MONEY SUPPLY IN INDIA:
CONCEPTS, COMPILATION AND ANALYSIS

REPORT OF
THE SECOND
WORKING GROUP

RESERVE BANK OF INDIA
BOMBAY
1977

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PRICE Rs. 4.00

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CONTENTS

FOREWORD

The analytical framework for the compilation and presentation of money supply series presently published by the Reserve Bank, was elucidated in the *Report of the Working Group on Money Supply* published in the *RBI Bulletin* for July and August 1961. Subsequently some modifications in both compilation and presentation of data were introduced with a view to refining the money supply series; however, the conceptual framework set out in the *Report* has remained more or less intact.

Recent developments in monetary theory as well as recent experience in monetary management have made it desirable that we review the adequacy of the various concepts underlying the present series on money supply. The Bank, therefore, constituted the Second Working Group on Money Supply with the three-fold objective of: (i) examining the suitability of the various concepts and definitions of money supply with a view to adapting them to the Indian monetary data, to facilitate more meaningful analysis and policy formulation; (ii) suggesting methodological changes in compilation of money supply data; and (iii) preparing a revised time series of monetary data, in the light of the examination of the various issues involved. I am happy that the Working Group has been able to inquire deeply into the subject and present a unanimous final report. This Report is now being published with the hope that it would stimulate further discussion on this important subject both amongst academicians as well as those concerned with policy formulation.

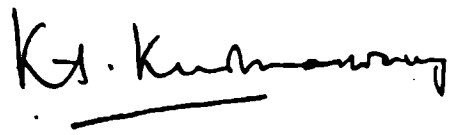
Without going into details, let me highlight the main changes suggested by the Report. The Report has identified four measures of money stock, M_1 to M_4, as of importance for monetary analysis as well as policy formulation. Of these, M_1 broadly corresponds, in the present series, to "money supply with the public", and M_3 to "aggregate monetary resources". In respect of these magnitudes, the main difference is that the new series have a wider coverage of data relating to the co-operative sector. The other two measures, namely, M_2 and M_4 have been evolved to bring Postal Savings within the fold of money stock measures. It may be recalled that in the present series, only data relating to the State Co-operative banks were used as a surrogate for the co-operative sector as a whole. In the new series, however, data in respect of the lower tiers of co-operative sector, namely, the Central Co-operative banks, the Urban Co-operative banks and the Salary Earners' Credit Societies have also been covered. Again, deposits with the Post Offices did not figure at all in the present series, whereas the new series cover these deposits.

Yet another improvement brought about is in the compilation of primary data on "sources of change" in money supply, i.e., M_1. In the present series, in working out the aggregate dimensions of bank credit to commercial sector, adjustment was being made for inter-bank assets and inter-bank liabilities. This was an expedient to overcome the lack of data in respect of certain segments of the co-operative sector. Since, in the new series, it has been possible to cover the co-operative banking sector fully, such an *ad hoc* adjustment would no longer be necessary. Hence, in the new series, data relating to bank credit to commercial sector would reflect the dimension as well as the trend more precisely.

The Group has also examined critically the claims of some of the 'near-money assets', as potential candidates for inclusion in the different money stock measures. Government deposits with RBI, cheques in transit, unutilised portion of bank credit limits, trade credit and deposits accepted by non-banking financial intermediaries—these are the important 'near-money assets' which have been subjected to examination. The Group has decided against the inclusion of these 'near-money assets' in the money stock measures on the ground that they are either conceptually "ineligible" or operationally difficult.

One final word. Refinement of money supply data is a continuing process and therefore, there can be no finality about any

concepts adopted for measurement of money stock. In judging the Working Group's recommendations, two factors have to be constantly borne in mind : first, the recommendations are obviously conditioned by the operational considerations of availability of data. Secondly, an over-riding considerration in evolving measures of money stock has been the end-use to which these data could be put by the monetary authorities. I do hope, the Report will commend itself to all those interested in the study of the Indian monetary situation. To facilitate ready reference, the *Report* of the earlier *Working Group on Money Supply (1961)* mentioned above has also been reproduced as an Annexure to this publication.



(K. S. Krishnaswamy)

Deputy Governor

MONEY SUPPLY : CONCEPTS, COMPILATION AND ANALYSIS

REPORT OF THE SECOND WORKING GROUP

Introduction

Need for a Second Working Group

The present time series on money supply in India, its components and the factors causing variations in it, which are being regularly published by the Reserve Bank of India, are based mainly on the frame work provided by the Working Group constituted for the purpose in 1961.[1] Since then some modifications and refinements in the presentation of money supply series have been, no doubt, introduced by the Bank, but these could be regarded as embellishments of the basic conceptual and analytical frame provided by the Group. For instance, even the wider concept of money stock, viz., the aggregate of 'money supply' and time deposits with banks—which was actually introduced subsequently in 1964 in the form of "Aggregate Monetary Resources" (AMR)—was originally conceived by that Working Group.[2] The details of such *ad-hoc* changes effected in the money supply series are spelt out in Appendix I.

Since the adoption of the 1961 Working Group framework, considerable discussion has taken place among monetary theorists regarding, *inter alia*, the adequacy of the conventional concept of money stock and the various alternative concepts relevant for analysis and policy formulation. In the United States of America, for instance, the Federal Reserve System now employs as many as eight measures of monetary aggregates for analysis and policy formulation ; of these, data on five money stock measures (M_1 to M_5) are being regularly published. In the United Kingdom too, five concepts of money stock have come to be accepted as useful for analysis, and three of them (M_1 to M_3) figure in official publications. In Appendix II a brief description is provided of the various money stock measures now being employed in selected countries.

Terms of Reference

It has become necessary to have a fresh look at the procedural, conceptual and methodological aspects of money supply compilation in India at least for two reasons : first, in the light of new thinking in monetary theory, the adequacy of the present monetary indicators has to be assessed and, if deemed necessary, additional indicators need to be introduced. Secondly, it has also to be considered how best the existing 'gaps' in monetary data could be filled. In the light of these considerations, the Reserve Bank constituted this Second Working Group on Money Supply in India, which consisted of : M. L. Ghosh, A. Raman, A. Hasib, N. A. Mujumdar, Meenakshi Tyagarajan, S. L. Shetty and K. A. Menon. The Group was asked to "examine the suitability of various concepts and definitions of money supply, suggest methodological changes for compilation so as to bring out the significance and implication of these data for policy formulation and depending on the results of the examination of the various issues involved, prepare a revised time series on money supply as well as factors affecting it".

Layout of the Report

In this Report, various analytical and conceptual aspects of money stock measures are examined and the factors contributing to the variations in money stock discussed. On the basis of this discussion, a broad conceptual framework for money supply analysis in India has been evolved and in the light of this framework, the new series of money supply data have been compiled and presented, to begin with, for the years 1970-71 to 1975-76.

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1. The Report of that Working Group was published in July and August 1961 issues of the *Reserve Bank of India Bulletin*.
2. The Group wrote thus : "Hence, though time liabilities should not be included in the compilation of money supply data, it is necessary to show separately the total of money supply and time liabilities (including post office savings deposits), as is done in some countries like France, Belgium and Canada. The aggregate of money supply and time liabilities is more meaningful than money supply as such for some analytical purposes related to the formulation of monetary policies." "Analysis of Money Supply in India—I," *Reserve Bank of India Bulletin*, July 1961, p. 1049.

The Report is divided into five Sections. In Section 1, two important issues arising from the terms of reference of the Working Group are examined. First, what are the types of assets which correspond to the theoretical concept of money and which could generally form the basis for analysis and policy formulation, both short-term and long-term ? Secondly, is it appropriate to base the compilation and presentation of primary data on money supply in India on theories of money supply determination, which have been evolved in the context of the experiences and the institutional framework of the developed economies ? The degree of relevance of such theories to an economy such as that of India and the efficiency of predictive values of concepts based on such theories have also been briefly discussed. In the light of this discussion it has been possible to evolve the conceptual framework in which money supply data could be meaningfully compiled, analysed and interpreted.

In the subsequent Sections, this conceptual framework has been sought to be translated into specific issues of compilation of money supply data. To begin with, an attempt has been made in Section 2, to evolve specific measures of money stock : four categories of money stock have been defined. Section 3 discusses the 'gaps' in the present series of money supply data and measures adopted to fill these 'gaps' in order to make the data base of the monetary sector more comprehensive and realistic. In Section 4, the rationale underlying the analytical frame of what has come to be known as factors affecting money supply is examined and certain changes in the methodology of compilation proposed. Finally, in Section 5, a discussion is presented of some near-money assets which appear to be potential candidates for inclusion in money stock measures but which the Working Group has considered as not eligible for such inclusion. The new series of money supply data compiled in the light of the discussions in the various Sections are presented in Statement Nos. 2, 3, 4 and 5.

There is no finality in the area of money supply data. All that the Working Group Report can lay claim to is that it has been possible to introduce a further degree of sophistication in the Indian money supply data ; to the extent that some gaps in the present series of data have been filled up, the revised series could be regarded as more comprehensive and realistic than the present series.

SECTION : 1

The Conceptual Framework

The main conceptual issues involved in any attempt to meaningfully define and measure 'money' or monetary aggregates are sought to be briefly discussed in this Section. The discussion is presented under three distinct and separate heads. First, the contemporary discussion in monetary theory on the definition and measurement of the stock of money is reviewed. The search for a definition which is both analytically meaningful and operationally useful can only be conducted against the background of such a review. Secondly, it has also become necessary to examine the relevance to money supply of the liabilities of what are called "non-monetary financial institutions", in whatever manner one may choose to define it. Thirdly, the question has also to be posed whether there is any acceptable theory of money supply determination which would be relevant to the Indian situation, so that the kind of format of money supply data, which the Group is expected to evolve, could be grafted on such theory. On the whole, therefore, the discussion in this Section provides the perspective to the specific recommendations regarding compilation and analysis of money supply data in India, spelt out in the subsequent Sections.

(*i*) *Approaches to Definition and Measurement of Stock of Money*

The question of an appropriate measure of money stock arose initially out of the basic difference implicit in the two approaches of the 'Quantity Theorists' and the 'Keynesians' to the most distinguishing characteristics of money, that is, the conception of money as a 'medium of exchange' and that as a 'store of value.' The general recognition of the

store of value function of money has given rise to the fairly widely accepted phenomenon of substitutability between money, traditionally defined as medium of exchange, and the whole spectrum of other financial assets obtaining in an economy. Therefore, the fundamental aspect of the Keynesian formulation of the demand for money *inter alia* as an asset alternative to other financial assets and consequently, such demand being considered sensitive to interest rates, continues to distinguish it from the approaches of the 'Modern Quantity Theorists' who in their re-formulations of the classical quantity theory, include in principle many rates of interest but empirically find no interest-elasticity of the demand for money with respect to any one asset or group of assets.[3]

This debate regarding the appropriate measure of money stock has been brought into sharp focus in the recent empirical works on the subject of the demand for money. The debate acquired a sharper edge particularly after the 'Modern Quantity Theorists' chose to adopt the unorthodox approach of including in their "money stock measure" *time deposits* with commercial banks, instead of restricting the scope of the concept to the commonly accepted definition based on money's most distinguishing function as a means of payment, *viz.*, *currency* outside the banking system and *demand deposits* with commercial banks (adjusted for inter-bank deposits). The inclusion of *time deposits* is justified on the ground that these are close substitutes for money. In the process, the 'Modern Quantity Theorists' appear to have clinched the issue in favour of the phenomenon of substitutability between money and other financial assets, and at the same time, their approach has also become open to the charge that "Lumping time deposits together with the money stock obscures movements between them based on changes in the interest rate. Therefore, it is not surprising that an interest rate response cannot be found."[4]

Nevertheless, this debate among monetary theorists has brought forth, in specifying what combination of assets corresponds closely to the theoretical concept of money, different analytical approaches which have even tended to cut across the traditional boundaries of 'quantity theory' (even with reformulation) and 'Keynesianism.' For instance, a contemporary survey of monetary theory and policy distinguishes at least four such approaches.[5] First, there are those who insist on the money's unique function as a medium of exchange and adhere to its conventional definition as currency plus demand deposits with banks (adjusted for inter-bank demand deposits). The second approach is that of the 'Modern Quantity Theorists' who conceive of money as something broader than what is visualised in the first approach but, as 'a temporary abode of purchasing power': this approach would include for empirical analysis, time deposits with banks in the measure of money stock. Though the measure of money stock differs in the two approaches, what is interesting is that both find the relationship between income and money (or velocity function) as most stable.

At the other extreme, there are two approaches which adopt a far wider concept of money : here the reference is to the Rad-

3. For the reformulation of the 'modern quantity theory' see Milton Friedman : "The Quantity Theory of Money—A Restatement" in Milton Friedman (Ed.) : *Studies in the Quantity Theory of Money* (The University of Chicago Press, 1956), pp. 3-21. For the empirical results, see Milton Friedman : "The Demand for Money : Some Theoretical and Empirical Results," *Journal of Political Economy*, vol. 67 (August 1959), pp. 327-351. Also other essays in *Studies in the Quantity Theory of Money*, op. cit.

4. Ronalt L. Teigen, "The Demand for and Supply of Money," in W. L. Smith and R. L. Teigen (Ed.) *Readings in Money, National Income and Stabilisation Policy* (Richard D. Irwin, Inc., Homewood, Illinois, 1970), p. 88 Harry G. Johnson writes the same: "But there is no necessary conflict, since Friedman's definition of money includes time deposits and may therefore absorb most of the substitution between demand deposits and currency and interest-bearing assets induced by interest-rate changes." See his "Monetary Theory and Policy" in the American Economic Association and the Royal Economic Society : *Surveys of Economic Theory ; Money, Interest and Welfare*—Vol I (Macmillan, 1968, p. 19).

5. This portion draws heavily from the now famous survey article of Harry G. Johnson : "Monetary Theory and Policy" (*ibid*).

cliffe Committee's almost immeasurable[6] concept of 'the whole structure of liquidity,' and to the Gurley-Shaw doctrine on the role of non-monetary financial intermediaries in the modern economic process. According to both these approaches, the velocity of money is a meaningless number in the presence of whole gamut of financial assets substitutable for money. The spending decisions by households and corporations are not determined by money, *i.e.*, the quantity representing the means of payment *alone* but by the whole structure of liquidity according to the Radcliffe Committee's thinking and by the totality of financial liabilities of monetary and non-monetary financial intermediaries together, according to the Gurley-Shaw thesis.

There is a difference between the two. The Radcliffe committee emphasizes the assets side of the intermediaries' balance sheet to the comparative neglect of the liabilities side ; non-bank financial intermediaries are important because they lend and even the banks are important not because they create money but because they make loans.[7] On the other hand, the Gurley-Shaw thesis emphasizes the liabilities of non-monetary financial intermediaries so as to bring into sharp focus the financial competition between money created by the monetary system and financial liabilities of other intermediaries. "The more adequate the non-monetary financial assets are as substitutes for money in transactions, precautionary, speculative and .... diversification balances, the smaller may be the money supply for any designated level of national income. For any level of income, the money supply is indeterminate until one knows the degree of substitutability between money created by banks and financial assets created by other intermediaries."[8] One obvious implication of the Gurley-Shaw thesis is that the 'quantity of money' relevant for monetary theory and policy should include the liabilities of non-monetary financial intermediaries.[9] Their existence in size and diversity also influences the level and structure of interest rates. Therefore, those liabilities and their yields need to be introduced in any 'demand for money' functions. Alternatively, viewed in terms of income-expenditure approach, the aggregate demand in the economic system is not determined by the quantity and velocity of 'money' alone ; rather, it is determined by the whole spectrum of liabilities created by the financial system.

In the ultimate analysis, most of these are assertions based on *a priori* observations and hence need to be tested empirically. Even in empirical studies of these issues, there do not seem to be any agreed criteria to arrive at the appropriate definition of money ; in fact some well-known quantitative studies have arrived at contradictory results. For instance, Friedman and Meiselman, arguing that money should be defined as that set of financial assets which best explains nominal income, hit upon their now famous dual criteria to select such a set of financial assets. The criteria are (i) that the sum of assets should have the highest correlation among various aggregates of assets with national income, and (ii) that the correlation with income of the sum of assets should be higher than that of any of its individual components.[10] It was by using these criteria that Friedman and Meiselman defined money to include time deposits (in addition to currency and demand deposits). Employing the same cri-

6. 'Immeasurable' because of their vagueness in defining liquidity. To quote their Report : "Though we do not regard the supply of money as an unimportant quantity we view it as only part of wider structure of liquidity .... it is the whole structure of liquidity that is relevant to spending decisions. A decision to spend depends not simply on whether the would-be spender has cash or money in the bank. There is the alternative of raising funds by selling an asset or by borrowing.... The spending is not limited by the amount of money in existence ; but it is related to the amount of money people think they can get hold of, whether by receipts of income, by disposal of capital assets or by borrowing." *The Report of the Committee on the Working of the Monetary System* (London, 1959).

7. John G. Gurley : "The Radcliffe Committee Report and Evidence," *American Economic Review*, Vol. 50 (September 1960), pp. 672-700.

8. John G. Gurley and Edward S. Shaw : "Financial Intermediaries and the Saving—Investment Process," *Journal of Finance*, Vol. XI (May 1956), pp. 260-261. Also in their principal theoretical work on the subject, they observe thus: "Non-monetary intermediaries are competitors of the Governmental monetary system," *Money in a Theory of Finance*, The Brookings Institution, Washington, 1960, p. 228.

9. Harry G. Johnson, op. cit., p. 17.

10. Milton Friedman and David Meiselman : "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States, 1897-1958" in Commission on Money and Credit; *Stabilization Policies* (Englewood Cliffs, New Jersey, 1963). See also Frederick C. Schadrack "An Empirical Approach to the Definitions of Money" in *Monetary Aggregates and Monetary Policy* (Federal Reserve Bank of Newyork, 1974 pp. 28-34).

teria, however, other empirical works have disputed the need to include time deposits![11]

Again, following the Gurley-Shaw thesis, it is argued that money should be a weighted sum of various financial assets, the weights being determined by their respective degrees of moneyness.[12] Accepting this criterion a study has employed elasticities of substitution among financial assets as surrogate to degrees of 'moneyness' and has come to the conclusion with reference to the U.S.A. that money supply should be "a weighted sum of currency, demand deposits, time deposits, deposits in mutual savings banks and liabilities of savings and loan associations".[13]

One purpose of referring to some of these empirical studies was to underline the fact that there are large areas of disagreement even on the basic definitional questions : the degree of disagreement is perhaps greater in respect of the wider issues concerning determinants of the demand for money and influence of money on total expenditure. If these issues have remained unsettled, it is partly because among the hierarchy of financial assets of spendng units, from currency to various types of financial assets, there occurs a continuous shift depending upon the underlying economic conditions. Under such circumstances, to depend upon the behaviour of any single measure of money stock for formulation of monetary policy would not be appropriate ; instead a wider range of monetary aggregates may have to be taken into account.

It should be emphasised that the absence of any finality in the empirical studies relating to the stock of money does not mean that the policy makers are operating in a vacuum. All that is sought to be highlighted is that there is no unique approach to either the definition of money or measurement of the stock of money. The concepts and analysis have to be adopted to suit the specific situation. If this is true of the developed economies, it is applicable with greater force in the context of a less developed economy like that of India.

One lesson which can be drawn from this brief discussion is that in building up a sound frame-work for primary data on money stock, we have to allow for sufficient disaggregation so as to permit different combinations of assets to be employed for analysis, depending upon the end-use to which the data are likely to be put.

(*ii*) *Non-monetary Financial Intermediaries*

In money supply analysis, it is necessary to draw a basic distinction between the monetary system and the rest of the financial system, the one that facilitates the payments mechanism and the other that intermediates between savers of loanable funds and their users. In other words, the monetary system plays a unique role as the 'Administrator of the payments mechanism'.[14] Without going into the controversial question of the extent to which non-monetary financial intermediaries can "create credit", it is possible to identify broadly four characteristics which differentiate their role in this respect from that of commercial banks.[15]

The first characteristic relates to the time period involved in turnover : while the process of commercial bank credit expansion relates to the *payment-turnover* period, that by non-banking intermediaries, involves an *income-turnover period.* The time period for commercial banks' credit expansion is generally very short. Secondly, credit expansion by other intermediaries is subject to substantially more "leakages" than in the case of commer-

11. Timberlake and Fortson conclude that time deposits have a poor explanatory power in predicating income. See R. H. Timberlake and J. Fortson: "Time Deposits in the Definition of Money" *American Economic Review* Vol. 57, March 1967 pp. 190-193.

12. John G. Gurley : "Liquidity and Financial Institutions in the Post-War Period," Study of Employment, Growth and Price Levels (Study Paper No. 14), Joint Economic Committee, 86th Congress (1st Session), Washington, 1960.

13. V. K. Chetty: "On Measuring the Nearness of Near Moneys" American Economic Review, Vol. 59, June 1969, pp. 270-281. See for reviews of these studies, Ronald S. Koot: "A Factor Analytic Approach to An Empirical Definition of Money," *The Journal of Finance,* Septmber 1975, pp. 1081-1089.

14. The phrase is from John G. Gurley and Edward S. Shaw: *Money in a Theory of Finance,* op. cit., p. 192.

15. The first three issues are based on a paper by Warren L. Smith : "Financial Intermediaries and Monetary Controls," *Quarterly Journal of Economics,* Vol. 73 (November 1959), pp. 533-553.

cial banks. Except for the currency drain (which also forms a part of the transaction balance), the transactions arising from credit creation by banks within the payments systems pass through them almost entirely, whereas it is not the case with the financial intermediaries. As Warren Smith has rightly observed, "The restoration of reserves to commercial banking system within a few days of the time they are lost through lending is a built-in feature of our payments mechanism, and it is for this reason that their distinctive role as issuers of means of payments gives commercial banks a peculiar ability to expand credit."[16] The leakage in the form of currency, which is rather large in the Indian context, does not alter the basic feature of this uniqueness. Thirdly, the role of credit creation by the two systems has differing economic significance. While the one goes to finance broadly current expenditures over current cash flow, the other helps to channel savings into investment in a wider sense. Lastly, even the non-banking financial intermediaries have to operate their cash receipts and payments through the medium of the commercial banks and the cheque clearance mechanism. They do not maintain liabilities withdrawable on demand with themselves, nor do their loans result in an automatic addition to such liabilities with themselves. The liabilities of these financial institutions cannot be directly used for settling claims without being converted into chequeable deposits of the banking institutions.

Because of these, and also for the sake of convenience and convention, the whole range of financial institutions is divided into two distinct categories, viz., *monetary institutions and non-monetary financial institutions.* As emphasized earlier, the former are distinguished from the latter by their unique role as issuers of the means of payment and settlers of the claims of the spending units mediated through them.[17] This category of institutions includes, besides the monetary authority, those deposit banking institutions which possess liabilities withdrawable on demand and also which are members of the organised clearance mechanism instituted for settling claims against those liabilities.

In view of the fact that the operations of non-monetary financial institutions are qualitatively different from those of the monetary institutions, the liabilities of the former are left out of the money stock measures recommended in this Report. The institutions which are thus outside the purview of the *monetary* orbit are : life and general insurance corporations, development banks, investment and trust companies and the Unit Trust of India (for details, see Section 2).

(*iii*) *Money Supply Determination*

Lastly, the question needs to be posed whether there is any acceptable theory of money supply determination that could be incorporated into the format used for the presentation of primary data on factors influencing money supply. Even a cursory glance at the enormous number of behavioural, structural and policy—controlled variables underlying the money supply variation process would convince one that no such universally acceptable theory could be identified. Money supply is both an economic as well as a policy-controlled variable. As an economic variable, it is determined by the public's and banks' portfolio behaviour. As a policy-controlled variable, its variation is influenced by what the Monetary Authority thinks the appropriate size of primary as well as secondary money should be. Moreover, the supply of what are called primary and secondary money is not determined within the monetary sector alone; its determinants transgress into the real sector, the current and prospective business conditions as reflected in output and investment trends, the price expectation, and the objectives of monetary policy themselves.[18]

16. Ibid., p. 535.

17. To quote the International Monetary Fund's (IMF) practice adopted for its *Monetary Survey* regularly published in the *International Financial Statistics* IFS), "The current IFS practice is to classify as deposit money banks those institutions whose demand deposit liabilities are a predominant part of their total liabilities and to treat as other financial institutions those institutions whose demand deposit liabilities are clearly insignificant." A mimeographed note on *Monetary and Financial Survey* (IMF, 1975).

18. In this context the Working Group gave considerable thought to the most commonly cited notion of high-powered money and money multiplier and was inclined to agree with the following observations made by Goodhart: "For such reasons it is common,

(*Contd. on next page*)

Therefore, we have to devise a format of presentation of factors influencing money supply based on the major sectors of credit use so that the same format could facilitate credit planning and credit projections consistent with the appropriate rate of expansion in "money supply", independently determined say on the basis of output increases, its sectoral composition, the expected rate of inflation, and the past increases in money supply.

Nevertheless, in building up a sound data base and information system on these monetary aggregates and the factors influecning their variations which is the task of this Working Group, we have found it necessary to present sufficiently diversified information on a regular basis so that further analysis of the same in the form of theoretical and operationally meaningful models relating to financial and real sectors, could be facilitated. The nature and frequency of the information are detailed in the subsequent Sections.

(*Contd. from page 33*)

indeed customary in monetary models to take the high-powered money base as exogenously given, determined off stage and then to relate the money stock to this base by a multiplier relationship incorporating those behavioural responses affecting the two ratios involved. This approach, however, abstracts from all the main operational problems facing the authorities. It reveals nothing about the difficulties possibly confronting the authorities in achieving any desired level for the monetary bases. It suggests by itself nothing of the implications for interest rates, markets and financial institutions of the authorities' choice of targets and market procedures. It gives no idea of the underlying forces with which the authorities may have to contend in controlling the money stock. Indeed in making the initial assumption that the monetary base is under their control, all their operational problems are implicitly assumed to have been resolved. Just as the algebra of the banking multiplier effectively obscures the underlying behavioural process of portfolio adjustment in response to relative prices, so the assumption of an exogenously given monetary base effectively obscures consideration of the real problems facing the monetary authorities and their responses to such problems. So a first step is to abandon the assumption that the high-powered money base is given. Instead we may start by proceeding to an examination of the factors determining the outstanding totals of all the various forms of the Government debt extant including the cash liabilities of the public sector. In order to do this, it is helpful to turn to yet another accounting identity taken from the accounts of the flow of funds which describes how the financial deficit (or surplus) of each sector is financed by flow of funds through the various financial markets." C. A. E. Goodhart : *Money, Information and Uncertainty*—Macmillan London—Also see Section 4 of this Report.

SECTION : 2

Measurement of Money Stock

Against the conceptual background sketched in Section 1, an attempt has been made in this Section to evolve specific measures of money stock. The brief review of contemporary developments in monetary theory and empirical research relating to monetary aggregates has shown clearly that the use of a single measure of money stock for monetary analysis and policy would be inadequate and, at times, even misleading. There is no unique measure of monetary aggregate. There is, therefore, a need to take a disaggregated view and employ a variety of monetary aggregates depending upon the end-use to which the data are likely to be put.

Alongside this effort of evolving suitable measures of money stock, there is yet another important exercise, namely, improving the data base of the monetary sector. In fact this aspect of qualitative improvement of the data, in terms of both coverage and sophistication, is as much important as the evolution of suitable measures of money stock. This aspect is taken up for discussion in the next Section.

The Working Group's contribution to monetary data compilation and analysis has therefore to be judged in terms of both the aspects mentioned above.

Reverting to measures of money stock, the hard core of the monetary aggregates should continue to be basically those assets possessing the quality of "superior liquidity" arising from the conception of money as a medium of exchange. Keeping this in view, four measures of money stock are evolved. Among the four measures evolved, the first and the foremost continues to be, in the words of the 1961 Working Group, "the most liquid and the most generally accepted means of payment available for the mediation of transactions and final settlement of claims".[19] In a sense, the present Working Group has not found it necessary to depart from the concept of the 1961 Group, because, neither the contemporary theoretical debate nor the

19. 'Analysis of Money Supply in India—I,' *Reserve Bank of India Bulletin*, July 1961, p. 1046.

quantitative research in the field has disputed the uniqueness of some of the financial liabilities created by the monetary system[20] in terms of their superior liquidity and the speed and the automaticity of the process of their creation. Moreover, this approach is nearly universally adopted, as can be seen in Appendix II. The International Monetary Fund (IMF), which has introduced uniform practices of data compilation for its 'Monetary Survey' regularly published in the *International Financial Statistics* (IFS), has also adopted the same concept. In this respect, the main contribution of this Working Group lies in improvement of the data base for compiling the 'money supply with the public'.

The other three money stock measures stem mainly from two factors : first, the growing importance accorded to 'money' as a store of value and second, the need to take into account the probable shifts between liabilities of the monetary system which are means of payment and term liabilities. The four measures of money stock are defined below. Broadly, the main characteristic which separates one measure from the other is the varying degree of its liquidity, the measures being specified in the descending order of liquidity.

