

# Trends in Bank Advances

By

Sangeetha L. Ghalani

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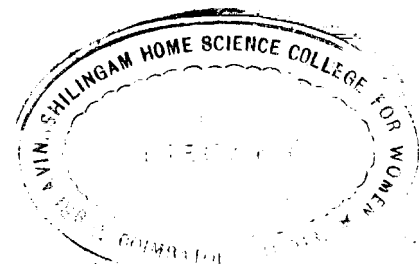
Department of Economics

Sri Avinashilingam Home Science Autonomous College  
For Women

(AFFILIATED TO THE UNIVERSITY OF MADRAS)

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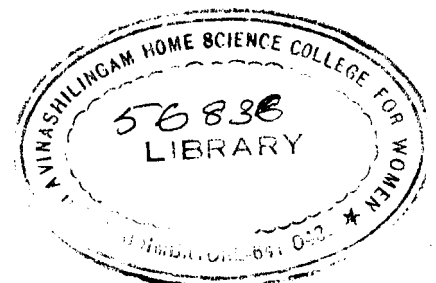


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## I. INTRODUCTION

Banks in India, have emerged as important instruments of socio - economic change. Commercial banks, have undergone significant transformation during the last two decades; contours and the complexions of the change having been determined by the socio - economic and political context of their operation in the country. The banks have traversed a long and untrodden path, during the period, and their traditional functions being "takers of deposits, lenders of money and providers of money transmission services."

Lending is by far the most important functions of a modern bank. Advances comprise a large portion of banks total assets, and form the backbone of the bank's structure. The strength of the bank is thus primarily judged by the soundness of its advances.

Advances not only play an important part in gross earnings of banks but also promote the economic development of the country. The emphasis of banking policy on credit deployment has been on two aspects - a more balanced distribution of

credit among different regions and an increased flow of credit to priority sectors. Advances by commercial banks are made to industries, including small scale industries largely for working capital and to a certain extent for acquisition of fixed assets to trade including exports and agriculture.

A clean advance is generally granted for a short period after taking into consideration the net liquid resources of the borrower. Since there is no security to fall back upon, only such parties are considered eligible as would at short notice be expected to adjust the accounts. A large portion of bank advances is granted to meet the working capital requirements of the borrowers, i.e., for purchasing raw materials and carrying on the business. A small portion of advances is in the form of medium term loans for meeting the fixed capital requirements of borrowers, i.e., funds for renovation of buildings, improvement of land and purchase of machinery. In these cases, there is a regular programme of repayment. Bills may be payable on demand or on due dates.

A bank's advances can be divided into two groups, viz., those made against security upon which the bank relies and those made on the general credit standing of the borrowers and evidenced only by a promissory note. Thus, advances fall under two broad heads, personal and collateral. This division corresponds to the distinction made by the Companies Act, 1956 between secured and unsecured loans.

A loan is an advance which is made in a lumpsum without liberty to the borrower or repaying with a view to subsequent withdrawal.

A sizeable portion of the loans and discounts particularly of a Commercial bank consists of unsecured loans, that is, loans which are arranged against no specific collateral and which are the obligations of borrowers who, in the opinion of the lending bank, are excellent credit risks. Such advances are evidenced only by a negotiable instrument, promissory note or bill, and are called "unsecured" or "clean" and the note is referred to as an "unsecured note" i.e., one in which the borrower has pledged no specific asset to secure payment to the bank when the note falls due for payment. A secured loan is one in which specific property is pledged to secure payment of the loan. The note is referred to as a "secured or collateral note."

Another type of an advance is the overdraft and cash credit. In the case of an overdraft the arrangement is in relation to person's current account and the customer can overdraw from his account upto the limit permitted by the banker; whereas in the case of a cash credit the customer conti-

nuously avails of the bank's credit usually against securities without at any time, keeping a credit balance. Besides, an overdraft is supposed to be for a comparatively short time whereas it is not so in the case of a cash credit.

The major source of the bank's funds is its deposits and original capital investment of the bank's shareholders plus retained net profits and the reserves built up over the years.

The primary loan considerations are safety and liquidity. A bank lends the sums which he has received as deposits from countless customers of varying financial position both rich and poor.

By weight of authority, it is contended that in granting credit three elements must be considered, namely, character, capacity and capital. Business character is business reputation, built up by long years of fair dealing. Capacity means the ability of the business man so to conserve his resources, and to conduct his affairs as to be able to meet his obligations on time. The efficiency of capital, measures the capacity of the applicant, for it indicates the amount of careful consideration that he has therefore given to his use of credit and also the extent of economy in the organisation and administration of his business.

Therefore, the credit equation can be stated as:

**Character + Capacity + Capital = Limit of Credit.**

Lending is done in various ways, in various forms, and for various purposes. Essentially, it is the means of providing liquidity to the borrower at a point of time for a future period. When the purpose of providing liquidity is to generate additional economic activity with stipulated liquidity, it is termed as productive lending.

The basic essentials of good lending, where the intention is to deal in money proper and not other assets acquired in lieu of money lent are: existence of assets with the borrower that are acquired from the monies lent; use of such assets for the purpose of generating cash; generation of enough cash to pay for the service of monies lent; visible gains to the borrower from using such monies arising from generation of surplus; and relation of money over the period for which the monies are lent.

The objective of good lending is based on issues such as, proper end use of funds; proper utilisation of funds for productive purpose; adequate generation of surplus; appropriate motivation for the borrower; and approximation of estimates to actuals under conditions of uncertainty.

The basis of sanctioning financial limits has to be the reasonable level of current assets needed for a smooth flow of production. The various steps in fixing the limits for borrowers consist of - determining reasonable level of financeable current assets at peak level financial requirements in the year for which limits are to be provided; setting off current liabilities related to financeable current assets against them to determine working capital; stipulating borrowers contribution to working capital as proportion as well as a sum minimum; balance being working capital gap to be provided as the maximum finance bank should be able to provide by way of financial limits such that current assets exceed current liabilities including bank borrowing; sub-divide financial limits into sub - limits whose total may exceed the limits which cannot be drawn all at a time; determine back up of other commitments needed from the bank for financing in respect of current liabilities in addition to financial limits; stipulate margins to be maintained in respect of financial current assets held by the borrower from time to time.

The principle commodities against which advances are generally made by bankers include: Foodstuffs, viz., Rice, wheat, Millets, Sugar, Salt, Ghee, etc. Fibres, viz., Cotton

and Jute. Oilseeds viz., Linseeds, Cotton seeds, Toria seeds, Ground-nuts. Hill produce, viz; Tea, Coffee and Rubber. Manufactured articles; viz., Iron and Steel, Paper, Hides and Skins, Textiles goods, Films and Miscellaneous articles, viz., Tobacco, Wool, Gold and Silver, Spices, Cashewnuts.

A striking feature of commercial banks operations has been the diversification of their advances portfolio. Sizeable amounts of money have been given by banks by way of food procurement credit, loans to agriculture, export finance and advances to other priority/neglected sectors - small - scale industry, road and water transport operators, retail traders and small businessmen and professionals and self-employed persons.

Thus the basic meaning behind all good banking is that of service to the people, to the Government and to all good undertakings; working together to build a country, to build a rising living standard for all and every one.

Today the bankers, are engaged in this process and there are no limitations to their activities. This can be observed from the characteristics of the Banker rendered by Chase Manhattan, enumerating, "A Banker today is a lot more than money

specialist who waits for the community to come to him. He is well rounded, imaginative individual who knows to present a package of financial services to fill his clients needs. He is professionally involved with every kind of business from a Government to space exploration, to problems of an emerging nation. And he cannot be pigeonholed because versatility is one of the ingredients of his creed and one of the keys to success".

#### NEED FOR THE STUDY:

With the nationalisation of Commercial banks, there has been a change in the lending policies, directed towards socio - economic justice and economic development.

Thus, the investigator is interested to find out the extent of changes in the trends of advances through the change in money supply, national income and rate of interest.

#### LIMITATIONS OF THE STUDY:

One of the limitations of the study is that the Reserve Bank of India Bulletins - Report on Currency and Finance were not available from 1960 to 1972. The data for Bank advances

was obtained from the Reserve Bank of India, Bombay. As time was the limiting factor the data for the variable, rate of interest (Advance Rate and Bank Rate), could not be obtained and hence, the study had to be restricted to 1970 to 1980 and a comparison of pre and post nationalisation trend of advances could not be made.

#### OBJECTIVES OF THE STUDY:

1. To examine the trend and magnitude of variability of the various components, comparison of advances in relation to money supply, national income, over a period of ten years.
2. To quantify the impact of money supply and national income on bank advances.
3. To analyse the impact of Rate of Interest on bank advances.

## II. REVIEW OF LITERATURE

"Banking means the accepting, for the purpose of lending or investment, of deposits of money from the public repayable on demand or otherwise, and withdrawable by cheque draft, order or otherwise" (The Banking Regulation Act, 1949).

In developing countries, where economic growth tends to be uneven, judicious disbursement of credit can control haphazard growth. For this reason, an efficient and comprehensive banking system is crucial.

According to Phiroze.B.Medhora, Joint Managing Director, of ICICI: "In the case of banks, till 1969, the Government could only issue policy directives in respect of use of funds. These directives were in the nature of Central Banking Control, and therefore, did not govern the allocation of funds according to the economic policy of the Government."

In order to ensure that the vast resources controlled by the banking system were utilised to meet the basic goals of public policy such as economic growth and social justice - it was realised that there was no option but to nationalise some of the

major banks. Consequently, on July 19, 1969, 14 major Indian Commercial Banks - accounting for 83 per cent of the total deposits were nationalised. Subsequently, in April 1980, six more were added to the list: "...in order to further control the economy to meet progressively and serve better, the needs of the development of the economy and to promote welfare of the people in conformity with the policy of the State." As a result of these landmarks, the share of nationalised banks increased to 90.7 per cent in terms of deposits and 90.6 per cent in terms of advances.

Immediately after nationalization, the outlook of Indian banking underwent a sea change with branches mushrooming veritably overnight. The total number of branches in the twenty two years prior to nationalisation stood at 8,262. Yet, by April 1981, the number stood at 35,192. As a result the population per branch declined progressively from 65,000 in 1969 to 19,000 in 1981.

