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# CONDUCT OF MONETARY POLICY AND QUANTITATIVE CONTROL OF CREDIT

by

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# CHAPTER IV

## CONDUCT OF MONETARY POLICY AND QUANTITATIVE CONTROL OF CREDIT

In studying the conduct of monetary policy and in developing and testing supply functions of money for the Philippines, we find it necessary to divide the period of study into two, 1950 - 1960, and 1961 - 1971. There were major changes in the institutional setting, in the orientation of policy and in the monetary control instruments employed over this period. The initial year 1950 is chosen instead of earlier post-war years as there was no Central Bank before 1949. By 1950 the Central Bank was organized.

This Chapter consists of two sections. The first is a discussion of these changes, including a sub-section on price changes. Only after dealing with the above-mentioned changes does this section proceed to discuss the conduct, itself, of monetary policy. The other section gives money supply functions which were developed in the light of the control instruments used in the Philippines. Regressions of these functions were performed on Philippine Quarterly data.

### I. Orientation of Monetary Policy Objectives -

In the first period under study, the Monetary Authority (and the country as a whole) was mainly concerned with the problem of maintaining a reasonable level of international reserves. The desired level of reserves was to be maintained under a system of fixed exchange rate at the old pre-War parity of P2/$1, and a detailed set of import and foreign exchange controls. Domestic price stability was considered to be

an important condition for preserving the international value of the peso and the country's reserve position. Foreign trade control instruments were used simultaneously as industrialization instruments. The industrialization policy was of the import-substituting type. Preferential allocation and pricing of foreign exchange were granted to import-substitute industries. These, along with infant industries, were also given tax exemptions.

The absorption of the Monetary Authority with foreign exchange and import controls is probably best shown by the Central Bank memoranda and circulars issued from 1949 to 1960. Of its more than 300 memoranda and circulars, practically all were concerned with allocation, margin deposit and payment arrangements of foreign exchange. In fact, purely quantitative control instruments were used only twice during this period, once in 1957 which revised interest rates on deposit; the next, in 1959 which raised the reserve requirements from their first levels of 1949. Rediscount rates were first changed in 1960.

In contrast to Central Bank actions in the 1950's, decisions on quantity and allocation of credit were made later at increasing frequency Also, more varied instruments were used. A good summary impression of this change in the orientation of Central Bank policy can be obtained by reading the Table of Contents of Central Bank Circulars and Memoranda, 1949-68.

Conservative monetary policy was followed partly because the condition of stable domestic prices was required for preserving the country's international reserve position, and partly because of the

personality of the first Central Bank Governor, Miguel Cuaderno. Reading through his memoirs, one is struck by his concern for inflation. As Sue Van Atta observes in her paper[1], he worried about inflation at a time when the country was actually experiencing deflation. The high prices reached during the war and which prevailed in the immediate post war seemed to have been confused for inflation. The rate of growth of money supply was practically zero from 1950 to 1955, and modest increases to the extent of from one to six per cent per year were later permitted between 1955 to 1960. One observes that the growth rate of national income, and the rate of industrialization were highest during this period. GNP grew at about 7 per cent per year and the industrial sector at a little more than 10 per cent per year.

In the late 1950's the pre-war exchange rate of ₱2/$1 was considered unrealistic. The black market rate, in fact, was ₱3.21/$1.00 in 1955 and ₱3.81/$1 in 1960. Devaluation was inevitable and a gradual devaluation was applied starting in 1960 and ending in 1964. The exchange rate was fixed at a new rate of ₱4/$1.

Thus, we see at the start of the 1961-1970 period a gradual devaluation with its consequent inflationary pressure. The inflation rate between 1963 to 1964 was the first serious one ever experienced in post-war Philippines. By this time, Governor Cuaderno had retired and his retirement seemed to augur a change in policy. Amado Castro thinks the relationship between the Monetary Authority and the executive branch of government underwent a major significant development from one of

1/ S. Van Atta: This paper was incorporated in Chapters I and II.

independence to one of greater accord, coordination, or submission. ~~or orientation~~. It is rather difficult to show evidence on the nature of the relationship of the Central Bank and the executive branch of government. However ... it is possible to show some evidence of the change in the orientation of policy.