M_1 consists of :

(i) Currency notes and coins with the public, (excluding cash on hand of all banks) ;

(ii) Demand deposits (excluding inter-bank deposits) of all commercial and co-operative banks ; and

(iii) 'Other deposits' held with the Reserve Bank of India (excluding balances in Accont No. 1 of the International Monetary Fund, the Reserve Bank of India Employees' Pension, Provident and Guarantee Funds and *ad hoc* liability items which arise from time to time).

M_2 consists of :

(i) M_1 ; and

(ii) Savings deposits with Post Office Savings Banks.

M_3 consists of :

(i) M_1 ; and

(ii) Time deposits of all commercial and co-operative banks (excluding inter-bank time deposits).

M_4 consists of :

(i) M_3 ; and

(ii) Total deposits with the Post Office Savings Organisation (excluding National Savings Certificates).

Conceptually, the category M_1 is the same as the existing 'money supply with the public', with the term 'public' signifying 'money using' sectors as distinguished from 'money-creating' sectors. Since the latter comprise the Government and the banking system, the 'public' in effect means all categories of holders of money other than the banking system and the Government.

The category M_2 presented here, represents a compromise between the need for conceptual neatness and operational feasibility. Ideally it would have been appropriate to include the 'cheque facility accounts' of savings deposits with Post Office Savings Banks in M_1. The rationale underlying such a measure is that the two types of deposits, namely demand liability portion savings deposits with commercial and co-operative banks and chequeable portion of savings deposits with Post Offices belong to the same species though between them, the latter appears to be somewhat less liquid than the former. The measure of M_2 would have then comprised (i) M_1 (ii) the non-chequeable part of Post Office Savings Banks deposits and (iii) time liability portion of savings deposits of commercial and co-operative banks. Operationally, however, it is not possible to provide immediately data on such a finer concept because of difficulty involved in obtaining the weekly or monthly figures in regard to chequeable portion of Postal deposits from such a vast network of Post Office Savings Banks in the

20. 'Monetary institutions comprise the Central Bank, or monetary authorities, and those banks whose liabilities include deposits payable on demand, often referred to as deposit money banks. Statistics for these two sub-sectors are combined to yield the monetary survey.' IMF : *A Manual on Government Finance Statistics*, (June 1974), p. 32.

country. As brought out in Section 3, the size of chequeable portion is also insignificant.

Therefore a separate intermediate measure of M_2 has been evolved which includes, in addition to M_1, the total Post Office Savings bank deposits which on the whole are a shade less liquid than demand deposits with banks but more liquid than time deposits.

The category M_3 would correspond again to the existing 'aggregate monetary resources' while M_4 is further expanded variant which includes deposits with the Post Office Savings Organisation. Conceptually, both of them correspond to the existing measure of 'aggregate monetary resources' but they would now include a wider set of financial assets and also cover a larger number of financial institutions.

On the whole, therefore, the new categories of money stock measures may be said to carry forward the process of refinement of Indian monetary data in two distinct areas. Firstly, the new categories provide for a much wider spectrum of monetary aggregates, on the basis of their varying degrees of liquidity. Secondly, the new categories, by extending their coverage, would bring the data closer to reality. The new series, it is hoped, would therefore facilitate a more sophisticated and realistic analysis of monetary trends. The significance of the extension of the coverage would become clearer in Section 3.

SECTION : 3

Data Base of the Monetary Sector

In the present series of money supply data, there are several 'gaps' which may be historically attributable to lack of data on certain components of money supply. In part, the 'gaps' may have also been due to the fact that in the past some components of money supply might not have been regarded as important in terms of magnitudes. Whatever may have been the case, such 'gaps' render the present series of monetary data incomplete in their coverage and hence imperfect for realistic analysis and interpretation of monetary trends. It is important to clearly identify such gaps and try to fill them with a view to making the new money supply data series more comprehensive and realistic. As mentioned earlier, this task of improving the coverage and quality of data is as important as the evolution of new measures of money stock.

While the problem of extension of coverage of the monetary data hinges primarily on the co-operative sector and the Post Offices, in terms of refinement of data, the problem of apportioning savings deposit of commercial banks between demand and time deposits, referred to earlier, becomes important. These topics are discussed in this Section. Finally, the new series of money supply data compiled in the light of the discussions in Section 2 and in this Section are provided at the end.

Refinements in the Coverage of Co-operative Sector

One of the substantive changes effected in the new series of money stock measures evolved here is the extended and more refined coverage with respect to the assets and liabilities of the co-operative sector. For lack of timely and regular flow of information from all tiers of co-operative banks, the present practice has been to include the demand deposits of only the scheduled and other State co-operative banks but without excluding the inter-bank constituents thereof. Likewise, in the present 'aggregate monetary resources', their time deposits are inclusive of inter-bank deposits. Now under the Banking Regulation Act, 1949 (as applicable to co-operative societies) and the rules framed thereunder, every category of co-operative bank (spelt out in the following paragraph) is required to submit monthly returns to the Agricultural Credit Department of the Bank. At the instance of this Working Group, the Agricultural Credit Department have devised, on the basis of the monthly returns, methods to compile this information on a systematic basis, so that it would now become possible to first include the assets and liabilities of the other tiers of the co-operative credit institutions and second, to exclude appropriately inter-bank items, within the co-operative sector. This may be elaborated further.

The different categories of credit institutions[21] in the co-operative sector are : State co-operative Banks, Central co-operative banks, urban banks, industrial co-operative banks, employees' credit societies, other non-agricultural credit societies, primary agricultural credit societies, and grain banks. Among these, the scheduled State co-operative banks furnish returns under Section 42 of the Reserve Bank of India Act, 1934 (as amended) and upto-date information in respect of them is being used for the current series on money supply. The rest of the tiers could be divided into two categories : (i) those that have been designated as 'banking' institutions by bringing them under the purview of the Banking Regulation Act, 1949, and (ii) other societies. The Banking Laws (Applicable to Co-operative Societies) Act, 1965, extended the RBI's statutory control under certain provisions of the Reserve Bank of India Act, 1934 and the Banking Regulation Act, 1949 to State co-operative banks, Central co-operative banks and the primary co-operative banks, defined as primary non-agricultural credit societies transacting banking business and having paid-up share capital and reserves of not less than rupees one lakh. The provisions regarding cash reserves, liquidity reserve requirements, and general control on advances, licensing, opening of branches and issuance of directives have all been extended to them.[22] The special information system, referred to above, is in respect of these institutions designated as 'banks'. These 'banks' which are now proposed to be covered in addition to State co-operative banks, for money supply data compilation are under the categories of: (a) Central co-operative banks ; and (b) primary co-operative banks consisting of (i) urban co-operative banks ; and (ii) salary earners' credit societies (to which the Act applies).

Ideally, even the other non-agricultural credit societies which have not attained the status of 'banks' and the primary agricultural credit societies (including grain banks) which alone, among co-operative institutions, have been permitted to carry on banking business in rural areas, should be covered in the compilation of money stock measures : this is because all of them carry on 'banking' business, generally defined to mean acceptance of deposits withdrawable on demand and used for lending.[23] But these have been kept outside the purview of the legislative provisions and the rules made thereunder regarding the requirements of submitting regular statistical returns, referred to above.[24] Further, on account of the operational difficulties involved in getting regular and timely information in their case, all of these co-operative societies would have to continue to get excluded from monetary data. On an examination of the data for recent years,[25] it is found that all of these primary societies (important among them being agricultural credit societies) have negligible amounts of deposit resources, i.e., about 5 per cent of their total liabilities ; a large part of their funds originates from borrowing from the Central co-operative banks in respect of which fuller information is available. Therefore, the magnitude involved in their exclusion from M_1 is negligible.[26]

At present, the money supply data series is compiled on a weekly basis (for every Friday) and published with a time-lag of about ten days. On the other hand, information in respect of the co-operative banks, referred to above (namely, the Central co-operative banks, the urban co-operative banks and the salary earners' societies),

21. Non-credit co-operative institutions are obviously to be left out of account because they do not perform banking functions : accepting deposits from the public and lending and maintaining liabilities withdrawable on demand. Likewise, the land development banks both at the state and primary levels belong to the category of development banks, and do not carry on normal banking business.

22. See Reserve Bank of India's *Annual Report* for 1965-66 (Bombay, 1966), pp. 29-30.

23. The Government of India's *Banking Commission* (1972) recommended a far wider definition to include the acceptance for deposits whether by a person or body corporate or co-operative society and whether for lending or for investment in one's own business. (Its *Report*, Chapter 19, pp. 469-510). This appears to have been done in the context of the need to protect the depositors' interest. On the other hand, functionally, there is substance in the concept of 'banking' as an institution that accepts deposits withdrawable on demand and used for lending.

24. "Land Mortgage Banks, all primary agricultural credit societies and those primary non-agricultural societies having paid-up capital and reserves of less than rupees one lakh are excluded from the purview of this legislation" : See RBI's *Annual Report* 1965-66, op. cit. p. 29.

25. These are available in the *Statistical Tables relating to the Co-operative Movement in India*, the latest being for 1974-75. (Bombay, 1975).

26. In any case, it is recommended that the position be again reviewed after, say, a period of five years.

would flow with a lag of two months or so. This lag, the Group is convinced, is unavoidable ; for a period of about six weeks therefore, the available information for the latest month may have to be repeated. The Working Group did explore the possibility of evolving some method and criterion for projecting the weekly data for the intervening weeks for these institutions. No such worthwhile method could be employed for want of any bench mark weekly series in respect of these institutions.

Even the *pro rata* distribution of variations between months among the intervening weeks was difficult to decide upon, because of the fluctuating nature of the data. In any case, even if it were possible to evolve a *pro rata* distribution method, there is no certainty that such a method would give better results than the 'repeat' method proposed.

An additional point in favour of the'repeat' method was that the variations between months are not so significant and it is thought the repetition of the month-end figures for a short period of six weeks or so in respect of the lower tiers of co-operative banks, should serve the purpose in view. With a view to having some uniformity in the inclusion of returns of the co-operative sector, it is proposed that the data for the latest month for which returns are received be included in the third Friday of every month and concurrently the revisions for the previous weeks be effected.

Inclusion of the Post Office Deposits

Yet another constituent of 'banking' to which the Group propose to extend the coverage of monetary data is the variety of deposits accepted by the Postal Savings Organisation.[27] The 1961 Working Group had argued that the Post Office Saving deposits need to be excluded from 'money supply with the public' because they were "more analogous to time deposits in as much as they originate from the placement of cash with Post Offices and do not act as a basis for credit creation."[28]

It is true that saving deposits with Post Offices are 'primary deposits' in the sense that they originate from the direct placement of cash as distinguished from "secondary deposits" which get created by the granting of credit. But such "primary deposits "are found to be sizeable even with commercial and co-operative banks (such as the demand portion of saving deposits and even a part of the current account deposits), which get included in M_1. The question is essentially one of the ease with which the Postal Savings Bank deposits can be withdrawn 'on demand'. In this regard, the withdrawal rules have been liberalized since 1965. Withdrawals can now be made either by cheque or by withdrawal slip. Withdrawal by cheque is allowed at present to a depositor who is properly introduced to the Post Office, has a minimum balance of Rs. 50 in his account, is literate and can sign his name. In some of the important metropolitan centres, the Postal Savings Organisation has acquired the membership of the bank clearing houses.

A review of the operations of the Postal Savings Deposits revealed that the chequeable portion of the Postal Savings Deposits is not very significant ; further, that even in such deposits the rate of turnover appears to be less than the turnover rate for fixed deposits with commercial banks.[29]

Circle-wise information obtained from the Postal Savings Organisation and presented in Appendix V shows that the amounts of balance in 'cheque facility accounts' formed a negligible proportion of the total balance in Post Office Savings Bank Accounts. This proportion ranged from 0·26 per cent in Gujarat circle to 4·82 per cent in Madhya Pradesh circle ; only two circles, viz., Karnataka (15·11 per cent) and West Bengal (7·54 per cent) show higher proportions. Nevertheless, rough estimates show that for the country as a whole, the total balance in chequeable deposits in Post Office Savings Accounts would be about Rs. 40 crores. This figure can be compared with the "money supply with the public" figure of more than Rs. 13000 crores or demand deposits of commercial and co-operative banks of Rs. 6,000 crores.

27. The principle involved here is as described in the IMF's *A Manual on Government Finance Statistics ;* "In addition to institutions engaged in ordinary commercial banking activities, the deposit money banks sub-sector includes any demand deposits liabilities of the Treasury or other Government bodies,including the postal checking system" op. cit., p. 34.

28. "Analysis of Money Supply in India—I," op. ct., p. 1049.

29. Based on discussions with postal authorities. The turnover rate for deposits with commercial banks was as per a survey for 1966, about 2.2 for fixed deposits, 2.5 for saving deposits, 45.0 for current accounts and 13.6 for all deposits together. See *Reserve Bank of India Bulletin, March* 1970.

Secondly, it would be rather difficult to get information on the total balance in the 'chequeable account', for millions of Postal Saving accounts spread over lakhs of Postal Savings Bank offices. Thirdly, the fact that Postal Saving Deposits do not form the basis for credit creation cannot be dismissed rather lightly. Lastly, it is also found that these deposits have a lower turnover.

On the other hand, conceptually from the point of view of 'liquidity' these deposits can be compared to demand liability portion of savings deposits with banks. That is why, as stated earlier, it would have been appropriate to include 'chequeable portion' of saving deposits with the Post Office Savings Banks in M_1.

While concept-wise such categorisation seems neat, it raises some operational problems for compiling these data regularly and incorporating them in the money supply series. As has been shown, the chequeable portion of savings deposits varies greatly from region to region ; this proportion may also vary over time. Hence for assessing spatial and temporal variations it would be necessary to conduct periodic studies broadly, on the lines conducted by the Group. This would no doubt be a time-consuming process. Moreover, it would also mean a serious limitation on the frequency with which such data could be published. In view of the analytical significance of Postal Savings Bank deposits as an intermediate stage of liquidity, the Group has prescribed a slightly modified concept of M_2 which, as indicated earlier, includes the total accruals under the Post Office Savings deposits. In the absence of weekly data on these accruals, it is proposed to publish only a monthly series of this measure.

Another obvious candidate for inclusion in the M_2 category is the so-called 'time liability' portion of saving deposits with banks. At present this portion is actuallly added on to the time deposits of banks, which seems hardly appropriate. The description "the time-liability portion" of saving deposits is itself a misnomer and may be partly explained by the historical reason that between the "current" and "time" categories, there were no other categories. The very fact that a depositor chooses to deposit money in a saving account, in preference to 'time deposits', shows his asset preference, namely, he would prefer a relatively more liquid asset. The question of the determination of the proportions of current and non-current elements in saving deposits with banks is discussed separately at the end of this Section. In this case also, there is the problem of conducting periodic studies and the question of frequency of publishing the data remains.

So far, the discussion has been confined to the savings deposits with the Post Offices. The aggregate of term deposits could be treated as "quasi money" and hence the Group has proposed that they be included in the extended concept of monetary aggregate, namely, M_4. This extended concept would also include, besides savings deposits, various other deposits with the Post Offices such as Post Office Time Deposits, Post Office Recurring Deposits and Post Office Cumulative Time Deposits. The concept would, however, *exclude* different types of National Savings Certificates since special incentives are given to induce holders to hold on to the certificates till maturity. Such certificates are almost analogous to Government bonds with this difference that they are relatively more attractive to individual holders and are non-negotiable instruments. Further, the National Postal Savings Certificates have also been treated as 'approved securities' for the purposes of statutory liquidity requirements laid down for commercial and co-operative banks, under Section 24 of the Banking Regulation Act, 1949 ; hence the certificates have become eligible as collaterals for bank credit.

The category M_3 corresponds broadly to the present category of what is called "Aggregate Monetary Resources", which has been designed essentially to encompass time deposits of the banking system in the broader concept of money. At this stage, the question may be asked: why is it that the deposits with the Post Office—saving and time etc. referred to above—do not find a place in M_3 itself ? Why has it been found necessary to include them in a category at one removed from M_3 ? There are a few considerations which warrant that deposits of Post Office be treated separately. First, the Postal Savings Organisation can hardly be regarded as belonging

to the conventionally defined 'banking-system' in which the liabilities become the basis for creation of credit. Yet, it would be improper to ignore these deposits because they do act as some form of substitutes for deposits in the regular banking system and hence, it is necessary to evolve an information system of a hierarchy of monetary aggregates which includes such competitive deposits of the household sector.

Secondly, there is the practical difficulty of obtaining information on a weekly basis. As the amounts involved are large, it is not proper to substitute surrogate estimates. The most appropriate course in this respect, therefore, is to present a separate monthly series of money stock, called M_4, which possesses an independent analytical value, analogous to M_3 but *not* identical with it.

Finally, the third aspect, namely, the criterion presently employed for apportioning, savings deposit balances with commercial and co-operative banks between demand and time deposit liabilities may be examined. The commercial banks have been advised, at present, to classify, on the basis of their prescribed withdrawal facilities, that portion of the balance in a Savings Deposit account which is permitted to be withdrawn without notice, as demand deposit and the balance as time deposit. According to the Scheduled Banks' Regulations, 1951 framed by the Reserve Bank of India the actual apportionment of each savings account of a bank branch had to be undertaken twice a year—once for the last Friday of June and again for that of December ; the proportions so obtained for all accounts in a branch had to be used for its total savings deposit balances for the following weeks/months.

Apportionment of Savings Deposit Balances between Time & Demand Deposits

As for the withdrawal facilities for the savings account holders, it may be recalled that with the unification of the cash reserve ratio in September 1962 (at 3 per cent for both time and demand liabilities against 2 per cent and 5 per cent, respectively), the scheduled commercial banks had resorted to competitive liberalisation of their deposits rules since April 1963.[30] Consequently, the demand liability portion of saving deposits of all scheduled commercial banks had risen rather sharply from 64·3 per cent at the end of March 1963 to 86·9 per cent at the end of March 1964 (see data presented in Appendix VI). Subsequently, again with the stipulation that interest rate paid on deposits for periods of less than 15 days should not exceed the rate allowed on current accounts, the short notice deposits were converted into demand deposits.

As a result, and also due to the continuance, though on a small scale, of the competitive liberalisations in saving deposit rules by different banks, there occurred a steady increase in this demand liability portion from 86·9 per cent in March 1964 to 93·2 per cent in March 1968. With a view to putting an end to the divergent practices followed by different banks and for bringing about some uniformity in this regard, the Indian Banks' Association amended, effective April 1, 1968, the rules on the number and amount of withdrawals from savings accounts framed under the then Inter-Bank Agreement on Deposit Rates.[31] This has had the effect of tightening the withdrawal facilities, which was reflected in a steep decline in the proportion of demand liability portion in saving deposits from 93·2 per cent in March 1968 to 84·5 per cent in March 1969. In March 1975 the proportion stood at 85·8 per cent, the fractional increase between March 1969 and March 1975 reflecting probably the shift in favour of small-size deposits.

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30. "Various banks have in recent years been progressively classifying savings deposits, ... as demand deposits following the competitive liberalisation by them of saving deposits rules since April 1963, a process which may have been facilitated by the unification of the cash reserve ratio in September 1962 .... The other classificatory change follows from the prescription of the Reserve Bank in September 1964 that the rate of interest paid on deposits for periods of less than 15 days should not exceed the rate allowed on current accounts, as a result of which deposits at short notice, have been converted into demand deposits." See *Trend and Progress of Banking in India, 1964—Reserve Bank of India*, p. 13.

31. See Indian Banks' Association's *Annual Report* : 1968, pp. 13-14. The new rules are : (*i*) the total number of withdrawals from Savings Bank Account during any quarter will not exceed 25 ; and (*ii*) the total amount of one or more withdrawals made by a depositor on any day shall not exceed 10 per cent of the balance in the account or Rs. 1,000 whichever is greater, unless 10 days' advance notice is given.

Thus, what the banks now report as the current and time deposit portion of savings deposits is based on their rules regarding the withdrawal facilities framed by the Indian Banks' Association. Here the basic question is whether the banks do insist on the observance by the depositors of the rules in this regard ; for there is a general impression that in practice the savings deposits are operated without any withdrawal restrictions. An analysis of data of the individual banks reveals that the demand liability portion of savings deposit balances reported by them differs widely from bank to bank, ranging from 90 per cent to 68 per cent. A part of the explanation for this is to be found in the bank-wise differences in the size-wise distribution of saving deposits, the proportion of demand liability portion being low in those banks which have a larger proportion of big-size deposits. The Group's discussion with bankers in this regard has revealed neither any conclusive evidence of large scale breach of the withdrawal rules nor any vast inter-bank differences in the practices followed. As it is, the time liability portion, attributable to withdrawal restrictions, forms only about 14 per cent of the total saving deposit balances of all scheduled commercial banks. Although the Working Group has not found any sound basis for disturbing the existing reporting practices in this regard, it would like to emphasize that a sample survey of saving deposits with a view to determining the current and time deposits components should be conducted at an interval of every five years.

In parenthesis, it is necessary to refer here to another recent development.

Inclusion of Balances in Non-resident Accounts in Money Stock Measures

The Reserve Bank instituted in 1970 two schemes for attracting savings of non-resident Indians and aliens of Indian origin living abroad. The first scheme called the Non-Resident (External) Rupee Account was instituted, effective from March 1, 1970 ; in it the unit of account is the Indian rupee and the deposits could be in any type of deposit accounts. The second scheme introduced from November 1, 1975, is called the Foreign Currency (Non-Resident) Accounts which is designated in two convertible currencies namely, pound sterling and U.S. dollars. The balances under the first scheme (which rose from Rs. 6·08 crores on December 31, 1971 to Rs. 22 crores on December 31, 1974), have got merged with the figures of aggregate deposits of domestic origin and various components thereof, as reported by the scheduled commercial banks (authorised to deal in foreign exchange). For cash reserve and statutory liquidity purposes, such balances are treated on a par with the deposits of domestic origin.

However, the balances under the second scheme of foreign currency accounts (which are currently allowed to be maintained in fixed deposits) are being treated on a special footing with concessional provisions with regard to cash reserve and statutory liquidity requirements. Even so, considering the various aspects of these two schemes—their beneficiaries, facilities for local disbursements and for investments in approved areas—the Working Group feels that such balances reflect a potential monetary demand as any of the term deposits kept out of domestic savings. First, the beneficiaries are either Indians employed abroad—in diplomatic missions, in international organisations, or in the private sector—or, aliens of Indian origin, who have a stake in India, and who are likely to spend the balances in India. Secondly, to facilitate such domestic disbursements and/or domestic investments in certain specified areas like units of the Unit Trust of India, Government securities, some national Plan/Saving certificates, and also with some restrictions, shares of companies and in industry generally, liberal provisions have been made under the schemes. Local disbursements could be for purposes including tax payments. For these reasons, the deposit balances under the second scheme should also be included under the appropriate money stock measures. This has been facilitated by the recent advice to banks to include such deposits under their time liabilities.

New Series of Money Supply Data

Against the background of the discussion so far, it has been possible for the Working Group to compile, as illustrative of the new series the data for four new measures of money stock, that is, M_1, M_2, M_3 and M_4, for the period beginning with March 1970.

The new series of data are provided in Statements 3 and 4. For obtaining a quick glance at the new series, the outstandings as well as variations in respect of a sample of the new series are presented in Tables 1 and 2 alongside the present series of data.

TABLE—1 MONEY STOCK MEASURES—PRESENT AND NEW

(Rupees Crores)

	New Series				Present Series	
	M_1	M_2	M_3	M_4	Money supply with the Public	Aggregate Monetary Resources
	1	2	3	4	5	6
Year (Last Friday of March)						
1969-70	**6536**	7433	**9639**	10635	6387	9336
1970-71	**7321**	8311	**10958**	12142	7140	10588
1971-72	**8320**	9366	**12690**	14106	8138	12314
1972-73	**9684**	10791	**15033**	16805	9413	14515
1973-74	**11172**	12424	**17571**	19843	10848	16952
1974-75	**11911**	13132	**19462**	22033	11557	18783
1975-76	**13067**	14346	**22157**	25145	12682	21389
Month						
June, 1975	**12543**	13704	**20573**	23154	12187	19869
September, 1975	**12263**	13434	**20619**	23305	11928	20006
December, 1975	**12611**	13777	**21341**	24110	12280	20715
March, 1976	**13067**	14346	**22157**	25145	12682	21389
Week						
March 5, 1976	**13009**		**22095**		12634	21341
March 12, 1976	**13129**		**22234**		12756	21486
March 19, 1976	**13078**		**22133**		12702	21382
March 26, 1976	**13067**		**22157**		12682	21389

Note : Details are presented in statement 3.

TABLE — 2 VARIATIONS IN MONEY STOCK MEASURES

(Rupees Crores)

Year/Month	New Series								Present Series			
	M_1		M_2		M_3		M_4		Money Supply with the Public		Aggregate Monetary Resources	
	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage
1	2	3	4	5	6	7	8	9	10	11	12	13
Year (Last Friday of March)				**OVER THE YEAR**								
1970-71 ..	+785	+12.0	+878	+11.8	+1319	+13.7	+1507	+14.2	+753	+11.8	+1252	+13.4
1971-72 ..	+999	+13.6	+1055	+12.7	+1732	+15.8	+1964	+16.2	+998	+14.0	+1726	+16.3
1972-73 ..	+1364	+16.4	+1425	+15.2	+2343	+18.5	+2699	+19.1	+1275	+15.7	+2201	+17.9
1973-74 ..	+1488	+15.4	+1633	+15.1	+2538	+16.9	+3038	+18.1	+1435	+15.2	+2437	+16.8
1974-75 ..	+739	+ 6.6	+706	+5.7	+1891	+10.8	+2190	+11.0	+709	+6.5	+1831	+10.8
1975-76 ..	+1156	+9.7	+1214	+9.2	+2695	+13.8	+3112	+14.1	+1125	+9.7	+2606	+13.9
Month				**OVER THE QUARTER**								
June 1975 ..	+632	+5.3	+572	+4.3	+1111	+5.7	+1121	+5.1	+630	+5.5	+1086	+5.8
September 1975	− 280	− 2.2	− 270	− 2.0	+46	+0.2	+151	+0.7	− 259	− 2.1	+137	+0.7
December 1975	+348	+2.8	+343	+2.6	+722	+3.5	+805	+3.5	+352	+3.0	+709	+3.5
March 1976 ..	+456	+3.6	+569	+4.1	+816	+3.8	+1035	+4.3	+402	+3.3	+674	+3.3
Week				**OVER THE WEEK**								
March 12, 1976	+120	+0.9			+139	+0.6			+122	+1.0	+145	+0.7
March 19, 1976	− 51	−0.4			− 101	− 0.5			− 54	− 0.4	− 104	− 0.5
March 26, 1976	−11	—0.1			+24	+0.1			—20	—0.2	+7	—

From these data, it becomes clear that generally speaking the rates of change in individual measures go on rising as one moves along the liquidity spectrum i.e., from the most basic category M_1 to the more comprehensive category M_4

SECTION : 4

Sources of Change in Money Supply

In this Section the rationale underlying the analytical frame of what has come to be referred to as "Factors Affecting Money Supply"—a frame which forms an integral part of the present series of money supply data is examined. In the process of examination, it has also been possible to rationalise and simplify the compilation of the data relating to some constituent items.

R.B.I.'s Analytical Frame

The basic approach of the analytical frame is to present the broad sectoral distribution of total domestic credit which, in a sense, may be regarded as the major source of variations in 'money stock.' In other words, such presentation is designed to trace the origin of money supply variations to specific sectors, which draw upon the credit from the banking system. In this sense, the frame is designed to indicate the sources of change in money supply.

This frame is no doubt an accounting identity. It is certainly not claimed that this frame is based on any theory, conventional or otherwise, of money supply determination. The determination of money supply, it should be recognised, is the result of a complex process of interaction between *monetary* and *real* sectors. Therefore, any meaningful theory of the money supply determination has to cut across the monetary sector and include variables also from the real sector. The real factors, for instance, in terms of current and prospective output and investment, are as much important in the demand for bank credit as the banks' propensity and capacity to supply credit. In fact, these two aspects could be regarded as the conventional blades of the scissors.

Such a complex process of money supply determination cannot be ingrained into the system of presentation of primary monetary data. The choice of an explanation for the factors influencing money supply in such a system of data presentation has perforce to be made within the monetary sector. Such an explanation is nonetheless meaningful because the monetary sector's transactions with the rest of the economy are a manifestation of the complex interactions, referred to above.