An important characteristic of this mammoth expansion was the emphasis on more and more branches in unbanked and underbanked rural and semi - urban areas as also in underbanked States of the country. New branches opened in rural areas as percentage of total branches opened increased from 66 per cent in 1970 to 80 per cent during 1980.

With regard to the quantum and character of advances by the Commercial banks since nationalisation there has been a sharply marked transformation and progress. In December 1969, the bank credit advanced was of the order of Rs.2,454 crores only, while in 1979-80 the bank advances went upto Rs.17,518 crores.

There has been a welcome change in the attitude of commercial banks towards credit dispensation, with greater emphasis on the viability of projects financed and the earning capacity of borrowers than on security. The lending policies are reoriented to suit the local conditions based on the repayment capacity of borrowers arising from incremental incomes.

Table I

EXPANSION OF GROSS BANK CREDIT FROM 1973 to 1980 IN PERCENTAGE

<u>Years</u>	<u>Bank Credit in Percentage</u>
1973 - 74	20.6
1974 - 75	11.8
1975 - 76	27.7
1976 - 77	17.1
1977 - 78	14.6
1978 - 79	20.8
1979 - 80	12.0
1980 - 81	19.6

During the year 1973 - 74, the commercial banks credit registered a record expansion of Rs.1,321 crores (20.6%) as compared to Rs.932 Crores (17.0%) in 1972 - 73 (excluding the bills rediscounted with the Reserve Bank of India). Total credit inclusive of bills rediscounted with Reserve Bank of India expanded by Rs.1,580 crores (24.6%) in 1973-74 as compared with Rs.936 crores (17.0%) in 1972-73. This transformation in the resources position of banks during the year may be attributed mainly to the inter-action of three factors; first, the accelerated demand for bank credit from the priority and essential sectors like food procurement operations, public sector undertakings and exports, the last having assumed added importance in the context of the oil crisis; second, the relatively slower Pace of growth in deposits; and third, the deployment of several monetary weapons by the Reserve Bank, with a view to further tightening of credit in the context of mounting inflation.

In terms of expansion of gross credit, in 1974 - 75, the increase was even lower at 11.8% as against 26.5% in the previous year, so as to contain the continuing inflationary pressure. Despite this, there was a marked increase in advances for food procurement and there was a distinct progress in the

deployment of credit to priority sectors. The 'Credit Authorisation Scheme' was further streamlined to ensure a more judicious use of bank credit as also to over - see the end use of such credit.

The pace of bank credit expansion during 1975 - 76 was faster than that of deposit accretion. Gross bank credit (including bills rediscounted with the Reserve Bank) showed an expansion of Rs.2,521 crores (27.7%) as compared with the increase of only Rs.955 crores (11.7%) in 1974-75. A major factor contributing to this expansion was the record increase in food procurement credit. Moreover, the tempo of branch expansion was accelerated and 19 Regional Rural Banks were set up with the primary objective of development of the rural economy.

Banking trends during 1976 - 77 were characterised by a sharp deceleration in credit expansion, and a higher deposit growth. The lower pace of credit expansion resulted largely from the decline in the pace of public food procurement advances, which had experienced a record increase in the previous year. The expansion in gross bank credit at Rs.1,981 crores (17.1%) was significantly lower than the expansion of Rs.2,533.4 crores (27.9%) in 1975 - 76.

The gross bank credit expansion during 1977 - 78 of Rs.1,982 crores (14.6%) was somewhat lower than that in 1976 - 77 (Rs.1,987 crores or 17.7%). This was entirely on account of a decline in public food procurement advances; non-food advances actually showed a larger rise in 1977 - 78. Advances for public food procurement, which had increased by Rs.351 crores during 1976 - 77, recorded a decline of Rs.11 crores during 1977 - 78. On the otherhand, non-food advances rose by Rs1,993 crores as compared with Rs.1,636 crores in the previous year.

Bank credit recorded high rates of growth over the year 1978 - 79 - gross bank credit rose by Rs.3,287 crores, or 29.8 per cent due to the steep expansion in non-food credit which was over Rs.100 crores a week on an average than food credit. According to the target laid down by the Government of India, advances to priority sectors like agriculture, small scale industries and small borrowers by the public sector banks were to reach a level of 33 1/3 of their outstanding credit by end - March 1979. By the end of March 1979, the share of advances to priority sectors by 50 large banks accounting for about 95 per cent of total bank credit, had increased to 30.5 per cent as against 28.2 per cent a year before. Further, public sector banks were also expected to achieve by March 1979 a credit deposit ratio of atleast 60 per cent in respect of their rural and semi-urban branches separately.

Further, progress was made by the banking sector towards the attainment of the two national targets relating to advances to priority sectors and credit deposit ratio in the rural and semi-urban areas. Although the targets could not be achieved, at the end of the June 1980, priority sector advances of major banks which account for 95 per cent of gross bank credit constituted 31.6 per cent of the total net bank credit as against 28.8 per cent a year earlier.

Two important policy decisions, relating to deployment of credit were made during the year (1) Public Sector Banks should strive to raise the proportion of advances to priority sectors from the target of 33 1/3 per cent to 40 per cent by 1985. (2) Banks should actively provide financial support to the implementation of the twenty - point programme, which aims at improving the lot of the weaker section of the population.

The year 1979 - 80 indicated a significant deceleration in the growth rate of bank credit. The increase in bank credit in 1979 - 80 was very much lower at Rs.2,366 crores or 12.0 per cent as against 22.5 per cent the year before. The slowing down of the pace of growth in bank credit was the combined result of substantial decline of Rs.586 crores in food credit and a smaller

expansion of Rs.2,952 crores or 17.7 per cent non-food credit. This deceleration in bank credit growth in 1979 - 80 is viewed in the context of a decline in national income.

The expansion in bank credit in 1980 - 81 was substantially higher at Rs.4,332 crores or 19.6 per cent as against Rs.2,381 crores or 12.1 per cent in 1979 - 80. The expansion in both the years was the net result of increase in non-food credit and declines in food credit.

As regards the national targets set for deployment of credit during the period July 1980 to June 1981, priority sectors share was as much as 45.7 per cent of the incremental non-food gross bank credit as against 43.3 per cent in 1979 - 80. The outstanding priority sector advances at the end of June 1981 formed 34.1 per cent of the total net bank credit, compared with the target of 40 per cent to be achieved by 1985. In respect of the other target that banks should deploy 60 per cent of the deposits mobilised in rural and semi-urban areas in the respective areas, at the end of December 1980, the All India Credit Deposit Ratio of rural offices worked out to 57.2 per cent and semi urban offices to 48.9 per cent.

As containment of inflationary pressure is the over-riding objective of economic policy, a slowing down of the pace of monetary and credit expansion became a must and the Reserve

Bank's Credit Policy was restrictive throughout the decade (1970 - 80). At the same time banks were urged to make renewed efforts to provide adequate credit to priority sectors as well as to meet the genuine requirements of production a public distribution of essential commodities and to pay special attention to the needs of the weaker sections of society. The Reserve Bank employed a variety of instruments to restrain credit expansion such as qualitative and quantitative credit controls, raising the cost of credit, tightening refinance facilities, bringing Participation Certificates under the purview of the Cash Reserve Ratio and Statutory Liquidity Ratio etc. Between 1973 - 1980, the bank rate ranged from 7 per cent to 10 per cent, the statutory liquidity ratio ranged between 32 per cent in 1973 to 35 per cent in 1980. The Bank tightened refinance facilities, and interest rates on standby refinance from the bank and on rediscounting of bills with the bank were raised. Quantitative guidelines were also set on non-food expansion. Hence, the credit policy pursued by the Reserve Bank was made more rigorous towards the close of the years and thereafter.

Despite, the stringent credit policies to be followed, the commercial banks catered to increase lending to the priority sectors, through the Area Approach. This implied, choosing a compact area, identifying the credit gaps and developing it intensively through Integrated Banking Facilities.

The Village Adoption Scheme which is also an integrated approach in lending was adopted as a part of the Area Approach.

In extending increased credit to agriculture, particularly among the small and marginal farmers, Credit Camps were organised by the nationalised banks.

The Scheme of the Differential Rate of Interest was formulated by the Government of India in 1972. The scheme is basically meant for improving the socio-economic lots of the weaker among the weak by providing financial assistance to them for setting up small productive endeavours at concessional rate of 4 per cent. The table below provides ample evidence that since the inception of the scheme in 1972, public sector banks have made considerable progress.

**PROGRESS OF LENDING BY PUBLIC SECTOR BANKS UNDER THE SCHEME  
OF DIFFERENTIAL RATE OF INTEREST (DRI)**

<b>As at the end of December</b>	<b>Number of borrowal accounts (000s)</b>	<b>Amount outstanding (crores)</b>	<b>Percentage of DRI advances to total advances of the previous year</b>
1972	26	0.87	0.02
1973	230	10.06	0.22
1974	313	13.35	0.23
1975	465	20.99	0.31
1976	1005	47.26	0.56
1977	1392	67.99	0.61
1978	1620	90.00	0.74
1979	2076	139.80	0.98
1980	2253	158.14	0.85

The rural people benefitted and the share of the credit advanced to agriculture, small scale industry, professionals and transport operators rose sharply from 14 per cent in 1969 to about 33.6 per cent by 1980 - 81. Says economist Jay Dubashi : "Banks are now an accepted part of the rural economic landscape and to that extent they have helped modernise village economy."

Since 1973, monitoring and allocation of credit in accordance with the priorities of various sectors befitting the objectives of the five year plan and formulating a framework of differential rate of interest have been brought out for facilitating sectoral deployment of credit. In this context, the traditional bank rate policy and the present day differential rate of interest will have their significant role to play owing to the multi - agency approach of financing agricultural and decentralised sectors. In this regard, the recommendations of the All India Credit Review Committee assumes a special significance which is "Credit to richer section in rural areas for agricultural production can be at a higher rate of interest than credit for the poorer sections."

