temporary gaps in banks' reserves, as is customary elsewhere, but also as a major long-term (in effect) source of liquidity for the banking system. Since, as will be mentioned later, the government's budget has been approximately balanced for reasonably long periods of time and open-market operations are of

minor importance, borrowing from the central bank is the only major source of additional banking liquidity beside the accumulation of foreign exchange reserves.

During most of the period under survey, the Bank of Japan applied a system of multiple discount rates. This was known as the "higher-interest-rate system." Each bank was allocated a quota of loans from the Bank of Japan, for which a low "basic" discount rate was in force. Above this quota a higher rate—the "first penalty rate"—came into effect. Sometimes a second margin of Bank of Japan lending was established, beyond which a still higher rate—the "second penalty rate"—was applied. Until August 1955, the basic discount rate was of practically no significance for monetary policy: loans to all the banks considerably exceeded their rationed quotas so that the first penalty rates, and very often the second, were the relevant rates for decisions at the margin. In August 1955, the basic rate was increased considerably and quotas were changed. From that date on, the basic rate became indeed the usually meaningful figure. Higher penalty rates were still applied even at later dates, but sparingly and in exceptional cases. In 1962, the system of "higher interest rates" was abolished altogether.

In addition to influencing the amount of banks' borrowing through changes in the discount rate, the Bank of Japan sometimes determines actual ceilings of the amounts lent to each individual bank. This is done in connection with rationing the credit granted by commercial banks to their customers, a practice which will be mentioned shortly.

*Reserve Requirements.* The minimum-reserve requirement instrument has been used only for the last few years and is still of minor significance. Traditionally, commercial banks in Japan have held practically no reserves beyond the cash used in day-to-day operations and small deposits at the Bank of Japan required for interbank clearing. In 1957, a law was passed which enabled the Bank of Japan to require the banks to hold reserves, in the form of deposits at the Bank of Japan, at a ratio not exceeding 10 per cent of the banks' deposits. In fact, reserve requirements were laid down for the first time in September 1959; the reserve ratios varied then according to the type of bank and the type of deposit, but they were all very low—around 1 per cent of bank deposits. Minimum-reserve ratios were raised slightly in October 1961 and again in December 1963; on the latter date, they reached .5 per cent of time deposits and 3 per cent of sight deposits. Apparently, these increases, besides being slight, were not considered as monetary measures intended to affect current monetary

developments. As a rule, reserve requirements have thus not played any significant role; although toward the end of 1965, a reduction of legal reserve ratios (to virtually zero) was undertaken apparently as a means of encouraging monetary expansion.

*Open-Market Operations.* The instrument of open-market operations, as this term is normally understood, was not employed in Japan until recent years. This has been attributed to a number of factors, chief of which were the lack of a substantial organized capital market and a low pegging of rates on government securities. Occasionally, the Bank of Japan conducted a transaction in securities with a commercial bank, but this was usually a bilateral, ad hoc transaction—with a specific bank, in a specific security, and for a specified period. It was usually motivated by the desire to bail the bank concerned out of a particular difficulty or, conversely, to provide it with an outlet for a particularly large accumulation of reserves. It was not used as an instrument of over-all monetary policy.

Toward the end of the period (since 1963), open-market operations became more significant in size and probably a more integral part of over-all monetary policy; they are still, however, conducted in a bilateral manner rather than strictly in the open market.

*Direct Credit Control.* The Bank of Japan has maintained, with varying degrees of severity, a direct control on the amount of credit granted by each individual bank. In general, this has been an important instrument—in fact, the only significant tool of monetary policy aside from discount rate manipulations. Naturally, the use of this control is limited to periods when the banks wish to expand their loans more than the Bank of Japan is willing to allow: it cannot be used to encourage an expansion of credit. By and large, therefore, this instrument was relevant primarily when the monetary authorities were trying to limit, rather than encourage, the expansion of credit.

The control system was adopted in its present form in 1954. It operates not on a formal, legal basis but through “moral suasion” by the Bank of Japan and is known as the “discount-window operation,” or “official guidance.” Despite its informal character, it is extensive and rather detailed, particularly with regard to the few large “City Banks,” and the “Long-Term Credit Banks.” The Bank of Japan, in consultation with the banks, determines—at least at certain periods—the amount of credits that each can extend to the public in a month’s time; it sometimes follows the actual development of the banks’ accounts on

a day-by-day basis. The Bank of Japan imposes its views both by moral suasion and by pressure and sanctions, either threatened or actually practiced. Sanctions include primarily a restriction of the amount of Bank of Japan lending to the "delinquent" bank; or, insofar as the banking system as a whole is concerned, a threat that discount rates will be further increased if the "voluntary" control proves to be ineffective.