Also, the current mode of presentation has substantive operational advantages inasmuch as it facilitates credit planning and forecasting, based on the disaggregation of total domestic credit into major user sectors, consistent with *macro* level projections of the appropriate rate and quantum of increases in money supply. The need for this arises because in the Indian economy, the growth of money stock is not entirely left to be autonomously determined by say a mechanical multiple of some monetary base. In the Indian system, where the Central Bank intervention is more direct and where the sectoral flow of credit for any particular period is determined by the system of credit planning and credit rationing, both the monetary base and the money stock expansion have come to be regulated by the monetary authorities. This point has been forcefully brought out in a study by Bank for International Settlements (Basle) in the following words: "One might say that money supply is a variable that is independent of the behaviour of economic agents during periods of strictly enforced credit ceilings; at such times it would depend only on objectives set by the Central Bank and on the effectiveness of the techniques employed by the latter to achieve them."[32]

Money Multiplier Approach

At this stage the question may be asked: how relevant for the Indian situation is the customary practice of adopting the money-multiplier approach in monetary models? Baldly put this approach takes the so-called high-powered money base as exogenously given, and then attempts to relate the money stock to this base by a multiplier relationship incorporating those behavioural responses affecting the two ratios

32. *The Money Supply, Economic Activity and Prices;* Bank for International Settlements—Basle, September 1972.

viz., the currency/deposit ratio and the reserve/deposit ratio. However, as Goodhart[33] has effectively highlighted, this approach abstracts from all the main operational problems facing the Monetary Authority; the approach fails to take into account the difficulties confronting the Monetary Authority in achieving any desired level of the monetary base itself.

In the Indian situation where credit planning has been adopted in practice for a considerable period, such a mechanistic approach to money supply determination cannot acquire serious operational significance.

In contrast, the Bank's analytical frame which seeks to present a disaggregated picture of credit expansion, indicating sector 'sources' of credit expansion, is more useful for operational purposes. This is certainly not to deny totally the relevance of the multiplier technique of analysis. In fact this approach has been adopted for long-term projections of credit/money supply for, say, the Fourth and the Fifth Plan periods. All that is sought to be emphasized here is that the Bank's analytical frame provides a much better insight for the practical formulation of monetary policy, especially in the short run.

The present Working Group after having given considerable thought to the possibility of any alternative presentation which would be conceptually more satisfying and operationally more useful has come to the conclusion that in so far as the primary data on money supply and factors influencing it are concerned, the current presentation is most appropriate. It is futile to attempt to build into such a frame of the primary data on money supply and factors influencing thereon, any theory of money supply determination if the result is the emergence of a mechanistic formula of little relevance to the realities of the Indian situation. Therefore, it has not been found necessary to depart from the basic frame of presentation of 'Factors affecting money supply,' as evolved by the 1961 Working Group.

33. C.A.E. Goodhart, '*Money, Information and Uncertainty*', Macmillan, London.

Briefly, under this framework,[34] the economy has been divided into two sectors :

(*a*) Government Sector (comprising Central and State Governments) ; and

(*b*) Commercial Sector (comprising the rest of the domestic sectors including the rest of the public sector as well as the foreign sector).

Sectoral Disaggregation and Refinement of Data

The transactions of each of the sectors with the banking system (comprising the Reserve Bank of India and the commercial and co-operative banks) are identified in terms of the variations in the banking sector's financial monetary assets and net non-monetary liabilities. The 1961 Working Group had made a special and detailed description of the difficulties in segregating the transactions of the external sector (comprising foreign companies, institutions and non-resident individuals) with the banking sector and hence had rightly suggested the inclusion of those transactions with the domestic commercial sector. Likewise, it was not possible to segregate, from the variations in the foreign assets of the Reserve Bank, the Government sector's purchases and sales of foreign exchange. The variations in the foreign exchange assets of the banking sector are a combined result of its transactions with the Government sector, the domestic commercial sector and the external sector.

Within this conceptual framework evolved by the 1961 Working Group, the present Working Group has proposed some changes in the methods of compilation of factors affecting money supply, which incidentally would facilitate credit planning exercises. These changes broadly fall under two categories : first, enlargement of the coverage of data by the inclusion of those in respect of Central co-operative banks and primary co-operative banks (which has already been discussed in Section (3)) and secondly, refinements in the methodology of compilation. A detailed explanation of these changes is presented in Appendix III. A brief description of major changes proposed and their *rationale* is presented here.

34. For a detailed discussion of this framework, see "Analysis of Money Supply in India—I", op. cit., pp. 1051-1067.

Mechanics of arriving at Bank Credit to Commercial Sector

The mechanics of arriving at 'bank credit to commercial sector' involves now a circuitous method. From the figure of bank credit comprising (*i*) loans, cash credit, and overdrafts and (*ii*) bills purchased and discounted relating to every segment of banking (except the RBI) the sum of a series of inter-bank liabilities *minus* inter-bank assets is netted out. The logic of this was explained by the 1961 Working Group in these words: "Under Item (d)—banks' loans and advances to the private sector[35] —the excess of inter-bank assets over inter-bank liabilities is also included ; for, though money at call and short notice is usually regarded as an inter-bank asset, it also arises as a result of advance to the private sector and such advances are represented, by and large, by the *excess* of inter-bank assets over inter-bank liabilities."[36]

Conceptually, all inter-bank assets of the entire banking sector have to be "balanced" by its inter-bank liabilities. If in practice there is no such balance or equivalence, it may be because of the imperfection in data, items-in-transit, exclusion of data in respect of certain banking segments and the like. The circuitous method had some relevance, for instance, when important segments of the co-operative sector such as the Central co-operative banks and primary co-operative banks were not fully covered in money supply, Now, with the fuller coverage, these deficiencies have been overcome. It is also observed from the actual data that for the scheduled commercial banks, the inter-bank liabilities have exceeded inter-bank assets (and not the other way about) which in effect tended to depress their credit to commercial sector (Statement 1). A part of the explanation for this is to be found in the inclusion in their inter-bank liabilities, the commercial banks' borrowings from outside the banking system—from LIC and UTI in the Call Money Market, and from IDBI and ARDC under their re-finance schemes (dealt with in detail in a subsequent paragraph).

This excess of inter-bank liabilities over inter-bank assets with the scheduled commercial banks does not find a corresponding amount of inter-bank net assets, in any other segment of the banking sector. Besides, there is rarely any possibility of the figures of bank credit by the scheduled commercial banks being duplicated necessitating adjustment through inter-bank liabilities.

In the circumstances, it is improper to adjust 'bank credit to commercial sector' by the amount representing the *excess* of inter-bank liabilities over inter-bank assets or *vice versa* ; it would only result in the distortion of actual bank credit. Such *excess*, if any, should appropriately form part of the net non-monetary liabilities of commercial and co-operative banks, which would also contain an element of errors and omissions.[37]

It is, therefore, proposed in the compilation of the new series of data to dispense with the adjustments now being made in regard to inter-bank assets and inter-bank liabilities, for the purpose of working out bank credit to commercial sector.

Secondly, in the present method, borrowings from IDBI and ARDC by commercial and co-operative banks are shown as inter-bank liabilities and hence, as deductible items against the bank credit extended by them. This is done with a view to obviating the double-counting of bank credit to commercial sector. The Reserve Bank's lending to IDBI and ARDC is reckoned in 'RBI credit to commercial sector.' IDBI and ARDC channel a part of the funds through the commercial and co-operative banks to the ultimate borrowers. In order to avoid double-counting of the bank credit figure, this amount should conceptually be reduced from the commercial and co-operative bank credit. However, sources of funds of IDBI and ARDC comprise, in addition to borrowings, paid-up capital and reserves, borrowings from Government, borrowings by way of bonds, etc., which are also used for refinancing eligible loans granted by commercial banks. These sources other than RBI contribute the bulk of their funds. It is, therefore,

35. Subsequently amended to be the "Commercial Sector," See Appendix I.

36. "Analysis of Money Supply in India—I", op. cit., p. 1064.

37. The 'errors and omissions' are unavoidable in a compressed version of data compiled from myriad items of assets and liabilities obtained from a multiple of branches of banking institutions.

incorrect to deduct the entire borrowings from IDBI and ARDC. At the same time, it is difficult to segregate, from the banks' total borrowings from IDBI and ARDC, that amount which is attributable to funds provided to the latter by the RBI. Although a small proportion of bank credit will be inevitably reckoned twice, first under RBI credit and then under the other banks' credit, as a matter of operational expediency, it has been proposed not to make any adjustment in respect of the banks' borrowings from IDBI and ARDC.

Lastly, it is found that State Governments lend to the State co-operative banks, which on the face of it has implications for both 'bank credit to the Government sector' and 'bank credit to the commercial sector.' The figures of 'net bank credit to the Government sector' should, in the normal course, be adjusted by the quantum of such State Government lendings to the State co-operative banks. A closer examination of the nature of these lendings however, shows that they are made essentially for performing certain agency functions for and on behalf of the State Governments, such as the monopoly procurement of cotton by the Maharashtra Government, *taccavy* loans of various State Governments and other activities. Hence, it would be inappropriate to make any adjustment in the 'net bank credit to Government.' Besides, as the operations made out of these borrowings by the State co-operative banks are not included in 'bank credit' figure, there is no adjustment needed in 'bank credit to commercial sector' either.

On these lines, the constituent items under other banks' (other than the RBI) credit to the commercial sector would now be: (*i*) loans, cash credit and overdrafts; (*ii*) inland and foreign bills purchased and discounted (which together constitute what is commonly called the 'bank credit') and (*iii*) investments in approved securities, company and co-operative shares/debentures, etc.

This method is consistently employed in respect of all the categories of banks covered by the money supply data. In respect of the co-operative sector, in view of its three-tier structure, care has been taken to avoid double-counting of bank credit. For this purpose, credit extended by each of the tiers only to individuals and other co-operative societies (outside the banking sector) has been taken into account.

A few other changes effected in the presentation of the "Sources of Changes in M_1" which have hitherto been designated as "Factors affecting money supply", are indicated in Appendix III.

Reserve Money: Components and Determinants

Finally, a point about reserve money. At present data on reserve money, its components and factors influencing it are presented only once a year in the Bank's *Report on Currency and Finance*. As these data would be of interest to research workers, it is proposed to publish these data regularly, on a monthly basis, in the Bank's *Bulletin*. Details regarding the items included in the compilation of the components of reserve money and sources of change in reserve money are presented in Appendix IV of this Report. Data on these are presented in Statement Nos. 6 and 7.

SECTION: 5

Miscellaneous Near-Money Assets and Money Stock Measures

In the process of considering different money stock measures, a variety of what might be referred to as near-money assets suggested themselves as "potential candidates" for inclusion in them. A number of them were eventually found to be unacceptable, either because of the basic conceptual ineligibility or operational difficulties. However, the Group felt that it would be useful to place on record the main considerations which led the Working Group to reject their claims for inclusion in different money stock measures. This Section takes up for discussion such issues.

The five issues discussed here are a mixed bag : these are Government deposits with the Reserve Bank, cheques in the process of collection, unutilised credit limits, trade credit and deposits with non-banking companies.

Exclusion of Government Deposits from Money Stock Measures

The deposit balances of the Central and State Governments kept with the Reserve Bank of India are now being excluded from money supply with the public. The main reasons for doing so are : first, it is necessary to draw a distinction between money-creating and money-holding sectors. The Central Government has the prerogative of creating money and borrowing on a scale that is not open to subordinate units in the polity,[38] and though there are limits to the borrowing power of the States, there is such a great deal of resources flow between the Centre and States that no meaningful distinction could be made between the two. Secondly, these deposit balances are the result of the non-commercial, administrative operations of the Government. Lastly, these balances could also be used as instruments of stabilisation of the economy to offset variations in the balances of the public.[39] It is doubtful if, among these, the last argument has any more operational validity. The use of this instrument to achieve monetary policy objectives is possible only if the overall finances of the Government alternate between budgetary surpluses and deficits and in a situation as in India where Government resorts to deficit financing almost persistently, the scope for using these as a monetary instrument does hardly exist. As these balances are maintained at least technically at a cost to the national exchequer because of the interest-bearing nature of the rising Government debt to the Central Bank of the country, these balances are generally kept, as a policy, at a low level.[40]

Even so, when looked at from the angle of Government's indebtedness to the Central Bank which is generally an important source of currency and consequently money supply expansion, it is necessary to make adjustment for their cash balances. The concept of Centre's deficit financing, for instance, is so defined as to exclude cash balances built from the increase in its indebtedness through treasury bills during a given year. The Government's operations here should be distinguished from those of the commercial entities on the important consideration that its purchasing power is not even limited by the quantum of its balances with the Central Bank, that technically such purchasing power is unlimited arising from its prerogative of creating money, and that, therefore, the inclusion of such cash balances would hardly add to any refinement in any money stock measures.[41]

This still leaves the question of Government balances arising from mostly non-commercial administrative operations of the Government. As the 1961 Working Group had noted some constituents of these Government balances with the Reserve Bank emanated from commercial departments of the Government such as the Railways and the Posts & Telegraph, and these are akin to the deposit balances of any other commercial entities. But it is difficult to disaggregate such balances into those arising from commercial operations and those from administrative operations, because of the continuous and significant shift of resources between the two constituents. In the budget of the Central Government, revenue and expenditure of the Railways

38. A. G. Chandavarkar : "State Governments' Balances and Money Supply with the Public in India" (An unpublished note).

39. "Analysis of Money Supply in India—I" pp. 1046.

40. A. G. Chandavarkar has brought out how "both in unitary and federal States, there are distinct institutional constraints on the use of Government cash balances as a monetary instrument." See his "Government Balances as a Monetary Policy Instrument in the Less Developed Countries," *Economic and Political Weekly*, August 26, 1972, pp.1785-1790.

41. In the United Kingdom, the broader M_3 money stock measure includes public sector deposits (public sector comprising Central Government, local authorities and public corporations); all of these public sector deposits are excluded from M_1 (which includes only U.K. private sector sterling sight deposits). Besides U. K. has large amounts of non-sterling deposits which are also included in M_3. In India, it is considered improper to make any distinction between the commercial entities in the public sector and those in the private sector and to exclude the deposits of the former kept with commercial banks from M_1 or M_2. Also conceptually the money stock measures M_1 to M_3 should comprise assets generally with a descending order of liquidity. For details on UK.'s money stock measures, see "The Stock of Money," *Bank of England Quarterly Bulletin*, September 1970, p. 320, and notes on Table 12 (Money Stock) and Table 12 in any regular issues of the *Bulletin*. In the United States, too, a case is being made in certain circles for including Government deposits in M_1 but this is primarily because such deposits are also kept with commercial banks. See Paul S. Anderson and Frank E. Morris: "Defining the Money Supply : The Case of Government deposits," *New England Economic Review* (Federal Reserve Bank of Boston), March-April 1969 and Boris P. Pesek and Thomas R. Saving: The Foundations of Money and Banking" (New York, Macmillan & Co., 1968).

are charged to the 'Consolidated Fund of India,' thereby indicating for instance, that the sources and uses of funds of the Central Government and the Railways are interlinked. In the newly prepared manual on Government finance statistics, the International Monetary Fund (IMF) has recommended the segregation of the commercial (such as the railways) and administrative segments of the Government budget[42]. Once this is done, it should be possible to segregate from Government balances those arising from commercial operations and treat the latter rightly as part of the money stock measures.[43] For the present, operationally, there is no alternative but to continue the existing practice of excluding the entire portion of Government balances from money stock measures.

Another point which becomes clear from the above discussion is that it would be improper to make a distinction between the public and private sector commercial enterprises in so far as the inclusion of their deposit balances in money stock measures is concerned, irrespective of whether those deposits are kept with the Reserve Bank or with the commercial banks. Though there are also transfers from the Government to Public Sector enterprises, such transfers are in the nature of investment in shares and debt obligations of the latter, directly linked to their manufacturing and commercial activities, and rarely in terms of grants or of sharing current revenues.

Irrelevance of cheques in the process of collection for Money Stock Measures

In the United States of America (USA), cheques in the process of collection within the banking system are deducted from the gross demand deposit figures so as to avoid duplication. This is justified on the ground of the practice followed by commercial banks as well as the Federal Reserve System in America of giving credit to the payees before cheques are debited into the account of the issuers.[44] In the United Kingdom, too, deduction for the transit items is made on the same ground but it is restricted to those of the deposit banks and also the total of the transit items as are apportioned between bank deposits and advances on the ground that such items tend to double-count deposits and undervalue bank credit, particularly where overdrawn or loans accounts are concerned.[45]

Banking facilities and banking habit are far more developed in countries like the U.S.A. or U.K. than in India. But more than

42. IMF : A Manual on Government Finance Statistics, op. cit

43. If they are continued to be kept with the Reserve Bank of India, the Railways' balances will be included in "other deposits with RBI" which is a constituent item of M_1 (and other money stock measures) and in which are included the deposits of development banks (IDBI, IFCI, SFCs, DIC), IMF A/c No. 2, IBRD, foreign central banks and others.

44. The system is described thus: "In computing the demand deposits adjusted component of the money stock measures, cash items in the process of collection and Federal Reserve float are deducted from gross demand deposits. The main reason for these deductions is to avoid the so-called 'double counting' of deposit balances that otherwise would occur when checks drawn on money stock deposit accounts at one bank and deposited in money stock deposit accounts in other banks are in the process of collection." See "Revision of Money Stock Measures and Member Bank Reserves and Deposits", *Federal Reserve Bulletin*, February 1973, p. 62. Certain deductions arising from the float which were inappropriate have subsequently been eliminated. *ibid.* The Federal Reserve *float* is explained in these words : "Deferred availability items arise because the Federal Reserve Banks do not give immediate credit to the deposit account of the collecting bank for all checks deposited with them for collection. The credit is deferred according to a schedule .....After such period (a maximum of 2 days) the member banks' reserve account is automatically credited. Since the time actually taken to collect a check may be longer than that allowed in the schedule, this crediting often occurs before the account of the bank on which the check is drawn is debited. The difference between the asset account (cash items in process of collection) and the liability account (deferred availability cash items) represents checks that—although not yet collected by the Reserve Banks—have previously been credited to the reserve accounts of the banks that deposited them."

"..... this difference, which is sometimes sizeable is called float." It measures the account of Federal Reserve credit generated by the national check-collection process and available to the member banks" (*the Federal Reserve System : Purposes and Functions*' September, 1974, (Sixth Edition), p. 34)

45. "The banks' gross figures for deposits and advances are adjusted to allow for sterling transit items. These transit items appear in an individual bank's balance sheet both as credit items (e.g. standing orders) and debit items (e.g. cheques in course of collection). When banks' figures are aggregated these items may give rise to double counting of deposits received from customers outside the banking system or where over drawn or loan accounts are concerned, to the under valuing of total lending made to such customers. In accordance with the treatment adopted for the calculation of reserve ratios.....it is assumed that 60% of the total value of debit items less credit items affects deposits. This proportion is therefore deducted from gross deposits and the remaining 40% is added to advance...." See *Bank of England Bulletin*, September 1975 (Vol. 15, No. 3), additional notes for Tables 11 and 12.

the growth of banking habit and facilities, the relative relevance of cheques in the process of collection to demand deposits lies in the practices adopted by banks in giving prompt credit to the customers. According to the practices adopted by the Indian banks, the scope for such duplication of bank deposits does not exist because, by and large, all the the banks—Indian as well as foreign banks operating in India—do not give credit for the payees' accounts before debiting the cheques into accounts of those who issue such cheques. The Banking Commission had, in fact, deplored the inordinate delays in the collection of local cheques by banks which in certain cases took as many as eight days for realisation. "The most frequent complaint against banks relates to the delays in collection of outstation cheques and bills, and prompt return thereof in case of non-payments." [46] It is difficult to state if the situation has improved since then, but it is obvious that no bank has adopted the practice of giving credit to payees' accounts prior to the clearance of the relevant cheques. In this regard, the Banking Commission had made the suggestion that the banks should consider cheques or drafts realised and proceeds credited to the customers' accounts, if these are not returned unpaid or dishonoured within specified periods.[47]

Where the banks do credit to the payee's account prior to the clearance of the cheque, it is treated as an overdraft facility and hence becomes part of bank credit. Since this is based on the credit-worthiness of the payee such a facility represents additional purchasing power for a temporary period. Therefore, there is no case for deducting such overdrawn amounts at all from the deposit money. There could be cases where some cheques in the process of collection might emanate from overdraft or cash credit facilities.

Status of Unutilised Credit Limits

The existence of substantial *unused bank credit limits* is a phenomenon following from "the present cash credit system of lending, where a banker sanctions a maximum limit within which the borrower can draw at his will."[48] The more important factors responsible for unused credit limits can be enumerated:[49] the normal leads and lags in the sanctioning of credit limits and their use, the system of determining the bank credit requirements at the peak of the procurement or manufacturing seasons in respect of seasonal industries or sectors, failure to determine the credit requirements rather accurately and hence a built-in tendency for asking limits higher than strictly necessary, experience of past credit squeezes and expectations of future ones inducing borrowers to ask for higher limits and the general tendency of the larger and more influential borrowers to inflate credit requirements and of banks to grant them so as to retain such borrowers. In terms of dimensions, while the extent of unused credit limit is high in cash credit and overdraft facilities (ranging from 38 per cent to 40 per cent), it is the highest in bill finance (about 50 per cent) ; there is a sizeable element even in demand loans and term loans (about 25 per cent) (See Appendix VII). Such under-utilisation persisted even when there was a commitment charge on the unused portion of the cash credit limits.

The essential question involved here is whether the existence of such unused credit limits 'really hampers the effectiveness of monetary policy'[50] and whether, consequently, such limits should be included in any money stock measure. A closer examination of this phenomenon and the causes responsible for it suggests that the degree of idle credit implied in unused credit limits is generally exaggerated. Take bill finance, for instance, in which the unused credit limit is the highest. Borrowing parties cannot make use of unused credit without the creation of bills or without the existence of book debts against which bills are created. The use is

46. *Report of the Banking Commission* (Government of India, New Delhi, 1972), p. 242-243.
47. *ibid*, p. 243.

48. *Report of the study Group to Frame Guidelines for Follow-up of Bank Credit*, (Reserve Bank of India Bombay, 1975), p. 17. Besides this Study Group, earlier a National Credit Council Study Group on "the Extent to which the Credit Need of Industry and Trade are Likey to be Inflated and How Such Trends Could be Checked" (RBI, October 1968) dealt with this problem at length.
49. Some of these have been discussed in Anand G. Chandavarkar : "Unused Bank Overdrafts: Their Implications of Monetary Analysis and Policy," *IMF Staff Papers*, November 1968 (Vol. XV, No. 3) pp.491-528.
50. Anand G. Chandavarkar: op. cit., p. 515.

thus conditioned by the actual quantum of physical transactions. It is generally so even with regard to cash credit limits and overdraft facilities, the utilisation of which cannot be resorted to an unlimited extent, for the simple reason that it has to be backed by the requisite quantum of collaterals, and also with a margin.

In other words, a good part of the unutilized portion of credit limits arises from the technical considerations of leads and lags, of the failure of collaterals and transactions to match the credit limits obtained. This is evident from the fact that even during the peak of recent inflationary spiral of 1972 to 1974, the unused portion of total bank credit or of individual types of accounts (for credit other than food procurement) had remained by and large unchanged at around 40 to 45 per cent (Appendix VII). There was, no doubt, a sharp decline in the unused portion between June 1974 and December 1974, but this was entirely due to the credit rationing and the consequential reduction in absolute terms in the aggregate of credit limits themselves for Rs. 11930 crores in June 1974 to Rs. 11360 crores in December 1974. This implies that the existence of relatively large limits in the earlier period did not raise the overall utilisation ratio in a period of severe inflation. Nor did the cutting down of the aggregate limits prevent the use of the required quantum of credit.

This does not mean that the size of unused credit limits is not of any consequence to credit policy formulation. It is of utmost importance in determining the 'potential' demand for credit. Even so, what proportion of it represents credit limits beyond the requirements of technical considerations of leads and lags, seasonality, the expectations of prices and policies and the like, is difficult to determine.

Even on statistical grounds, inclusion of a uniform percentage of unused limits in any money supply series will not improve the series. The position is analogous to the findings of a statistical study of selected countries—"that the variability of circulation consequent upon the inclusion of unused overdrafts was so small relative to the commercial velocity of money (excluding unused overdrafts) as to be unimportant." [51] Therefore, the Working Group feels that it is not desirable to include the unused portion of credit limits in any money stock measures.

Trade Credit and Money Stock Measures

An alternative source of liquidity is the availability of trade or commercial credit. Generally speaking, while the granting of trade credit is a normal feature of the trading and commercial activities, its magnitude and average duration get expanded during periods of credit stringency. This destabilising nature of trade credit was noted by the classical economists, but its importance as a threat to monetary policy based on conventional indicators came to be highlighted with the publication of the Radcliffe Committee Report. Subsequent empirical studies on the subject in the developed countries have been conclusive neither in regard to the concept of trade credit (gross or net) nor the extent of their destabilising effects [52]. Nevertheless, in contemporary literature on the subject, there is a general consensus that trade credit is a potential threat to monetary policy based on conventional indicators. The Radcliffe Committee was emphatic that trade credit should not be netted out by deducting commercial credit obtained from credit given; the Committee observed, it is "no more reasonable to net out commercial credit in this way than it would be to net out bank loans and bank deposits." [53] This is as it should be, because in a set of combined statistics on the corporate sector (manufacturing and trading) as a whole for instance, trade credit obtained by some

51. An unpublished study by William H. White on "Interpreting Monetary Statistics when overdrafting is Prevalent", (September 1956) quoted in A. G. Chandavarkar in *IMF Staff Papers, op. cit* pp. 518-519. The study included Indian experience.

52. Based on the thinking of the Radcliffe Committee, Sayers considered gross and Brechling and Lipsey net credit; but both of these studies found trade credit reacting to monetary policy, expanding in times of credit squeezes and contracting in times of credit ease, but a later study by Coates has not corroborated their findings. See R. S. Sayers : "Monetary Thought and Monetary Policy in England", *Economic Journal*, December 1960, p. 713; F. P. R. Brechling and R. G. Lipsey : "Trade Credit and Monetary Policy", *Economic Journal*, December 1963. S. B. Laffer : "Trade Credit and Money Market", Journal of Political Economy, March-April 1970; and J.B. Coates : "Trade Credit and Monetary Policy", *Oxford Economic Papers*, March 1967.

53. *Report of the Committee on the Working of the Monetary System* (London, 1959) p. 103.

firms (and thus included in liabilities) will also appear as trade credit given by others in the group (as assets) except to the extent the transactions based on trade credit take place outside the group. A single firm gets trade credit generally for its purchases of inputs and gives credit for the sale of its finished products, each one thus augmenting demand for independent products. Therefore, the principle of netting out is indefensible on theoretical as well as practical considerations.

On a gross basis, the size of trade credit obtained by the corporate sector in India (both public and private together) is substantial as could be seen from the data in Appendix VIII. The quantum of such trade credit obtained by the corporate sector as a whole has always been on the uptrend consistent with the expanding role of this sector in the initial stages of development. A part of the expansion in such credit is, therefore, more a result of natural growth attributable to the sector's growth itself, than a reaction to the rigour of bank credit policy. Even so, the fact that the rate of expansion in such credit in individual years has varied broadly in correspondence with the degree of stringency or otherwise in commercial bank credit lends credence to the general consensus that trade credit is a method of obviating the rigours of monetary policy. Therefore, the size and direction of such commercial credit deserves to be watched closely.

However, the inclusion of such trade credit data in any money stock measure is operationally beset with many problems, some almost intractable. First, trade credit data can be obtained and compiled only in respect of that received by the corporate sector among the firms engaged in trading and manufacturing activities, while trade credit system is obviously prevalent in all the sectors of the economy. Even within the secondary sector (comprising manufacturing, construction and electricity, gas and water supply), about half of the net domestic product could be said to be originating in unregistered and unorganised sectors for which no such data could be obtained. Secondly, even in respect of the corporate sector, operationally it would be a stupendous task getting regular weekly or monthly or even annual data to correspond to other money stock measures and to be useful for seasonal or short term credit policy formulations. Obviously, such data have to be culled out from the annual balance sheets of the companies. Lastly, even the figures of combined balance sheets fail to represent those at a single point of time because of the differences in reference periods of company balance sheets. There is also the question of window-dressing and the degree of dependability of the balance sheet data. Hence, there is no alternative but to exclude trade credit from the money stock measures proposed by the Working Group.