Table III

BANK ADVANCES TO PRIORITY SECTORS - 1970-80

(Rupees in Crores)

	June 1970	June 1971	June 1972	June 1973	June 1974	June 1975	June 1976	June 1977	June 1978	June 1979	June 1980
Advance to:											
A. Agriculture (1+11)	301.64	340.96	388.45	446.08	536	768	1,004	1,275	1,659	2,221	2,365
(1) Direct Finance	160.38	205.37	231.87	285.06	392	511	726	951	1,235	1,678	2,299
(11) Indirect Finance	141.26	134.59	156.58	161.02	194	257	278	324	424	543	666
B. Small scale Industry	369.50	442.20	527.10	642.70	868	943	1,099	1,315	1,644	2,061	2,635
C. Other priority sectors	97.53	124.14	142.94	181.9	234	288	425	556	698	951	1,268
Total advances to priority sectors	678.67	907.3	1058.49	1270.68	1688	1,999	2,528	3,146	4,011	5,233	6,868
Sectors (A+B+C)											
Total advances to all Sectors.	13577.60	4079.76	4621.71	5336.77	6692	7,654	9,928	11,643	13,364	16,700	20,026.

There is another noticeable change in the bank's lending policy in the post - nationalisation period. In order to help banks increase their contribution towards employment creation, the Thakkar Committee recommended that banks should make an effort to finance various self-employed groups. Banks have hitherto evolved credit schemes for sophisticated sections of self-employed groups such technicians, engineers, doctors and transport operators with adequate fleet. However, for the unsophisticated self-employed groups of modest means, such as fruit and vegetable vendors, farmers undertaking allied agricultural activities and operating cottage industries, cobblers and so on, the recommendations of the Committee had been accepted and the Government announced a scheme of concessional rate of interest lending for such small people. The scheme came into force, lending to this sector at a flat rate of 4 per cent per annum provided the borrower satisfied two conditions.

1. He works hard and
2. He does not employ an assistant in his job.

The Committee had also recommended the establishment of an apex body called the Multi Service Agency to provide integrated financial assistance and technical advice on financial management, purchase of raw materials and marketing of products to vast multitude of self-employed groups.

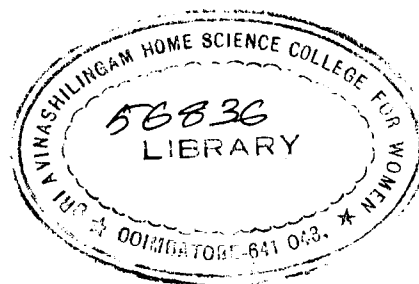
Two study groups were appointed under the chairmanship of Prof: D.R. Gadgil and V.T. Dehegia to study respectively

a) implementation of social control objectives  
and

b) gaps in credit requirements and disbursements.

These groups found that social control on banks did little to check the uneven flow of credit between different territories. It was also not a very successful measure in extending credit to weaker sections of the society as they continued to remain neglected. The study group suggested that improvements could be made through a new orientation in banks, called the 'Lead Bank Scheme'. According to this scheme, every bank was to take a lead bank role and undertake the responsibility for developing certain chosen areas by expanding its efforts at deposit mobilization. The lead bank scheme was expected to increase credit to agriculture and small - scale industries by expansion of banks branches to rural areas and by close connection with other credit institutions.

In 1969, the lead bank scheme came into operation in 336 districts in the country with the exception of the metropolitan areas like Bombay, Calcutta, Madras, Chandigarh,



Delhi and Goa. Each lead bank was expected to work in close connection with Co-operative banks and financial institutions to fill in credit gaps in priority sectors and rural areas.

A review of the social control objectives showed that while several controls were instituted in banks, they failed to channelize credit facilities to priority areas and gaps continued to grow. To serve the needs of the development of the economy the Government nationalised commercial banks. The aim of nationalization was

1. to direct resources to those areas which had urgent requirement of funds;
2. to avoid the use of credit for speculative and unproductive purposes, and
3. to expand the branches of banks to extend credit facilities and encourage banking habit to a wider population.

With a world-wide flare of prices and stagnation in our agricultural and industrial production recently, fuelled an unprecedented rise in prices and in turn led to a rise in demand for credit. Moreover in 1973, when demand for credit

rose steeply at a time when production was not rising, the Reserve Bank imposed certain credit restraints. To fit in with these economic compulsions, the bank felt that the time was opportune to bring about other reforms in the bank credit systems, so that it could be geared to fulfill a developmental role in the economy in the coming years.

It was against this background that the Reserve Bank constituted in July 1974 to frame guidelines for follow-up of bank credit. Its terms of reference were:

- ( i) To suggest guidelines for commercial banks to follow-up and supervise credit from the point of ensuring proper use of funds and keeping watch on safety of advances;
- ( ii) to make recommendations for obtaining periodical forecasts from borrowers of
  - (a)business/production plans and
  - (b)Credit needs

- (iii) to make suggestions for prescribing inventory norms for different industries both in the private and public sector and indicate the broad criteria for deviating from these norms.
- (iv) to suggest criteria regarding satisfactory capital structure and sound financial basis in relation to borrowings;
- (v) to make recommendations regarding the sources for financing the minimum working capital requirements;
- (vi) to make recommendations as to whether the existing pattern of financing working capital requirements by cash credit/overdraft system etc., requires to be modified, if so, to suggest suitable modifications, and
- (vii) to make recommendations on any other related matter as the group may consider germane to the subject of enquiry of any other allied matter which may be specifically referred to it by the Reserve Bank of India.

The mechanics of lending in the framework suggested by the Committee are:

As a banker should be concerned with a borrower's total operations and not merely inventories of receivables, examination of the borrower's operational plan for the next year assumes special significance. It is in the customer's own interest to plan his operations, if he is to be assured by the banker of adequate credit to meet his genuine production needs.

Financial analysis will cover examination of the borrower's past current financial position, profitability, production operations for the next year and projected financial position at the end of the next year.

The current asset position has to be examined to ensure conformity with inventory and receivable norms in relation to the projected production.

In settling the quantum of bank finance, the operating funds flow and projected financial statements provided by the customer have to be amended. This will lead to an understanding between the banker and customer

on the financial needs arising from the years' operations, covering both long term and short term finance as well as projected disposition of the resources generated.

In respect of existing advances, excess finance over and above the permissible level should be identified and replaced on a repayment basis, to be adjusted over a period of time, taking into account customers cash accruals and obligations and his capacity to raise additional equity.

The agreed quantum of bank finance will be made available in separate accounts; the minimum fund requirements during the year by way of a fixed loan for twelve months and the balance, by way of cash credit and or bills.

The quarterly operating statement and funds flow statement will constitute a segment of the annual plan submitted earlier, and the banker will see whether the quarterly plan is more or less in line with earlier expectations. Fund needs not directly linked to production needs such as for investments in or loans to subsidiary firms or other companies etc., will be evident from the quarterly funds flow statement, and the banker will have to take a view on what is not permissible.

reasons.

and beyond this, the banker and customer should discuss the  
Variance to the extent of say  $\pm 10$  per cent should be permissible,  
suggested that there should be flexibility in permitting drawings.  
always be correct. Variances are bound to arise and it is  
No budget or plan, however, carefully compiled, can

requirement to the banker.

If so, the borrower will have to specifically indicate the peak  
statement which will only show movement of funds between two dates.  
can conceivably be greater than what is shown in the funds flow  
the funds flow statement. The peak requirement within the quarter  
previous quarter plus or minus the deficit or surplus shown in  
the sanctioned limit will thus be the level as at the end of the  
The permissible level of drawing in any quarter within

quarter.

tional demand cash credit bank borrowings required in the  
deficit in cash during the quarter will be the level of addi-  
funds as reflected in the quarterly funds flow statement. The  
be determined by the customers inflow of funds and outflow of  
The actual drawings within the sanctioned limit will

The Reserve Bank of India appointed a study group in March 1979 to review the working of the cash credit system in recent years with particular reference to the gap between the sanctioned limits and the extent of their utilisation, under the Chairmanship of Mr.K.B.Chore.

The primary aim of setting up this Committee is to look into the operation of the Cash Credit System and to find alternative ways of controlling the flow of bank credit to industry, in order to establish a link between output and credit needs.

After analysing the advantages and disadvantages of different systems of lending in vogue, viz., Cash Credit, loans and bills, the Committee came to a conclusion that no system was superior to the other. While considering the characteristics of a good system of lending, the Chore Committee recommended the following measures for the future system of lending by the Commercial banks.

- (1) The advantages of the existing system of extending credit by a combination of three types of lending, viz., cash credit, loan and bill should be retained. At the same time, it is necessary to give

some directional changes to ensure that wherever possible the use of cash credit would be supplanted by loans and bills. It would also be necessary to introduce necessary corrective measures to remove the impediments in the use of bill system of finance and also to remove the drawbacks observed in the cash credit system;

- ( 11) The short term loan system with facility for repayment in instalments where necessary should be increasingly used for financing small borrowers, particularly in the priority sectors, for grant of packing credits for export purposes and generally for all types of 'single transaction' finance. This system could be used where necessary in the case of medium and large borrowers for grants of adhoc accommodation for specific needs, eg., bunching of imports, bonus payments, advance payment of income tax, unexpected delay in collection of receivables etc.

(iii) While the bill system of financing receivables is quite popular in the country, the drawee bill system for financing purchases has not still made much headway. The drawee bill system also requires to be encouraged and should progressively replace cash credits against raw materials and inputs.

Thus within the framework of the situation created by its proposal for reduction in bank financing of the working capital requirements of Medium and Large firms, the Chore Working Group's recommendations are aimed at curbing the use of cash credits and increasing the role of short - term loans and bill finance in the over - all scheme of bank finance. Now the question is: Does the loan system or bill finance system have such an overwhelming advantage that it is worthwhile nevertheless to shift from the cash credit system to those as the working group has suggested.