#### FISCAL POLICY

The central government's budget consists of various accounts. The most important among these is the general account, which encompasses most of the normal government activities, both of a current and a capital nature. In addition, there are about forty "special accounts." These have widely different functions, sources of income, and types of expenditure. Some of them channel savings accumulated by governmental savings institutions or by the social security system into capital expenditures. A major "special account," from the standpoint of size, is the foodstuffs control program, which is essentially a form of subsidization of mass-consumed (and mass-produced) foodstuffs, primarily rice. Another major "special account" is the foreign exchange account. Strictly speaking, this is not a legitimate part of the government's budget but a reflection of the movement of foreign exchange in the country's foreign transactions. In Japan, as frequently happens in other countries with foreign exchange control, these transactions are handled formally through the Treasury.

In principle, the government adheres to a balanced-budget policy, and has indeed maintained a roughly balanced budget over the period as a whole. As a rule, the general account provides a surplus, which is transferred to some of the special accounts, thus maintaining an over-all balance. Over short periods, however—sometimes of a few years—deficits or surpluses do show up.

The budgetary procedure in Japan apparently does not allow a large measure of administrative flexibility. Supervision of the budgetary performance by the parliament (the Diet) is tight; rules are determined in advance for the annual budget without leaving much leeway in actual execution.

The government does not, as a rule, borrow much from the public (including the commercial banks). As mentioned earlier, interest rates

on government bonds are pegged at a low level, considerably below comparable rates in the market. Likewise, the government does not normally deal in short-term borrowing from (or lending to) foreign countries. Budgetary cash surpluses and deficits are expressed, thus, mainly in changes in the government's indebtedness to the Bank of Japan.<sup>1</sup> The Bank is not restricted by law in its extension of credit to the government. It is, moreover, obligated to underwrite the government's short-term securities. The government itself, on the other hand, is legally denied the right to borrow at long term from the Bank of Japan or to sell long-term securities to it. In effect, the Bank of Japan's obligation to "underwrite" government securities implies that it has actually to buy these securities, since the public would not buy them under the conditions of their issuance; some securities are resold, however, to governmental agencies. In the earlier years of the period, a sizable portion of the government's indebtedness to the Bank of Japan took the form of loans. These later declined, and from about 1954 to 1961 loans to the government were nil or negligible in comparison with the amount of government bonds at the Bank. Since 1962, however, loans—this time in the form of debentures rather than advances—again became prominent.

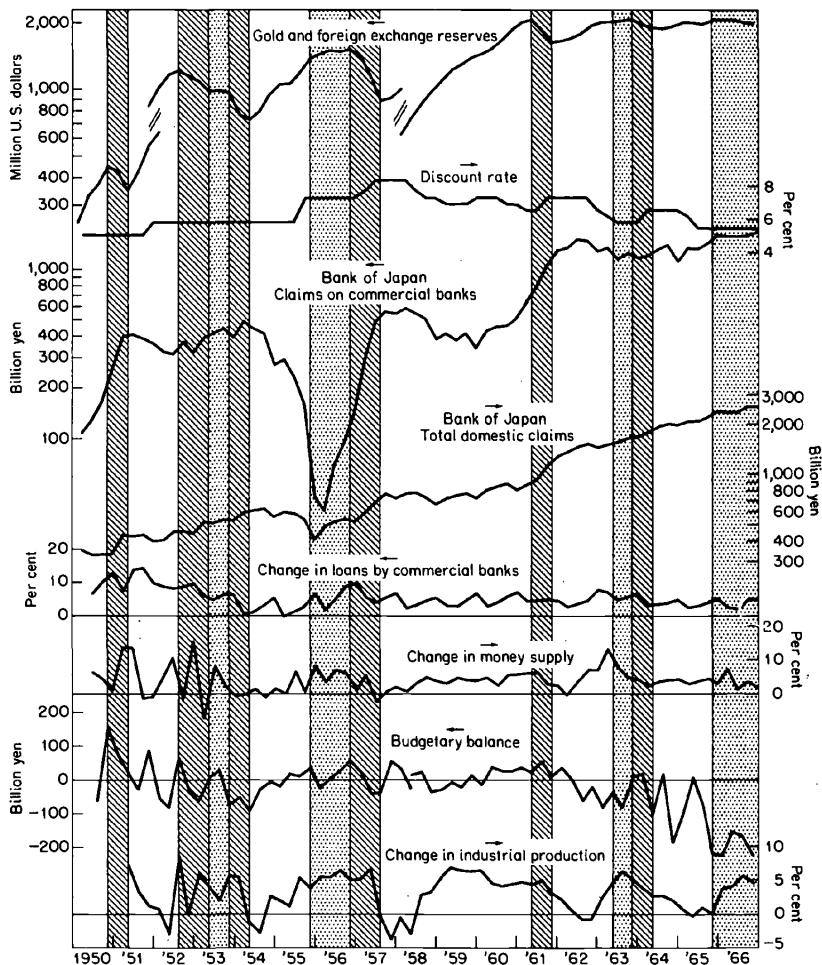
## 2. Statistical Analysis

Data on changes in policy and target variables are presented in diagrammatic form in Chart 8-1. It appears that the series (not shown in the chart) of balance-of-payments surpluses and deficits since 1958 gives almost the same impression, so far as turning points in directions of movements are concerned, as the series of gold and foreign exchange reserves. It was therefore decided to take the latter—with minor modifications suggested by the former—as the indicator of imbalances of payments. An upward movement of this magnitude is considered an upward imbalance (that is; a balance-of-payments surplus), and a

<sup>1</sup> The word "cash" should be emphasized. "Accrued" obligations of the public to the government, or vice versa, are certainly widespread. It may also be mentioned that from time to time the government becomes indebted to commercial banks due to the latter's assumption of deferred government payments. For instance, food subsidies may first be paid out by commercial banks, which are later reimbursed by the government.