As defined in the Three-Year Program of Economic and Social Development (1959-1962) " the task of monetary and credit policy is to provide the economy with the desired volume of money and credit to be channeled to the desired types of economic activities . . . By means of its selective credit control powers it could direct bank resources to areas of productive activities. The use of bank credit for speculative and consumption purposes should be curtailed to the lowest levels possible. Bank credit for real estate, commercial and other non-essential activities should likewise be cut down."[2]

Various instruments were used for selective credit control. These were discussed in Chapter III. The most important are preferential discount rate and privilege, deficit financing, and expansion of specialized banks.

From Table III.2 of Chapter III, we find a schedule of discount rates by purpose of loans. Up to 1959, there was only one discount rate. The list of given preferential discount rates increased in 1960.

Public and semi-public banking system grew very fast especially from the late 1950's. Specialized banks grew as fast as private commercial banks. Total banks grew from 116 in 1950, 226 in 1955, 380 in 1960, 726

2/ Macapagal, Diosdado, Five-Year Integrated Socio-Economic Program for the Philippines (1962), Chap. IX, p. 41

in 1965 and 1210 in 1970. Rural banks grew from 38 in 1955,to 160 in 1960 309 in 1965, 486 in 1970. Development banks grew more slowly. By 1970, there were only 48 branches and 29 head offices.

If we turn to bank assets, we also find this parallel growth between commercial banks and specialized public and semi-public banks. Though there is still a big concentration of banks in Metropolitan Manila, a substantial number, particularly of the specialized banks, are located in provincial areas. There is enforced dispersal of rural banks since only one bank per one municipality may be established.

The effectiveness of monetary policy was likewise strengthened with the expansion of the banking system. We could expect a greater monetization of the economy and an increase in the volume of savings and investment coursed through banks and other intermediaries. The larger the banking system, the higher the ratio of any loan proceeds redeposited and, therefore, everything else being equal, the higher the reserve multiplier. The impact on the economy of any control decision will be greater the larger the financial system. It is needless to reiterate that public and semi-public banks offer the Monetary Authority direct quantitative as well as selective power. This is discussed throughout the book and is shown to be true in the regression of money supply for 1961-70.

Control Instruments

We observe from the list of CB circulars and memoranda that over the 1950-60 period, the reserve requirement and the discount rate were each changed only once and these occurred in the late 1950's. From Table 1 we also observed that banks, then, kept substantial excess

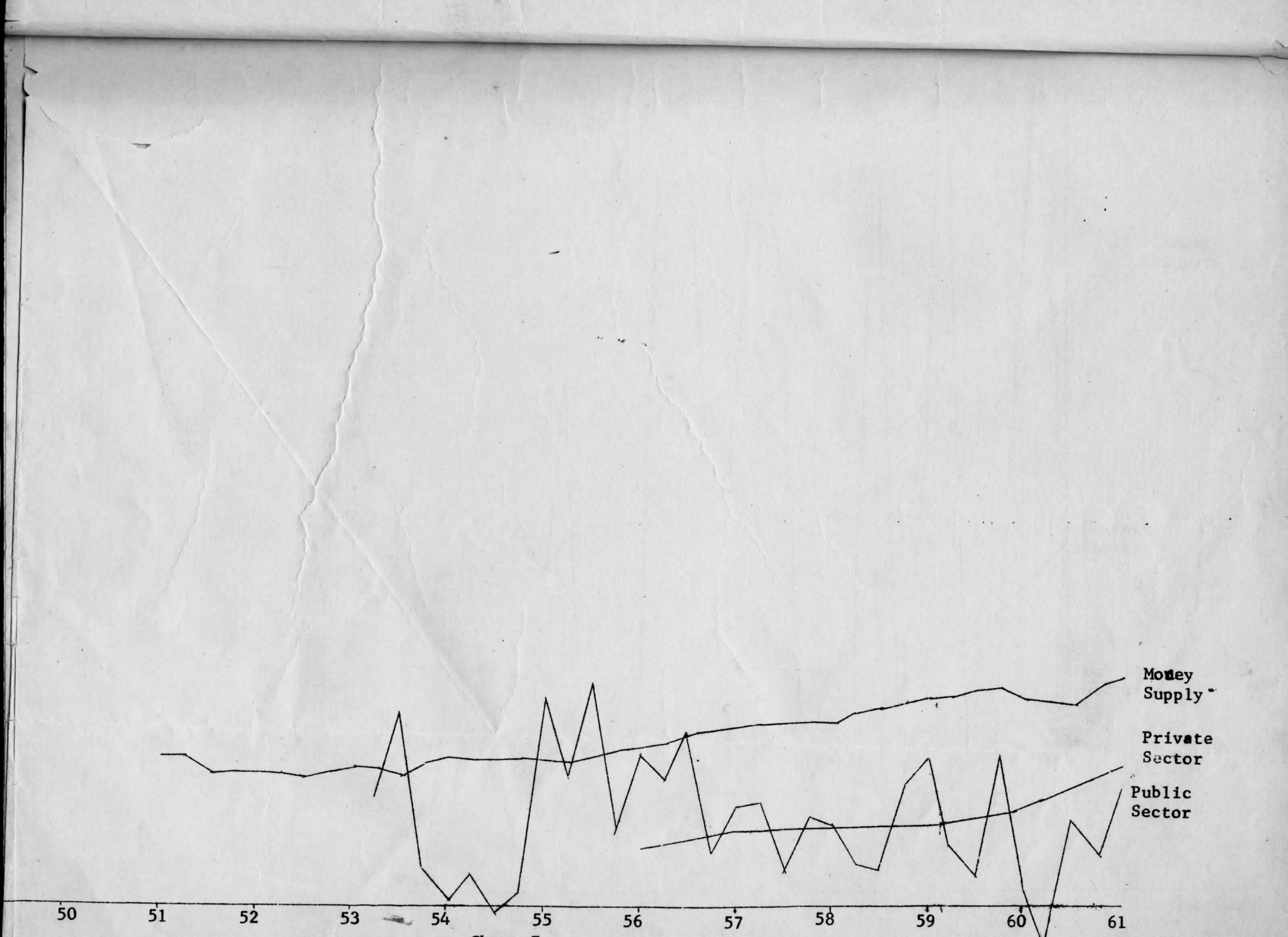
reserves. These fluctuated, though, and we find in fact a significant correlation between money supply and bank reserves.