The system of granting advances by way of cash credits has its origin in the U.K. In India, this system of lending was for the first time introduced by the Union Bank in 1839. Since

then it has made rapid strides in the grant of credit to industry by Commercial banks. By 1950's a much larger portion of the bank funds was used to finance the industries like textiles, jute, sugar, rice mills, etc., through the system of cash credits. In addition, banks were also used to finance the movement of agricultural produce referred to as 'produce cash credits' which were being liquidated in full at the close of the season. Cash credits are, thus advances granted by the Commercial banks to industry and trade for meeting their working capital needs. They may be secured or unsecured. But most of the cash credits are secured by the hypothecation of raw materials work-in-progress, finished goods, stores and spares and are treated as "Demand Cash Credits". Under this system, normally a credit line is fixed every year for each undertaking by the lending bank and the amount is transferred to the current account maintained by the borrower with it. The borrower is free at any time to withdraw money from his current account.

As at present, industrial advances made by way of cash credits came to represent a predominant share in the credit portfolio of commercial banks. Evidently, it has come to be regarded as the lone way of making available the bank

funds to industry and trade, primarily due to its flexibility and operational convenience. The borrower under this system is free to withdraw the funds at any time as required by him within the sanctioned limits, while he is also free to reduce his indebtedness and interest charges by depositing the cash accruals in his account. This has been recognised by the Committee itself and it observes: "The anxiety to minimise interest charges prompts the borrower to route all his cash accruals through the account and keep the drawings at the minimum required level. This ensures lesser cost of funds and facilitates a better turnover of funds for the bank as well. The flexibility of the system also takes care of temporary requirements of funds by the borrowers without undue delay, without detailed negotiations and without creating any problem of documentation and security charging."

The system is also operationally convenient for the customers who can route all their transactions in one account and also for the banks who have to maintain only one cash credit account for all transactions of the customer. The account can also be operated whether the balance is in debit or credit. Further, unlike the other systems of lending, credit limits are

fixed once in a year and the borrower is not required to present his case often times in a single year in the cash credit system. The fact that the customers as well as bankers are well accustomed to it is another reason for its continuing importance till today.

Pursuant to the decision taken at the Finance Ministers meeting, the Reserve Bank of India constituted, on March 13, 1980, a working group to examine and report on the modalities of implementation of the 20 - Point Programme. The Terms of Reference of the Working Group were:

- (1) Identification of the specific groups of which are to be assisted under the 20 - Point Programme;
- (2) The ways and means of rendering assistance to the beneficiaries identified under the programme;
- (3) To look into the question of fixing sub - targets (within the enhanced overall target of 40 per cent for assistance to priority sector) to the identified beneficiaries.

- (4) To consider whether certain types of assistance to the beneficiaries identified under the programme which is presently not treated as "priority sector" should be included in the "priority" category;
- (5) To consider modalities of evaluation of the performance of banks in the lending to priority sectors particularly under the programme;
- (6) To suggest an appropriate machinery within the banks to monitor the progress of the assistance to the priority sector, particularly under the programme and
- (7) To make any other recommendations which are incidental or related to the terms of reference mentioned above.

The group submitted its report on April 22, 1980. In pursuance of the recommendations made by the group, banks were advised on October 29, 1980 that

- (1) Forty per cent of the priority sector lending should be extended to the agricultural sector by 1985.

( ii) Fifty per cent of direct lending by commercial banks to agricultural and allied activities, should be directed to the weaker sections such as small and marginal farmers and agricultural labourers by March 1983, and

(iii) 12.5 per cent of the total credit advanced to Small - Scale Industries, should be for rural artisans, village craftsmen and cottage industries by 1985.

Hence, the commercial banks have emerged as harbingers of critical changes in the socio-economic agrarian and industrial milieu of the country. In India today, no more can the old saying "credit goes to where money is" can be held true. On the other-hand, it will be more correct to say that credit goes where it is required and where it is productively utilised. Besides, the banks have proved beyond doubt that the financial assistance they extend when combined imaginatively with a package of measures for enabling the utilisation of the money productively and profitably, can be an important instrument in bringing about the required changes in the attitude and aspirations of man, paving the way for social transformation and economic development.

### III. DATA AND METHOD

The data base of the study and the method of analysis used therein are derived below:

Since the subject of the study is "Trends in Bank Advances" 1970-1980, secondary data regarding the related and relevant variables of bank advances, like, the Money supply, National Income and Rate of Interest which include Advance Rate and Bank Rate, is needed for the study. As secondary data provided an adequate basis for analysis and published statistics were available from 1970-80, the data on bank advances were obtained from the Reserve Bank of India, Bombay and data on Money Supply, National Income and Rate of Interest (including Advance Rate and Bank Rate), were obtained from the various issues of Report on Currency and Finance from Southern India Bankers' Training College, Coimbatore.

The Bank Advance, Money supply, National Income and Rate of Interest (Advance Rate and Bank Rate) are defined as:

#### Bank Advance:

A clean advance is generally granted for a short period after taking into consideration the net liquid resources of the borrower. Since there is no security to fall back upon, only such parties are considered eligible as would at short notice be expected to adjust the accounts.

### MONEY SUPPLY:

Money supply comprises currency with the public and such of the deposit money with the banking system, including the Reserve Bank of India, as is withdrawable 'on demand'.

### NATIONAL INCOME:

National Income is defined as the sum of incomes accruing to factors of production supplied by normal residents of the country before deduction of direct taxes. It is identically equal to net national product at factor cost.

### RATE OF INTEREST:

Interest is the money which is paid for a loan or the use of money. In the case of a banker, interest is paid by him to customers for money deposited, and is received by him for money he has lent to customers. Interest is expressed in terms of an annual rate of percentage upon the principle.

### ADVANCE RATE:

Advance rate is the lending rate, at which commercial banks give loans to the public for commercial purposes.

## BANK RATE:

The Bank Rate is the advertised minimum rate at which the Reserve Bank will discount approved bills of exchange, but the rate which was actually charged to customers who kept their accounts with the Bank was the current market rate, which was, as a rule, lower than the Bank Rate. The rate was regulated according to the supply of money, on the one hand and the demand for it on the other. The rates, whether for loans, discounts or deposits were regulated more or less, according to the Bank Rate. The bank rate has now assumed some of its former significance as a weapon in the hands of the Government to check inflation and stimulate demand as and when necessary.

## II. METHOD OF ANALYSIS:

The investigator has presented the analysis under the following headings:

1. Correlation Analysis
2. Linear Regression Analysis
3. Multiple Regression Analysis
4. Compound Growth Rate Analysis

## 5. Graphical Representation

- a. Multiple bar diagram
- b. Trend Line
- c. Yearly Fluctuations.

### 1. CORRELATION ANALYSIS:

The method of correlation along with co-efficient of determination is used to measure in one figure the degree of relationship existing between the Bank Advances, Money supply, National Income and Rate of Interest (Advance Rate and Bank Rate)

The correlation was obtained by using the formula:

$$\sum dady = \frac{(\sum da) \times (\sum dy)}{N}$$

$$r = \frac{\sum dady}{\sqrt{\sum da^2 - \frac{(\sum da)^2}{N}} \sqrt{\sum dy^2 - \frac{(\sum dy)^2}{N}}}$$

where 'a' is bank advances; 'y' is for the variables, money supply, national income and rate of interest.

The square of the correlation coefficient is also computed to find out the co-efficient of determination.

## 2. LINEAR REGRESSION ANALYSIS:

The Linear Regression Analysis is applied to the data to determine the average probable change in the Bank Advances due to the variables, Money supply, National Income and rate of interest.

The Linear regression was found out by applying the formula:

$$A - \bar{A} = b_{AS} (S - \bar{S})$$

$$b_{AS} = \frac{\sum d_A d_S}{\sum d_S^2} = \frac{(\sum d_A)(\sum d_S)}{(\sum d_S)^2}$$

where 'A' refers to bank advances; and S refers to the variables, money supply, national income and rate of interest.

## 3. MULTIPLE REGRESSION:

Multiple Regression is used to assess which variables among the three variables considered for the study influenced bank advances and was the dominating factor.

The multiple regression is found out by using the following formula:

The estimated regression line will be:

$$\hat{A}_t = \hat{b}_0 + \hat{b}_1 x_{1t} + \hat{b}_2 x_{2t} + \hat{b}_3 x_{3t}$$

where,  $\hat{b}_0, \hat{b}_1, \hat{b}_2, \hat{b}_3$  are the estimated parameters of  $b_0, b_1, b_2$  and  $b_3$  respectively.

The estimate of the parameters are obtained by the following formulae.

$$\hat{b}_0 = \bar{A} - \hat{b}_1 \bar{x}_1 - \hat{b}_2 \bar{x}_2 - \hat{b}_3 \bar{x}_3$$

$$|B| = \begin{vmatrix} \sum x_1^2 & \sum x_1 x_2 & \sum x_1 x_3 \\ \sum x_2 x_1 & \sum x_2^2 & \sum x_2 x_3 \\ \sum x_3 x_1 & \sum x_2 x_3 & \sum x_3^2 \end{vmatrix}$$

$$\text{Estimate of } \hat{b}_1 = \frac{\begin{vmatrix} \sum x_1 a & \sum x_1 x_2 & \sum x_1 x_3 \\ \sum x_2 a & \sum x_2^2 & \sum x_2 x_3 \\ \sum x_3 a & \sum x_3 x_2 & \sum x_3^2 \end{vmatrix}}{|B|}$$

$$\hat{b}_2 = \frac{\begin{vmatrix} \sum x_1^2 & \sum x_1 a & \sum x_1 x_3 \\ \sum x_1 x_2 & \sum x_2 a & \sum x_2 x_3 \\ \sum x_3 x_1 & \sum x_3 a & \sum x_3^2 \end{vmatrix}}{|B|}$$

$$\hat{b}_3 = \frac{\begin{vmatrix} \sum x_1^2 & \sum x_1 x_2 & \sum x_1 a \\ \sum x_1 x_2 & \sum x_2^2 & \sum x_2 a \\ \sum x_3 x_1 & \sum x_3 x_2 & \sum x_3 a \end{vmatrix}}{|B|}$$

'a' refers to bank advances, 'X'<sub>1</sub> = money supply X<sub>2</sub> = national income, X<sub>3</sub> = advance rate / bank rate.

The small letters of the parameter denotes its deviation from the corresponding means.