CHART 8-1

JAPAN: TIME SERIES OF SELECTED VARIABLES



NOTE: Diagonal-line areas represent period of downward imbalances; gray areas represent stability; white areas represent upward imbalances.

downward movement is considered a downward imbalance. The sub-periods are presented in the first column of Table 8-1.

Looking, first, at the discount rate (column 2 of Table 8-1), it is immediately apparent that this variable moved consistently—indeed with no exception—in an adjusting direction: the rate was raised when

TABLE 8-1  
 JAPAN: MOVEMENTS OF POLICY VARIABLES DURING SUBPERIODS OF IMBALANCES

Subperiod	External Reserves (Indication of Disturbance)	Discount Rate	Bank of Japan Claims on Commercial Banks	Bank of Japan Total Domestic Claims	Commercial Bank Lending to Public (quarterly rate of increase, per cent)	Money Supply (quarterly rate of increase, per cent)	Budgetary Balance (quarterly average, in billions of yen)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
II 1950 - IV 1950	rise	a	+ rise	* stable	11.5	3.0	+48
IV 1950 - II 1951	fall	a	- rise	- rise	(*) 10.5	(-) 14.4	(*) +46
II 1951 - III 1952	rise	a	* stable	+ rise	(*) 9.9	(-) 3.0	(+) -3
III 1952 - II 1953	fall	a	- rise	- rise	(+) 7.0	(-) 5.8	(-) -19
II 1953 - IV 1953	stable	a	stable	rise	6.2	.9	-20
IV 1953 - II 1954	fall	a	- rise	- rise	(+) .5	(+) .6	(-) -72
II 1954 - IV 1955	rise	a	- fall	- fall	(-) 3.0	(-) 2.7	(-) -2
IV 1955 - IV 1956	stable	stable	rise	rise	6.2	(+) 4.6	(+) 13
IV 1956 - III 1957	fall	+ raised	- rise	- rise	(+) 4.8	(+) 9	(-) -18
III 1957 - II 1961	rise	+ reduced	* no trend	+ rise	(*) 4.4	(+) 4.1	(-) +8
II 1961 - IV 1961	fall	+ raised	- rise	- rise	(*) 4.7	(+) 2.8	(+) +33
IV 1961 - II 1963	rise	+ reduced	* no trend	+ rise	(*) 4.9	(+) 6.4	(+) -28
II 1963 - IV 1963	stable	stable	fall	rise	6.0	4.5	-38
IV 1963 - II 1964	fall	+ raised	- rise	- rise	(+) 3.1	(+) 2.7	(*) -40
II 1964 - IV 1965	rise	+ lowered	* no trend	+ rise	(*) 3.8	(*) 3.6	(+) -93
IV 1965 - IV 1966	stable	stable	stable	rise	3.4	3.5	(-) 193

NOTE: For explanation of symbols, see Chapter 3, explanatory note. a = not applicable.

a downward imbalance of payments took place, and lowered in opposite instances.<sup>2</sup> The evidence thus suggests the tentative conclusion that discount-rate policy was used by the Bank of Japan as an instrument of balance-of-payments adjustment.

Next, in column 3 of Table 8-1, Bank of Japan lending to commercial banks is examined. Here a consistent pattern again appears, but in the opposite direction. These loans move regularly upward at times of a downward imbalance, and vice versa; these are, of course, movements which could augment imbalances rather than correct them. In the few exceptions to this pattern, the variable in question merely did not move, instead of moving in a disadjusting direction; only in one instance, the upward imbalance of 1950, did the variable actually move in a way consistent with balance-of-payments adjustment.

The fact that commercial bank borrowing from the central bank increased, as a rule, when the discount rate was raised, and diminished when the rate was lowered, may seem somewhat surprising. This relationship may be explained, however, in the light of concurrent changes in other variables. I will come back to this relationship after examining the other related variables.

The other component of the Bank of Japan's domestic claims is its net claims on the government. Unfortunately, the amount of such claims as they appear in the data is misleading, because the size of these claims is heavily affected, in a biased way, by foreign exchange movements. A decline in foreign exchange reserves, for instance, would usually, but not necessarily always, mean a (net) sale of foreign exchange (not drawn, most often, from the Bank) by the government's foreign exchange fund to the public. This, in turn, would increase the government's deposits at the Bank, or be used to redeem government debt to the Bank, thus reducing the government's net indebtedness to the Bank. An impression of a movement in an adjusting direction may thereby be created. But, in fact, the adjusting impact is that of the movement of foreign exchange itself, and recording its reflection in the government's accounts at the Bank would amount to double counting.<sup>3</sup>

<sup>2</sup> It should be recalled that data on discount rate variations are relevant, so far as the "basic" rate is concerned, only from August 1955 onward. Partial information on the manipulation of the "penalty rates" indicates, however, that discount rate variations were employed in an adjusting direction also during the downward imbalance of the first half of 1954 and of the following upward imbalance of mid-1954 to the end of 1955.

