

Deficit Financing in Pakistan *

A Summary by

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This monograph estimates the level and rate of deficit financing in Pakistan during the years 1951-60, explores the impact of deficit financing on the money supply and prices in the country, and defines the safe limits to deficit financing for the future.

Two concepts of deficit financing are used in the study. The first definition is the net borrowing of the government from the banking system. The second definition is the net borrowing of the government from the State Bank alone.

For purposes of monetary analysis, either of the two definitions may be relevant, depending upon the circumstances. In a banking system without excess "primary" reserves, borrowing from the central bank increases the reserves of commercial banks and hence may lead to an expansion of the money supply, whereas borrowing from the commercial banks cannot. However, to the extent that the restraining factor on commercial-bank expansion of credit is either "secondary" reserves or the absence of possible creditworthy loans, the first definition is more relevant.

Indirect estimates of deficit financing have been made by analysing the causative factors of money-supply changes from the published balance sheets of the State Bank and the commercial banks. Direct estimates cannot be made because of the lack of published data on the volume and sources of government borrowing. Deficit financing according to the first definition is measured by the change in the banking system's holdings of government securities; thus the estimate is inaccurate to the extent of the non-bank public's sale (or purchase) of government securities to (or from) the banking system. Similarly, open-market operations would affect the accuracy of the second definition.

The State Bank also publishes a causative analysis of the money supply, in a less detailed form. The differences between the State Bank results and those of this monograph are: (1) the State Bank excludes commercial banks' loans to government from private sector, which are included, for some years, in this study; (2) the State Bank has access to direct information, not publicly available, regarding its investment in government securities and the position of counterpart funds; (3) separate figures are available to the State Bank for authorised dealers' balances which are not available to the Institute. These differences are not negligible: whereas the State Bank estimates deficit financing (by the first definition) at 1447 million rupees over 1955-56 to 1958-59, it is estimated at 1685 million rupees in this study for the same period. It would be possible to arrive at more refined estimates if the State Bank were to publish more of the primary data.

*A recently published study of the Institute of Development Economics: Dr. M. Haq, *Deficit Financing in Pakistan, 1951-60*, Monograph No. 3 (February 1961). This study was finalized after Dr. Haq's departure for the United States. In consequence, it may include some observations which do not entirely accord with the author's views. Every effort has been made to minimize such differences. This journal would be pleased to publish whatever explanatory comments the author may deem appropriate.

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The annual rate of deficit financing, during the period under study, has been about 350 million rupees by the first definition and 260 million by the second definition. By either measure, deficit financing, on the average, is higher for the pre-Plan period (1951-52 to 1954-55) than for the Plan period (1955-56 onwards)—a fact not generally realised. The explanation can be found for this in the increase of government tax revenues and foreign aid in the Plan period. After the new government appeared in October 1958, the rate of deficit financing slackened perceptibly, with the result that there was a retirement of State Bank-held debt in both 1958-59 and 1959-60 and commercial bank-held debt in 1959-60.

The theoretical credit-creation coefficient of a one-rupee increase in State Bank assets (*i.e.*, of additional deficit financing under the second definition not offset by a reduction of either foreign exchange or State Bank loans to commercial banks) is 1.51 during the 1950's (according to the formula $c = 1/(1-d-e+rd)$ where c is the credit-creation coefficient, and the likely values of the parameters during the 1950's are: d , the marginal ratio of demand deposits to money supply = .33; e , the marginal ratio of coinage in circulation to the money supply = .05; and r , the cash-plus-State-Bank-reserves to demand deposits, = .13). To the extent that the banks have excess reserves, or are willing to borrow them from the State Bank on the collateral of their government securities, the "potential" credit-creation coefficient is higher than 1.51. However, the general conclusion is that in response to a net addition of 100 rupees to the money supply by the government through State-Bank-held deficit financing, the banking system will create credit of about 51 rupees. Three things should be noted: first, the "deficit financing" relevant to the problem of money-supply change under the assumptions made is the second definition; second, the impact of deficit financing on the money supply may be "exported" through a reduction of foreign exchange reserves; and third, the secondary effects on credit of such financing are not likely to be large in under-developed countries such as Pakistan, where geographical concentration of banks and incompletely developed banking habits result in a leakage of a large part of the additional purchasing power from the banking system into notes and coins in circulation, so that only a small proportion of it returns to form the basis of further credit creation.)

Actual credit-creation-coefficient, calculated from empirical analysis, are, however, higher both in the pre-Plan and the Plan period, 1.66 on the average. This results almost entirely from the banking systems' gradual lowering of its cash-plus-reserve ratio (r) over the entire period.