It seemed however, that control over the allocation of foreign exchange were of substantial impact on money supply, such that there was no need to use other instruments. In as much as the main economic objective then was to maintain a satisfactory level of reserves, control over foreign exchange resulted in control over money supply. When foreign deposits were frozen or when a margin on letter of credit was imposed, their equivalent peso value was also frozen.

Chart 1 shows quite well how the Central Bank managed money supply during this period. It is important to see the movement in the separate components of money supply-public and bank origin. There are statistics on money supply by origin-public sector and private sector. Money supply originating from the public sector consists of Central Bank and other bank credit to the government. This credit may take the form of increment in holding of government securities and of direct loans.

From 1961 to 1971 the Central Bank restricted the growth in money supply originating from commercial banks or the private sector. Regulations that either raised the reserve requirement or raised the discount rate were imposed in almost year to year succession except once in 1966. In 1966, the rediscount rate was lowered. As a consequence, the level of credit originating from the private sector remained constant except when it began to increase in 1971 following the devaluation in February of that year.

Money supply, however, followed an upward trend and increased very fast around 1969. During this period it grew at the rate of from 6 to 13 per cent per year. Money supply increases originated mainly from credit extended to the government.


Money Supply
Private Sector
Public Sector
50
51
52
53
54
55
56
57
58
59
60
61

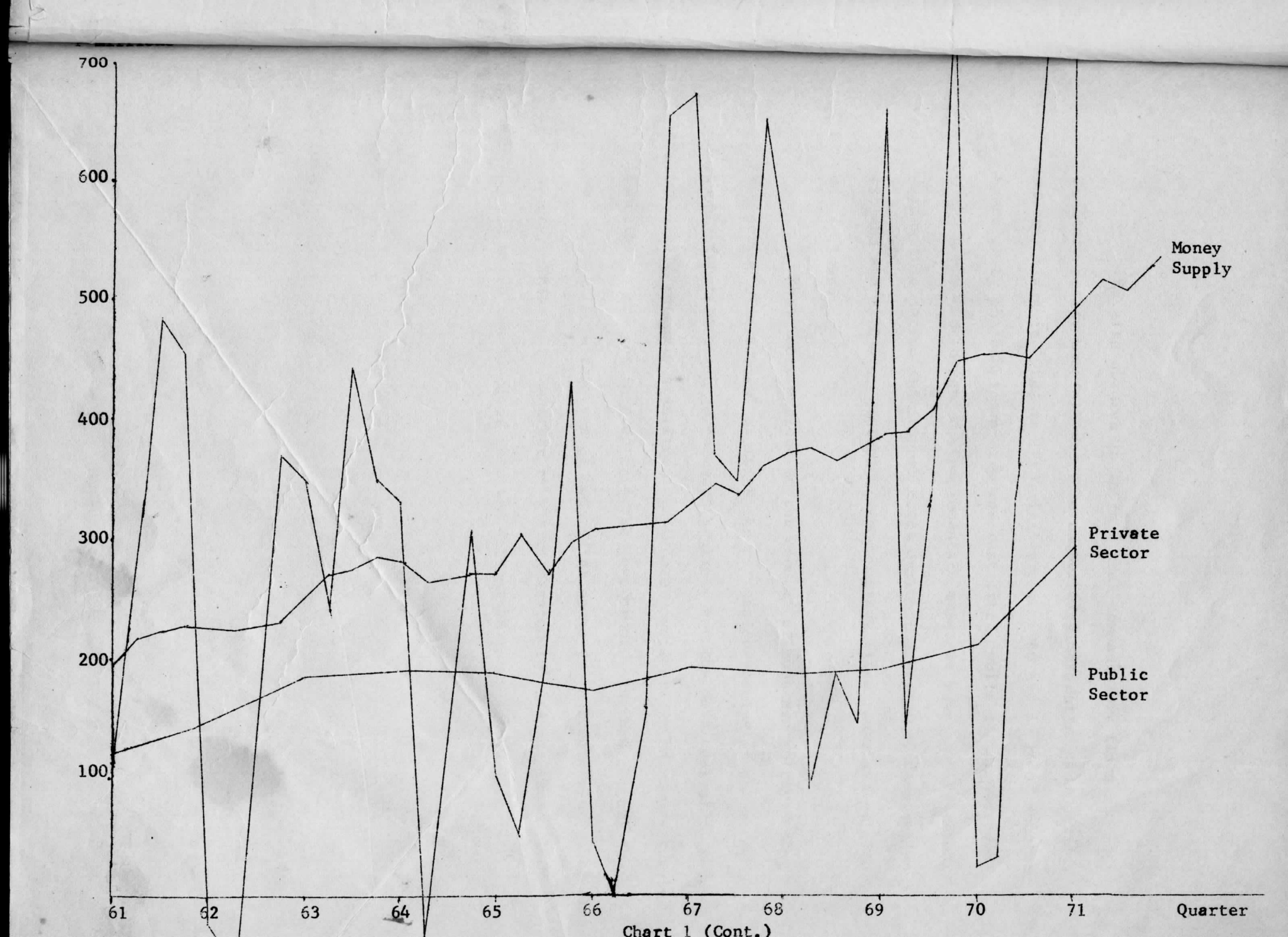

700
600
500
400
300
200
100
Money Supply
Private Sector
Public Sector
61
62
63
64
65
66
67
68
69
70
71
Quarter

Chart 1 (Cont.)

We also observe in Table 2 that compensatory fiscal-monetary policy was followed a number of times during this period. Several times in 1962, in 1963, in 1967, in 1968 and in 1969, monetary expansion by the banking system was restricted while credit extended to the government expanded. Complementary measures were used twice only during this period and in both cases during the period of devaluation - 1961-63 and 1970-71. Otherwise, compensatory fiscal-monetary policy was followed.