<sup>3</sup> From published sources, there does not seem to be a reliable way of separating the effect of the government's foreign exchange transactions from its other transactions.

In an indirect way, however, some conception of this variable can be gained by looking at the movements of the budgetary balance. As will be recalled, the government conducts its financial transactions (other than those in foreign exchange) primarily with the Bank of Japan rather than with the public or with commercial banks. Movements of the variable under consideration are, thus, primarily the mirror reflection of the government's cash balance. It will be observed later that this balance does not show a consistent reaction to imbalances of payments throughout the period, and during the 1950's it may be regarded as having been changed most often in a disadjusting direction.

Due to the deficiency of the data on the Bank's net claims on the government, for the purpose at hand, the recorded magnitude of total domestic assets of the Bank may also be biased. However, it is not difficult to guess what an unbiased record would have shown. The budgetary balance, as has just been mentioned, usually did not tend to move in a way which would offset the movements of the Bank's claims on commercial banks: on the contrary, the two moved most often together in a disadjusting direction. It may therefore be quite safely assumed that had bias-free data on the Bank's total domestic claims existed, they would have shown consistent movements in a disadjusting direction. Moreover, even without the necessary correction (that is, including movements biased in an adjusting direction), the data give the same indication. This is shown in column 4 of Table 8-1, in which the frequency of movements in a disadjusting direction appears to be only slightly less than in column 3.

Loans of commercial banks to the public are represented in column 5 of Table 8-1. They increased continuously at a rather fast pace throughout the period under review, and the rate of increase appears to be rather stable over the subperiods of imbalances of payments. The rate does not seem to vary much among these periods; in the few instances where it does, the variations show no consistent tendency either in the adjusting direction or in its opposite.

Money supply, on the other hand, which may be observed in column 6, does seem to react to imbalances of payments in an adjusting direction at least from the beginning of 1954. From that period on, the rate of increase in money supply most of the time was less during periods of downward imbalances of payments, and greater during periods of upward imbalances.

Turning to the fiscal variables, it appears much more difficult to distinguish any consistent reaction to imbalances of payments. Both gov-

TABLE 8-2  
 JAPAN: REFERENCE DATES OF CYCLES  
 OF EXTERNAL RESERVES

<i>Cycle</i>	<i>Trough</i>	<i>Peak</i>	<i>Trough</i>
1951-54	ii 1951	iii 1952	ii 1954
1954-57	ii 1954	iv 1956	iii 1957
1957-61	iii 1957	ii 1961	iv 1961
1961-64	iv 1961	iv 1963	iii 1964

ernment revenues and expenditures show a clear long-term expansionary trend, as should be expected. However, the rate of increase, although not quite stable, does not seem to be associated with balance-of-payments fluctuations.<sup>4</sup> The budgetary cash balance, or the government's excess demand, is represented in column 7 of Table 8-1.<sup>5</sup> It appears that, for the period as a whole, no clear-cut pattern may be distinguished. However, during the 1950's, movements of the balance in a disadjusting direction do seem to dominate.

Let us now turn from the examination of subperiods of imbalances to the application of reference cycle analysis. External reserves indeed manifest, as may be observed from Chart 8-1, rather clear cyclical movements. The reference dates will be determined by the turning points of these cycles, which will be defined from trough to trough. An expansionary phase (from trough to peak) will thus be the phase of the cycle in which external reserves rise; and the contractionary phase, its opposite. The reference dates are shown in Table 8-2.