The standard error test is also used to test the significance of the derived result.

$$\sum e_i^2 = \bar{A}_1^2 - \sum b_1^2 \rightarrow \sum x_1^2 - \sum b_2 \sum x_2 - \sum b_3 \sum x_3$$

$$\hat{\sigma}_e^2 = \sum e_i^2 / n - 4$$

$$\text{Variance } \hat{b}_1 = \frac{1}{6n} \begin{vmatrix} \sum x_2^2 & \sum x_2 & x_3 \\ \sum x_2 x_3 & & \sum x_3^2 \end{vmatrix} \frac{1}{|B|}$$

$$\text{Variance } \hat{b}_2 = \frac{1}{6n} \begin{vmatrix} \sum x_1^2 & \sum x_1 & x_3 \\ \sum x_1 x_3 & & \sum x_3^2 \end{vmatrix} \frac{1}{|B|}$$

$$\text{Variance } \hat{b}_3 = \frac{1}{6n} \begin{vmatrix} \sum x_3^2 & \sum x_1 & x_2 \\ \sum x_1 x_2 & \sum x_2^2 & \end{vmatrix} \frac{1}{|B|}$$

The variance of each parameter is the product of  $\hat{\sigma}^2$  multiplied by the ratio of the minor determinant. The minor determinant for each parameter is formed by the elements of the determinant left after striking out the row and column including the parameter associated with this parameter and is divided by the determinant  $B$ .

The standard error test used is:

$$Sb_1 = \sqrt{\text{Variance } b_1}$$

If  $S(\hat{b}_1) < (1/2) \hat{b}_1$ , then the estimate  $\hat{b}_1$  is statistically significant at the 5 per cent level of significance.

#### 4. COMPOUND GROWTH RATE :

The growth rates of bank advances and national income for ten years was computed by fitting an exponential function of the form

$$A = Ke^{bt}$$

where  $A$  is Bank advances and ' $t$ ' is time. By taking logarithms of both sides of the equation, it takes the form.

$$\text{Log } A = \text{Log } K + bt \text{ Log } e$$

$$\text{Log } A = \text{Log } K + bt$$

If we put  $\text{Log } A = Y$  and  $\text{Log } K = a$ ; for convenience sake, the equation becomes;

$$Y = a + bt.$$

#### 5. GRAPHICAL ANALYSIS:

The Graphical Analysis was used to fit a trend line for Bank advances and show the yearly fluctuations in bank advances and the variables.

#### IV. RESULTS AND DISCUSSION

Results of the study on "Trends in Bank Advances" are described under the following heads:

1. Growth of Bank Advances over a period of ten years (1970-1980) as compared with National Income;
2. Growth Rates of Bank Advances, money supply and National Income;
3. Magnitude of variability of bank advances in relation to money supply, national income and rate of interest (Advance Rate and Bank Rate)

##### 1. GROWTH OF BANK ADVANCES IN THE REFERENCE PERIOD (1970-80)

An overview of the position of bank advances, in relation to national income in India is presented in the following paragraphs.

Table IV gives the details of the share of advances and the size of national income in India during the years 1970-80.

Table IVBANK ADVANCES AND NATIONAL INCOME IN THE PERIOD (1970 - 1980)(Rs. in crores)

<u>Year</u>	<u>Advances</u>	<u>National Income</u>
1970	4684	33,946
1971	5161	35,756
1972	5732	38,921
1973	7306	49,631
1974	8489	58,137
1975	10615	60,293
1976	12784	63,600
1977	14398	76,109
1978	17824	81,228
1979	20750	90,173
1980	24364	1,10,011

Advances are considered as a means of investment; and capital formation facilitating the day-to-day trade and business thereby enhancing economic growth. There was a six - fold increase in advances during the period under consideration, we can infer that banking institutions came to play crucial role

than the non-financial intermediaries. With the nationalisation of banks and importance given to the priority sectors, the neglected sectors are also turning to banks for financial assistance and have come to depend on them increasingly.

The increase in national income was only three fold as compared to the six - fold increase in bank advances. This implies that with every increase in income, the increase in bank advances is twice as much and banking habits have picked up in the country with the spread of banking institutions in the backward areas. And the lead bank scheme which came into operation also helped to fill in credit gaps in priority sectors.

## 2. GROWTH RATES OF ADVANCES, NATIONAL INCOME AND MONEY SUPPLY

Table V shows bank advances as a proportion of National Income and Money supply.

**Table V**  
**BANK ADVANCES AS RATIO OF NATIONAL INCOME AND MONEY SUPPLY**  
**(Rs. in crores)**

Year (1)	Advances (2)	National Income (3)	Money supply (4)	Column (2) as percentage of column (3) (5)	Column (2) as percentage of column (4) (6)
1970	4684	33946	6,729	13.79	69.60
1971	5161	35756	7,557	14.43	68.29
1972	5732	38921	8,559	14.72	66.97
1973	7306	49631	10,052	14.72	72.68
1974	8489	58137	11,572	14.60	73.35
1975	10615	60293	12,547	17.60	84.60
1976	12784	63600	14,447	20.10	88.48
1977	14398	76109	30,263	18.91	47.57
1978	17824	81228	36,143	21.94	49.31
1979	20750	90173	43,756	23.01	47.42
1980	24364	110011	51,326	22.14	47.46

Bank advances as a ratio of national income stood at 13.79 per cent in 1970. This ratio increased to 22.14 per cent in 1980. While Bank Advances as a ratio of money supply decreased quite sharply from 69.60 per cent to 47.46 per cent. This shows

that national income and money supply are relatively more important variables influencing advances. Another cause for the growth of advances as a proportion of national income than money supply could be attributed to the resources mobilisation programmes of banks in favour of the backward areas. The decline in bank advances as a proportion of money supply could be referred to the increasing rate of inflation in the economy. The Reserve Bank of India thus pursues a stringent credit policy through qualitative and quantitative measures to curb inflation while at the same time mobilises resources effectively.

Table VI

3. MAGNITUDE OF VARIABILITY BETWEEN BANK ADVANCES, MONEY SUPPLY,

NATIONAL INCOME AND RATE OF INTEREST (ADVANCE RATE AND BANK RATE)

Year	Advances	National Income	Money supply	Column(2) as percentage of column(3)	Column(2) as percentage of Column(4)	Advance Rate	Bank Rate
1	2	3	4	5	6	7	8
1970	4684	33946	6729	13.79	69.60	7.0	5.0
1971	5161	35756	7557	14.43	68.29	8.5	6.0
1972	5732	38921	8559	14.72	66.97	8.5	6.0
1973	7306	49631	10052	14.72	72.68	8.5	6.0
1974	8489	58137	11572	14.60	73.35	9.0	9.0
1975	10615	602293	12547	17.60	84.60	13.5	9.0
1976	12784	63600	14447	20.10	88.48	14.0	9.0
1977	14398	76109	30263	18.91	47.57	14.0	9.0
1978	17024	81228	36143	21.94	49.31	13.0	9.0
1979	20750	90173	43756	23.01	47.42	16.50	9.0
1980	24364	110011	51326	22.14	47.46	16.50	9.0

The above table reveals that, as advances are increasing, the advance rate and Bank rate are also increasing, leading to the conclusion that this increase in interest rates due to an increase in advances might be due to the accelerated demand for bank advances from the priority and essential sectors like food procurement operations, public sector undertakings etc.

The magnitude of variability of bank advances from its mean value is computed by using the method of correlation. The co-efficient of correlation showed the association between bank advances and the variables national income, money supply, rate of interest (advance rate and bank rate)

The results of the correlation analysis are given in Table VII

Table VII

CORRELATION BETWEEN BANK ADVANCES AND NATIONAL INCOME, MONEY SUPPLY, RATE OF INTEREST (ADVANCE RATE AND BANK RATE)

<u>S.No.</u>	<u>Variables</u>	<u>Correlation Coefficient.</u>	<u>Coefficient of determination</u>
1.	National Income	.32	.1024
2.	Money supply	.30	.09
3.	Rate of Interest		
	a. Advance rate	.25	.0625
	b. Bank rate	.11	.0121

The correlation coefficient between bank advances and the variables was positive though the size of the co-efficients were low and inspite of this national income was one of the most important variable influencing Bank Advances with money supply following close - by. The co-efficient of determination showed that .1024 of the variation of bank advances is associated with national income and .09 of the variation in bank advances could be attributed to the change in money supply.

The variation in bank advances could also be attributed to changes in advance rate (.0625), but variations in bank advances due to changes in bank rate is negligible, that is by .0121.

From the above table, it can thus be inferred that other factors may also influence the variations in bank advances vastly than the variables taken by the investigator.

#### COMPOUND GROWTH RATES OF BANK ADVANCES AS COMPARED WITH NATIONAL INCOME

The Compound Growth Rate Analysis is an indispensable too in studies on trends. These growth rates are in a way a summary statepart of the way in which the variable (Bank Advances and National Income) have behaved over a period of time.

The exponential function fitted to the related data yielded the results shown in table VIII.

Table VIII

COMPOUND GROWTH OF BANK ADVANCES AND NATIONAL INCOME (1970-80)

<u>S.No.</u>	<u>Variable</u>	<u>Initial Co-efficient</u>	<u>Parameter</u>
1.	Bank advances	1546	.785
2.	National Income	1036	.527

The compound growth rate of bank advances is higher than that of national income. While bank advances increased at the rate of .785, the national income increased at a compound rate of .527. This shows that bank advances increased at a faster rate than national income. This may be due to, the unemployed turning <sup>to</sup> banks for financial assistance in the hope of self-employing themselves.

Table IX

REGRESSION BETWEEN ADVANCES AND MONEY SUPPLY NATIONAL INCOME

AND RATE OF INTEREST

<u>S.No.</u>	<u>Variable</u>	<u>Linear Regression</u>	<u>Correlation Coefficient</u>
1.	Money supply	.401	.9723
2.	National Income	.273	.9870
3.	Advance Rate	176259.84	.9211
4.	Bank Rate	299541.96	.7452

The regression co-efficient of Advances (A) on money supply (S) is denoted by the symbol 'bas'. It measures the change in Advances (A) corresponding to a unit change in Money supply (S). From the result the investigator comes to the conclusion that the rate of change in advance is directly influenced by the Money supply (.401). This shows that there is a positive correlation (.9723), between the Advances and money supply.