Exclusion of Deposits Accepted by Non-Banking Intermediaries from Money Stock Measures

The broad theoretical and conceptual considerations relevant for drawing a distinction between monetary and non-monetary financial institutions have been set out in Section 1. This distinction based on their functional differentiation led the Working Group to exclude deposits accepted by non-banking intermediaries from any money stock measures. The group of these non-banking intermediaries covers such a wide range that it would be necessary to review *albeit* briefly the nature of their liabilities and see if those liabilities have any characteristics similar to the constituent items of money stock measures. In the recent period, the role of all these non-banking intermediaries (NBIs) has been subjected to detailed enquiries by the Banking Commission set up by the Reserve Bank.[54] Among these NBIs, there is a set of financial institutions in the country, viz., development banks (IDBI, ICICI, SFCs and IRCI), insurance companies, and the Unit Trust of India, which work in highly specialized fields. The second set of financial companies, which are enumerated in clause (p) of paragraph 2(1) of the Non-Banking Financial Companies (Reserve Bank) Direction, 1966, and "which mobilise savings of the community by way of deposits or otherwise and utilize them for the purpose of lending or investment;" [55] these include

54. (*i*) *Report of the Banking Commission* (Government of India, Delhi, 1972), pp. 413-435. See also the Report of its Study Group on Non-Banking Financial Intermediaries.
(*ii*) Report of the Study Group on Non-Banking companies (Reserve Bank of India, Bombay 1975).
55. Report of the Study Group on the Non-Banking Companies (RBI, 1975), p. 52

hire-purchase finance companies housing finance companies, investment companies, loan companies, mutual benefit financial companies, chit fund companies and miscellaneous financial companies. There is a great degree of functional specialisation in each of these categories. These non-banking financial intermediaries (NBFIs) do not ordinarily accept demand deposits with the notable exception of the mutual benefit financial companies, called *nidhis*. [56] Their liabilities are essentially term liabilities. The last set of these non-banking intermediaries belongs to the non-banking non-financial category, mostly trading and manufacturing concerns, which are accepting deposits from the public for use in their own businesses and hence these are not financial intermediaries in the accepted sense of the term.

Broadly, it could be said that the importance of the deposits accepted by the NBIs is rising ; the percentage of company deposits to the aggregate deposits of the scheduled commercial banks rose to around 11·0 in March 1975, from about 9·7 at the end of March 1972. Among these deposits, the share of non-banking non-financial companies constitutes the bulk at about 70 per cent, the remaining 30 per cent belonging to the non-banking financial intermediaries. Within these financial categories, loan companies and hire-purchase companies accounted for 65 per cent of the total deposits of the NBFIs.

In the past, the impetus to the growth of deposits accepted by both financial and non-financial companies has stemmed first, from the existence of the Keynesian "fringe of unsatisfied borrowers." The borrowers also enjoy certain advantages, the most important of them being the freedom from financial discipline either on end-use or on security and margins imposed by the organised commercial or developmental banks. Thirdly, there is the incentive to depositors in the form of higher interest rates offered.

Without trying to assess in qualitative terms, the role of these NBIs in augmenting aggregate demand, it could be said that :

(a) acceptance of deposits by NBIs entails a pre-emption of the scarce investible resources in the country which in turn engenders an imbalance in the resource allocation,

(b) their operations, however small, have the effect of diluting the Central Bank measures both with regard to the norms of lending and end-use of credit, and with regard to the ceiling on interest rates on deposits accepted by bank and

(c) their liabilities primarily in term deposits are generally competitive to deposits with the commercial banks.

Notwithstanding the fact that their operations are outside the orbit of monetary institutions, the usefulness of such data on the liabilities of NBIs—both financial and non-financial—is not in question.

It is, therefore, necessary to collect detailed data and information about the size of the liabilities with a view to exercising more effective monetary control on these deposits.

Lastly, reference may be made to some loan companies and *nidhis* which, to quote the Study Group Report "are 'incipient' banks and there is hardly any distinction in their methods of operations and those of banks." [57] The Study Group had recommended that provisions may be made to enable these types of companies to convert themselves into commercial or co-operative banks. It is also believed that with the suggested enactment of comprehensive legislation to regulate the working of the NBIs, the functioning of these would, in due course, come on a par with that of banks. In such an eventuality, the prescription of regular statistical returns would possibly facilitate the inclusion of liabilities of these institutions in appropriate money stock measures.

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56. *ibid*, p. 53 Also *Report of the Banking Commission*, op. cit., pp. 414-415.

57. *See the Report of the Study Group on Non-Banking Companies* p. 77.

A view has been expressed that hire-purchase companies in India operate almost on similar lines. However, it is felt that conceptually there is little to distinguish the deposits accepted by the hire-purchase companies in India from those by other non-banking non-financial companies. It should be remembered that the Working Group has, throughout this exercise, concentrated primarily on measurement of money or quasi-money stocks, which constitute the liabilities of monetary sector as such, and *not* on the assessment of dimensions of overall *liquidity* in the economy.

APPENDIX—I

CONCEPTS OF MONEY SUPPLY COMPONENTS AND FACTORS: REVISION EFFECTED SUBSEQUENT TO THE WORKING GROUP PAPER ON "ANALYSIS OF MONEY SUPPLY IN INDIA"—(1961)

As Defined in the Working Group's Paper (1961)	Revisions Since Effected in Corresponding Items
A. Components	
(i) Currency notes and coins with the public excluding balances of the Central and State Governments held at treasuries and cash on hand with banks.	(i) Since August 1967, no adjustment is being made in regard to balances held at treasuries in the computation of currency with the public as these balances were meagre (ranging from Rs. 2 to Rs. 3 crores in 1966-67) and data on them were available after considerable time lag.
(ii) **Demand Deposits** (excluding inter-bank demand deposits of scheduled banks and non-scheduled commercial banks). In respect of the state co-operative banks, their entire demand liabilities are included in 'money supply' as separate data in respect of the central co-operative banks and primary co-operative banks were not available on a systematic and regular basis.	(ii) In respect of scheduled commercial banks, "demand deposits" included non-bank demand deposits and other demand liabilities such as bills payable, unpaid dividend (and suspense accounts) upto 1959-60. Only since 1960, data on demand deposits of the public have become separately available.
(iii) **"Other Deposits with RBI"** : These include deposits of quasi-Government institutions, provident, pension and guarantee funds of the Reserve Bank employees, deposits of the Reserve Bank Employees' Co-operative Credit Society, the balances of foreign central banks and the balance of IMF in its account No. 2	(iii) The balances under the Reserve Bank Employees Provident, pension and guarantee funds have been excluded from money supply since January 1964 as they are illiquid and are interest—bearing assets.
(iv) **Time Deposits** : Time deposits are not included in 'money supply with the public' proper as they originate from deposits of cash/cheques drawn on deposits. But, for analytical purposes, relating to the formulation of monetary policy, it was found necessary to show separately the total of money supply and time deposits (including post office savings deposits). However, the Working Group did not give any concrete shape to this concept in the presentation of statistical data.	(iv) A reference to the concept of "Aggregate Monetary Resources" (i.e. money supply with public and time deposits with banks) was made in the Bank's Annual Report for the year 1964-65 (p. 7). Data on this item are being regularly published in the *Report on Currency and Finance* from 1967-68 and also in the other regular publications of the Bank in subsequent years.
B. Factors Affecting Money Supply	
I. Net Bank Credit to Government	
(*a*) One rupee notes and coins in circulation were also taken into account for computation of net bank credit to Government (with adjustments for balances with Government treasuries).	(*a*) The item 'one rupee notes/coins and small coins in circulation' (Govt's currency liabilities) has been shown as an independent factor since October 1962, instead of treating it as a claim of banks on Government.
II. Net Bank Credit to Private Sector/Bank Credit to Commercial Sector	
(*a*) The nomenclature used was "private sector".	(*a*) The nomenclature "private sector" was changed into "commercial sector" in 1970, as bank credit included credit given to commercial/manufacturing enterprises in the public sector.
(*b*) Time deposits held by the banks were set off against the claims of banks on private sector to arrive at bank credit on a *net* basis.	(*b*) The presentation of data on bank credit to commercial sector on *net* basis was changed into *gross* basis in May 1974, as (i) time deposits are used not only for financing bank credit to commercial sector but also for lending to the Government; and (ii) these are not owned by commercial enterprises who largely borrow from banks; according to the *Survey of Ownership of Deposits with Banks* as on March 31, 1971, household sector owned the entire savings deposits and 77.1 per cent of the fixed deposits. The item time deposits is now being shown under non-monetary liabilities of the banking sector separately.
	(*c*) With the introduction of the Bills Rediscounting Scheme, the commercial banks started discounting the internal bills with the RBI. These Bills appearing on the asset side of RBI's Banking Department have been treated as a claim on commercial sector and, as such, included in RBI credit to commercial sector since June 1971.

APPENDIX—II

CONSTITUENTS OF MONEY STOCK MEASURES IN SELECTED FOREIGN COUNTRIES

	Concepts	Constituents : Description of	
1	2	3	
U.S.A.	M_1	Currency *plus* demand deposits with banks	Total of : 1. Demand Deposits at all commercial banks other than those due to domestic commercial banks (inter-bank) and U.S. Government, *less* cash items in the process of collection and Federal Reserve float (For description of *float*, see the body of the Report) 2. Foreign demand balances at Federal Reserve Banks and 3. Currency outside (i) the treasury, (ii) Federal Reserve Banks, and (iii) vaults of all commercial banks.
	M_2	M_1 *plus* time deposits at commercial banks other than large certificates of deposits (CDs).	Includes, in addition to currency and demand deposits, savings deposits, time deposits open account, and time certificates of deposits *other than* negotiable time certificates of deposits issued in denominations of $ 100,000 or more by large weekly reporting commercial bank (called large negotiable certificates of deposits).
	M_3	M_2 *plus* deposits at non-bank thrift institutions.	Includes M_2 *plus* deposits of mutual savings banks, savings and loan shares, and credit union shares.
	M_4	M_2 *plus* large negotiable CDs.	Includes M_2 *plus* large negotiable certificates of deposits.
	M_5	M_3 *plus* large negotiable CDs.	Includes M_3 *plus* large negotiable certificates of deposits.
		(Besides, the Federal Reserve System is known to be using three more money stock measures taking into account short-term Government Debt and Commerical Paper)	
		Source: Federal Reserve Bulletin / Federal Reserve System	
U.K.	M_1	A narrow definition which is restricted to notes and coins in circulation with the public *plus* sterling sight deposits held by the private sector with banks *less* 60 per cent of net value of sterling transit items.	
	M_2	An intermediate definition which comprises M_1 *plus* sterling deposit accounts of the private sector with the deposit banks.	
	M_3	The existing official definition which comprises notes and coins in circulation with the public together with all deposits (including certificates of deposits), whether denominated in sterling or other currencies held by U.K. residents in both the public and private sectors.	
	M_4	Comprising M_2 *plus* deposits with Building Societies, the post office and trustee savings banks.	
	M_5	Comprising M_3 *plus* deposits with Building Societies, the post office and trustee savings banks.	
		Influences on money stock (M_3) 1. Public Sector borrowing requirements, surplus (—) (a) Central Government and (b) other Public Sector. 2. Purchase (—) of public sector debt by private sector (other than banks). 3. Lending to private sector. 4. External Finance (Increase (—)) : (a) Government's total external transaction and (b) Overseas borrowings by the rest of the public sector, (c) bank deposits from overseas residents *less* lending to them.	

APPENDIX—II (*Contd.*)

Concepts		Constituents : Description of
1	2	3
		5. Banks' net non-deposits liabilities (increase (—)) and any change (Increase (+) in the sterling value of U.K. residents foreign currency deposits due to movement in exchange rates.
		Source : Financial Statistics, CSO, London, and Bank of England Quarterly Bulletin.
West Germany	M_1	Currency excluding banks' cash balances but including D.M. notes and coins held abroad and sight deposits of domestic non-banks.
	M_2	M_1 *plus* time deposits with maturities of less than 4 years (quasi-money).
	M_3	M_2 *plus* savings deposits at statutory notice.
		Determinants of M_2
		1. Bank lending to domestic non-banks.
		2. Net external assets.
	less	3. Other influences—Balances of the remaining items of the consolidated balance sheet of the banking system ; changes are chiefly due to fluctuation in items in the course of settlement within the banking system, in profit and loss accounts and inter-bank claims and liabilities.
	less	4. Monetary capital formation with banks from domestic sources : (a) time deposits with maturities of 4 years and over, (b) savings deposits, (c) bank savings bonds, (d) bearer bonds outstandings, and (e) capital and reserves.
	less	5. Central bank deposits of German Public Authorities.
		Source : Monthly Report of the Deutsche Bundesbank.
Japan	M_1	Currency in circulation outside the banks and demand deposits with deposit money banks.
	M_2	M_1 *plus* time deposits with the banks upto one and half years ' maturity.
Philippines	Total Money Supply	Currency in circulation and deposit money from—(1) local self-Governments, (2) Semi-Government entities, (3) U.S. Government entities, (4) Business and individuals, and (5) cashiers' and managers' cheques *less* cheques and other items.
		Factors Affecting Money Supply
	Money Supply	1. Foreign Assets (net), 2. Claims on Government Sector (net), 3. Claims on Private Sector, 4. Quasi-money and Marginal Deposits, and 5. Other items (net).
		Source: Philippines Financial Statistics
France	Money	—Note and coin circulation and sight deposits with (*a*) registered banks, (*b*) credit co-operatives, (*c*) agricultural credit institutions, (*d*) postal-cheque offices, (*e*) the Treasury and (*f*) the Bank of France.
	Quasi-money	—Time deposits with registered banks, credit co-operatives, agricultural credit institutions, the *Banque Francaise du Commerce Exterieur* (*BFCE*) *and the Treasury-medium-term bonds* (*bonds de caisse*) issued by registered banks, credit co-operatives and the BFCE, and bills of the National Agricultural Credit Bank. Savings-book accounts and housing—savings accounts with registered banks, credit co-operatives, agricultural credit institutions and the BFCE.
	Money supply	—Money and quasi-money
	Overall liquidity	—Money supply plus deposits with savings institutions and Treasury bills.
		Source : The Money Supply Economic Activity and Prices: Bank for International Settlement—Basle September 1972.

APPENDIX—III

DETAILS OF THE NEW METHODOLOGY OF COMPILATION OF MONEY STOCK (M_1) COMPONENTS AND ITS SOURCES OF CHANGE

III. A. Money Stock (M_1) and Its Components

PRESENT METHOD	NEW METHOD	EXPLANATION
A. Currency with the Public (a+b—c—d)	**A. Currency with the Public (a+b—c—d)**	
(*a*) Notes in circulation (As per RBI Statement)	(*a*) Notes in circulation (As per RBI Statement)	
(*b*) Circulation of Rupee coin and small coins	(*b*) Circulation of Rupee coin and small coins	
Less (*c*) Currency returned by Pakistan	*Less*(*c*) Currency returned by Pakistan.	With the wider coverage of the co-operative banking sector, cash on hand with central operative banks, urban co-operative banks and salary earners' societies is also now included in cash on hand with banks.
Less (*d*) Cash on hand with banks (commercial banks, and State co-operative banks)	*Less* (*d*) Cash on hand with banks (commercial banks, State co-operative banks, central co-operative banks and primary co-operative banks consisting of urban co-operative banks and salary earners' societies)	
B. Demand Deposits (a+b+c)	**B. Demand Deposits (a+b+c+d+e+f)**	So far, as the deposits of other co-operative institutions, that is, Central and urban cooperative banks were not included in money supply due to non-availability of data, the entire amount of demand liabilities (including inter-bank deposits) of State co-operative banks were included in *demand deposits:* Under the revised series, only *demand deposits* (excluding inter-bank and other liabilities) of State co-operative banks are taken into account. In addition, demand deposits of Central co-operative banks, urban co-operative banks and salary earners' societies received from 'other co-operative societies,' individuals, firms and associations are also separately included in the revised compilation of *Demand deposits.* Here 'other co-operative societies, mean those that have not acquired the status of a 'co-operative bank.'
(*a*) Demand deposits of scheduled commercial banks	(*a*) Demand deposits of scheduled commercial banks	
(*b*) Demand deposits of non-scheduled commercial banks	(*b*) Demand deposits of non-scheduled commercial banks	
(*c*) Demand liabilities of State co-operative banks (including inter-bank deposits)	(*c*) Demand deposits of State co-operative banks	
	(*d*) Demand deposits of central co-operative banks	
	(*e*) Demand deposits of urban co-operative banks	
	(*f*) Demand deposits of salary earners' societies	
C. Other Deposits with RBI (a—b—c—d)	**C Other Deposits with RBI (a—b—c—d)**	
(*a*) Total 'other deposits' with RBI (as per RBI's Weekly Statement of Affairs—Banking Department)	(*a*) Total 'other deposits' with RBI (as per RBI's Weekly Statement of Affairs—Banking Department)	
Less (*b*) IMF Deposits with RBI in Account No. 1	*Less*(*b*) IMF Deposits with RBI Account No. 1.	
Less (*c*) RBI Employees' Pension Fund, Provident Fund and Co-operative Guarantee Fund	*Less*(*c*) RBI Employees' Pension Fund, Provident Fund and Co-operative Guarantee Fund.	
Less (*d*) Compulsory Deposits with RBI [collected under Addl Emoluments (Compulsory Deposits) Act, 1974 and Compulsory Deposits Scheme (Income Tax Payers) Act, 1974]	*Less*(*d*) Compulsory Deposits with RBI [Collected under Addl. Emoluments (Compulsory Deposits) Act, 1974 and Compulsory Deposit Scheme (Income Tax Payers) Act, 1974]	
Money Supply with the Public (A+B+C)	**Money Supply with the Public (M_1) (A+B+C)**	

APPENDIX—III (*Contd.*)

III—B. Sources of Change of Money Stock (M_1)

PRESENT METHOD	NEW METHOD	EXPLANATION
I. Net Bank Credit to Government Sector (A+B)	**I. Net Bank Credit to Government Sector (A+B)**	
(*A*) *RBI's net credit to Government Sector* (1—2)	(*A*) *RBI's ent credit to Government Sector* (1—2)	(1) A minor adjustment has been made in the new series with respect to investments in foreign securities (IBRD shares Commonwealth bonds, and deposits with West German Postal organisation) held in Investment Account of Banking Dept, for accounting reasons. This is now shown as a deduction from 'Total investments' and is included in Foreign Exchange Assets of RBI.
1. RBI's Aggregate Financial Assets	1. RBI's Aggregate Financial Assets	
	Central Government	
(*i*) Loans and advances to State Governments	(*i*) Rupee Securities	
(*ii*) Rupee Securities	(*ii*) Bills purchased and discounted	
(*iii*) Bills purchased and discounted.	(*iii*) Investments (Total)	
(*iv*) Investments (Total)		
Minus (*a*) Other investments i.e. other than Govt. securities (II A (a) below)	Minus (*a*) Investments other than Govt. securities and (*b*) Foreign securities held in Investment Account.	
(*v*) Rupee coin held in the Issue Department	(*iv*) Rupee coin held in the Issue Department	(2) Also RBI's claims on Govt. and Government balances have been split up into those in respect of Central and State Governments.
(*vi*) Notes and coins held in the Banking Department.	(*v*) Notes and coins held in the Banking Department	
Minus (*a*) Notes held in Banking Department	Minus Notes held in Banking Department	
	State Government	
	(*i*) Loans and advances to State Governments.	
2. Government Deposits with RBI (i) + (ii)	2. Government Deposits with RBI (i) + (ii)	
(*i*) Deposits of Central Government.	(*i*) Deposits of Central Government.	
(*ii*) Deposits of State Governments.	(*ii*) Deposits of State Governments	
(B) Other Banks' Credit to Government Sector (i + ii + iii)	(B) Other Banks' Credit to Government Sector (i + ii +iii+ iv + v +vi)	
(*i*) Scheduled Banks' Investments in Government securities.	(*i*) Scheduled Banks' investments in Government securities.	
(*ii*) Non-scheduled Banks' Investments in Government securities (Central) (State)	(*ii*) Non-scheduled Banks' investments in Government securities (Central) (State)	
(*iii*) State Co-operative Banks' Investments in Government securities.	(*iii*) State Co-operate Banks' Investments in total Government securities.	Investments of central co-operative banks urban co-op. banks and salary earners' societies in Central and State Government securities about which information is available now are also taken into account for compiling bank credit to Government in the revised series.
	(*iv*) Central Co-operative Banks' Investments in total Government securities.	
	(*v*) Urban Co-operative Banks' Investments in total Government securities.	
	(*vi*) Salary Earners' Societies' Investments in total Government securities.	

APPENDIX—III-B—(*Contd.*)

PRESENT METHOD	NEW METHOD	EXPLANATION
II. Total Bank Credit to Commercial Sector (A + B)	**II. Total Bank Credit to Commercial Sector (A + B)**	
(A) RBI's credit to commercial sector (a + b + c)	(A) RBI's credit to commercial sector (a + b + c)	
(*a*) RBI's Investments in (i + ii)	(*a*) RBI's Investments in (i + ii)	
(*i*) Shares/bonds of ARDC, DIC, IDBI, UTI, SFCs, IFCI, ordinary debentures of co-operative sectors etc. (excluding SBI)	(*i*) Shares/bonds of ARDC, DIC, UTI, SFCs IFC, ordinary debentures of co-operative sector (excluding SBI)	
(*ii*) CLMB debentures	(*ii*) CLMB debentures.	
(*b*) Loans to IDBI, SFCs, ARDC, etc. and 'Others.'	(*b*) Loans to IDBI, SFCs, ARDC and 'Others.'	
(*c*) Internal Bills (under the Bills Rediscounting Scheme)	(*c*) Internal Bills (under the Bills Rediscounting Scheme)	
B. Other Banks' Credit to Commercial Sector (1+2+3+4)	B. Other Banks' Credit to Commercial Sector (1+2+3+4+5+6+7)	A major change effected in new series is to dispense with adjustments being made in bank credit in regard to inter-bank assets and inter-bank liabilities. With the extension of coverage of banking data in the money supply compilation to central and primary co-operative banks which have been hitherto excluded for want of timely availability of comprehensive data, it is found that inter-bank assets and liabilities cancel out except for certain inter-bank transactions in transit or some other errors and omissions, which if any, should figure under other net non-monetary liabilities. Similarly, no adjustment of borrowings from IDBI and ARDC which used to be deducted from bank credit is made now. Such adjustments were made to obviate any double counting of bank credit financed from borrowings from IDBI/ARDC which in turn, obtain financial accommodation from RBI. RBI lending to IDBI/ARDC is reckoned in computation of 'RBI credit to commercial sector.' However, sources of funds of IDBI/ARDC comprise, in addition to borrowings from RBI, paid-up capital and reserves, borrowings from Govt. borrowings by way of bonds, etc. Conceptually only that part of credit which has been out of the funds from RBI should be deducted from the amount of bank credit by commercial banks. It is difficult to sift the amount lent by IDBI and ARDC out of their borrowings from RBI. Again, borrowings of State co-operative banks from State Governments are ignored as these are primarily meant for commercial activities undertaken for and on behalf of Governments.
1. Scheduled commercial banks	1. Scheduled commercial banks—Bank Credit	
(i) Bank Credit		
(ii) Due from banks		
(iii) Money at call and short—notice		
(iv) Balances with other banks in C/A		
Minus (v) Inter Bank demand deposits		
Minus (vi) Inter Bank time deposits		
Minus (vii) Inter Bank demand borrowings		
Minus (viii) Inter Bank time borrowings		
Minus (ix) Borrowings from SBI, IDBI, ARDC etc.		
2. Non-scheduled Banks	2. Non-scheduled commercial banks — Bank Credit	
(i) Bank Credit		
(ii) Due from banks		
(iii) Money at call and short notice		
(iv) Balances with the agent of RBI etc. in C/A		
Minus (v) Inter Bank demand deposits		
Minus (vi) Inter Bank time deposits		
Minus (vii) Due to other banks		
3. State Co-operative Banks	3. State Co-operative Banks — Bank Credit	
(i) Bank Credit		
(ii) Due from banks		
(iii) Money at call and short notice		
(iv) Balances with other banks in C/A		
Minus (v) Borrowings from SBI, ARDC etc.		
Minus (vi) Inter-Bank demand borrowings		
Minus (vii) Inter-Bank time borrowings		
	4. Central Co-operative banks — Bank Credit	
	5. Urban Co-operative Banks — Bank Credit	
	6. Salary Earners' Societies — Bank Credit	

APPENDIX– III-B (*Contd.*)

PRESENT METHOD	NEW METHOD	EXPLANATION
4. 'Other Investments' *of commercial banks (Form XII)	7. 'Other Investments'* of commercial banks, state co-operative banks, central co-op. banks and primary co-op. banks (Section 42 Return and Return submitted by central and urban co-op. banks) *Comprise Securities of local authorities, shares/debentures of public sector and private sector corporations etc.	
III. Net Foreign Exchange Assets of Banking Sector (a+b)	**III. Net Foreign Exchange Assets of Banking Sector (a+b)**	The amount of foreign securities (IBRD shares, Common-wealth bonds and deposits with West German Postal Organisation) which hitherto formed part of Net Bank Credit to Govt. is now included in foreign assets. Secondly, quota subscriptions and some other payments to the Fund in rupees credited to IMF A/c No. 1 are not netted against total foreign assets since there is no corresponding rise in foreign assets. These quota and other payments are now included under non-monetary liabilities of RBI.
(a) Net foreign exchange assets of RBI	(a) Net foreign exchange assets of RBI	
(i) Foreign securities	(i) Foreign securities	
(ii) Gold coin and Bullion	(ii) Gold coin and Bullion	
(iii) Balances held abroad	(iii) Balances held abroad	
	(iv) Foreign securities held in Investment A/c	
Minus (iv) IMF A/c No. 1	Minus (v) IMF A/c No. 1	
Minus (v) Special currency withdrawn from Gulf States (held under 'other' deposits of RBI, if any)	Plus(vi) Quota subscription in rupees [included in item (a) (v)]	
(b) Net Foreign Exchange Assets of Banks (Authorised Dealers' Balances)	(b) Foreign Exchange Assets of Banks (Authorised Dealers' Balances)	
IV. Govt.'s net currency liabilities to the public (i+ii)	**IV. Govt.'s currency liabilities to the public (i+ii)**	
(i) Circulation of rupee coins	(i) Circulation of rupee coins	
(ii) Circulation of small coins	(ii) Circulation of small coins	
V. Non-monetary Liabilities of Banking Sector (a+b+c)	**V. Non-monetary Liabilities of Banking Sector (a+b+c)**	
(a) Time Deposits of Banks	(a) Time Deposits of Banks	
(i) Time Deposits of scheduled commercial banks	(i) Time deposits of scheduled commercial banks	
(ii) Time deposits of non-scheduled commercial banks	(ii) Time deposits of non-scheduled commercial banks	
(iii) Time liabilities of State co-op. banks (including inter-bank)	(iii) Time deposits of State co-op. banks	
	(iv) Time deposits of central co-op. banks	
	(v) Time deposits of urban co-op. banks	
	(vi) Time deposits of salary earners' societies	
(b) Net Non-Monetary liabilities of RBI	(b) Net Non-Monetary Liabilities of RBI	The portion of India's IMF quota and other payments excluded from foreign liabilities is now included under RBI's non-monetary liabilities.
(i) Capital	(i) Capital	
(ii) Reserves	(ii) Reserves	

APPENDIX—III-B (*Concld.*)

	PRESENT METHOD	NEW METHOD	EXPLANATION
	(iii) Contributions to National Funds with RBI	(iii) Contributions to National Funds with RBI	
	(iv) RBI Employees' Pension Fund, Provident Fund, RBI Employees' Co-op. Guarantee Fund	(iv) RBI Employees' Co-op. Guarantee Fund, RBI Employees' Pension Fund, Provident Fund	
	(v) Compulsory deposits with RBI [collected under Additional Emoluments (Compulsory Deposits) Act, 1974 and Compulsory Deposits Scheme (Income Tax Payers) Act, 1974]	(v) Compulsory deposits with RBI [collected under Additional Emoluments (Compulsory Deposits) Act, 1974 and Compulsory Deposits Scheme (Income Tax Payers) Act, 1974]	
	(vi) Other liabilities i.e.	(vi) Other liabilities i.e.	
	(a) Bills payable	(a) Bills payable	
	(b) Other liabilities	(b) Other Liabilities	
Minus	(vii) Other Assets	(vii) Indian Currency returned by Pakistan awaiting adjustment	
Plus	(viii) Indian currency returned by Pakistan awaiting adjustment	(viii) IMF Quota subscription and other payments in rupees included in IMF A/c No. 1.	
Plus	(ix) *Ad hoc* items if any	(ix) *Ad hoc* items if any	
Minus		(x) Other Assets.	
	(c) Non-identifiable net non-monetary liabilities of banks (Residual)	(c) Other net non-monetary liabilities of commercial and co-operative banks (Derived)	

APPENDIX—IV

DETAILS OF THE CONSTITUENT ITEMS OF COMPONENTS AND SOURCES OF CHANGE IN RESERVE MONEY

COMPONENTS	SOURCES OF CHANGE
(*a*) Currency with the public	**I. Reserve Bank's claims on Government**
(*b*) Banks' Reserves (i + ii)	1. Rupee Securities
(*i*) Commercial and co-operative banks balances with RBI	2. Treasury Bills purchased/discounted
	3. Investments (Total)
(*ii*) Cash with commercial and co-operative banks	*Less* Other investments including foreign securities held under Investment a/c in Banking Department.
(*c*) Other Deposits	4. Rupee coin in Banking and Issue Departments
	5. Loans & advances to State Governments
Reserve Money (a+b+c)	*Less* 6. Central Government Deposits with RBI
	Less 7. State Governments Deposits with RBI
	II. RBI's claims on commercial and co-operative banks
	1. Loans and advances :
	(*a*) to commercial banks
	(*b*) to State co-operative banks
	III. Claims on commercial sector
	1. Investments in bonds/shares of UTI, IFCI, SFC etc. and co-operative bank debentures.
	2. Loans to IDBI, ARDC and 'others.'
	3. Internal Bills purchased and discounted (under the Bills Rediscounting Scheme)
	IV. Reserve Bank's Net Foreign Assets
	1. Gold coin and bullion
	2. Foreign securities
	3. Balances held abroad
	4. Foreign securities held under 'Investment' account
	Less 5. IMF A/c No. 1
	Plus 6. Portion of India's quota to IMF and other payments included in item IV (5) above.
	V. Government's currency liabilities to Public
	VI. Reserve Bank's net non-monetary liabilities
	1. Capital
	2. Reserve
	3. Contribution to National Funds
	4. Employees' Provident, Pension and Co-operative Guarantee Funds.
	5. Bills payable
	6. Other liabilities
	7. Balances under compulsory deposit scheme
	8. Portion of IMF quota and other payments held under IMF account No. 1
	9. Currency returned from Pakistan awaiting adjustment
	10. *Ad hoc* items
	Less 11. Other assets

APPENDIX—V

DATA RELATING TO CHEQUEABLE PORTION OF POST OFFICE SAVINGS BANK DEPOSITS
(CIRCLE-WISE)

(Amount in lakhs of rupees)

Name of the circle	1972-73						1973-74					
	Total number of post office savings bank accounts	Balance in post office savings bank accounts	Total number of cheque facility accounts	Balance in cheque facility accounts	Col. (4) as % of Col. (2)	Col. (5) as % of Col. (3)	Total number of post office savings bank accounts	Balance in post office savings bank accounts	Total number of cheque facility accounts	Balance in cheque facility accounts	Col. (10) as % of Col. (8)	(Col. (11) as % of Col. (9)
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	813330	2484	575	17	0.07	0.68	858776	1975	599	16	0.07	0.81
2. Gujarat	591976	3660	852	4	0.14	0.11	683535	4096	1441	5	0.21	0.12
3. Kerala	561798	1869	2063	40	0.37	2.14	615436	2262	2500	47	0.41	2.08
4. Karnataka ..	544240	1280	450	201	0.08	15.70	572140	1676	582	225	0.10	13.42
5. Madhya Pradesh	751995	3566	734	192	0.10	5.38	855409	3927	941	229	0.11	5.83
6. Maharashtra	2880588	2120	5189	7	0.18	0.33	2903913	7395	5282	11	0.18	0.15
7. Orissa	459117	2433	4369	11	0.95	0.45	475335	9755	1326	15	0.28	0.15
8. Rajasthan	577432	1722	742	21	0.13	1.22	616743	3344	838	26	0.14	0.78
9. Tamil Nadu	1791402*	3968	1158	24	0.06	0.60	1966000*	4849*	1239	29	0.06	0.60
10. Jammu & Kashmir ..	184548*	1449*	84	1	Neg.	Neg.	198616*	1471*	162	1	Neg.	Neg.
11. North-west Circle ..	2118950	17649	2960	581	0.14	3.29	2265659	21837	3635	643	0.16	2.94
12. Uttar Pradesh ..	4570955*	24523*	2996	428	0.07	1.75	4873993*	27349*	3404	364	0.07	1.33
13. West Bengal ..	2224244*	14337*	6457	1095	0.29	7.64	2368996*	15477*	7731	1167	0.33	7.54
14. Bihar ..	1609093*	10845*					1739128*	12659*				
15. Delhi ..	534741*	4061*					596670*	4432*				
16. North-Eastern ..	652932*	3786*					702860*	4122*				

Data supplied by Post Master General.
* Figures taken from "Statistical Tables Relating to Banks in India".