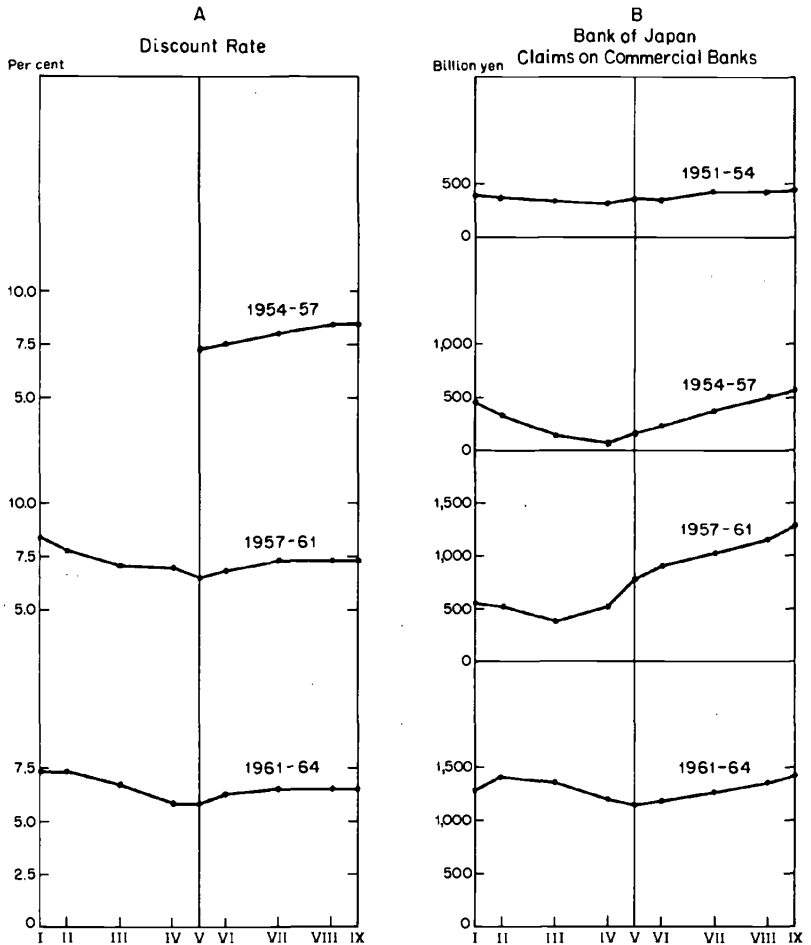
The positions of the policy variables during the reference-cycle stages are presented in Chart 8-2. In Part A, it may be seen that the discount rate moves almost invariably in a consistent pattern—it falls when external reserves rise (that is, along the stages from trough to peak), and rises when reserves fall. Bank of Japan claims on the public

<sup>4</sup> To save space, these variables are not shown in Table 8-1 and in Chart 8-1.

<sup>5</sup> Revenues and expenditures, and thus the budgetary balance, are compiled *net* of the foreign exchange account of the budget. The latter, as has been pointed out earlier, does not form a part of the government's excess demand; its inclusion would not only have distorted the budgetary accounts for the purpose at hand but also clearly introduced a bias in favor of movements in an adjusting direction.

From 1958 on, the budget is presented in this way in the source (International Financial Statistics). For earlier years, the exclusion of revenues and expenditures in the foreign exchange account was done by us.

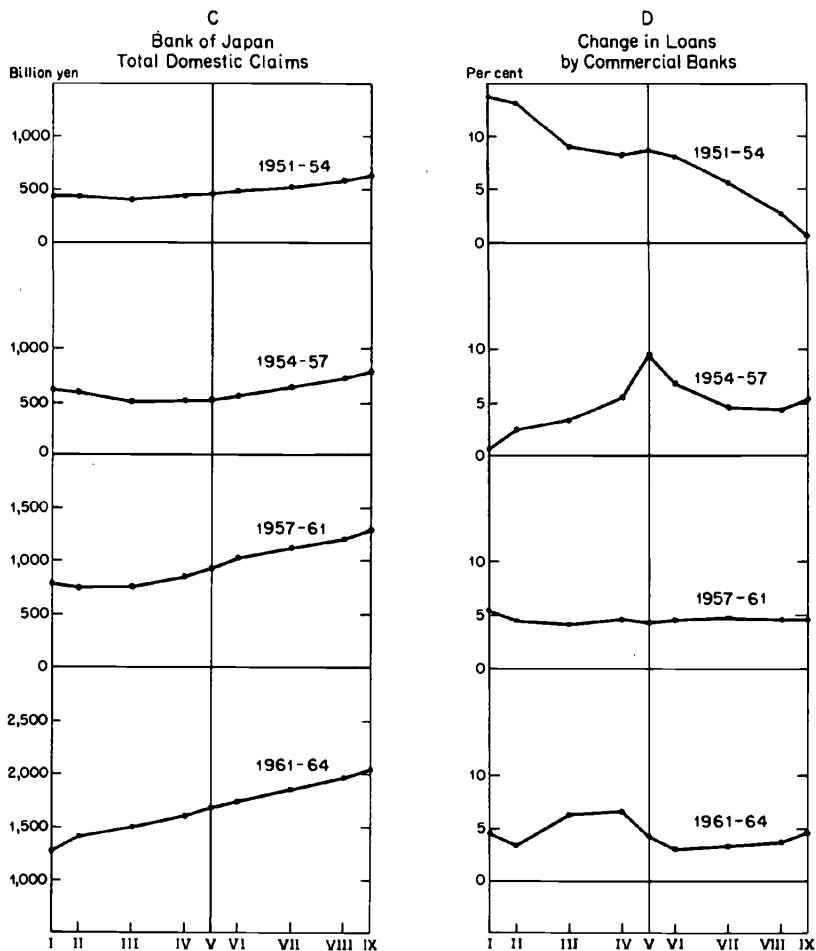
CHART 8-2  
 JAPAN: PATTERNS OF POLICY VARIABLES DURING  
 BALANCE-OF-PAYMENTS CYCLES



(i.e., on commercial banks), represented in Part B, also follow a generally consistent pattern—falling during the expansionary phase of the cycle, and rising during the contraction. Total domestic assets of the Bank of Japan, shown in Part C, reveal a weaker pattern: <sup>6</sup> during the

<sup>6</sup> But, here, the distorting effect of the inclusion of foreign exchange transactions of the government should be recalled.