It can be inferred that the increase in Money supply and its influence on Advances may be due to increase in National Income which also influences the bank advances.

Similarly the rate of change in Advances is directly influenced by the National Income (.273) but to a lesser degree than Money Supply. The correlation between Advances and National Income too is positive (that is .9870).

From the analysis the investigator expresses that the increase in National Income and its influence on advances may be pinned down to the growth of the productive sectors of the economy.

The above table also shows the changes in Advances due to a change in Advance Rate (176259.84) and the correlation between these two was also positive (.9211).

From the above table it can be concluded that the change in advance rate which brings about a change in advances was due to increasing amount of loans provided by the commercial banks and the increasing dependence of people on financial institutions for financial assistance.

From the results shown in the above table, the investigator comes to the conclusion that the rate of change in advances is directly influenced by the Bank Rate (299541.96). This shows that there is a positive correlation (.7452) between the advances and the Bank Rate. This may be due to the fact that, the Bank Rate is the minimum at which the Reserve Bank discounts the approved bills of exchange.

From the Standard Error 'Test' the investigator infers that the relationship between Advances and the variables is statistically significant at the 5 per cent level of significance (that is for advances and money supply  $12.23 > 2$ ; advances and National Income,  $18.44 > 2$ ; advances and advance Rate,  $707.87 > 2$ ; advances and Bank Rate,  $3358.45 > 2$ ).

Table X

MULTIPLE REGRESSION BETWEEN ADVANCES AND MONEY SUPPLY, NATIONAL  
INCOME AND ADVANCE RATE

<u>S.No.</u>	<u>Variables</u>	<u>Regression Values</u>	<u>Correlation Coefficient</u>
1.	Money supply	.194	.9712
2.	National Income	.114	
3.	Advance Rate	22470	

Multiple Regression is used to find the dominating factor influencing bank advances. For this purpose, the following hypotheses was assumed by the investigator.

1. Advances are influenced by Money Supply, National Income and Advance Rate.
2. Advances are influenced by Money Supply, National Income and Bank Rate.

Advances are directly influenced by money supply by .194; National Income by .114; and Advance Rate by 22470. But this has been tested with the help of standard error test which shows that advances are directly influenced by money supply by .8774, which implies money supply is statistically significant at 5 per cent level of significance (that is  $S_{b_1} = \sqrt{\text{variance } \hat{b}_1} < (1/2) b_1 = .08774 < .0974$ ).

From the test done by investigator, it is clear that National Income and Advance Rate when regressed together with money supply are not statistically significant which implies that there may be other invisible factors influencing advances rather than National Income and Advance Rate apart from Money supply.

Table XI

MULTIPLE REGRESSION BETWEEN ADVANCES AND MONEY SUPPLY, NATIONAL INCOME AND BANK RATE

<u>S.No.</u>	<u>Variables</u>	<u>Regression Values</u>	<u>Correlation Coefficient</u>
1.	Money supply	.162	.9828
2.	National Income	.158	
3.	Bank rate	20330	

The second hypotheses could be written as, Advances are influenced by Money Supply, National Income and Bank Rate.

Advances are directly influenced by Money Supply by .162; National Income by .158; Bank Rate by 20330. To test the hypotheses, Standard Error test is applied, showing that advances are directly influenced by National Income by (.077) which explicit, National Income is statistically significant at the 5 per cent level of significance (that is  $Sb_1 = \sqrt{\text{variance } \hat{b}_2} < (1/2)\hat{b}_2 = .077 < .079$ )

From the above analysis, the investigator, concludes that Money Supply and Bank Rate are not statistically significant, which means that there may be other exogenous factors like trade cycle, value of money etc., influencing advances rather than money supply and bank rate apart from National Income.

#### GRAPHICAL ANALYSIS:

The multiple bar diagram is illustrated in figure 1. The figures shows that between 1970 to 1977, small scale industries received a considerable amount of advances (Rs.370 crores to Rs.1320 crores) from the Commercial banks than that of the advances received by the agriculture sector (Rs.300 crores to Rs.1,280 crores). Between 1977 - 1980 there was a significant change in the attitude of the commercial banks in providing advances towards agriculture sector (Rs.2,970 crores) compared to the advances given to small scale industries (Rs.2,640 crores).

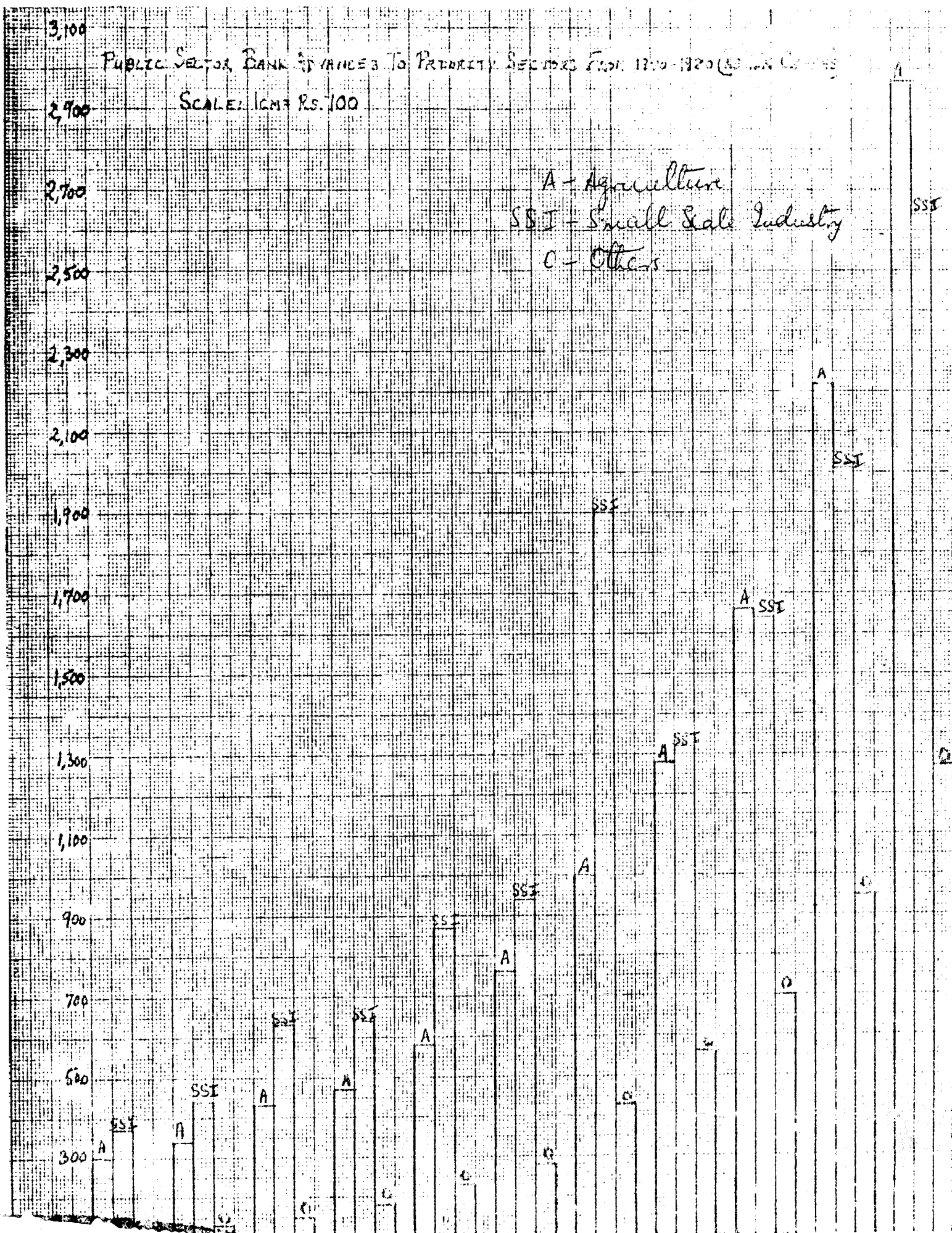
The investigator comes to the conclusion that the increase in amount advanced to small scale industries between 1970 - 1977 may be, in trying to reduce the extent of unemployment problem in rural areas. After 1977, importance was given to the agricultural sector so as to augment food production and National Income.

FIGURE - I

PUBLIC SECTOR BANK FINANCES TO PRIORITY SECTORS FROM 1970-1980 (IN CRORES)