APPENDIX-V—(*Concld*)

(Amount in lakhs of rupees)

Name of the circle	Total number of post office savings bank accounts	Balance in post office savings bank accounts	Total number of cheque facility accounts	Balance in cheque facility accounts	Col. (16) as % of Col (14)	Col. (17) as % of Col (15)
	1974-75					
	14	15	16	17	18	19
1. Andhra Pradesh	933265	2881	675	22	0.07	0.76
2 Gujarat ..	775327	3849	1307	10	0.17	0.26
3. Kerala ..	671964	2285	3046	90	0.45	3.94
4. Karnataka ..	612338	1767	797	267	0.13	15.11
5. Madhya Pradesh	926881	4043	1123	195	0.12	4.82
6. Maharashtra	2978581	12273	2236	71	0.08	0.58
7. Orissa	551034	2293	3723	9	0.68	0.39
8. Rajasthan	626661	2063	999	30	0.16	1.45
9. Tamil Nadu ..			1430	59		
10. Jammu & Kashmir ..			116	1		
11. North-West Circle			4415	711		
12. Uttar Pradesh ..			4094	683		
13. West Bengal			9325	1510		
14. Bihar						
15. Delhi						

APPENDIX — VI

APPORTIONMENT OF SAVINGS DEPOSITS INTO DEMAND AND TIME DEPOSITS

(Rupees Crores)

Year (at the end of March)	Savings Deposits			Percentage to Total	
	Demand Liability Portion	Time Liability Portion	Total	Demand Liability Portion	Time Liability Portion
1	2	3	4	5	6
1961	181.71	100.10	281.81	64.5	35.5
1962	215.51	118.19	333.70	64.6	35.4
1963	252.37	140.40	392.77	64.3	35.7
1964	420.25	63.46	483.71	86.9	13.1
1965	517.07	70.61	587.68	88.0	12.0
1966	650.66	75.32	725.98	89.6	10.4
1967	779.72	61.30	841.02	92.7	7.3
1968 ..	902.12	65.55	967.67	93.2	6.8
1969	940.88	172.09	1112.97	84.5	15.5
1970	1091.27	197.19	1288.46	84.7	15.3
1971	1290.65	228.75	1519.40	84.9	15.1
1972	1549.55	272.54	1822.09	85.0	15.0
1973	1850.44	321.12	2171.56	85.2	14.8
1974	2265.79	378.29	2644.08	85.7	14.3
1975	2653.58	431.44	3085.02	86.0	14.0

SOURCE : Form XII returns received by the Reserve Bank from Commercial Banks.

APPENDIX — VII

DISTRIBUTION OF LIMITS AND OUTSTANDING CREDIT* OF SCHEDULED COMMERCIAL BANKS ACCORDING TO TYPE OF ACCOUNT

(As on the last Friday) (Rupees Crores)

Type of Account	1960			1961			1962			1963			1964			1965		
	Limits *	Out-‡ standings	3 as % of 2	Limits *	Out-‡ standings	6 as% of 5	Limits *	Out-‡ standings	9 as% of 8	Limits *	Out-‡ standings	12 as % of 11	Limits *	Out-‡ standings	15 as% of 14	Limits *	Out‡ standings	18 as% of 17
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Cash Credits .. .. Overdrafts .. .. Demand loans .. Term loans .. Packing Credit ..	1120	722	64.5	1264	829	65.6	1474	914	62.0	1862	1036	55.6	2141	1199	56.0	2274	1338	58.8
Exports Bills Discounted/Purchased Internal Bills Purchased/Discounted Advances Against Import Bills Unclassified	563	302	53.6	610	331	54.3	678	344	50.8	777	505	64.9	853	582	68.2	947	626	66.1
Total Credit	1683	1024	60.8	1873	1160	61.9	2152	1258	58.5	2640	1540	58.3	2994	1781	59.5	321	1964	61.0

Type of Account	December 1972			June 1973			December 1973			June 1974			December 1974		
	Limits	Out-standings	3 as % of 2	Limits	Out-standings	6 as % of 5	Limits	Out-standings	9 as % of 8	Limits	Out-standings	12 as % of 11	Limits	Out-standings	15 as% of 14
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cash Credits	4610	2545	55.2	5064	2887	57.0	5412	3018	55.8	5937	3403	57.3	5714	3440	60.2
Overdrafts	960	480	50.0	897	465	51.8	1047	596	56.9	1167	619	53.0	1065	660	62.0
Demand Loans	463	331	71.5	540	349	64.6	622	423	68.0	740	442	59.7	586	447	76.3
Term Loans	839	601	71.6	974	705	72.4	1067	832	78.0	1280	924	72.2	1354	1020	75.3
Packing Credit	400	210	52.5	532	295	55.5	583	340	58.3	655	380	58.0	660	343	52.0
Exports Bills Purchased/ Discounted ..	526	212	40.3	489	223	45.6	580	300	51.7	640	337	52.7	601	360	59.9
Internal Bills Purchased/ Discounted	1538	632	41.1	1658	799	48.2	1790	842	47.0	2191	1134	51.8	2097	1023	48.8
Advances Against Import Bills	303	30	9.9	244	35	14.3	267	44	16.5	271	51	18.8	275	59	21.5
Unclassified	63	11	17.5	31	13	41.9	—	—	—	—	—	—	—	—	—
Total Credit ..	9702	5051	52.1	10428	5771	55·3	11370	6396	56.3	12881	7289	56.6	12352	7352	59·5
Food Procurement Credit ..	701	159	22.7	701	468	66.8	352	352	100.0	951	523	55·0	992	203	20.5
Excluding Food Procurement Credit	9001	4892	54,3	9727	5303	54,5	11018	6044	54,9	11930	6766	56.7	11360	7143	62·9

* Total of approved limits as at the end of the year. ‡ Average of month-end Bank credit outstandings during the year.

Source : For years upto 1965, culled out from the survey of "Debits to deposit accounts with Scheduled Commercial Banks, 1961-65," Reserve Bank of India Bulletin, February 1969, pp. 141-169. For years 1972 to 1974, Basic Statistical Returns (BSR).

APPENDIX — VIII

TRENDS IN TRADE CREDIT OF THE CORPORATE SECTOR

(Rupees Crores)

	Trade dues and Other Current Liabilities 1			Loans and Advances and Debtor Balances 2			Borrowings from Banks		
	Sundry Creditors	Others	Total	Sundry Debtors	Others	Total	Total	Debt Portion	Excluding Debt Portion
1	2	3	4	5	6	7	8	9	10
				(A) Medium and Large Public Limited Companies					
1,333 Companies									
1960-61			417.1			397.2	373.1		
1961-62			458.0			441.6	425.7		
1962-63			511.8			514.6	492.1		
1963-64			565.4			569.9	529.7		
1964-65			636.3			649.5	611.8		
1965-66			698.7			714.5	729.4		
1,501 Companies									
1965-66	525.2	223.6	748.8	488.3	263.7	752.0	800.6	48.5	752.1
1966-67	615.1	244.8	859.9	544.0	323.9	867.9	942.6	49.1	893.5
1967-68	683.3	257.8	941.1	613.4	327.1	940.5	1072.2	51.6	1020.6
1968-69	755.0	272.2	1027.2	723.8	352.2	1076.0	1129.1	61.2	1067.9
1969-70	847.7	307.2	1154.9	796.8	397.0	1193.8	1202.9	63.5	1139.4
1970-71	968.5	327.4	1295.3	891.2	431.1	1322.9	1312.3	63.1	1249.2
1,650 Companies									
1970-71	1002.9	371.2	1374.1	944.2	452.4	1396.6	1406.8	120.0	1286.8
1971-72	1108.5	432.6	1541.1	1026.1	488.5	1514.6	1493.2	125.1	1368.1
1972-73	1202.5	501.3	1703.8	1057.7	541.1	1558.8	1438.1	116.3	1321.8
1973-74	1425.8	664.4	2090.2	1131.6	669.4	1801.0	1593.8	127.5	1466.3
1974-75	1846.6	778.1	2624.7	1339.4	761.6	2101.0	1911.8	129.1	1782.7
				A (I) : Large Public Limited Companies					
375 Companies									
1973-74 ..	918.5	385.3	1303.8	722.0	460.9	1182.9	971.4	83.8	887.6
1974-75	1220.9	453.6	1674.5	886.8	524.8	1411.6	1224.3	82.2	1142.1
				(B) Small Public Limited Companies					
750 Companies									
1970-71	20.7	8.2	28.9	19.8	7.5	27.3	11.7	0.7	11.0
1971-72	23.4	10.5	33.9	22.3	8.9	31.2	12.8	0.8	12.0
1972-73	23.2	9.2	32.4	22.2	8.8	31.0	12.4	1.0	11.4
1973-74	24.8	12.9	37.7	22.9	10.8	33.7	14.6	1.2	13.4

APPENDIX — VIII (*Contd.*)

TRENDS IN TRADE CREDIT OF THE CORPORATE SECTOR

(Rupees Crores)

	Trade dues and other Current Liabilities 1			Loans and Advances and Debtor Balances 2			Borrowings from Banks		
	Sundry Creditors	Others	Total	Sundry Debtors	Others	Total	Total	Debt Portion	Excluding Debt Portion
1	2	3	4	5	6	7	8	9	10
(C) Medium and Large Private Limited Companies									
501 Companies									
1960-61			78.1			100.1	62.6		
1961-62			86.0			107.6	70.2		
1962-63			96.0			121.1	80.5		
1963-64			99.7			131.6	78.5		
1964-65			108.8			142.0	91.5		
1965-66			125.1			153.2	104.6		
761 Companies									
1965-66	80.0	47.7	127.7	86.5	58.9	145.4	100.4	9.2	91.2
1966-67	97.7	49.3	147.0	98.5	65.6	164.1	112.1	8.8	103.3
1967-68 ..	106.0	45.8	151.8	112.2	67.8	180.0	126.3	9.3	117.0
1968-69	112.3	49.8	162.1	123.4	68.3	191.7	132.8	8.7	124.1
1969-70	125.6	51.4	177.0	128.0	73.9	201.9	147.0	9.0	138.0
1970-71	136.7	58.7	195.4	135.4	81.4	216.8	169.7	11.5	158.2
1,001 Companies									
1970-71	165.3	71.5	236.8	158.6	101.5	260.1	210.2	21.0	189.2
1971-72	183.2	81.1	264.3	174.8	109.0	283.8	225.7	21.4	204.3
1972-73	195.4	90.5	285.9	184.9	121.1	306.0	238.5	18.9	219.6
1973-74	231.3	113.3	344.6	210.2	146.8	357.0	288.8	27.3	261.5
(D) Small Private Limited Companies									
1,125 Companies									
1970-71	34.3	17.1	51.4	32.9	21.6	54.5	25.8	2.2	23.6
1971-72	40.1	17.5	57.6	38.9	23.1	62.0	31.2	2.3	28.9

APPENDIX — VIII (*Concld.*)

TRENDS IN TRADE CREDIT OF THE CORPORATE SECTOR

(Rupees Crores)

	Trade dues and Other Current Liabilities 1			Loans and Advances and Debtor Balances 2			Borrowings from Banks		
	Sundry Creditors	Others	Total	Sundry Debtors	Others	Total	Total	Debt Portion	Exlcuding Debt Portion
1	2	3	4	5	6	7	8	9	10
(E) Government Companies									
(I) Central Government Companies									
64 Companies									
1970-71	359.3	446.4	805.7	340.3	242.7	583.0	175.3		
1971-72	398.6	580.0	978.6	370.6	265.8	636.4	184.3		
67 Companies									
1971-72	414.3	600.4	1014.7	377.5	304.5	682.0	196.4	—	196.4
1972-73	475.0	703.4	1178.4	416.6	358.2	774.8	281.8	—	281.8
82 Companies									
1972-73	498.3	754.3	1252.6	440.3	389.7	830.0	311.7	—	311.7
1973-74	787.5	983.5	1771.0	597.4	507.4	1104.8	415.3	—	415.3
(II) State Government Companies									
67 Companies									
1970-71	28.7	54.1	82.8	24.8	17.1	41.9	35.8		
1971-72	29.4	42.7	72.1	30.4	18.6	49.0	36.2		
49 Companies									
1971-72	27.2	40.7	67.9	29.2	17.6	46.8	35.4	1.7	33.7
1972-73	31.1	46.8	77.9	32.1	22.6	54.7	31.4	2.0	29.4
61 Companies									
1972-73	38.3	48.4	86.7	33.1	26.7	59.8	31.7	1.9	29.8
1973-74	48.4	54.5	102.9	35.9	31.4	67.3	33.6	2.4	31.2

Notes : (1) **Trade dues and other current liabilities**

This item is classified under two heads, viz., (*i*) Sundry creditors, and (*ii*) others. This break-up is not presented in series I

Sundry Creditors : This item comprises sundry creditors, liabilities for goods supplied, liabilities for expenses and liabilities for other finances.

Other current liabilities : This includes liabilities to subsidiary companies, interest on loans, unclaimed dividends, bills payable, trade deposits, managing agents' remuneration payable, share application money (including premium received), outstanding payments against orders which are not classified under sundry creditors, calls in advance, outstanding liabilities for expenses, 'service deposits', in the case of electricity companies if classified by them under current liabilities and other liabilities of a current nature. Security deposits from staff are classified under miscellaneous non-current liabilities in Series I (1333 companies) ; but in Series II (1501 companies), these have been taken under other current liabilities.

(2) **Loans and advances and other debtor balances**

This item consists of (*i*) Sundry debtors, and (*ii*) Others.

Sundry debtors—This item is taken net of provision for bad debts. In Series I, this item is not presented separately.

Others—This item includes all loans and advances and other debtor balances other than sundry debtors. This item covers dividend/interest accrued on investments, loans, loans and advances to subsidiaries, companies under the same management and other loans and advances including those to staff, balances in current account with managing agents, secretaries and treasurers, bills receivable, prepaid expenses, trade deposits with companies and others, excise duty claims, export duty claims, and similar items. Tax credit certificates and cost of entitlements under National Defence Remittance Scheme are also included here.

Sources : 1. Financial Statistics of Joint Stock Companies in India : 1960-61 to 1970-71.

2. Reserve Bank of India Bulletins—December 1973, October 1974, January 1975, June 1975, September 1975, November 1975, December 1975, January 1976, March 1976 and April 1976.

STATEMENT—1

INTER-BANK ASSETS AND LIABILITIES FIGURING IN THE PRESENT SERIES OF COMPILATION OF BANK CREDIT TO COMMERCIAL SECTOR

(Rupees Crores)

	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
1	2	3	4	5	6	7	8
1. Scheduled Commercial Banks	**—116**	**—123**	**—181**	**—210**	**—260**	**—250**	**—429**
(i) Bank credit	—	—	—	—	—	—	—
(ii) Due from banks ..	50	45	33	36	42	43	36
(iii) Money at call and short notice	41	27	52	118	43	179	222
(iv) Balances with other banks in C/A	53	75	84	104	123	157	142
Minus (v) Inter-Bank demand deposits ..	123	158	189	215	206	328	414
,, (vi) Inter-bank time deposits	39	27	40	92	73		
,, (vii) Inter-bank demand borrowings	29	28	47	74	80	137	194
,, (viii) Inter-bank time borrowings	9	8	5	11	19		
,, (ix) Borrowings from SBI, IDBI ARDC, etc. ..	60	49	69	76	90	164	221
2. Non-Scheduled Banks	**3**	**2**	**1**	**1**	**—**	**2**	**1**
(i) Bank credit	—	—	—	—	—	—	—
(ii) Due from banks	—	—	—	—	—	—	—
(iii) Money at call and short notice	1	1	—	—	—	1	—
(iv) Balances with the agents of RBI etc. in C/A	2	2	1	1	1	1	1
Minus (v) Inter-bank demand deposits ..	—	—	—	—	—	—	—
,, (vi) Inter-bank time deposits	—	—	—	—	—	—	—
,, (vii) Due to other banks ..	—	1	—	—	1	—	—
3. State Co-operative Banks	**357**	**406**	**454**	**457**	**511**	**614**	**698**
(i) Bank credit	—	—	—	—	—	—	—
(ii) Due from banks	395	444	468	482	521	647	740
(iii) Money at call and short notice	10	11	8	15	23	10	11
(iv) Balances with other banks in C/A	6	6	21	9	11	10	12
Minus (v) Borrowings from SBI, ARDC, etc. ..	54	55	41	47	42	51	65
,, (vi) Inter-bank demand borrowings ..	—	—	—	—	—	—	—
,, (vii) Inter-bank time borrowings ..	—	—	2	2	2	2	—

STATEMENT—2

COMPARATIVE STATEMENT OF MONEY STOCK MEASURES—PRESENT AND NEW SERIES

(Rupees Crores)

Last Friday of	New Series										Present Series					
	M_1 and components				M_2 &...		M_3 &...		M_4 &...		Money supply with the public and components				AMR &...	
	Currency with the public(1)	Demand deposits with banks(2)	Other deposits with RBI	M_1 (2+3+4)	Post office savings bank deposits	M_2 (5+6)	Time deposits with banks(3)	M_3 (5+8)	Total Post office deposits(4)	M_4 (9+10)	Currency with the public	Demand deposits with banks	Other deposits with RBI	Total (12+13+14)	Time deposits with Banks	Total (15+16)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1970																
March ..	3995	2483	58	6536	897	7433	3103	9639	996	10635	4010	2318	58	6387	2950	9337
June ..	4150	2599	50	6799	885	7684	3270	10069	1003	11072	4170	2414	50	6634	3098	9732
September ..	3985	2686	58	6729	904	7633	3392	10121	1044	11165	3998	2503	58	6559	3225	9784
December ..	4157	2745	63	6965	912	7877	3546	10511	1079	11590	4170	2561	63	6794	3368	10162
1971																
March	4367	2910	44	7321	990	8311	3637	10958	1184	12142	4383	2713	44	7140	3448	10588
June ..	4575	3031	32	7638	960	8598	3851	11489	1181	12670	4591	2839	32	7462	3660	11122
September ..	4471	3066	41	7578	982	8560	3954	11532	1245	12777	4478	2882	41	7401	3908	11309
December ..	4563	3284	66	7913	988	8901	4334	12247	1299	13546	4577	3077	66	7720	4140	11860
1972																
March	4800	3441	79	8320	1046	9366	4370	12690	1416	14106	4822	3237	79	8138	4176	12314
June ..	4948	3719	66	8733	1024	9757	4683	13416	1443	14859	4979	3478	66	8523	4476	12999
September ..	4669	3691	51	8411	1034	9445	4944	13355	1515	14870	4678	3445	51	8175	4709	12884
December ..	4907	3996	56	8959	1037	9996	5228	14187	1604	15791	4927	3733	56	8716	4992	13708
1973																
March ..	5420	4213	51	9684	1107	10791	5349	15033	1772	16805	5444	3918	51	9413	5102	14515
June ..	5789	4415	40	10244	1086	11330	5747	15991	1803	17794	5829	4093	40	9962	5491	15453
September	5590	4496	45	10131	1115	11246	6146	16277	1895	18172	5613	4163	45	9821	5878	15699
December ..	5778	4677	39	10494	1131	11625	6445	16939	2020	18959	5801	4345	39	10185	6158	16343

STATEMENT—2 (*Concld.*)

COMPARATIVE STATEMENT OF MONEY STOCK MEASURES—PRESENT AND NEW SERIES

(Rupees Crores)

Last Friday of	New Series										Present Series					
	M_1 and components				M_2 &...		M_3 &...		M_4 &...		Money supply with the public and components				AMR &...	
	Currency with the public(1)	Demand deposits with banks(2)	Other deposits with RBI	M_1 (2+3+4)	Post office savings banks	M_2 (5+6)	Time deposits with banks(3)	M_3 (5+8)	Total Post office deposits(4)	M_4 (9+10)	Currency with the public	Demand deposits with banks	Other deposits with RBI	Total (12+13+14)	Time deposits with banks	Total (15+16)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1974																
March	6308	4819	45	11172	1252	12424	6399	17571	2272	19843	6336	4467	45	10848	6104	16952
June	6552	5172	47	11771	1171	12942	6766	18537	2260	20797	6603	4800	47	11450	6459	17909
September ..	6079	5130	56	11265	1182	12447	7184	18449	2344	20793	6105	4760	56	10920	6864	17784
December ..	6138	5376	49	11563	1162	12725	7384	18947	2411	21358	6169	5009	49	11227	7063	18290
1975																
March	6348	5485	78	11911	1221	13132	7551	19462	2571	22033	6378	5101	78	11557	7226	18783
June	6662	5816	65	12543	1161	13704	8030	20573	2581	23154	6707	5414	65	12187	7682	19869
September ..	6314	5906	43	12263	1171	13434	8356	20619	2686	23305	6345	5540	43	11928	8078	20006
December@ ..	6469	6082	60	12611	1166	13777	8730	21341	2769	24110	6477	5743	60	12280	8435	20715
1976@																
March	6701	6312	54	13067	1279	14346	9090	22157	2988	25145	6735	5893	54	12682	8706	21389
June	7254	6721	46	14021	1223	15244	9908	23929	3012	26941	7302	6276	46	13624	9483	23107
September ..	7097	6922	75	14094	1243	15337	10671	24711	3122	27833	7129	6462	75	13665	10182	23847

(1) Comprises Notes in circulations and Circulation of Rupee and Small Coins.
(2) Include mainly current deposits and demand liabilities portion of savings bank deposits.
(3) Largely comprise fixed deposits, cash certificates cummulative and recurring deposits and time liability portion of savings bank deposits.
(4) Include Post Office Savings Banks deposits, Post Office Cummulative time deposits, Post Office Recurring deposits and Post Office time deposits.
@ Provisional

STATEMENT—3

COMPONENTS OF MONEY STOCK (M_1)

(Rupees Crores)

	Currency with the Public							Deposit Money with the Public	
	M_1 (3+8)	Total (4+5) +6—7)	Notes in Circulation	Circulation of Rupee Coins*	Circulation of Small Coins	Cash on hand with Banks	Total (9+10)	Net Demand Deposits of Bank	Other Deposits with RBI
			(A)	(B)	(B) (C)	(D)		(E)	(F)
1	2	3	4	5	6	7	8	9	10
1970									
March ..	6536	3995	3800	233	127	165	2541	2483	58
June ..	6799	4150	3977	243	131	201	2649	2599	50
September	6729	3985	3803	232	133	183	2744	2686	58
December	6965	4157	3962	240	135	180	2808	2745	63
1971									
March ..	7321	4367	4169	247	137	186	2954	2910	44
June ..	7638	4575	4386	260	141	212	3063	3031	32
September	7578	4471	4254	253	143	179	3107	3066	41
December	7913	4563	4377	256	146	216	3350	3284	66
1972									
March ..	8320	4800	4594	263	148	205	3520	3441	79
June ..	8733	4948	4817	271	153	293	3785	3719	66
September	8411	4669	4460	262	157	210	3742	3691	51
December	8959	4907	4751	278	161	283	4057	3996	56
1973									
March ..	9684	5420	5210	290	167	247	4264	4213	51
June ..	10244	5789	5656	310	172	349	4455	4415	40
September	10131	5590	5375	305	177	267	4541	4496	45
December	10494	5778	5596	307	182	307	4716	4677	39
1974									
March ..	11172	6308	6083	314	188	277	4864	4819	45
June ..	11771	6552	6430	326	194	398	5219	5172	47
September	11265	6079	5866	313	200	300	5186	5130	56
December	11563	6138	5924	317	206	309	5425	5376	49
1975									
March ..	11911	6348	6147	322	210	331	5563	5485	78
June ..	12543	6662	6541	338	215	432	5881	5816	65
September	12263	6314	6092	325	219	322	5949	5906	43
December@	12611	6469	6278	328	222	359	6142	6082	60
1976@									
March ..	13067	6701	6492	331	224	346	6366	6312	54
June ..	14021	7254	7094	328	227	395	6767	6721	46
September	14094	7097	6900	319	227	349	6997	6922	75

Note : (*A*) Net of the return of about Rs. 43 crores of Indian notes from Pakistan awaiting adjustment.
(*B*) Estimated.
(*C*) Figures are as on last day of the month, excluding balances held in small coin deposits.
(*D*) Relating to scheduled commercial, non-scheduled commercial, state co-operative, central co-operative, urban co-operative banks and salary earners' societies.
(*E*) Relating to net demand deposits of scheduled commercial, non-scheduled commercial state co-operative, central co-operative, urban co-operative banks and salary earners, societies.
(*F*) Excluding balances held in IMF a/c No. 1, RBI Employees' Provident Fund, Pension Fund & Co-operative Guarantee Fund and some extra-ordinary items; the amounts collected under the Additional Emoluments (compulsory deposits) Act 1974 and the Compulsory Deposit Scheme (Income Tax Payers) Act, 1974 are also excluded since 16th August 1974 and 13th December 1974 respectively.
* Includes ten rupee commemorative coins issued since October 1969.
@ Provisional.