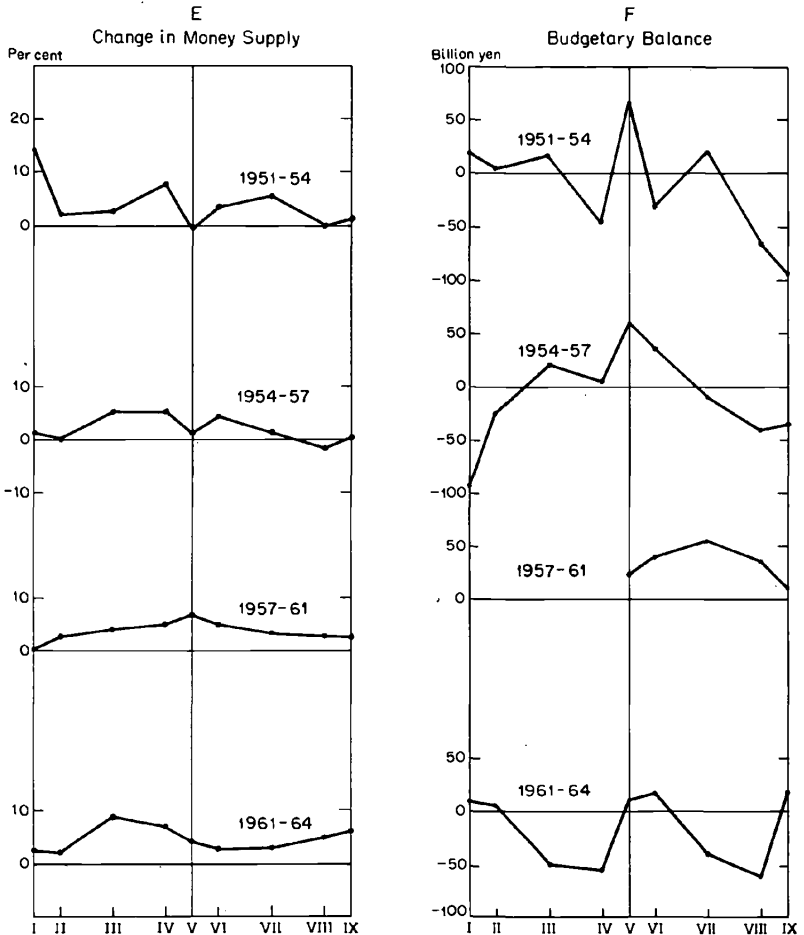
CHART 8-2 (Continued)



expansionary phase, their level appears, as a rule, to be either falling or rising less fast than during the contractionary phase.

Commercial bank lending to the public, shown in Part D, shows a probably slight dependence on the stage of the foreign-exchange reserves cycle. Only during the cycle of II 1954-II 1957 does this manifest itself as clear-cut cyclical behavior—namely, an increase in the rate of expansion of credit when reserves rise, and a reduction of this rate when reserves fall. A similar but much weaker pattern appears

CHART 8-2 (Concluded)



also during the cycle of IV 1961–III 1964. It is thus apparent that this variable did occasionally respond in an adjusting direction, but that such response was far from being a general rule.

The rate of increase of money supply, drawn in Part E, appears as a rule to be higher during the expansionary phase than during the subsequent contraction. This observation conforms, of course, to the tentative conclusion reached earlier. However, the pattern of behavior of this variable throughout each of these two phases is rather weak. Only once, in the 1957–61 cycle, does a neat, perfect pattern appear—that

of a gradual rise during the expansion, and a gradual decline during the contraction. In the 1954-57 cycle this pattern is approached, though not perfectly matched, while in the other two cycles no such patterns can be found at all.

The positions of the budgetary balance, presented in Part F, do not reveal any consistent pattern. No regular contrast appears, either with regard to the sign of the balance (surplus or deficit) or its form of movement between stages of rising and falling foreign-exchange reserves. This evidence tends to indicate that budgetary policy was not directed, as a rule, toward adjusting balance-of-payments disturbances.

Before trying to interpret these findings, we must ask whether the policy measures which were identified by this analysis as being taken to adjust balance-of-payments disturbances may not in fact be related to other economic targets, movements of which happened to be associated in a consistent manner with balance-of-payments disturbances. We turn now to the examination of this possibility.

As will be recalled, alternative competing targets are represented in the study by three variables: the rate of unemployment, the rate (and direction) of price changes, and the rate (and direction) of changes in industrial production. The unemployment rate, at least as it appears in available data, has been very low throughout the period under consideration. It is therefore assumed here, without further confirmation, that these changes could not, as a rule, have explained the policy measures taken. Even if this assumption is not fully warranted, it should be realized that the more significant changes in unemployment, at least, would not disappear from the analysis altogether, since these changes must be reflected in the rate of change of industrial production.