If the definition of money is altered to include time-deposits, the theoretical credit-creation-coefficient for the same period is 1.71, whereas the actual coefficient is again higher, 2.20 and 1.96 in the pre-Plan and Plan periods, respectively. This occurs for the same reasons as above (secular decline in r), plus the additional one that the ratio of time deposits to demand deposits rose throughout the decade.

If the commercial banks loans are divided into (1) loans to government and (2) loans to the private sector, it is found that the latter did not behave consistently. It was always guided by the demand for credit, and was low when the demand was low despite the banks' ability to increase it greatly as a result of deficit financing by the government. The existence of considerable unsatisfied demand for bank credit for long-term investment in industry may be explained by the fact that banks in Pakistan have been more willing to lend to commerce than to make more risky long-term investments.

The commercial banks, by increasingly becoming suppliers of credit to the

government, have been allowing the government to borrow from the banking system a large part of the very liquidity that the government itself has been creating. If the government had not borrowed considerable sums from them and instead had increased borrowing from the State Bank, even greater reserves for the commercial banks would have been created. It is possible that the banks would have hoarded this liquidity in the absence of creditworthy borrowers. But the situation would have become explosive (1) whenever greater economic activity offered worthwhile investment opportunities to the banks, or (2) if the banks lowered their standards concerning creditworthiness as their liquidity improved. Thus this policy of the government appears to have been sound. Nevertheless, the danger still remains, since the commercial banks have acquired Rs. 700 million of government paper which they can treat as secondary reserves.)

It is important to determine the safe, non-inflationary limits of monetary expansion in Pakistan. There will be no increase in the price level as long as the rate of increase in money supply is equal to the rate of increase in output plus the rate of increase in monetary requirement per unit of output. Insofar as structural changes in the economy are likely to increase monetary requirement per unit of output, a greater leeway exists for financing capital formation through monetary expansion than may appear from the increase in output alone. The conclusion that monetary requirement per unit of output is likely to increase, emerges from three types of evidences: first, structural changes in Pakistan at present are likely to decrease the income velocity of circulation of transactions money; second, hoards are likely to increase at a rapid rate; and third, the relative importance of the monetized sector of the economy will increase as the non-monetized sector gradually becomes monetized and the monetized sector grows at a higher rate than total output.

Between the years 1951-52 (July-June) and 1959-60, the price level increased by about 20% (according to the Institute of Development Economics Index), money supply by 76% and output by 21%, so that, by implication, monetary requirement per unit of output increased by 35% over the period (or by 3.9% per annum)¹. Simple extrapolation of the latter and acceptance of the Second Five Year Plan's output projections (20% increase by 1965) indicate that the safe limit to monetary expansion, during 1960-65, is 2400 million rupees. The implicit projection of the Planning Commission about monetary requirement per unit of output is a 1% per annum growth. According to this projection, coupled with the output projection, the safe limit to monetary expansion during 1960-65 is 25% of 1960 money supply, *i.e.*, 1464 million rupees.

To the extent that factors such as the public's demand for currency, time deposits, and bank loans, and the banking system's desire for reserves or liquidity, underwent fluctuation, the relationship between deficit financing, however defined, and money supply appears to have been tenuous. Even more so is the relationship between changes in money supply and changes in price level. Thus the conclusion that the chain of relations from deficit financing to price level is too loose to have short-run predictive value is plausible. But a study of these relationships over a longer period (*e.g.*, the Second Five Year Plan Period) is worthwhile because the factors that affect price levels are not so unpredictable when periods longer than a year are considered.

¹ But monetary requirement per unit of output has probably fallen over the last few years.

The safe (*i.e.*, non-inflationary) limit to deficit financing (first definition) during the Second Plan period can be estimated from the estimates of the safe limit to monetary expansion—by subtracting the increase in private advances from, and adding the increase in time deposits to, the safe limit to monetary expansion. It is 1,064 million rupees, given the following values of the parameters: safe-limit to monetary expansion = 1,464; increase in private advances = 700; and increase in time deposits = 300 (all in millions of rupees).

The safe limit to deficit financing (second definition), which is estimated in a somewhat different manner, is 1,040 million rupees. This implies that the deficit financing (first definition) projected under the Second Five Year Plan, 1,000 million rupees, will not be inflationary even if all this new debt is purchased by the State Bank, provided only that (1) output grows, as planned, by 20% over 1960-65, and (2) monetary requirement per unit of output increases by about 5% during the Plan period.