STATEMENT—4
MONEY STOCK MEASURES

(Rupees Crores)

Last Friday of	NEW SERIES									
	M_1 & Components				M_2 &		M_3 &		M_4 &	
	Currency with the public	Demand Deposits with Banks	Other Deposits with RBI	M_1 (2+3+4)	Post Office Savings Bank Deposits	M_2 (5+6)	Time Deposits with Banks	M_3 (5+8)	Total Post Office Deposits	M_4 (9+10)
1	2	3	4	5	6	7	8	9	10	11
1970										
March	3995	2483	58	6536	897	7433	3103	9639	996	10635
April ..	4121	2526	64	6711	893	7604	3160	9871	1000	10871
May ..	4172	2523	58	6753	885	7638	3201	9954	996	10950
June ..	4150	2599	50	6799	885	7684	3270	10069	1003	11072
July ..	4060	2654	40	6754	891	7645	3315	10069	1016	11085
August	3989	2647	51	6687	900	7587	3358	10045	1033	11078
September	3985	2686	58	6729	904	7633	3392	10121	1044	11165
October ..	4078	2708	74	6860	906	7766	3450	10310	1054	11364
November	4083	2732	55	6870	908	7778	3500	10370	1059	11429
December ..	4157	2745	63	6965	912	7877	3546	10511	1079	11590
1971										
January	4246	2817	59	7122	914	8036	3590	10712	1091	11803
February	4309	2858	48	7215	916	8131	3650	10865	1103	11968
March	4367	2910	44	7321	990	8311	3637	10958	1184	12142
April ..	4492	2919	51	7462	986	8448	3730	11192	1182	12374
May ..	4521	2976	37	7534	964	8498	3790	11324	1184	12508
June ..	4575	3031	32	7638	960	8598	3851	11489	1181	12670
July ..	4438	3043	24	7505	969	8474	3931	11436	1210	12646
August ..	4422	3048	50	7520	976	8496	3941	11461	1228	12689
September ..	4471	3066	41	7578	982	8560	3954	11532	1245	12777
October ..	4473	3109	49	7631	983	8614	4072	11703	1261	12964
November ..	4486	3144	49	7679	987	8666	4185	11864	1281	13145
December	4563	3284	66	7913	988	8901	4334	12247	1299	13546

STATEMENT—4
MONEY STOCK MEASURES—(*Contd.*)

(Rupees Crores)

Last Friday of	NEW SERIES									
	M_1 & Components				M_2 &		M_3 &		M_4 &	
	Currency with the public	Demand Deposits with Banks	Other Deposits with RBI	M_1 (2+3+4)	Post Office Savings Bank Deposits	M_2 (5+6)	Time Deposits with Banks	M_3 (5+8)	Total Post Office Deposits	M_4 (9+10)
1	2	3	4	5	6	7	8	9	10	11
1972										
January	4691	3260	64	8015	988	9003	4337	12352	1318	13670
February ..	4784	3242	57	8083	987	9070	4386	12469	1331	13800
March	4800	3441	79	8320	1046	9366	4370	12690	1416	14106
April	4902	3369	76	8347	1041	9388	4501	12848	1426	14274
May	4995	3458	71	8524	1027	9551	4578	13102	1429	14531
June ..	4948	3719	66	8733	1024	9757	4683	13416	1443	14859
July ..	4839	3662	57	8558	1029	9587	4778	13336	1473	14809
August ..	4795	3694	76	8565	1032	9597	4853	13418	1495	14913
September ..	4669	3691	51	8411	1034	9445	4944	13355	1515	14870
October	4733	3759	66	8558	1034	9592	5013	13571	1543	15114
November ..	4845	3797	51	8693	1034	9727	5115	13808	1573	15381
December ..	4907	3996	56	8959	1037	9996	5228	14187	1604	15791
1973										
January ..	5077	3906	38	9021	1039	10060	5282	14303	1635	15938
February	5228	3998	42	9268	1042	10310	5325	14593	1662	16255
March ..	5420	4213	51	9684	1107	10791	5349	15033	1772	16805
April ..	5665	4172	45	9882	1099	10981	5534	15416	1780	17196
May ..	5822	4204	46	10072	1083	11155	5629	15701	1781	17482
June ..	5789	4415	40	10244	1086	11330	5747	15991	1803	17794
July ..	5726	4398	44	10168	1098	11266	5894	16062	1835	17897
August ..	5535	4499	37	10071	1111	11182	6029	16100	1868	17968
September ..	5590	4496	45	10131	1115	11246	6146	16277	1895	18172
October	5769	4438	34	10241	1117	11358	6238	16479	1933	18412
November ..	5748	4521	40	10309	1125	11434	6367	16676	1979	18655
December	5778	4677	39	10494	1131	11625	6445	16939	2020	1895

STATEMENT—4
MONEY STOCK MEASURES—(*Concld.*)

(Rupees Crores)

Last Friday of	NEW SERIES									
	M_1 & Components				M_2 &		M_3 &		M_4 &	
	Currency with the public	Demand Deposits with Banks	Other Deposits with RBI	M_1 (2+3+4)	Post Office Savings Bank Deposits	M_2 (5+6)	Time Deposits with Banks	M_3 (5+8)	Total Post Office Deposits	M_4 (9+10)
1	2	3	4	5	6	7	8	9	10	11
1974										
January ..	5983	4652	38	10673	1132	11805	6455	17128	2060	19188
February ..	6145	4690	34	10869	1137	12006	6429	17298	2098	19396
March ..	6308	4819	45	11172	1252	12424	6399	17571	2272	19843
April ..	6538	4899	38	11475	1243	12718	6558	18033	2283	20316
May ..	6615	5012	54	11681	1182	12863	6663	18344	2248	20592
June ..	6552	5172	47	11771	1171	12942	6766	18537	2260	20797
July ..	6369	5260	55	11684	1178	12862	6908	18592	2290	20882
August ..	6167	5177	41	11385	1184	12569	7064	18449	2323	20772
September	6079	5130	56	11265	1182	12447	7184	18449	2344	20793
October ..	6112	5192	37	11341	1174	12515	7227	18568	2367	20935
November	6137	5231	44	11412	1168	12580	7314	18726	2386	21112
December	6138	5376	49	11563	1162	12725	7384	18947	2411	21358
1975										
January ..	6186	5372	54	11612	1157	12769	7489	19101	2436	21537
February	6261	5444	62	11767	1154	12921	7547	19314	2459	21773
March	6348	5485	78	11911	1221	13132	7551	19462	2571	22033
April ..	6585	5546	51	12182	1196	13378	7729	19911	2569	22480
May ..	6726	5621	56	12403	1172	13575	7857	20260	2570	22830
June ..	6662	5816	65	12543	1161	13704	8030	20573	2581	23154
July ..	6481	5932	55	12468	1165	13633	8198	20666	2620	23286
August ..	6375	5900	45	12320	1168	13488	8264	20584	2649	23233
September	6314	5906	43	12263	1171	13434	8356	20619	2686	23305
October ..	6478	5936	48	12462	1168	13630	8566	21028	2705	23733
November@	6447	5998	55	12500	1166	13666	8628	21128	2739	23867
December@	6469	6082	60	12611	1166	13777	8730	21341	2769	24110
1976 @										
January ..	6429	6182	59	12670	1163	13833	8921	21591	2792	24383
February ..	6578	6215	40	12833	1167	14000	8971	21804	2818	24622
March ..	6701	6312	54	13067	1279	14346	9090	22157	2988	25145
April ..	6974	6472	44	13490	1244	14734	9405	22895	2973	25868
May ..	7176	6617	43	13836	1226	15062	9630	23466	2979	26445
June ..	7254	6721	46	14021	1223	15244	9908	23929	3012	26941
July ..	7085	6849	53	13987	1232	15219	10135	24122	3056	27178
August ..	7028	6894	77	13999	1240	15239	10396	24395	3090	27485
September ..	7097	6922	75	14094	1243	15337	10617	24711	3122	27833

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For details please see foot note to Statements 2 and 3.

STATEMENT—5

ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)

(Rupees Crores)

Outstanding as on Last Friday of :	1970									
	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11
1. Net Bank Credit to Government (A+B) ..	4752	4862	4842	4853	4821	4794	4840	4976	4987	4961
A. RBI's Net Credit to Government (i—ii) ..	3496	3607	3574	3577	3465	3405	3440	3561	3548	3519
(i) Claims on Government (a+b)	3671	3778	3719	3692	3593	3502	3570	3662	3658	3805
(a) Central Government	3459	3561	3506	3537	3506	3392	3423	3448	3465	3589
(b) State Governments	212	217	213	155	87	110	147	214	193	216
(ii) Government Deposits with RBI (a+b) ..	176	171	145	115	128	97	130	101	111	286
(a) Central Government	168	166	140	109	116	87	122	94	104	279
(b) State Governments	8	5	5	7	12	10	8	7	7	7
B. Other Banks' Credit to Government	1256	1255	1268	1276	1356	1389	1400	1415	1439	1442
2. Bank Credit to Commercial Sector (A+B) ..	5407	5519	5588	5728	5739	5741	5820	5892	5893	6127
A. RBI's Credit to Commercial Sector ..	77	80	83	86	101	99	101	101	100	102
B. Other Banks' Credit to Commercial Sector (i + ii + iii)	5330	5439	5505	5642	5638	5642	5719	5791	5793	6025
(i) Bank Credit by Commercial Banks	3985	4069	4144	4217	4201	4191	4252	4284	4279	4458
Of which: To Public Sector	..	..	..	..	..	..	..	..	..	..
(ii) Bank Credit by Co-operative Banks ..	928	948	967	987	1000	1009	1023	1032	1053	1077
(iii) Investment by Commercial and Co-operative Banks in Other Securities	417	422	394	438	437	442	444	475	461	490
3. Net Foreign Exchange Assets of Banking Sector (A+B)	584	618	684	672	651	623	633	654	684	626
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	574	610	681	672	646	622	628	652	667	605
(i) Gross Foreign Assets	654	688	706	694	668	644	650	674	689	605
(ii) Non-monetary Foreign Liabilities	80	78	25	22	22	22	22	22	22	—
B. Other Banks' Net Foreign Exchange Assets ..	10	8	3	—	5	1	5	2	17	21
4. Government's Currency Liabilities to the Public ..	360	364	373	374	369	366	365	371	370	375
5. Non-monetary Liabiilities of Banking Sector (A+B+C)	4567	4652	4734	4828	4826	4837	4929	5033	5064	5124
A. Time Deposits with Banks (2)	3103	3160	3201	3270	3315	3358	3392	3450	3500	3546
B. Net Non-Monetary Liabilities of RBI (3)/(1) ..	630	621	640	643	600	561	566	594	619	623
C. Other Net Non-monetary Liabilities of Banks (Derived) (4)	834	871	893	915	911	918	971	989	945	955
M_1 (1+2+3+4—5)	**6536**	**6711**	**6753**	**6799**	**6754**	**6687**	**6729**	**6860**	**6870**	**6965**

STATEMENT—5
ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)—*(Contd.)*

(Rupees Crores)

Outstanding as on Last Friday of :	1971											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Net Bank Credit to Government (A+B)	5091	5140	5264	5582	5738	5782	5778	5754	5792	5967	6061	6102
A. RBI's Net Credit to Government (i—ii) ..	3639	3686	3807	4126	4268	4311	4258	4161	4166	4300	4362	4357
(i) Claims on Government (a+b)	3904	3993	4070	4356	4334	4464	4319	4222	4228	4464	4421	4556
(a) Central Government	3693	3755	3820	3929	3920	4005	4152	4052	4006	4106	4046	4075
(b) State Governments	211	238	250	427	414	459	167	170	222	358	375	481
(ii) Government Deposits with RBI (a+b) ..	265	307	264	230	65	153	61	61	61	164	59	199
(a) Central Government	256	302	251	225	61	150	54	54	56	158	55	196
(b) State Governments	9	5	13	5	4	3	7	7	5	6	4	2
B. Other Banks' Credit to Government	1452	1454	1457	1456	1470	1471	1520	1593	1626	1667	1699	1745
2. Bank Credit to Commercial Sector (A+B)	6305	6393	6455	6444	6445	6523	6592	6568	6644	6698	6733	7061
A. RBI's Credit to Commercial Sector ..	114	120	125	136	148	147	153	155	176	170	170	179
B. Other Banks' Credit to Commercial Sector (i + ii + iii)	6191	6273	6330	6308	6297	6376	6439	6413	6468	6528	6563	6882
(i) Bank Credit by Commercial Banks ..	4593	4647	4692	4688	4689	4774	4826	4785	4828	4844	4830	5059
Of which: To Public Sector	..	..	..	..	..	..	..	..	..	..	..	..
(ii) Bank Credit by Co-operative Banks	1095	1109	1122	1094	1072	1050	1056	1071	1082	1106	1131	1174
(iii) Investment by Commercial and Co-operative Banks in Other Securities	503	517	516	526	536	552	557	557	558	578	602	649
3. Net Foreign Exchange Assets of Banking Sector (A+B)	578	552	559	574	587	581	574	583	594	589	599	606
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	563	546	538	557	564	562	562	575	589	595	591	590
(i) Gross Foreign Assets	563	546	538	557	564	562	562	575	589	595	591	590
(ii) Non-monetary Foreign Liabilities	—	—	—	—	—	—	—	—	—	—	—	—
B. Other Banks' Net Foreign Exchange Assets ..	15	6	21	17	23	19	12	8	5	—6	8	16
4. Government's Currency Liabilities to the Public ..	374	378	384	386	393	401	391	389	396	401	401	402
5. Non-monetary Liabilities of Banking Sector (A+B+C)	5226	5248	5341	5524	5629	5649	5830	5774	5848	6024	6115	6258
A. Time Deposits with Banks (2)	3590	3650	3637	3730	3790	3851	3931	3941	3954	4072	4185	4334
B. Net Non-Monetary Liabilities of RBI (3)/(1) ..	662	649	714	711	782	824	852	763	773	812	847	942
C. Other Net Non-monetary Liabilities of Banks (Derived) (4)	974	949	990	1083	1057	974	1047	1070	1121	1140	1083	982
M_1 (1+2+3+4—5)	**7122**	**7215**	**7321**	**7462**	**7534**	**7638**	**7505**	**7520**	**7578**	**7631**	**7679**	**7913**

STATEMENT—5

ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)—*(Contd.)*

(Rupees Crores)

Outstanding as on Last Friday of :	1972											
	January	Feb-ruary	March	April	May	June	July	Au-gust	Sept-ember	Oct-ober	Nov-ember	Dec-ember
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Net Bank Credit to Government (A+B)	6232	6268	6444	6789	6905	7016	7108	7094	6953	7252	7357	7372
A. RBI's Net Credit to Government (i—ii) ..	4472	4521	4689	4972	5103	5189	5063	4919	4775	4903	5007	5077
(i) Claims on Government (a+b)	4664	4740	4909	5189	5164	5263	5132	4975	4917	4967	5077	5152
(a) Central Government	4150	4211	4284	4427	5047	5172	5060	4913	4861	4876	4976	5019
(b) State Governments	514	529	625	762	117	91	72	62	56	91	101	133
(ii) Government Deposits with RBI (a+b) ..	191	219	220	218	61	74	69	57	142	64	70	75
(a) Central Government	184	212	215	214	53	67	53	49	125	53	54	64
(b) State Governments	7	7	5	4	8	8	16	8	17	11	16	11
B. Other Banks' Credit to Government	1760	1747	1755	1817	1802	1827	2045	2175	2178	2349	2350	2295
2. Bank Credit to Commercial Sector (A+B)	7114	7180	7368	7256	7384	7609	7481	7469	7508	7583	7664	8031
A. RBI's Credit to Commercial Sector	200	219	232	205	197	205	212	208	207	208	211	210
B. Other Banks' Credit to Commercial Sector (i+ii+iii)	6914	6961	7136	7051	7187	7404	7269	7261	7301	7375	7453	7821
(i) Bank Credit by Commercial Banks ..	5112	5132	5270	5200	5319	5487	5308	5260	5229	5267	5296	5578
Of which : To Public Sector	..	..	..	..	..	..	..	..	..	735	..	675
(ii) Bank Credit by Co-operative Banks ..	1173	1183	1189	1170	1172	1180	1213	1251	1299	1320	1344	1376
(iii) Investment by Commercial and Co-operative Banks in Other Securities	629	646	677	681	696	737	748	750	773	788	813	867
3. Net Foreign Exchange Assets of Banking Sector (A+B)	645	636	619	635	653	618	582	573	559	552	557	543
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	625	620	608	609	627	605	568	544	540	537	529	518
(i) Gross Foreign Assets	625	620	608	609	627	605	568	544	540	537	529	518
(ii) Non-monetary Foreign Liabilities	—	—	—	—	—	—	—	—	—	—	—	—
B. Other Banks' Net Foreign Exchange Assets ..	20	16	11	26	26	13	14	29	19	15	28	25
4. Government's Currency Liabilities to the Public ..	403	407	411	413	419	424	414	412	419	416	435	439
5. Non-monetary Liabilities of Banking Sector (A+B+C)	6379	6408	6522	6746	6837	6934	7027	6983	7028	7245	7320	7426
A. Time Deposits with Banks (2)	4337	4386	4370	4501	4578	4683	4778	4853	4944	5013	5115	5228
B. Net Non-Monetary Liabilities of RBI (3)/(1) ..	974	990	1091	1035	1032	1072	1093	970	991	1006	1038	1047
C. Other Net Non-monetary liabilities of banks (Derived) (4)	1068	1032	1061	1210	1227	1179	1156	1160	1093	1226	1167	1151
M_1 (1+2+3+4—5)	**8015**	**8083**	**8320**	**8347**	**8524**	**8733**	**8558**	**8565**	**8411**	**8558**	**8693**	**8959**

STATEMENT—5
ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)—*(Contd.)*

(Rupees Crores)

Outstanding as on Last Friday of :	1973											
	January	Feb-ruary	March	April	May	June	July	Au-gust	Sept-ember	Oct-ober	Nov-ember	Dec-ember
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Net Bank Credit to Government (A+B)	7520	7504	7770	8136	8257	8442	8619	8554	8610	8742	8788	8624
A. RBI's Net Credit to Government (i—ii) ..	5169	5253	5489	5874	5979	6143	6209	6037	6143	6286	6354	6094
(i) Claims on Government (a+b)	5235	5317	5559	5942	6032	6230	6278	6155	6224	6349	6423	6157
(a) Central Government	5090	5172	5424	5762	5834	6124	6087	6058	6110	6183	6274	5983
(b) State Governments	145	145	135	180	198	106	191	97	114	166	149	174
(ii) Government Deposits with RBI (a+b) ..	66	63	71	67	53	87	69	118	81	63	69	63
(a) Central Government	56	56	54	55	47	57	58	83	72	53	55	57
(b) State Governments	10	7	17	12	6	29	11	35	10	10	14	6
B. Other Banks' Credit to Government	2351	2251	2281	2262	2278	2299	2410	2517	2467	2456	2434	2530
2. Bank Credit to Commercial Sector (A+B)	8114	8470	8729	8763	8847	9048	8920	8872	9097	9379	9610	10162
A. RBI's Credit to Commercial Sector ..	209	215	265	247	245	290	280	268	298	301	323	382
B. Other Banks' Credit to Commercial Sector (i + ii + iii)	7905	8255	8464	8516	8602	8758	8640	8604	8799	9078	9287	9780
(i) Bank Credit by Commercial Banks ..	5606	5932	6123	6165	6249	6420	6282	6217	6322	6512	6671	7072
Of which : To Public Sector	..	..	..	823	..	1057	..	..	..	853	..	1063
(ii) Bank Credit by Co-operative Banks ..	1422	1443	1465	1459	1448	1432	1426	1428	1526	1550	1583	1625
(iii) Investment by Commercial and Co-operative Banks in Other Securities	877	880	876	892	905	906	932	959	951	1016	1033	1083
3. Net Foreign Exchange Assets of Banking Sector (A+B)	566	585	577	591	627	609	672	646	639	611	522	564
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	535	552	563	581	590	588	664	627	612	582	512	531
(i) Gross Foreign Assets	535	552	563	581	590	588	664	627	612	582	512	531
(ii) Non-monetary Foreign Liabilities	—	—	—	—	—	—	—	—	—	—	—	—
B. Other Banks' Net Foreign Exchange Assets ..	31	33	14	10	37	21	8	19	27	29	10	33
4. Government's Currency Liabilities to the Public ..	443	450	457	464	476	483	478	481	482	490	489	489
5. Non-monetary Liabilities of Banking Sector (A+B+C)	7622	7741	7849	8072	8135	8338	8521	8482	8697	8981	9100	9345
A. Time Deposits with Banks(2)	5282	5325	5349	5534	5629	5747	5894	6029	6146	6238	6367	6445
B. Net Non-monetary Liabilities of RBI (3)/(1) ..	1073	1111	1219	1153	1156	1150	1226	1200	1197	1213	1248	1253
C. Other Net Non-monetary Liabilities of Banks (Derived) (4)	1267	1305	1281	1385	1350	1441	1401	1253	1354	1530	1485	1647
M_1 (1+2+3+4—5)	**9021**	**9268**	**9684**	**9882**	**10072**	**10244**	**10168**	**10071**	**10131**	**10241**	**10309**	**10494**

STATEMENT—5

ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)—(*Contd.*)

(Rupees Crores)

Outstanding as on Last Friday of :	1974											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Net Bank Credit to Government (A+B)	8788	8779	8726	9010	9080	9134	9366	9256	9316	9537	9578	9424
A. RBI's net Credit to Government (i—ii) ..	6288	6285	6234	6478	6535	6564	6653	6496	6506	6647	6677	6544
(i) Claims on Government (a+b)	6354	6356	6395	6561	6600	6651	6722	6584	6573	6713	6745	6606
(a) Central Government	6143	6189	6157	6277	6386	6405	6534	6428	6430	6551	6604	6405
(b) State Governments	211	167	238	284	214	246	188	156	143	162	141	201
(ii) Government Deposits with RBI (a+b) ..	66	70	160	83	65	87	69	88	67	66	67	62
(a) Central Government	53	59	140	65	51	61	56	62	58	57	59	55
(b) State Governments	13	11	19	18	14	26	13	26	9	9	8	7
B. Other Banks' Credit to Government	2500	2494	2492	2532	2545	2570	2713	2760	2810	2890	2901	2880
2. Bank Credit to Commercial Sector (A+B)	10204	10285	10701	10956	11012	11342	11319	11177	11182	11281	11374	11752
A. RBI's Credit to Commercial Sector ..	434	499	562	591	597	652	623	574	550	515	550	589
B. Other Banks' Credit to Commercial Sector (i + ii + iii)	9770	9786	10139	10365	10415	10690	10696	10603	10632	10766	10824	11163
(i) Bank Credit by Commercial Banks ..	7038	7071	7409	7624	7761	7868	7808	7691	7640	7754	7758	8004
Of which : To Public Sector	..	..	..	1196	..	1303	1262	1170	1072	1102	1106	1134
(ii) Bank Credit by Co-operative Banks ..	1635	1630	1628	1634	1539	1653	1696	1728	1776	1799	1827	1882
(iii) Investment by Commercial and Co-operative Banks in Other Securities	1097	1085	1102	1107	1115	1169	1192	1184	1216	1213	1239	1277
3. Net Foreign Exchange Assets of Banking Sector (A+B)	543	587	674	662	680	673	600	555	526	511	496	404
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	527	574	672	660	678	671	598	553	524	509	494	402
(i) Gross Foreign Assets	527	621	719	764	958	951	878	833	804	789	924	832
(ii) Non-monetary Foreign Liabilities	—	47	47	104	280	280	280	280	280	280	430	430
B. Other Banks' Net Foreign Exchange Assets ..	16	13	2	2	2	2	2	2	2	2	2	2
4. Government's Currency Liabilities to the Public ..	491	495	502	509	520	520	516	514	513	517	523	523
5. Non-monetary Liabilities of Banking Sector (A+B+C)	9353	9277	9431	9662	9611	9898	10117	10117	10272	10505	10559	10540
A. Time Deposits with Banks(2)	6455	6429	6399	6558	6663	6766	6908	7064	7184	7227	7314	7384
B. Net Non-Monetary Liabilities of RBI (3)/(1) ..	1272	1338	1437	1419	1389	1481	1511	1426	1498	1483	1572	1605
C. Other Net Non-monetary Liabilities of Banks (Derived) (4)	1626	1510	1595	1685	1559	1651	1698	1627	1590	1795	1673	1551
M (1+2+3+4—5)	**10673**	**10869**	**11172**	**11475**	**11681**	**11771**	**11684**	**11385**	**11265**	**11341**	**11412**	**11563**

STATEMENT—5
ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)—(*Contd.*)

(Rupees Crores)

Outstanding as on Last Friday of :	1975											
	January	February	March	April	May	June	July	August	September	October	November@	December@
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Net Bank Credit to Government (A+B)	9657	9785	9533	10231	10402	10539	10907	10715	10458	10595	10595	10318
A. RBI's Net Credit to Government (i—ii) ..	6774	6900	6570	7225	7410	7510	7654	7551	7198	7352	7345	7028
(i) Claims on Government (a+b)	6839	7020	7112	7351	7506	7592	7720	7614	7270	7411	7411	7093
(a) Central Government	6587	6751	6852	6929	7043	7159	7506	7450	7127	7174	7225	6904
(b) State Governments	252	269	260	422	463	433	214	164	143	237	186	189
(ii) Government Deposits with RBI (a+b) ..	65	120	542	127	95	81	66	63	72	60	72	66
(a) Central Government	53	117	536	116	88	73	57	52	62	51	63	58
(b) State Governments	12	3	5	11	7	8	9	11	10	9	9	8
B. Other Banks' Credit to Government	2883	2885	2963	3006	2992	3029	3253	3164	3260	3243	3250	3290
2. Bank Credit to Commercial Sector (A+B)	12088	12259	12647	12638	12746	12985	12845	13013	13274	13745	13895	14283
A. RBI's Credit to Commercial Sector ..	598	623	652	649	618	625	613	568	600	629	648	707
B. Other Banks' Credit to Commercial Sector (i + ii + iii)	11490	11636	11995	11989	12128	12360	12232	12445	12674	13116	13247	13576
(i) Bank Credit by Commercial Banks ..	8241	8382	8774	8690	8860	8967	8744	8881	9071	9402	9450	9783
Of which:												
To Public Sector	1310	1400	1630	1525	1767	1879	1760	1687	1831	1955	2085	2241
(ii) Bank Credit by Co-operative Banks	1962	1964	1964	1981	1939	1974	2022	2066	2096	2133	2178	2209
(iii) Investment by Commercial and Co-operative Banks in Other Securities	1287	1290	1257	1318	1329	1419	1446	1498	1507	1581	1619	1584
3. Net Foreign Exchange Assets of Banking Sector (A+B)	254	321	392	392	335	310	305	286	371	463	489	533
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	252	319	390	390	333	308	303	284	369	461	487	531
(i) Gross Foreign Assets	682	749	820	820	763	738	733	914	999	1091	1117	1161
(ii) Non-monetary Foreign Liabilities	430	430	430	430	430	430	430	630	630	630	630	630
B. Other Banks' Net Foreign Exchange Assets ..	2	2	2	2	2	2	2	2	2	2	2	2
4. Government's Currency Liabilities to the Public ..	524	527	531	537	549	554	551	546	544	549	550	550
5. Non-monetary Liabilities of Banking Sector (A+B+C)	10911	11125	11192	11616	11629	11845	12140	12240	12384	12890	13029	13073
A. Time Deposits with Banks(2)	7489	7547	7551	7729	7857	8030	8198	8264	8356	8566	8628	8730
B. Net Non-Monetary Liabilities of RBI (3)/(1) ..	1664	1759	1670	1916	1928	1964	2048	2046	2098	2215	2305	2375
C. Other Net Non-monetary Liabilities of Banks (Derived) (4)	1758	1819	1971	1971	1844	1851	1894	1930	1930	2109	2096	1968
M_1 (1+2+3+4—5)	**11612**	**11767**	**11911**	**12182**	**12403**	**12543**	**12468**	**12320**	**12263**	**12462**	**12500**	**12611**

STATEMENT—5

ANALYSIS OF SOURCES OF CHANGE IN M_1 (NEW SERIES)– *(Contd.)*

(Rupees Crores)

Outstanding as on Last Friday of :	1976@								
	January	Feb-ruary	March	April	May	June	July	Au-gust	Sept-ember
1	2	3	4	5	6	7	8	9	10
1. Net Bank Credit to Government (A+B)	10174	10245	10064	10791	10779	10828	10684	10605	10611
A. RBI's Net Credit to Government (i—ii) ..	6847	6917	6697	7210	7236	7248	6941	6796	6641
(i) Claims on Government (a+b)	6914	7103	7367	7378	7301	7316	7012	6909	6710
(a) Central Government	6718	6895	7063	7019	6965	6996	6746	6708	6518
(b) State Governments	196	208	304	359	336	320	266	201	192
(ii) Government Deposits with RBI (a+b) ..	67	187	671	169	65	69	71	113	69
(a) Central Government	56	178	661	159	54	57	57	99	56
(b) State Governments	11	9	10	10	11	12	14	14	13
B. Other Banks' Credit to Government	3327	3328	3367	3581	3543	3580	3743	3809	3970
2. Bank Credit to Commercial Sector (A+B)	14573	14783	15211	15407	15667	15785	16307	16298	16453
A. RBI's Credit to Commercial Sector ..	739	708	721	714	712	740	800	787	822
B. Other Banks' Credit to Commercial Sector (i + ii + iii)	13834	14075	14490	14693	14955	15045	15507	15511	15631
(i) Bank Credit by Commercial Banks ..	10153	10395	10831	11073	11367	11478	11760	11693	11738
Of which: To Public Sector	2463	2662	2810	2850	3172	3342	3417	3329	3336
(ii) Bank Credit by Co-operative Banks	2236	2235	2218	2176	2106	2106	2139	2191	2237
(iii) Investment by Commercial and Co-operative Banks in Other Securities	1445	1445	1441	1444	1482	1461	1608	1627	1656
3. Net Foreign Exchange Assets of Banking Sector (A+B)	513	719	1081	830	1080	1282	1437	1557	1676
A. RBI's Net Foreign Exchange Assets (1) (i—ii)	511	717	1079	828	1078	1280	1435	1555	1674
(i) Gross Foreign Assets	1141	1347	1709	1517	1767	1969	2124	2244	2363
(ii) Non-monetary Foreign Liabilities	630	630	630	689	689	689	689	689	689
B. Other Banks' Net Foreign Exchange Assets ..	2	2	2	2	2	2	2	2	2
4 Government's Currency Liabilities to the Public ..	594	551	555	556	558	555	549	547	546
5. Non-monetary Liabilities of Banking Sector (A+B+C)	13139	13465	13844	14094	14248	14429	14990	15008	15192
A. Time Deposits with Banks(2)	8921	8971	9090	9405	9630	9908	10135	10396	10617
B. Net Non-monetary Liabilities of RBI (3)/(1) ..	2403	2447	2577	2321	2358	2458	2572	2497	2508
C. Other Net Non-monetary Liabilities of Banks (Derived) (4)	1815	2047	2177	2368	2260	2063	2283	2115	2067
M_1 (1+2+3+4—5)	**12670**	**12833**	**13067**	**13490**	**13836**	**14021**	**13987**	**13999**	**14094**

STATEMENT—5—(*Concld.*)

Asterisks : (1) Consequent on the revaluation of the gold reserves of the issue department effective from February 1, 1969, the net foreign exchange assets and non-monetary liabilities of the Reserve Bank rose by Rs. 67 crores each.