Two variables, standing for two targets, are left. One is the rate of change of the price level; the other, the rate of change in industrial production. Since the index of wholesale prices and the cost of living index (in Tokyo) give substantially the same indications of price movements, the latter index alone will be used to represent this variable. The target of maintaining a stable price level will be considered violated here not when prices move, since prices moved upward almost continuously, but when their movement deviates from the price level's short-term trend (which is measured, in turn, by a three-year moving average).

The question posed is, thus, whether the manipulations of the discount rate and the budgetary balance could not be explained by either the wish to maintain a stable (movement of) price level or the wish to achieve a high rate of expansion of industrial production, rather than

by the requirements of balance-of-payments adjustment. Again, more than one method will be used to test this hypothesis.

Take first the discount rate. In Table 8-3, each change in this variable is shown for the period from 1957 onward (the change in early 1957 being the first since August 1955 when the "basic" discount rate became meaningful). The position of each of the three alternative target variables—external reserves, the price level, and industrial production—is examined in each quarter in which the discount rate moved.

TABLE 8-3  
JAPAN: CHANGES IN THE DISCOUNT RATE AND  
POSITIONS OF TARGET VARIABLES

<i>Discount Rate</i>	<i>External Reserves</i>	<i>Cost-of-Living Index (compared with trend)</i>	<i>Industrial Production (rate of increase)</i>
	(1)	(2)	(3)
<b>Raised:</b>			
I 1957	+ fall	* stable	+ high
II 1957	+ fall	+ rises	+ high
IV 1959	- rise	+ rises	+ high
III 1961	+ fall	+ rises	+ high
I 1964	+ fall	- falls	+ high
<b>Lowered:</b>			
II 1958	+ rise	- rises	+ low
III 1958	+ rise	+ falls	* average
I 1959	+ rise	+ falls	- high
III 1960	+ rise	- rises	* average
I 1961	+ rise	- rises	- high
IV 1962	+ rise	* stable	+ low
I 1963	+ rise	- rises	* average
II 1963	+ rise	- rises	- high
I 1965	+ rise	- rises	+ low
II 1965	- fall	- rises	+ low

+ indicates that the change in the target variable would justify the direction of change in the discount rate.

- indicates that the change in the target variable would justify the opposite direction.

\* indicates that the change in the target variable would call for no change in the discount rate.

It appears immediately that the movements of the discount rate are consistent with the assumption that this instrument was used for balance-of-payments adjustment—not a surprising finding, of course, at this stage of the analysis, since a similar finding was the starting point of the present test. Table 8-3 also shows, on the other hand, that changes in the discount rate are not, as a rule, compatible with the assumption that they were intended to maintain a stable rate of change in the price level. This assumption is, indeed, so obviously contradicted by the data that it will not be subject here to further investigation. The assumption that discount rate policy was motivated by a desire to maintain stability on a high level in the rate of expansion of industrial production does not fare too well either. It is true that in no case was the discount rate raised when industrial production was low; but many of the instances of reductions of the discount rate cannot be explained by the position of the target of industrial production. Additional evidence on this is provided in Table 8-4, in which subperiods of imbalances of payments

TABLE 8-4  
JAPAN: THE DISCOUNT RATE AND INDUSTRIAL  
PRODUCTION DURING SUBPERIODS  
OF IMBALANCES

<i>Subperiod</i>	<i>External Reserves</i>	<i>Industrial Production (rate of change)</i>	<i>Discount Rate</i>
	(1)	(2)	(3)
iv 1955 – iv 1956	stable	high	+ stable
iv 1956 – iii 1957	fall	normal	+ raised
iii 1957 – ii 1961	rise	normal	+ reduced considerably
ii 1961 – iv 1961	fall	normal	+ raised
iv 1961 – ii 1963	rise	fluctuates	+ reduced considerably
ii 1963 – iv 1963	stable	high	+ stable
iv 1963 – ii 1964	fall	normal	+ raised
ii 1964 – iv 1965	rise	low	* lowered
iv 1965 – iv 1966	stable	high	+ stable

+ indicates that the policy variable changes in the direction required for balance-of-payments adjustment; no change would be justified by the movement of industrial production.

\* indicates that the policy variables' movement is consistent with the positions of both the balance of payments and industrial production.

serve again as units of observation. It may be seen immediately that the movements of the discount rate in each of these subperiods could be explained by a wish to correct imbalances of payments, but not—with a single exception—by the desire to maintain a high rate of expansion in production. This evidence seems to provide another strong basis for rejecting the assumption that discount rate policy was intended to promote a high rate of growth. The assumption, on the other hand, that this policy was manipulated in the interest of balance-of-payments adjustment is strongly supported by these tests.

Table 8-5 describes the two alternative target variables—external reserves and industrial production—during periods in which the budget displayed clearly either surpluses or deficits. It may be seen, from column 2, that the assumption that budgetary policy was used to adjust imbalances of payments could not be sustained by this evidence: it is supported by only a single episode—that of the budgetary deficit of III 1962—III 1963—out of the six listed in Table 8-5. The alternative assumption, that budgetary policy was used to serve the target of a high rate of expansion of industrial production, fares much better; it is supported by four episodes (out of five), and clearly rejected by none.