SCALE: 1CM = RS. 100

A - Agriculture  
 SSI - Small Scale Industry  
 O - Others



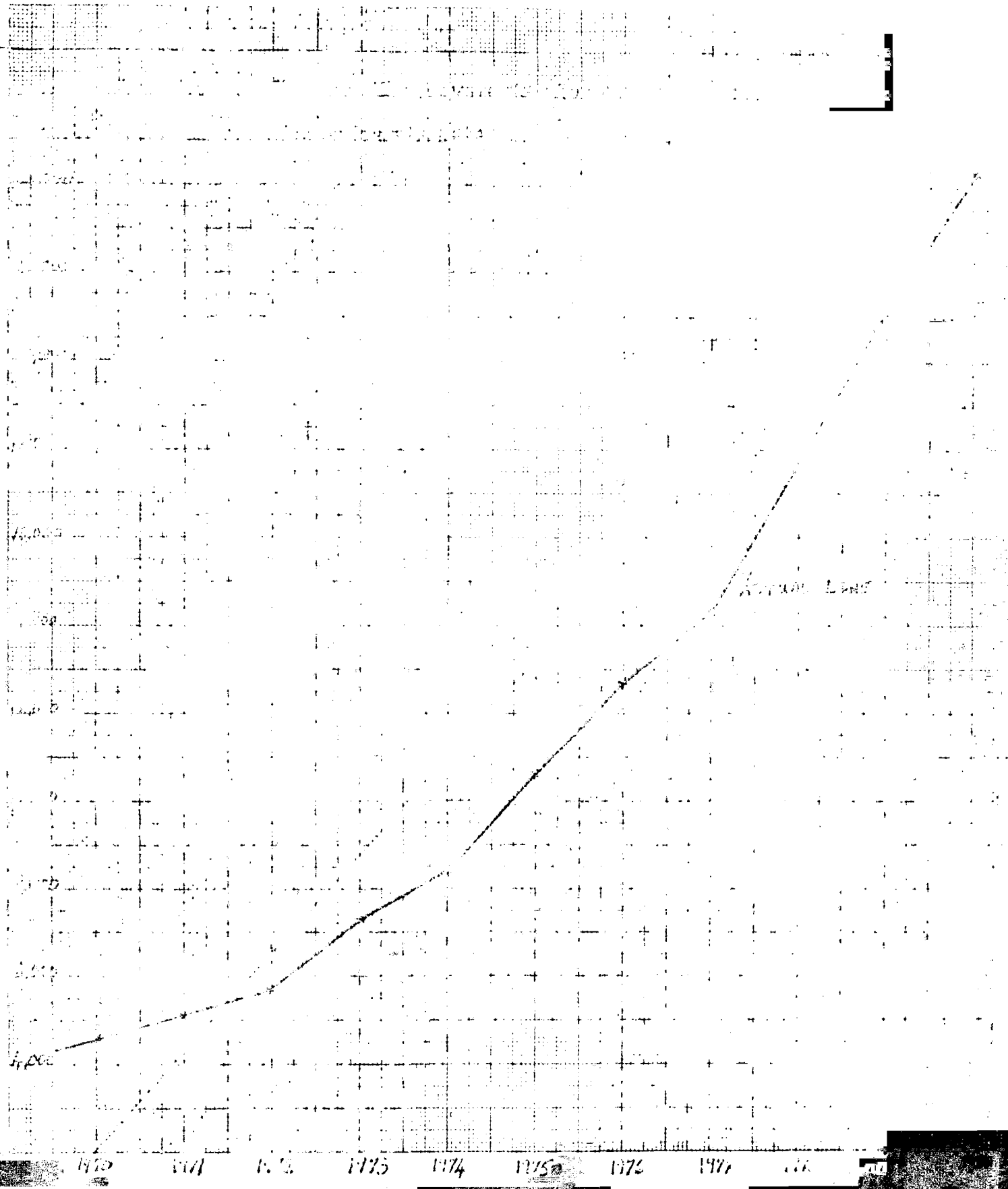
Coming to the advances given by the Commercial banks to other priority sectors (education, Professionals, transport etc.), the multiple bar diagram showed that there has been an increasing trend of advances from 1970, Rs.100 crores to Rs.1,270 crores in 1980. This shows that there has been an upward trend of advances to other priority sectors so as to enhance self-employment among the people.

#### TREND LINE - SEMI AVERAGE METHOD:

The investigator has divided the data into two parts, that is data for the years 1970 to 1974, and 1976 to 1980. For 1970 to 1974 the investigator has calculated the mid-point of advances as Rs.6,600 crores, indicated by the year 1972; and similarly, mid-point as Rs.19,900 crores indicated by the year 1978. Hence, the investigator has joined the two mid-points (indicated by the years 1972 and 1978) and obtained the trend line illustrated by figure II.

Upto the year 1971, the actual advances increased from (Rs.4,600 to Rs.5,100 crores) within the trend line. Whereas from 1971 onwards, the actual advances increased tremendously from (Rs.5,100 crores to Rs.24,300 crores) beyond the predicted trend line.

FIGURE - II



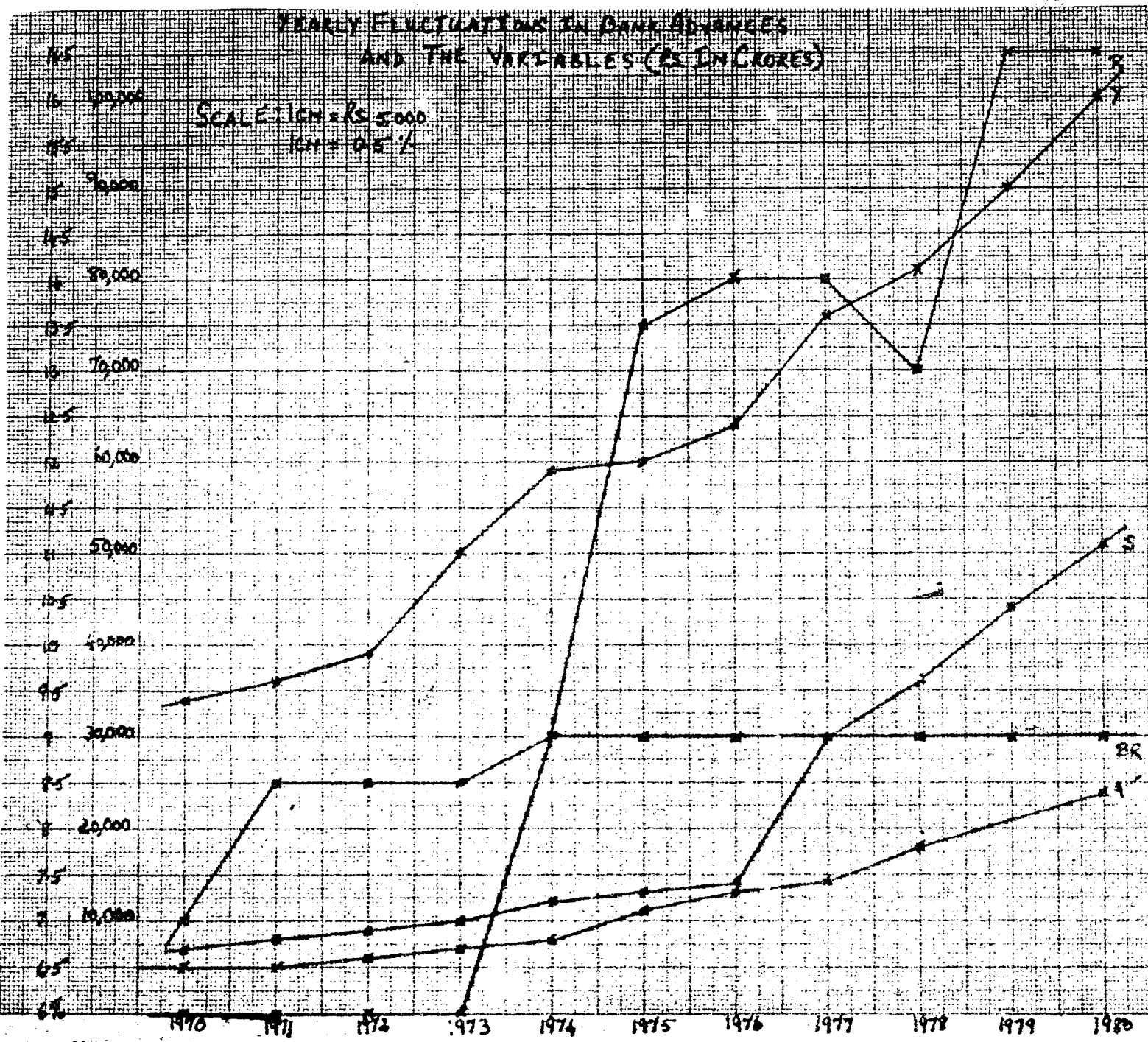
Hence, the investigator infers that the rising trend in advances may be due to a increase in national income and economic growth and development. It may also be due to increase in food procurement credit and acceleration in the tempo of branch expansion with the objective of development of the rural economy.

#### YEARLY FLUCTUATIONS:

The graphical representation of the yearly fluctuations is shown by figure III. The investigator infers that Advances increased in a proportionate way from 1970, Rs.5000 crores to Rs.24,300 crores in 1980. Along with an increase in advances there has been a proportionate increase in money supply from 1970, that is Rs.7,000 to Rs.14,000 crores in 1976. Again, there is a sharper increment of money supply from 1976, Rs.14,000 to Rs.51,000 crores in 1980. This may be due to the inflationary situation in the economy.

As regards National Income, there is an increasing trend from 1970 to 1974, Rs.34,000 to Rs.58,000 crores and between 1974 - 1975 there has been a slight increase in National Income, that is from Rs.58,000 to Rs.60,000 crores and this has increased

FIGURE - III



tremendously to Rs.1,00,000 crores in 1980. It can thus be confirmed that income increased due to the increasing Gross National Product of the economy. So higher the National Income, higher will be the advances provided by banks.

Due to an increase in national income, money supply and advances, there has also been an increase in the advance rate from 7 per cent in 1970 to 8.5 per cent in 1971. The advance rate remained stable at 8.5 per cent for three years, (that is from 1971 to 1973) and then rose sharply to 13.5 per cent in 1975. It stepped up still further, till 1977 (14 per cent) and fluctuated down to 13 per cent in 1978, rising again rapidly to 16.5 per cent in 1979, again remaining stable at 16.5 per cent in 1980.

Similarly, the bank rate remained constant for four years at 6 per cent from 1970 to 1973 increasing swiftly to 9 per cent in 1974 and remained stable at this rate 9 per cent till 1980. This shows the stringent monetary or credit policy being pursued to check the increasing money supply and thereby inflation in the economy.

The investigator feels that, through her study, she has indicated the trend in bank advances and the efforts taken by the Government and the Central bank to help the priority sector by changing their policy to attain the goal of economic development.

## V. SUMMARY AND CONCLUSION

The 'Study on 'Trends in Bank Advances' was undertaken to:

1. Examine the trend and magnitude of variability of the various components, comparison of advances in relation to money supply, national income, over a period of ten years.
2. To quantify the impact of money supply and national income on bank advances.
3. To analyse the impact of Rate of interest on bank advances.

The data for the study was mainly drawn from the Reserve Bank of India Bulletins - Report on Currency and Finance.

The study mainly aimed at comparing the behaviour of Key variables, Money Supply, National Income and Rate of Interest (advance rate and bank rate), over bank advances using the various methods of analysis available. The Compound growth

rate of national income and bank advances are compared and the impact of the variables on bank advances are examined, using the method of correlation, Linear Regression and Multiple Regression. The Graphical Analysis was also used to depict the trends in bank advances, yearly fluctuations among bank advances and the variables and Multiple Bar Diagram, to analyse the trend of bank advances lent to the priority sector during the post - nationalisation period.