(2) Relate to time deposits of scheduled and non-scheduled commercial banks, State co-operative banks, central co-operative banks and primary co-operative banks.

(3) Comprises (i) the sum of capital and reserves, (ii) contribution by the Reserve Bank to the National Agricultural Credit (Long-term Operations and Stabilisation) Funds and National Industrial Credit (Long-Term Operations) Fund, (iii) the difference of (a) other liabilities of the Reserve Bank (mainly bills payable, profits of the Bank accruing under various heads such as interest, discount, exchange, commission etc.) and (b) other assets (mainly premises, furniture, fittings, stationery, debit balances under heads representing expenditure incurred by the Bank and items in course of collection, etc.), (iv) Reserve Bank Employees' Pension Fund, Provident Fund and Co-operative Guarantee Fund, (v) an offset of Rs. 43 crores to assets held against Indian currency returned by Pakistan awaiting adjustment, (vi) the amounts collected under Additional Emoluments (Compulsory Deposit) Act, 1974 and the Compulsory Deposit Scheme (Income-tax payers) Act, 1974 since 16th August, 1974 and 13th December 1974 respectively and (vii) a portion of India's IMF quota and other payments held in IMF A/c. No. I.

(4) Comprises mainly capital and reserves of banks and the difference of their (a) other liabilities (mainly bills payable and net credit balances on account of branch adjustments and (b) other assets (mainly premises, furniture, fittings, net debit balances on account of branch adjustments and capitalised expenses and tangible assets like uncleared cheques, stamps in hand, etc.), and errors and omissions.

@ Provisional

Notes: Basic data in respect of the operations of Central co-operative banks and urban co-operative banks for compilation of the series were available for the quarters ending March, June, September and December of each year upto 1975. The data for the intervening months for the period 1970-74 in respect of this sector were intrapolated on the basis of the quarterly figures. Data in respect of items 3 B and 5 C are subject to revisions from April 1974.

.. means not available

— means nil

STATEMENT—6

RESERVE MONEY AND ITS COMPONENTS—NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1970									
	March	April	May	June	July	August	Septem-ber	October	Novem-ber	Decem-ber
1	2	3	4	5	6	7	8	9	10	11
1. Reserve Money (2+3+4+5)	4391	4526	4595	4596	4455	4411	4435	4542	4510	4598
2. Currency with the public	3995	4121	4172	4150	4060	3989	3985	4078	4083	4157
3. Other Deposits with R.B.I.	58	64	58	50	40	51	58	74	55	63
4. Cash with Banks	165	165	173	201	170	167	183	192	182	180
5. Bankers' Deposits with R.B.I.	173	176	192	195	185	204	209	198	190	198

STATEMENT—7

Analysis of Sources of Change in Reserve Money—New Series

(Outstandings as on the last Friday of the month)

(Rupees Crores)

	1970									
	March	April	May	June	July	August	Septem-ber	October	Novem-ber	Decem-ber
1	2	3	4	5	6	7	8	9	10	11
Sources of Change in Reserve Money										
Reserve Bank's claims on:										
1. Government (net)	3496	3607	3574	3577	3465	3405	3440	3561	3548	3519
2. Commercial and Co-operative Banks	514	486	523	530	475	481	467	451	443	620
3. Commercial Sector@	77	80	83	86	101	99	101	101	100	102
of which :										
(a) Commercial Bills rediscounted with R.B.I. ..	—	—	—	—	—	—	—	—	—	—
4. Net Foreign Exchange Assets of R. B. I.	574	610	681	672	646	622	628	652	667	605
5. Government's Currency Liabilities to the Public..	360	364	373	374	369	366	365	371	370	375
6. Net Non-Monetary Liabilities of R. B. I. ..	630	621	640	643	600	561	566	594	619	623
RESERVE MONEY (1+2+3+4+5—6) ..	**4391**	**4526**	**4595**	**4596**	**4455**	**4411**	**4435**	**4542**	**4510**	**4598**

STATEMENT—6 (*Contd.*)

RESERVE MONEY AND ITS COMPONENTS — NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1971											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Reserve Money (2+3+4+5)	4693	4752	4814	4952	4983	5044	4873	4884	4934	4970	4990	5113
2. Currency with the public	4246	4309	4367	4492	4521	4575	4438	4422	4471	4473	4486	4563
3. Other Deposits with R.B.I.	59	48	44	51	37	32	24	50	41	49	49	66
4. Cash with Banks	181	182	186	182	199	212	187	184	179	201	198	216
5. Bankers' Deposits with R.B.I.	207	213	217	227	226	225	224	228	243	247	257	268

STATEMENT—(*Contd.*)

Analysis of Sources of Change in Reserve Money—New Series

(Outstandings as on the last Friday of the month)

(Rupees Crores)

	1971											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
Sources of Change in Reserve Money												
Reserve Bank's claims on:												
1. Government (net)	3639	3686	3807	4126	4268	4311	4258	4161	4166	4300	4362	4357
2. Commercial and Co-operative Banks ..	665	671	675	458	392	447	360	367	380	317	312	526
3. Commercial Sector@	114	120	125	136	148	147	153	155	176	170	170	179
of which :												
(a) Commercial Bills rediscounted with R.B.I.	—	2	7	14	17	10	7	8	25	14	7	8
4. Net Foreign Exchange Assets of R. B. I. ..	563	546	538	557	564	562	562	575	589	595	591	590
5. Government's Currency Liabilities to the Public ..	374	378	384	386	393	401	391	389	396	401	401	402
6. Net Non-Monetary Liabilities of R. B.I.	662	649	714	711	782	824	852	763	773	812	847	942
RESERVE MONEY (1+2+3+4+5—6)	**4693**	**4752**	**4814**	**4952**	**4983**	**5044**	**4873**	**4884**	**4934**	**4970**	**4990**	**5113**

STATEMENT—6 (*Contd.*)

RESERVE MONEY AND ITS COMPONENTS — NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1972											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Reserve Money (2+3+4+5)	5219	5280	5380	5460	5585	5609	5379	5336	5207	5327	5433	5557
2. Currency with the public	4691	4784	4800	4902	4995	4948	4839	4795	4669	4733	4845	4907
3. Other Deposits with R.B.I.	64	57	79	76	71	66	57	76	51	66	51	56
4. Cash with Banks	207	186	205	216	236	293	226	232	210	234	235	283
5. Bankers' Deposits with R.B.I.	257	253	296	266	283	302	257	233	277	294	302	311

STATEMENT—7—(*Contd.*)

Analysis of Sources of Change in Reserve Money—New Series

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1972											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
Sources of Change in Reserve Money												
Reserve Bank's claims on:												
1. Government (net)	4472	4521	4689	4972	5103	5189	5063	4919	4775	4903	5007	5077
2. Commercial and Co-operative Banks ..	493	503	531	296	271	258	216	223	257	268	289	360
3. Commercial Sector@	200	219	232	205	197	205	212	208	207	208	211	210
of which :												
(a) Commercial Bills rediscounted with R.B.I. ..	19	35	42	11	6	11	4	2	1	1	1	1
4. Net Foreign Exchange Assets of R. B. I.	625	620	608	609	627	605	568	544	540	537	529	518
5. Government's Currency Liabilities to the Public ..	403	407	411	413	419	424	414	412	419	416	435	439
6. Net Non-Monetary Liabilities of R. B. I.	974	990	1091	1035	1032	1072	1093	970	991	1006	1038	1047
RESERVE MONEY (1+2+3+4+5—6)	**5219**	**5280**	**5380**	**5460**	**5585**	**5609**	**5379**	**5336**	**5207**	**5327**	**5433**	**5557**

STATEMENT—6 (*Contd.*)

RESERVE MONEY AND ITS COMPONENTS — NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1973											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Reserve Money (2+3+4+5)	5643	5835	6015	6313	6503	6743	6641	6461	6662	6843	6853	6805
2. Currency with the public	5077	5228	5420	5665	5822	5789	5726	5535	5590	5769	5748	5778
3. Other Deposits with R.B.I.	38	42	51	45	46	40	44	37	45	34	40	39
4. Cash with Banks	238	252	247	267	290	349	288	273	267	284	288	307
5. Bankers' Deposits with R.B.I..	290	313	297	336	345	565	583	616	760	756	777	681

STATEMENT—7 (*Contd.*)

Analysis of Sources of Change in Reserve Money—New Series

(Outstanding as the last Friday of the month)

(Rupees Crores)

	1973											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
Sources of Change in Reserve Money												
Reserve Banks claims on :												
1. Government (net)	5169	5253	5489	5874	5979	6143	6209	6037	6143	6286	6354	6094
2. Commercial and Co-operative Banks ..	361	476	460	300	369	389	236	247	324	397	423	561
3. Commercial Sector@	209	215	265	247	245	290	280	268	298	301	323	382
of which :												
(a) Commercial Bills rediscounted with R.B.I.	1	9	35	20	17	15	10	2	33	35	55	110
4. Net Foreign Exchange Assets of R. B. I.	535	552	563	581	590	588	664	627	612	582	512	531
5. Government's Currency Liabilities to the Public ..	443	450	457	464	476	483	478	481	482	490	489	489
6. Net Non-Monetary Liabilities of R. B. I.	1073	1111	1219	1153	1156	1150	1226	1200	1197	1213	1248	1253
RESERVE MONEY (1+2+3+4+5—6)	**5643**	**5835**	**6015**	**6313**	**6503**	**6743**	**6641**	**6461**	**6662**	**6843**	**6853**	**6805**

STATEMENT—6 (*Contd.*)

RESERVE MONEY AND ITS COMPONENTS — NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1974											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Reserve Money (2+3+4+5)	7055	7180	7260	7417	7592	7584	7363	7096	6994	7101	7094	7044
2. Currency with the public	5983	6145	6308	6538	6615	6552	6369	6167	6079	6112	6137	6138
3. Other Deposits with R.B.I.	38	34	45	38	54	47	55	41	56	37	44	49
4. Cash with Banks	263	280	277	301	323	398	311	302	300	319	318	309
5. Bankers' Deposits with R.B.I.	771	721	630	540	600	587	628	586	559	633	595	548

STATEMENT—7 (*Contd.*)

Analysis of Sources of Change in Reserve Money—New Series

(Outstandings as on the last Friday of the month)

(Rupees Crores)

	1974											
	January	February	March	April	May	June	July	August	September	October	November	December
	2	3	4	5	6	7	8	9	10	11	12	13
Sources of Change in Reserve Money												
Reserve Bank's claims on:												
1. Government (net)	6288	6285	6234	6478	6535	6564	6653	6496	6506	6647	6677	6544
2. Commercial and Co-operative Banks ..	587	665	726	598	651	657	484	385	399	396	422	590
3. Commercial Sector@	434	499	562	591	597	652	623	574	550	515	550	589
of which :												
(a) Commercial Bills rediscounted with R.B.I. ..	149	201	257	279	268	274	244	191	158	108	127	159
4. Net Foreign Exchange Assets of R. B. I.	527	574	672	660	678	671	598	553	524	509	494	402
5. Government's Currency Liabilities to the Public ..	491	495	502	509	520	520	516	514	513	517	523	523
6. Net Non-Monetary Liabilities of R. B. I.	1272	1338	1437	1419	1389	1481	1511	1426	1498	1483	1572	1605
RESERVE MONEY (1+2+3+4+5—6)	**7055**	**7180**	**7260**	**7417**	**7592**	**7584**	**7363**	**7096**	**6994**	**7101**	**7094**	**7044**

STATEMENT—6 (*Contd*).

RESERVE MONEY AND ITS COMPONENTS — NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1975											
	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Reserve Money (2+3+4+5)	7014	7242	7388	7519	7665	7666	7476	7351	7229	7446	7363	7426
2. Currency with the public	6186	6261	6348	6585	6726	6662	6481	6375	6314	6478	6447	6469
3. Other Deposits with R.B.I.	54	62	78	51	56	65	55	45	43	48	55	60
4. Cash with Banks	320	331	331	356	362	432	331	334	322	321	345	359
5. Bankers' Deposits with R.B.I...	454	588	631	527	521	507	609	597	550	599	516	538

STATEMENT7— (*Contd.*)

Analysis of Sources of Change in Reserve Money—New Series

(Outstandings as on the last Friday of the month)

(Rupees Crores)

	1975											
	January	February	March	April	May	June	July	August	September	October	November	December
	2	3	4	5	6	7	8	9	10	11	12	13
Sources of Change in Reserve Money												
Reserve Bank's claims on:												
1. Government (net)	6774	6900	6570	7225	7410	7510	7654	7551	7198	7352	7345	7028
2. Commercial and Co-operative Banks ..	529	632	914	633	683	633	403	448	616	670	638	985
3. Commercial Sector@	598	623	652	649	618	625	613	568	600	629	648	707
of which :												
(a) Commercial Bills rediscounted with R.B.I.	155	171	183	167	138	132	99	42	63	87	103	158
4. Net Foreign Exchange Assets of R. B. I.	252	319	390	390	333	308	303	284	369	461	487	531
5. Government's Currency Liabilities to the Public ..	524	527	531	537	549	554	551	546	544	549	550	550
6. Net Non-Monetary Liabilities of R. B. I.	1664	1759	1670	1916	1928	1964	2048	2046	2098	2215	2305	2375
RESERVE MONEY (1+2+3+4+5—6)	**7014**	**7242**	**7388**	**7519**	**7665**	**7666**	**7476**	**7351**	**7229**	**7446**	**7363**	**7426**

STATEMENT—6 (*Concld.*)

RESERVE MONEY AND ITS COMPONENTS — NEW SERIES

(Outstanding as on the last Friday of the month)

(Rupees Crores)

	1976								
	January	February	March	April	May	June	July	August	September
1	2	3	4	5	6	7	8	9	10
1. Reserve Money (2+3+4+5)	7423	7543	7732	8111	8325	8352	8234	8212	8386
2. Currency with the public	6429	6578	6701	6974	7176	7254	7085	7028	7097
3. Other Deposits with R.B.I.	59	40	54	44	43	46	53	77	75
4. Cash with Banks	347	334	346	363	366	395	360	353	349
5. Bankers' Deposits with R.B.I.	588	591	631	730	740	657	736	754	865

STATEMENT—7 (*Concld.*)

Analysis of Sources of Change in Reserve Money—New Series

(Outstanding as on the last Friday of the month)

(Rupees crores)

	1976								
	January	February	March	April	May	June	July	August	September
1	2	3	4	5	6	7	8	9	10
Sources of Change in Reserve Money									
Reserve Bank's claim on :									
1. Government (net)	6847	6917	6697	7210	7236	7248	6941	6796	6641
2. Commercial and Co-operative Banks	1180	1097	1258	1124	1099	987	1081	1023	1211
3. Commercial Sector@	739	708	721	714	712	740	800	787	822
of which :									
(a) Commercial Bills rediscounted with R.B.I. ..	170	181	176	131	114	144	152	134	155
4. Net Foreign Exchange Assets of R.B.I.	511	717	1079	828	1078	1280	1435	1555	1674
5, Government's Currency Liabilities to the Public ..	549	551	555	556	558	555	549	547	546
6. Net Non-Monetary Liabilities of R.B.I.	2403	2447	2577	2321	2358	2458	2572	2497	2508
RESERVE MONEY (1+2+3+4+5—6)	**7423**	**7543**	**7732**	**8111**	**8325**	**8352**	**8234**	**8212**	**8386**

@Represent investments in bonds/shares of financial institutions and land mortgage banks and loans to them and holding of internal bills purchased and discounted.

Note : Figures may not add up to totals due to rounding.

ANNEXURE

ANALYSIS OF MONEY SUPPLY IN INDIA*—I

Introductory

The object of this study is to discuss the concept of money supply as used in India and to analyse the factors affecting money supply during the period, 1951-52 to 1960-61. The study is divided into two Parts ; in Part I, the concept of money supply is defined and its scope is indicated. Part II discusses the mechanics of money supply variations in India and analyses, in the light of this discussion, the money supply variations during the years 1951-52 to 1960-61.

2. The formulation of economic or monetary policies is facilitated if the statistical data, which can serve as reliable indicators of the current state of the economy, are available in time. However, some of the important data like those relating to national income and its composition are generally available only after a considerable time-lag and, what is more, may not be quite reliable. While efforts are being made in India to improve the quality of these data and to compile them with the minimum of time-lag, these data are not likely to be available in time for the purpose of short-term analysis of the economic situation. Under the circumstances, other indicators like changes in the prices of commodities and of shares and securities, and in money supply with the public have to be used. Monetary data are particularly useful because they are available with the least possible time-lag and, further, they throw light on aspects of the economy which are of considerable significance to the Government and monetary authorities. Monetary and banking statistics provide a sensitive index of changes in the state of an economy. In India, money supply statistics have been published in a fairly comprehensive way for a number of years now and their presentation is being refined from time to time. It is time now to attempt a systematic analysis of the concept of money supply and the mechanics of its variations.

3. The total quantity of money is only one, though a very important, dimension of money, the other three being (*a*) its *velocity of circulation i.e.* the rate of use of a given quantity of money ; (*b*) its *cost* as represented by the whole structure and level of rates of interest in the money market and (*c*) its *availability* in different sectors of the market at given rates of interest. However, changes in the aggregate level of expenditure in the economy do not necessarily depend on the quantity of money alone. There is, besides, a wide range of near-money assets, the variations in which can have almost the same impact on the economy as those in money supply proper. Hence, the variations in total liquid assets in the economy would in a sense be as significant as those in money supply proper. However, variations in other liquid assets can affect economic activity only by causing variations in money supply ; for other liquid assets have to be converted into money supply proper before they can influence economic activity. Variations in money supply thus, assume primary importance.

4. The rate of use of a given quantity of money (velocity of circulation) is important for purposes of monetary analysis as well as policy formulation, since with the same supply of money, the number of transactions and payments that can be mediated varies depending upon the turnover of means of payment. Changes in velocity of circulation may arise on account of a variety of factors, psychological as well as institutional and structural. For instance, expectations of rising prices may increase current expenditure and thereby step up the velocity of circulation of money even as prospects of a price fall may lead to deferment of expenditure and consequent slowing down of velocity. Likewise, changes in the institutional framework of economic activity may also affect velocity. Thus, a greater tendency to vertical integration of productive and distributive processes may reduce the velocity of circulation inasmuch as the number of separate market transactions is thereby reduced.

5. Income velocity of money, which is measured by the ratio of national income at current prices to money supply, is an im-

* Prepared by a Working Group, comprising S. L. N. Simha, V. V. Bhatt, A. G. Chandavarkar and D. R. Khatkhate.

portant indicator of monetary and economic trends. Although there is no invariant relationship between changes in money supply and national income, in India the ratio of money supply to national income may show a rising trend over the years in so far as it reflects the absorption of the barter and subsistance sectors into the monetary exchange sector of the economy, a process termed as monetisation. This is an additional factor in increasing the demand for money over and above the main factors directly related to the growth of national income. The rate of monetisation in the Indian economy may be assumed to be one per cent per annum on the basis of the results of successive rounds of the National Sample Survey and other relevant data.

PART I

Concept of Money Supply

6. The concept of money supply cannot obviously be defined on purely *a Priori* or theoretical grounds. Its scope depends on the use to which the concept is to be put; and consequently the definition has to be operational. In aggregative analysis, that is, for the study of the behaviour of the economy as a whole, as for instance, in comparing the amount of liquidity in the economy in relation to national income, the entire supply of money in the economy is the relevant magnitude, irrespective of the sector in which it is held, *i.e.*, government or private. On the other hand, if one is interested in analysing the interaction of the money-creating and money-holding sectors or the flows of purchasing power as between the public and the private sectors, then one has to define the supply of money with reference to the holdings of a particular sector. For practical purposes, as explained later, it is important to study the variations in the magnitude of money supply with the public.

Operational definition of Money Supply

7. In the type of analysis which we propose to do in this study, it is necessary that the role of money as a liquid asset as well as a medium of exchange is particularly emphasised. Consequently, the definition should be such as to include in money supply the most liquid and the most generally accepted means of payment available for the mediation of transactions and final settlement of claims. Money supply with the public in India is defined as consisting of (*i*) currency notes and coins with the public, excluding the balances of Central and State Governments held at treasuries and cash on hand of Scheduled and reporting Non-scheduled banks and State Co-operative banks, (*ii*) the demand deposits* (excluding inter-bank demand deposits) of Scheduled and reporting Non-scheduled banks and State Co-operative banks and (*iii*) the 'other deposits' (excluding the balances in Account No. 1 of the International Monetary Fund) held with the Reserve Bank of India. We may begin by specifying the term 'public' before further elaboration of the concept of money supply and its constituents. By 'public' we mean all categories of holders of money other than the government and the banking system. The reasons for defining 'public' in this manner are given in the next few paragraphs.

8. The exclusion of the cash balances of the Central and State Governments held with the Reserve Bank and in treasuries is largely based on the ground that these balances are the result of the non-commercial operations of the government, arising mostly from its administrative operations and could also be used as instruments of stabilisation of the economy to offset variations in the balances of the public. But some constituents of these government balances emanate from commercial departments of the government such as railways and these are more akin to balances of the public. However, since they are held with the Reserve Bank and, further, since it is not possible to segregate them from the other balances, they are treated as part of government balances.

Reasons for the Exclusion of Central and State Governments' Balances from Money Supply

9. It may, however, be mentioned here that the earlier practice in India was to exclude

* For Scheduled and State Co-operative banks, the demand deposits include inter-bank deposits and some other demand liabilities; because of lack of data, it has not been possible to exclude these two items. Only since November 25, 1960, the data regarding demand deposits of the public are separately available.

only the cash balances of the Central Government (held in the form of currency or deposits with the Reserve Bank of India) while including those of the State Governments in money supply with public. But since April 1956, the balances of the State Governments also are excluded from monev supply with the public as they are treated on par with those of the Central Government.

Balances of other Public Bodies not excluded from Money Supply

10. It may perhaps be argued that on similai grounds the balances of other parts of the public sector such as local authorities, State enterprises etc., should also be excluded from money supply with the public. However, these balances, unlike those of the Government, are held with the commercial banks. Further, there are practical difficulties in segregating the balances of many public bodies. For these ieasons, these balances are not excluded from money supply with the public.

Bank Reserves excluded from Money Supply

11. The cash on hand with banks, including their blances with the Reserve Bank, is excluded from money supply as it constitutes a reserve against deposits and cannot be used for transactions so long as the deposits against it are outstanding.

12. Thus, money supply with the public consists of a currency component (notes and coins) and a deposit component (demand deposits with banks and 'other'deposits with the Reserve Bank of India). The precise scope of these constituent items of money supply may be now examined at some length.

Other Constituent Items of Money Supply

13. In the presentation of the statistics of currency component of money supply in India, some points require special mention : (1) From the money supply figures as published in India, small coins, *i.e.*, coins of the denomination of eight annas and below, which should form conceptually a part of money supply, are excluded mainly due to the difficulties involved in arriving at theii absolute magnitude. However, data, regarding the variations in small coins are available. Since, for the purpose of the present study, only the variations in money supply are relevant, the variations in small coins are included in the total money supply variations. (2) The figures of currency included in money supply with the public from 1951-52 onwards also include rupee coins and currency notes known as Hali Sicca currency of the former Hyderabad State. (3) The figures of money supply are not adjusted for the net inward or outward movements of Indian Currency from/to foreign countries. Indian currency circulates to a considerable extent in the areas of the Persian Gulf covered by the territories of Bahrein, Qatar, the Trucial Sheikhdoms and Muscat, mainly because of historical reasons. Till recently data were not available regarding the magnitude of circulation of Indian rupee notes abroad. In May-June 1959 the Reserve Bank issued a special series of notes in replacement of the Indian notes circulating in the Gulf States, which account for the preponderant part of circulation of Indian currency abroad. The amount of special notes in circulation abroad at the end of March 1961 was Rs. 54 crores, a fairly small proportion (2-3 per cent) of the total Indian notes in circulation. There is no information on movement of notes, if any, *vis-a-vis* other parts of the world. Hence, no adjustment is made for the foreign circulation of Indian notes and coins. But the omission of these items does not significantly affect the analysis of variations in money supply.

Bank Deposits: Only Demand Deposits included in Money Supply

14. In the case of bank deposit component of money supply, only the demand liabilities of banks are included in money supply with the public. These include all deposits withdrawable without notice such as current accounts, portions of savings banks deposits withdrawable without notice, unclaimed deposits and overdue fixed deposits. Though conceptually inter-bank deposits should be excluded from the demand deposits of bank it has not been possible to do so with regard to the Scheduled and State Co-operative banks due to lack of data. The question also arises whether the unutilised portion of overdraft limits sanctioned by a bank to customers at a given point of time should not also be regarded

as part of money supply. They are, however excluded on the ground that while they do have a bearing on the potential stock of money, they do not constitute actual supply of money.

Deposits of the Co-operative Institutions

15. The data in respect of the deposit liabilities of the co-operative credit institutions are unsatisfactory. So far, money supply has included the demand deposits of the State Co-operative banks only and not of the other types of co-operative credit institutions, namely, co-operative central banks and the primary credit societies. Even with regard to the deposits of the State Co-operative banks, the position is not satisfactory; a substantial portion of the demand deposits of the State Co-operative banks is owned by the co-operative central banks and in some cases primary credit societies and is, therefore, in the nature of inter-bank deposits. However, since the deposits of these other co-operative institutions are not included in money supply and in view of the non-availability of the relevant breakdown of these deposits, the entire amount of the demand deposits of the State Co-operative banks is included in money supply.

16. It has not been possible to include demand deposits of the central and primary co-operative societies for various reasons. Since the deposits of the central co-operative banks also include deposits of the lower tier co-operative institutions, there would be some double counting involved in aggregating the deposits of these institutions. There is also a considerable time-lag in the publication of the data. For instance, the latest published figures of deposits of central and primary co-operative institutions relate to the year 1959-60. The task of gleaning this information on weekly or monthly basis is rendered very difficult by the lack of technically equipped staff and by the defective organisation of both the central and primary credit societies, though a beginning in this direction has been made by the Agricultural Credit Department of the Reserve Bank by asking for the relevant information from the central co-operative banks. Once it is obtained on a regular basis and in the required form from most of the banks, the figures could be included in money supply.