TABLE 8-5  
JAPAN: THE BUDGETARY BALANCE AND MOVEMENTS  
OF POLICY TARGETS

<i>Period</i>	<i>Budgetary Balance</i>	<i>External Reserves</i>	<i>Industrial Production (rate of increase)</i>
	(1)	(2)	(3)
IV 1950 – II 1951	surplus	* stable	n.a.
IV 1953 – I 1955	deficit	* no trend	+ low
II 1955 – I 1957	surplus	– rise	+ high
II 1960 – I 1961	surplus	* no trend	* normal
III 1962 – III 1963	deficit	+ rise	+ low
II 1964 – IV 1966	deficit	* stable	+ low

NOTE: See Table 8-3 for explanation of symbols. n.a. = not available.

### 3. Summary and Interpretation

From all the evidence presented, it appears that budgetary policy in Japan did not usually serve as an instrument for adjusting balance-of-payments disequilibria. It seems possible that, insofar as budgetary policy was regarded as a tool to be used in the pursuance of economic policy, it was allocated to the target of preserving a high rate of expansion of economic activity.

Monetary developments, on the other hand, definitely appear to respond to the movements of the balance of payments, and monetary policy may be viewed as being geared to the needs of balance-of-payments adjustment. Imbalances of payments lead to changes in monetary variables in accordance with the following typical pattern.

In a downward imbalance, that is, a downward tendency of external reserves, the Bank of Japan invariably reacts by raising the discount rate. From information available, it also seems likely that the Bank would use "moral suasion," or "discount-window guidance," in an effort to restrict the amount of credit extended by commercial banks to their customers. At the same time, however, the change in the public's demand for this credit would be expected to move in the opposite direction. This is a period in which the amount of liquidity available to the economy from the (net) acquisition of foreign-exchange reserves is falling, that is, the loss of reserves tends to diminish the amount of liquid means. As a result, demand for bank credit by the public must rise. In the end, the rate of credit expansion may tend to show a slight tendency to fall during downward imbalances, although this tendency is far from being consistent. This seems to be an indication that the aforementioned restrictions on the supply of credit are effective. To what extent this may be attributed to cost restrictions (through the increase of the discount rate), or how much of it may be due to direct quantitative restrictions ("window guidance"), is impossible to tell on the basis of available information.<sup>7</sup>

<sup>7</sup> The increase in the discount rate would act as a cost restriction in either of two ways. If the rates charged by banks on loans to their customers remain unchanged, the increased cost incurred by the banks themselves on their borrowing from the central bank would act as a deterrent to their borrowing and relending (or lending and rediscounting). If, on the other hand, the banks "pass on" the increase in their cost by raising the interest rates charged on their lending, the amount of credit demanded by the public should tend to decline. As a rule,

But even when the rate of credit expansion does fall, this tendency is only slight. To maintain the expansion of credit, commercial banks must take some compensatory action with regard to their own liquidity or reserves. Bank liquidity is affected by three major factors (disregarding the possibility of changes in the public's desired currency ratio): changes in the amount of external reserves, changes in the amount of central bank lending to the government, and changes in central bank lending to the commercial banks themselves. Information about the second factor is deficient; but it does not seem likely that it operates with enough force even nearly to offset the operation of the first factor, changes in external reserves. Thus, in order to resist the downward pressure on their liquidity, the banks resort to increased borrowing from the central bank. They do so despite the increased cost of this borrowing—presumably, as has been explained, as a result of increased demand by the public for the bank credit.

The rate of expansion of money supply tends to move in an adjusting direction—to fall when external reserves fall—somewhat more clearly than the variable of credit supply. But here, too, the tendency is not strong or fully consistent.

In a period of an upward imbalance, this pattern is reversed; and Bank of Japan lending to the government most often tends to increase. Commercial banks use the added liquidity acquired by them not to increase the rate of expansion of their lending to the public but to repay debts to the Bank of Japan—despite the fall in the latter's discount rate, which is a practically invariable consequence in this situation. The rate of expansion of bank credit remains stable, or tends to rise, and the rate of expansion of money supply tends to accelerate.

To sum up: the discount rate responds consistently to imbalances of payments. At times of downward imbalances the discount rate is raised, whereas in episodes of upward imbalances it is lowered. With less consistency, the rate of expansion of money supply tends to move in the same direction as the movement of external reserves. These, of course,

the former channel was probably more important in the Japanese case. The rates charged by banks were subject to legal ceilings; usually, the rates found in effect were the ceiling rates. Thus, changes in the discount rate were not transformed into changes in the various rates charged by the banks, but acted through the reduction of profitability of the bank's lending. This, in turn, should presumably lead the banks, in such a time, to increase the proportion of favored, less risky loans in their total lending. The special difficulties realized in fact by Japan's small business sector during such periods may be an indication that this indeed was the process.

are tendencies consistent with the assumption that monetary policy was used to adjust the balance of payments.

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