These observations on the conduct of monetary policy during the period of decontrol explains the regression results of the money supply function given in the next section. For the post control period, 1961-1971, the only significant explanatory variable in the money supply function is changes in credit to the government. In this period, the level of available reserves of commercial banks did not determine money supply. This is in contrast to the regression results for the earlier period where the level of reserves determined money supply.

## II. Quantitative Monetary Control in the Philippines

This section discusses how alternative money supply functions are derived for the Philippines. A money supply function relates the nominal money supply to policy controlled variables. These variables are selected from policy instruments that were actually used in the Philippines. The way each instrument works depends, to a large extent, on the structure of the financial market. Some instruments are used in an entirely different way, though they are called by the same terms. In this case money supply function will have a different argument from that of the money supply function in other countries. The institutional set-up is also likely to affect the impact on monetary policy and the effectiveness of the instruments used. It may even influence the choice of control instruments. While the preceding Chapter described some of the more important credit measures that the Philippine Central Bank has adopted, the relevant quantitative measures are identified in this Chapter.

It might be helpful to contrast the money supply function of the United States with that of the Philippines as this would demonstrate the difference in the application of the control variables. In the United States, the main control variables are changes in reserve requirement, open market operations and changes in discount rate. These control variables determine the supply of money indirectly; their immediate impact is on the reserve portfolio of commercial banks. Banks usually keep a desired level of excess reserves and a portfolio of secondary reserves. The discount window may also be regarded as a source of reserves.