The main findings of the study can be summarised as the following:

1. The increase in national income was only three-fold as compared to a six - fold increase in bank advances.
2. National Income and Money Supply are two relatively more important variables influencing advances.
3. Advances and Rate of Interest (Advance Rate and Bank Rate) increase due to the accelerated demand for Bank Advances from the priority and essential sectors like food procurement operations, public sector undertaking etc.

4. The co-efficient of determination shows that .1024 of the variation in bank advances was associated with National Income and .09 of the variation in Bank Advances could be attributed to the change in money supply. As compared to the changes in national income and money supply, the changes in advance rate and bank rate is comparatively less on bank advances.
5. Bank advances increased at a faster rate (.785) than national income (.527).
6. The rate of change in advances was directly influenced by money supply (.401) national income (by .273); advance rate (by 176259.84) and bank rate (by 299541.96). The relationship between advances and the variables (money supply, national income, advance rate and bank rate) was statistically significant at the 5 per cent level of significance.

7. The multiple regression proved that when money supply, national income and advance rate were taken together, money supply was statistically significant and influenced bank advances rather than national income and advance rate.
8. On the otherhand, when money supply, national income and bank rate were taken together, national income was statistically significant and had a role to play in determining the increase in bank advances.
9. There has been an upward trend in bank advances towards the agriculture sector (Rs.200 crores in 1970 to Rs.2,970 crores in 1980) as compared to the small scale industries (Rs.370 crores in 1970 to Rs.2,640 crores in 1980) and others (Rs.100 crores in 1970 to Rs.1,270 crores in 1980).
10. From 1971 onwards the actual advances increased tremendously from Rs.5,100 crores to Rs.24,300 crores, beyond the predicted trend line.

11. Along with an increase in money supply, national income and advance rate, there has been an increase in bank advances, whereas, bank rate has increased from 6 per cent to 9 per cent <sup>but</sup> has remained stable from 1974 to 1980 at 9 per cent.

The above summary, leads the investigator to make a few suggestions regarding the improvement in the allocation of loans, as the followings:

The bank may adopt a three-tier system, each bank consisting of a set number of rural branches, branches in a town, branches in a city, with an apex branch to decide policy matters for different offices operating in different areas in the country.

The number of Commercial banks may be reduced to eight or nine so that healthy competition may continue, at the same time duplication of operating a large number of banks may be avoided. The investigator also suggests that the savings schemes differ to some extent to lend an element of competition.

Any re-allocation of credit could be carried out in a phased manner permitting all sectors to adjust and preventing dislocation in economic activity which would ensure against any drastic once overchange.

Again any re-allocation of bank advances would necessitate changes in interest rates to the different sectors if overall bank viability is not to be a casualty in the process.

At present, banks depend on field officers and agricultural assistants who visit rural areas to find out prospective borrowers and assess viability of the applicants projects. The trouble is that the field officer cannot stay long in a particular village to find out the genuine borrowers. So, the local leaders, M.L.A.'s and M.P.'s should extend full co-operation to the banks in identifying the genuine borrowers or economically viable projects.

The existing field officers and agricultural assistants should be preferably employed in their respective home villages where they can easily identify viable projects.

It is in this context that proper linkage between co-operatives and commercial banks is suggested and not only have new procedures of lending to be evolved to suit the needs of the new classes of borrowers, but the whole philosophy of lending has to undergo a change.

To conclude, the Kamath Working Group (appointed by the Reserve Bank of India). On multi-agency approach has rightly observed, "proper end use of credit should be the key note of institutional finance to agriculture, for it has a direct bearing on the quality of lending and eventually the recovery performance, neither of which any credit institution can afford to underestimate. The emphasis has to be on the quality of inspection rather than on the periodicity of inspections. Lending institutions should evolve a well-structured inspection procedure which should aim at a meaningful and productive follow-up of advances."

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APPENDIXCORRELATION ANALYSIS:-

Advances and National Income:

$$\sum ds dy = \frac{(\sum ds) \times (\sum dy)}{N}$$

$$r = \frac{\sum ds dy}{\sqrt{\sum ds^2} \times \sqrt{\sum dy^2}} = \frac{(\sum ds) \times (\sum dy)}{N \times \sqrt{\sum ds^2} \times \sqrt{\sum dy^2}}$$

$$= \frac{1,66,15,07,077}{5,14,14,007}$$

$$= 0.32$$

Advances and Money Supply

$$\frac{1,05,15,00,739.6}{34184577}$$

$$= 0.30$$

Advances and Rate of Interest (Advance Rate)

$$\frac{2445.7103}{8330.5872}$$

$$= 0.25$$

Advances and Rate of Interest (Bank Rate)

$$\frac{827.9274}{7131.0627}$$

$$= 0.11$$

Linear Regression:

Advances and Money Supply:

$$A - \bar{A} = b_{AS} (S - \bar{S})$$

$$b_{AS} = \frac{\sum ds ds}{\sum ds^2} = \frac{(\sum ds) \times (\sum ds)}{N \times \sum ds^2}$$

$$= \frac{1048950000}{2613360000}$$

$$= 0.401$$

$$A - \bar{A} = b_{s\bar{s}} (s - \bar{s})$$

$$A - 12009.727 = 0.401 (s - 21177.181)$$

$$A = 0.401s + 3517.678$$

$$r = \frac{\sum(A - \bar{A})(s - \bar{s})}{\sqrt{\sum(A - \bar{A})^2 \sum(s - \bar{s})^2}}$$

$$= \frac{1048950000}{\sqrt{445626601.32 \times 2613360000}}$$

$$= .9723$$

Standard Error Test =  $\frac{.401}{.0328} = 12.23 > 2.$

Advances and National Income

$$b_{y\bar{y}} = \frac{1590027200}{5826473570}$$

$$= .273$$

$$A - \bar{A} = b_{y\bar{y}} (Y - \bar{Y})$$

$$A - 12009.727 = .273 (Y - 63436.818)$$

$$A = .273Y - 5308.52$$

$$r = \frac{1590027200}{\sqrt{445626601.32 \times 5826473570}}$$

$$= .9870$$

Standard Error Test =  $\frac{.273}{.01483} = 18.44 > 2$

Advances and Rate of Interest (Advance Rate)

$$b_{ar} = \frac{2144.906}{0.012169}$$

$$= 176259.84$$

$$A = \bar{X} = \text{bar} (R - \bar{R})$$

$$A = 12009.727 = 176259.84 (R - .117)$$

$$A = 176259.85 R = 8612.674$$

$$r = \frac{2144.906}{\sqrt{445626601.32 \times 0.012169}}$$

$$= .9211$$

$$\text{Standard Error Test} = \frac{176259.84}{249.0} = 707.87 > 2$$

Advances and Rate of Interest (Bank Rate)

$$\text{bab} = \frac{827.934}{0.002764} = 299541.96$$

$$A = \bar{X} = \text{bab} (B - \bar{B})$$

$$A = 12009.727 = 299541.96 (B - 0.078)$$

$$A = 299541.96 B = 11354.54$$

$$r = \frac{827.934}{\sqrt{445626601.32 \times 0.002764}}$$

$$= .7452$$

$$\text{Standard Error Test} = \frac{299541.96}{89.19} = 3358.45 > 2$$

Multiple Regression: - Money Supply, National Income and Advance Rate

$$\hat{A}_t = \hat{b}_0 + \hat{b}_1 x_{1t} + \hat{b}_2 x_{2t} + \hat{b}_3 x_{3t}$$

$$\hat{A}_t = -1959.423 + .194 x_{1t} + .114 x_{2t} + 22470 x_{3t}$$

$$r^2 = \frac{\hat{b}_1 \sum x_{1t} + \hat{b}_2 \sum x_{2t} + \hat{b}_3 \sum x_{3t}}{\sum a^2}$$

$$= \frac{203500000 + 181200000 + 48170000}{445626601.32}$$

$$= \frac{432870000}{445626601.32} = .9712$$

**Standard Error Tests:**

$$\begin{aligned}
 sb_1 &= \sqrt{\text{Var } \hat{b}_1} < \frac{1}{2} (\hat{b}_1) \\
 sb_1 &= \sqrt{.007700} & \frac{1}{2} (.1948) \\
 &= .08774 < .0974 = \text{Statistically significant} \\
 sb_2 &= \sqrt{.005581} & \frac{1}{2} (.1142) \\
 &= .07469 > .0571 = \text{Statistically insignificant} \\
 sb_3 &= \sqrt{800000000} & \frac{1}{2} (22470) \\
 &= 28280 > 11235 = \text{Statistically insignificant}
 \end{aligned}$$

**Money Supply, National Income, Bank Rate**

$$\begin{aligned}
 \hat{A}_t &= -18927.78 + .162 x_{1t} + .158 x_{2t} + 20330 x_{3t} \\
 r^2 &= \frac{169900000 + 251300000 + 16810000}{445626601.32} \\
 &= \frac{438010000}{445626601.32} \\
 &= .9828
 \end{aligned}$$

**Standard Error Tests:**

$$\begin{aligned}
 sb_1 &= \sqrt{.007497} & \frac{1}{2} (.1629) \\
 &= 0.0865 > .0814 = \text{Statistically insignificant} \\
 sb_2 &= \sqrt{.005958} & \frac{1}{2} (.1580) \\
 &= .077 < .079 = \text{Statistically significant} \\
 sb_3 &= \sqrt{159000000} & \frac{1}{2} (20330) \\
 &= 12640 > 10165 = \text{Statistically insignificant}
 \end{aligned}$$

### Compound Growth Rates:

#### Advances:

$$A = Ke^{bt}$$

$$\begin{aligned} \text{Log } A &= \text{Log } (Ke^{bt}) \\ &= \text{Log } K + \text{Log } e^{bt} \\ &= \text{Log } K + bt \text{ log } e \end{aligned}$$

$$\text{Log } A = \text{Log } K + bt$$

$$\text{ie. } Y = a + bt$$

$$Y = 1546.35 + 0.785t$$

$$A = (3.1892)e^{.785t}$$

$$A = (1546)e^{.785t}$$

#### National Income:

$$Y = 1036.05 + .527t$$

$$A = (3.0154)e^{.527t}$$

$$A = (1036)e^{.527t}$$