*Choice of the form of reserve to be used for meeting changes in demand for credit would naturally depend on the relative cost of the alternative reserve sources. Several major econometric works on the money market have been done since the middle 1960's which consistently confirmed the portfolio behavior of banks with respect to their holdings of excess reserves and of government securities, and their borrowing from the Federal Reserve System. Works by de Leeuwe and Hendershott, Meigs and Goldfeld, among others, show the sensitivity of excess reserves to the treasury bill rate and the discount rate, the relative cost of alternative reserve forms. Herdershott obtained the following money functions which are based on an adjustment model of desired excess reserves.

$$Rf^* = -.065 + \underset{(.062)}{.156}\ rdis - \underset{(.050)}{.151}\ rtb - \underset{(.044)}{.337}\ Rf_{-1} + \underset{(.053)}{.472}\ Rue - \underset{(.013)}{.0636}\ CL_{+4} \sum_{i=1} a_i S_i$$

$$R^2 = .858 \qquad s.e. = .086 \qquad DW = 1.870$$

$$D = .069\ \frac{1}{q} - \underset{(.061)}{.151}\ \frac{rdis}{q} + \underset{(0.49)}{.142}\ \frac{rtb}{q} + \underset{(.045)}{.333}\ \frac{Rf_{-1}}{q} + \underset{(.051)}{.539}\ \frac{Rue}{q} + \underset{(.0131)}{.0661}\ \frac{CL}{q} + \sum_{i-1}^{4} C_i \frac{S_i}{q}$$

$$R^2 = .919 \qquad s.e. = .793 \qquad DW = 1.875$$

where Rf is excess reserves, Rf* is desired excess reserves, Rue is unborrowed reserves, CL are commercial bank loans, rdis is discount rate, and rtb is the Treasury Bill Rate.

The validity of these functions follows from the instruments that the Federal Reserve System uses. Open market operations in Treasury Bills is an effective way of changing the level of reserves of banks. There is a large volume of outstanding government bonds of both long and short maturities. There is also a large volume of private securities which are substitutes for government issues. Changes in interest rates arising from open market operations will have their impact on the portfolio of close substitute reserves and financial assets, and conversely, bank portfolio of government securities and excess reserves will be sensitive to changes in the discount rate.

The control variables used in the Philippines are quite different. A normal market for Treasury Bills and other government securities does not exist. This market is described in the preceding Chapter. There are no day to day open market transactions. Instead, the Central Bank issues government securities at discrete time intervals. (Congress gives the Central Bank the exclusive responsibility to market government issues which are legislated for special purposes). So far, most issues are of longer term maturities though there has been an excess demand for short term bills as evidenced by the over-subscription of each float. The size of over-subscription ranged from two times to five times each float over the past five years. It might be argued that yield on Treasury Bill is made artificially high by rationing these bills while the yields on longer term government bonds are pegged at their state rates. These rates are below the yield on equivalent securities and are much lower than the yield on Treasury Bills. (Please see Tables III and IV of Chapter III.) It is not valid, therefore, to talk of open market operations in the Philippines, and to use the Treasury Bill rate as an explanatory variable in the money supply function.

The discount instrument also works differently. The discount rate is not changed frequently as a means of controlling the borrowing of commercial banks. We find, instead, a gradual upward trend in the discount rate which seems to correspond to the upward trend in all nominal rates of interest--deposit rates, loan rates, government bond rates. Since a fairly wide margin is allowed between the discount rate and the loan rate, and this margin has remained fairly constant over each year, banks are quite passive with regard to changes in discount rates. The margin of profit allowed tends to make the demand for borrowing from the Central Bank infinitely elastic. In this case, the level borrowed is determined mainly by what the Central Bank decides to lend to the banking system. This should not be confused with the right of banks to discount as discussed in Chapter III. The rules of discounting and the speed in which loans are discounted remain the prerogative of the Central Bank.

A third aspect of Philippine monetary control is the predominance of government financial institutions whose activities are more directly controlled by the Central Bank and government borrowing from the banking system. Changes in loans granted by these banks are expected to follow closely the Monetary Board's decision on credit ease or tightness, rather than in response to the more traditional control variables. Moreover, deficit financing through money creation has been extensively practised, especially in the 1960's. In fact, money supply originating from the public sector has grown fast absolutely, and relative to money originating from banks.