Reasons for the exclusion of Time Deposits from Money Supply

17. The other important issue relates to the exclusion of time deposits of banks from money supply with the public. Here, as in other matters relating to definition and analysis of money supply components, the approach has to be essentially operational and pragmatic since no hard and fast lines of distinction can be drawn. There is a substantial difference between time and demand deposits with regard to their respective origin and function. While demand deposits are at least partly created by the banking system through extension of credit or purchase of securities, time deposits are not normally created as such ; they originate from deposit of cash with banks or cheques drawn on demands deposits. In fact, a time deposit is essentially an instrument of saving rather than a medium of exchange.

18. It should however, be pointed out that time deposits themselves are not of a homogeneous category. Thus, in India all bank deposits which are subject to a period of notice, however short, are treated as time deposits. But in practice banks may not necessarily and always insist on the required period of notice before allowing withdrawal, in which case the time deposit may virtually function as a demand deposit. As mentioned earlier, the fact that time deposits are interest-bearing assets is also another reason for excluding them from money supply which consists of liquid non-interest bearing assets. Even here, the distinction cannot always be clear-cut since some banks allow interest on demand deposits also. Besides, even in the case of demand deposits, the question arises whether the irreducible minimum of demand deposits customarily insisted upon by banks should not be strictly regarded as of the nature of time deposits ; this portion of demand deposits is not drawn upon for purposes of payment. This is theoretically valid but in practice it is not possible to segregate the irreducible minimum of demand deposits.

19. If time deposits are to be regarded as part of money supply then there is no

reason why 'near-money assets' such as savings certificates, etc. should not also be so regarded. Besides, there is the important consideration that all 'near-money' assets have necessarily to be converted into money proper (notes, coins or demand deposits) before they can serve as a medium of exchange.

20. But irrespective of how this question is settled, it is necessary to show time deposits and demand deposits separately because an important datum for monetary analysis is the periodic movement of funds between demand and time deposits, which is indicative of the variations in the supply as well as the velocity of circulation of money.

21. There is usually, a time-lag between the increments in demand deposits and the subsequent transformation of a portion of these into time deposits. The occurrence of this time-lag means that any measurement of velocity of money based only on demand deposits and currency could not be as significant for analysing the role of money in economic fluctuations as measurement based on the total of demand plus time deposits and currency. Hence, though time liabilities should not be included in the compilation of money supply data, it is necessary to show separately the total of money supply and time liabilities, (including post office savings deposits), as is done in some countries like France, Belguim and Canada. The aggregate of money supply and time liabilities is more meaningful than money supply as such for some analytical purposes related to the formulation of monetary policies.

22. Post office savings deposits are also excluded from money supply more or less for the same reasons for which time deposits are excluded. It is true that the rules regarding withdrawal of postal savings deposits are not as rigid as in the case of time deposits. In fact, they are very often used by the holders for current expenditure in the same way as demand deposits with commercial banks. Nevertheless, postal savings deposits are more analogous to time deposits, inasmuch as they originate from the placement of cash with post offices and do not act as a basis for credit creation.

Reasons for exclusion of Post Office Savings Deposits from Money Supply

23. The other component of deposit money included in money supply with the public is the item described as 'other deposits with the Reserve Bank,' which includes some miscellaneous items such as deposits of quasi-government institutions, provident, pension and guarantee funds of the Reserve Bank employees, deposits of the Reserve Bank of India Employees' Co-operative Society, the balances of foreign central banks and the deposits of the International Monetary Fund in its Account No. 2. The balances held in Account No. 1 of the International Monetary Fund, which represent India's subscription to the Fund and also the transactions of India with the Fund, are excluded from money supply as they represent the non-monetary liability of the Reserve Bank to the Fund. Account No. 2 of the International Monetary Fund consists of working balances to meet its administrative expenditure in India and is, therefore, included in money supply.

Other Deposits with the Reserve Bank included in Money Supply

PART II

Mechanics of Money Supply Variations

24. In this Part, section I deals in general terms, with the factors affecting money supply variations ; in section II, money supply variations during 1951-52 to 1960-61 are then analysed in terms of each of these identifiable factors.

I

Factors Affecting Money Supply Variations—General Discussion

25. Money supply with the public or, in short, money supply comprises currency, other deposits of the Reserve Bank and the demand deposits of the banks (which include Scheduled, Non-scheduled and State Co-operative banks). Currency, with the exception of one rupee notes and small coins, and 'other' deposits of the Reserve Bank are liabilities of the Reserve Bank to the public. Bank money or demand deposits are the liability of banks to the public. Thus, money supply

Money Supply : Liability of the Banking System and Government

constitutes the liability of the banking system as a whole (comprising Reserve Bank and Scheduled, Non-scheduled and State Co-operative banks), as well as, to a small extent, the liability of the government to the public.

26. The banking system's total assets and total liabilities are always equal. Its total assets comprise financial assets like loans and advances (including bills purchased and discounted) to governments and/or the private sector, government and private securities, foreign exchange assets, and 'other' assets like buildings and bills receivable. Its liabilities include monetary as well as non-monetary liabilities ; non-monetary liabilities (so called because they do not form part of money supply) comprise government deposits with the Reserve Bank, the International Monetary Fund Account No. I with the Reserve Bank, time deposits with the banks, banks' borrowings from abroad, and capital, reserves and other miscellaneous liabilities, including profits and bills payable of both the Reserve Bank and the banks. Net non-monetary liabilities are equal to the difference between non-monetary liabilities and 'other' assets.

27. Any change in money supply or in the monetary liabilities of the banking system is reflected in a change in the financial assets and/or the net non-monetary liabilities of the banking system, as total assets and total liabilities of the banking system are equal. Of course, a change in money supply can also arise as a result of a change in the government's liability (namely, one rupee notes and small coins) ; however, the variation in rupee notes and coins is much less significant than that in the banking system's monetary liabilities.

Inter-bank assets and liabilities do not affect Money Supply

28. The transactions between the Reserve Bank and the banks, by themselves, would not give rise to any variation in money supply as, in consolidating the assets and liabilities of the banking system, such transactions would cancel out. For example, the deposits of the banks with the Reserve Bank as well as their till-money (cash in hand) would appear as a financial asset in the banks' balance-sheet ; but they would appear as a liability in the Reserve Bank's balance-sheet. So that, while consolidating the balance-sheets of the banks and the Reserve Bank, these inter-bank assets and liabilities would cancel each other out. Similarly, when banks borrow from the Reserve Bank, the banks' liability to the Reserve Bank would increase; however, it would mean an equivalent increase in the assets of the Reserve Bank. There would thus be no net change in the assets or liabilities of the banking system as a whole.

Banks' borrowing from the Reserve Bank

29. This does not, however, mean that when banks borrow from the Reserve Bank this borrowing would not result in an increase in money supply. This borrowing would increase banks' reserves and enable them to add to their financial assets and thus to increase money supply.

Variation in the Banking System's Financial assets minus the variation in its net non-Monetary liabilities represents the variation in Money Supply

30. Variation in money supply thus would be equal to the variation in the government's currency liability to the public plus the variation in the financial assets of the banking system, after deducting from the latter the variation in its net non-monetary liabilities. (For example, if there is an increase of Rs. 100 and Rs. 50 in the financial assets and the net non-monetary liabilities, respectively, the increase in money supply would be Rs. 50). To the extent to which a variation in its financial assets is matched by an equivalent variation in its net non-monetary liabilities, there would be no variation in money supply. For example, an increase in the banks' time deposits, other net non-monetary liabilities remaining the same, would mean contraction of money supply to an equivalent extent ; a matching increase in the banks' financial assets would just offset the contraction in money supply as a result of an increase in time deposits. Thus, though there would be a net increase in the financial assets of the banking system, there would be no increase in money supply. To take another example : suppose there is an increase in the banking system's non-monetary liabilities like profits or reserves or paip-up capital and there is no change in its 'other' assets (*e.g.* fixed assets). This would mean as in the previous case, a

contraction of money supply ; a matching increase in the financial assets of the banking system, then, would just increase money supply by the same magnitude by which it declined as a result of the increase in the banking system's profits or reserves or paid-up capital. There would, thus, be no net variation in money supply.

31. This approach, however, does not clearly indicate the causal factors at work. It does not, for instance, point out the origin of money supply variations ; it would be much more helpful to know, for purposes of analysis, the sector or sectors which cause the variations in the financial assets and the net non-monetary liabilities of the banking system.

Division of the Economy into three Sectors

32. For this purpose, it would be necessary to divide the economy into sectors and indicate the banking sector's (comprising the Reserve Bank, and Scheduled, Non-scheduled and State Co-operative banks) transactions with each of such sectors seperately. Each sector can affect money supply to the extent to which it gives rise to variations in the banking sector's financial assets and net non-monetary liabilities as a result of its transactions with the banking sector. For the purpose of the present analysis, the economy is divided, in the light of the available data, into two sectors : (*a*) Government Sector (comprising Central and State governments) and (*b*) Private Sector (comprising the rest of the domestic sector and the foreign sector). The analysis would have been more meaningful if the transactions of the foreign sector (comprising foreign companies, institutions and non-resident individuals) with the banking sector could have been segregated; however, in view of the limitations of the available data, it is not possible to do so. Hence the transactions of the foreign sector are merged with those of the domestic private sector.

Impact on Money Supply of the Government Sector's Domestic Budget Deficit

33. Variations in the financial assets and the net non-monetary liabilities of the banking sector and hence in money supply can arise as a result of the government sector's transactions with the banking sector. For example, suppose the government sector's total domestic expenditure (both on current and capital account) exceeds its receipts from the private sector through taxes, borrowing and other sources. This excess of expenditure can, then, be financed by taking loans and advances from the Reserve Bank and/or selling government securities (including Treasury bills) and rupee coins and notes to the banking system ; these transactions would increase the financial assets of the banking system. This excess of expenditure can also be met partly or wholly by the government sector by drawing on its deposits with the Reserve Bank (govermment sector's drawing on balances in treasures would also have the same effect as its drawing on its deposits with the Reserve Bank); this would cause a decline in the non-monetary liablilities of the banking system. Of course, a part of this excess expenditure could also be met by increasing the currency liability of the government sector to the public. Thus, a deficit in the government sector's transactions with the private sector, or bank credit to the government sector, would lead to an equivalent increase in money supply. Contrarywise, a surplus in the government sector's transactions with the private sector would lead to a corresponding decline in money supply.

Impact on Money Supply of Government Sector's Deficit In its Foreign Accounts

34. The government sector's transactions with the foreign sector can also lead to variations in the financial assets and the net non-monetary liabilities of the banking system. Suppose the government sector's total receipts (including exports receipts, loans, grants, etc.) from the foreign sector fall short of its payments to it. This deficit in the foreign account of the government sector can be met by drawing on its own foreign exchange reserves like the India Supply Mission balances in the United States ; in this case there is no recourse to the banking system and hence there would be no change in money supply. However, since its own foreign exchange reserves are limited, the government sector would have normally to buy foreign exchange from the Reserve Bank. In this case, the foreign exchange assets of the Reserve Bank would decline by the amount of the deficit and there would

be a corresponding reduction in the monetary liabilities of the Reserve Bank. Of course, the Government sector can borrow from the Reserve Bank and with such borrowing can again pay the Reserve Bank for the foreign exchange it needs. In this case, though the foreign exchange assets of the Reserve Bank would decline, there would be an equivalent increase in its other financial assets like government securities and/or loans and advances to the government sector. The Government sector can also draw on its balances with the Reserve Bank to purchase foreign exchange from it ; in this case too, there would be no change in money supply as the decline in the Reserve Bank's foreign exchange assets would be matched by a reduction in its non-monetary liabilities, that is, the deposits of the government sector with the Reserve Bank.

Impact on Money Supply of Government Sector's Total Transactions with Banking Sector.

35. Bank credit to the government sector, thus, can be used for meeting the latter's deficit in its transactions with the foreign sector ; the government sector's *total* budget deficit, thus, would increase by the amount of the deficit in its foreign accounts. The government sector's total impact on money supply, however, would be equal to its total budget deficit minus its net purchases of foreign exchange from the Reserve Bank.

36. However, complete data on the government sector's net purchases/sales of foreign exchange from/to the Reserve Bank are not readily available nor are they published systematically. Therefore, the variation in the foreign exchange assets of the Reserve Bank, as a result of the government sector's transactions with the foreign sector, is merged with the impact on the Reserve Bank's foreign-exchange assets of all the other sectors.

37. This procedure would result in an overstatement/understatement of the government sector's impact on money supply for, in this case, the net bank credit to the government sector or the government sector's budget deficit would show the government sector's impact on money supply, while its purchases/sales of foreign exchange from/to the Reserve bank would not be taken into account.

38. The Government sector's impact on money supply would also be overstated/understated if the increase/decrease in the net non-monetary liabilities of the banking system, arising out of its transactions with the government sector, is not taken into account while calculating its budget deficit. For example the government sector would be paying interest to the Reserve Bank on the government securities held by the latter, and increase in such payments, if made out of the government sector's receipts from the private sector (this analysis would hold good in whichever way the government sector makes payment to the Reserve Bank), would result in an increase in the non-monetary liabilities (profits) of the Reserve Bank and hence in a reduction in money supply. However, if these payments are transferred back to the government sector during the same year, and the latter uses it for making payment to the private sector, there would be no net change in the non-monetary liabilities of the Reserve Bank during the same year and hence there would be no effect on money supply. The Reserve Bank, however, transfers its profits to the government sector at the end of its accounting year (July-June), while a part of such profits may have been actually made in the previous financial year (April to March). Even this procedure would not matter if there were no variation in the profits of the Reserve Bank from its transactions with the government sector from year to year. If however, there is an increase in such profits, there would be a decline in money supply. This effect should really be attributed to the government sector and this factor should be included while calculating the government sector's budget deficit. There is, however, no separate information on the government sector's transactions with the Reserve Bank in this category and hence the only course left open is to merge them with the transactions of the other sectors with the Reserve Bank giving rise to such variations in the net non-monetary liabilities of the Reserve Bank (excluding the variations in the government sector's deposits and the I.M.F. Account No. 1 which are taken into account separately).

39. The budget deficit of the government sector would also be overstated/understated

for the same reasons as are mentioned above, if the variation from year to year in bills payable and other miscellaneous assets and liabilities, arising out of normal business operations of the Reserve Bank with the government sector, is not taken into account while calculating the budget deficit of the government sector. However, in this case too, there are no separate data and hence this category is subsumed under such transactions of the other sector with the Reserve Bank.

40. In the case of banks too, no breakdown is available in respect of their bills payable and other miscellaneous assets as well as liabilities; it is quite likely that a part of these may have arisen as a result of the banks' transactions with the government sector. To the extent to which, therefore, there is an increase/decrease in the net non-monetary liabilities of the banks to the government sector, there would be a reduction/increase in money supply and this factor, if not taken into account while calculating the budget deficit of the government sector, would result in its overestimation/underestimation. The relevant data are not available, and this variation too, is merged with the total variation in the net non-monetary liabilities, (excluding the variation in time deposits, which is attributed to the private sector and variation in borrowings from abroad, which is included in the foreign transactions of the economy as a whole) arising as a result of the banks' transactions with the other sectors.

Definition of Deficit Financing

41. Deficit financing by the government sector is defined in different ways according to the purpose in view. In some countries like the United States, even borrowing by the government from the public is included in deficit financing. In India, the government budget presents deficit financing as comprising the changes in the government sector's cash balances and the Reserve Bank's holding of *ad hoc* as well as loans and advances to the government sector. If however, deficit financing is defined as representing the total impact on money supply of the government sector, it should also include the *variations* in (*a*) the holdings of government securities of the Reserve Bank and the holdings of Treasury bills and government securities of the banks, (*b*) the foreign exchange assets of the Reserve Bank as a result of the government sector's net purchase/sales from/to the Reserve Bank, (*c*) the net non-monetary liabilities of the banking system as a result of its transactions with the government sector, and (*d*) the currency liability of the government to the public.

Banking Sector's Transactions with the Private Sector

42. The private sector can affect money supply (*a*) by its purchases/sales of shares and securities from/to the banking sector, and/or (*b*) by varying its loans and advances from the banking sector, and/or (*c*) by varying the net non-monetary liabilities of the banking sector. An increase/decrease in the banking sector's loans and advances to the private sector and/or in its holdings of private sector's shares and securities would result in an equivalent increase/decrease in money supply.

Private Sector's Purchase/Sale of Government Securities from/to the Banking Sector

43. The purchase/sale of government securities by the private sector from/to the banking sector also affects the financial assets of the banking sector, which, therefore, raises the question whether such variation in the financial assets of the banking sector should be attributed to the private sector.

—Affects only Bank Credit to the Government Sector

44. Let us take the case of sale of government securities by the private sector to the banking sector. The banking sector's holdings of government securities as a result, would increase. Such increase in the banking sector's holdings of government securities can also come about if the government sector had sold its securities directly to the banking sector. In one case, the banking sector's holdings of government securities increase as a result of its transactions with the private sector, while in the other case, it is due to its transactions with the government sector. In both the cases, however, the ultimate result is extension of credit by the banking sector to the

government sector ; in one case such extension is direct while in the other case, it is indirect (through the private sector). Therefore, it would be appropriate to consider the entire increase in the holdings of government securities of the banking sector, in whatever way it arises, as bank credit to the government sector.

45. On similar grounds, a net purchase by the private sector of government securities from the banking sector should be treated as a decline in the banking sector's credit to the government sector.

Objections to the Above Procedure

46. It may be argued that the above reasoning would be correct only if (*a*) the government securities, purchased by the private sector from the banking sector, are in terms of value, *identical* with those purchased by the banking sector directly from the government sector *in the same year ;* and/or (*b*) the government securities sold by the private sector to the banking sector are, in terms of value, *identical* with those purchased by the private sector directly from the government sector *in the same year.* When however, the private sector's purchases/sales of government securities from/to the banking sector take place in a year different from that during which the banking sector/private sector purchases government securities directly from the government sector, it may be argued, the reasoning of the previous two paragraphs would not hold good. To take an example, suppose, in a particular year, the government sector does not sell any of its securities to any sector and yet the private sector sells government securities, bought in the previous year and maturing, say, after two to three years, to the banking sector. In this case, the government sector has not resorted to bank credit and has no obligation to redeem the securities sold by the private sector to the banking sector. To treat, therefore, such sales of government securities by the private sector to the banking sector as representing bank credit to the government sector, it may be argued, is not appropriate and such sales should be really treated as representing bank credit to the private sector.

Objections not Valid

47. This argument has some force. However, because of the reasons mentioned below, the variations in the banking sector's holdings of government securities, however brought about, are treated as representing variations in bank credit to the government sector.

48. Firstly, to take the example given, though the government sector may not have any obligation to redeem the government securities sold by the private sector to the banking sector, the fact that these securities are negotiable and, in that sense liquid, enables the private sector to realise the market-value of these securities by selling them to the banking sector ; thus, the negotiability of the government securities makes it possible for the private sector to treat them as if they are redeemable at the market-value at any time, and, thus, withdraw its past savings from the government sector and compel it indirectly to resort to bank credit.

49. Secondly the criterion adopted in money supply analysis for identifying the banking sector's credit to each of the other sectors is the liability criterion ; that is to say, the variation in the liability of a sector to the banking sector in a given year represents the extent of bank credit obtained by it. According to this criterion, any increase in the banking sector's holdings of government securities increases the liability of the government sector to the banking sector and hence bank credit to the government sector.

50. On similar grounds, the purchases/sales of private securities by the government sector from/to the banking sector are also ignored ; these transactions would be included in the private sector's transactions with the banking sector.

Bank Credit to Private Sector

51. The variations in the banking sector's loans and advances to and its holdings of the shares and securities of the private sector would then indicate the net variation in the financial assets of the banking sector as a result of its transactions with the private sector.

52. The private sector's transactions with the banking sector, however, would also affect the net non-monetary liabilities of the banking sector. The only identifiable variations in the net non-monetary liabilities of the banking sector, arising as a result of its transactions with the private sector, are the variations in time deposits of the private sector. The variations in the rest of the net non-monetary liabilities of the banking sector, arising from its transactions with the private sector, are not identifiable because of lack of data and hence are merged with the variations in the other non-identifiable net non-moneatry liabilities of the banking sector.

Exclusion of variations in net non-monetary liabilities of the Banking Sector

53. The exclusion of such variations in the net non-monetary liabilities of the banking sector would result in an overstatement of bank credit to the private sector, if such variations are positive, and in an understatement, if they are negative.

54. Bank credit to the private sector would also be overstated/understated as the private sector's net purchase/net sale of foreign exchange from/to the banking sector, arising as a result of its transactions with the foreign sector, is not taken into account because of lack of data. The private sector's transactions in foreign exchange with the banking system are merged with such transactions of all the sectors with the banking sector.

55. So far, the discussion related to the variations in the banking sector's monetary liabilities to the public. However, the government sector can also affect money supply directly. Since the government sector's cash balances kept with the treasuries are not included in money supply with the public, variations in money supply can arise as a result of variations in the treasury balances.

Government Sector's direct impact on Money Supply

56. One rupee notes and coins, and small coins represent the liability of the government sector to the public. One rupee notes and coins are issued to the public through the Reserve Bank,* while the small coins are issued both through the treasury as well as the Reserve Bank. The data regarding the absolute amount of rupee notes and coins with the public are available and are published by the Reserve Bank. With regard to the small coins, as mentioned in Part I, only the data relating to their variations are available, but the absolute amount of small coins in circulation is not known.† Since rupee notes and coins as well as small coins are issued to the public only in exchange for either the Reserve Bank notes or the government's notes and coins, they affect *only the composition* of money supply.

Variations in the Government Sector's Currency Liabilities to the public

57. This discussion of the factors affecting money supply may now be summarised.

Summary

58. Money supply comprises government's liability to the public and the monetary liabilities to the public of the banking sector. Variations in the monetary liabilities of the banking sector would be reflected in the corresponding variations in its financial assets and net non-monetary liabilities. Variations in the financial assets as well as the net non-monetary liabilities of the banking sector can come about as a result of its transactions with the government sector (Central and State Governments) and the private sector (rest of the domestic sector and the foreign sector).

59. Separate data regarding all the transactions of each of these two sectors with the banking sector are not available.

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* In terms of Section 36 of the Reserve Bank of India Act, the Reserve Bank obtains each year Rs. 5 crores worth of rupee notes and coins from the Government to meet the public's requirements of rupee notes and coins. As a result of the operation of this Section and the return of rupee notes and coins from circulation the rupee notes and coins held by the Reserve Bank have been rising continuously, the figure as on the last Friday of March, 1961 being Rs. 119.62 crores.

† It is estimated that the absolute amount of small coins in circulation at the end of 1956-57 was around Rs. 65 crores.

60. The data with respect to such transactions of each of these sectors with the banking sector, which have an impact on the latter's foreign exchange assets and the net non-monetary foreign exchange liabilities, are not separately available. Therefore, all these transactions are grouped together and only their total impact on the foreign exchange assets and the non-monetary foreign exchange liabilities of the banking sector, or the net foreign exchange assets of the banking sector is shown in this analysis.

61. Regarding the net non-monetary liabilities too, complete data regarding the transactions of each of these sectors with the banking sector are not separately available. The data regarding the transactions of the Reserve Bank with the International Monetary Fund and the borrowings from abroad of the banks are available and these transactions are already included in the net variations in the foreign exchange assets of the banking sector. The data regarding variations in the government sector's deposits with the Reserve Bank and the time deposits of the private sector with the banks are also available ; the former are included in the government sector's transactions with the banking sector and the latter, in the private sector's transactions with the banking sector. The data with respect to variations in the other non-monetary liabilities and 'other' assets of the banking sector are grouped together as it is not possible to attribute these variations to the transactions of each of these sectors with the banking sector ; these variations reflect the impact of the transactions of all the sectors with the banking sector and are shown separately in this analysis.

62. The identifiable impact of the government sector on the banking sector's financial assets and non-monetary liabilities is reflected in the variations in the banking sector's holdings of rupee coins and notes, and government securities (including Treasury bills), banking sector's loans and advances to the Government sector, and the Government sector's deposits with the Reserve Bank.

63. The identifiable government sector's transanctions with the banking sector, therefore, would not correctly indicate the net impact of the government sector on money supply. To take an example. Suppose the identifiable transactions of the government sector with the banking sector result in an increase in money supply or, which is the same thing, in the government sector's budget deficit. This increase in money supply would be overstated if there were a net purchase of foreign exchange by the government sector from the banking sector and/or if there were an increase in the non-identifiable net non-monetary liabilities of the banking sector as a result of the government sector's transactions with the banking sector.

64. The private sector's identifiable transactions with the banking sector are reflected in the variations in the banking sector's loans and advances (including bills purchased and discounted) to the private sector, the banking sector's holding of private shares and securities, and the time deposits of the private sector. The impact of the private sector's transactions on the banking sector's foreign assets and net non-monetary liabilities (other than time deposits) is not identifiable as these data are not separately available. As a result, the identifiable transactions of the private sector with the banking sector would not correctly represent the net impact on money supply of the private sector. To take an example. Suppose the identifiable transactions of the private sector with the banking sector show an increase in bank credit to the private sector. This increase would be overstated if there were a net purchase by the private sector of foreign exchange from the banking sector and/or if there were an increase in the non-identifiable net non-monetary liabilities of the banking sector as a result of the private sector's transactions with the banking sector.

65. The Government sector's total impact on money supply should also include the impact of variations in treasury balances and the government sector's currency liability to the public. The variations in the treasury balances are treated on par with the government sector's balances with the banking sector. The variations in rupee notes and coins, and small coins bring about corresponding and equivalent variations in money supply.

II

Changes in Money Supply in India—1951-52 to 1961-61

66. It is proposed to identify the factors that affected money supply during 1951-52 to 1960-61 in this section on the lines indicated in the general discussion on the mechanics of money supply variations in section I. The impact on money supply of each of the following factors would be shown separatley.

(a) Bank credit to the Government sector, together with the direct impact of the Government Sector on money supply.

(b) Bank credit to the Private Sector.

(c) Net variation in the foreign exchange assets of the Banking Sector.

(d) Variation in the other net non-monetary liabilities of the Banking Sector (excluding government sector's deposits with the Reserve Bank, time deposits of the private sector with the banks, Reserve Bank's non-monetary liability to the International Monetary Fund and Banks' borrowing from abroad).

Analysis of Money Supply Variaions : 1951-52 to 1960-61

67. The analysis of money supply variations during 1951-52 to 1960-61 is shown, in terms of these factors in Table I.

TABLE I—ANALYSIS OF MONEY SUPPLY VARIATIONS

(Rupees Crores)

	Outstanding as on March 30, 1951	1951-52	1952-53	1953-54	1954-55	1955-56	1951-52 to 1955-56
Money Supply with the Public (1+2+3)[1]	1,975.7[3]	—179.4	—43.8	+25.1	+132.6	+264.3	+198.7
1. Currency with the Public[1]	1,329.0	—119.3	—22.7	+26.0	+88.3	+193.9	+166.2
2. Other Deposits with the Reserve Bank	26.0	—6.4	— 3.1	—1.8	—5.0	+2.3	—14.0
3. Bank Money	620.7	—53.7	—18.0	+0.9	+49.3	+68.1	+46.5
Factors Affecting Money Supply Variations							
1. Net Bank Credit to Government Sector (a+d+e)	973.1	—65.9	+41.9	—32.6	+107.0	+194.8	+245.2
a. Reserve Bank's Net Credit to Government Sector (b-c)	460.5	—26.3	+49.1	—23.4	+82.2	+164.6	+246.2
b. Aggregate Variations in the Financial Assets of the Reserve Bank (including Rupee Coins)	648.9	—9.5	—0.5	—50.7	+73.6	+174.3	+187.2
c. Variations in Government Deposits with the Reserve Bank	188.4	+16.8	—49.6	—27.3	—8.6	+9.7	—59.0
d. Banks' Credit to Government Sector	347.0	—24.9	+8.9	+18.1	+28.1	+21.2	+51.4
e. Government's Net Currency Liabilities to the Public[2] (variatons in Government Currency Liabilities—Variations in Treasury Balances) ..	165.6	—14.7	—16.1	—27.3	—3.3	+9.0	—52.4
2. Net Bank Credit to Private Sector (a+b)	286.7[4]	+65.1	—76.5	—1.0	+23.0	+95.4	+106.0
a. Reserve Bank Credit to Private Sector	1.2	+0.1	+0.2	+3.3	—	+1.2	+4.8
b. Banks' Net Credit to Private Sector (c-d) ..	285.5[4]	+65.0	—76.7	—4.3	+23.0	+94.2	+101.2
c. Variations in Financial Assets of Banks ..	619.1[4]	+56.2	—40.9	+12.1	+74.7	+136.8	+238.9
d. Variations in Non-monetary Liabilities of Banks	333.6	—8.8	+35.8	+16.4	+51.7	+42.6	+137.7
3. Variations in the Net Foreign Exchange Assets of the Banking Sector (a+b)	860.0	—186.3	+32.7	+47.9	—4.0	+13.9	—95.8
a. Variations in the Net Foreign Exchange Assets of the Reserve Bank	877.9	—161.1	+0.6	+46.4	—5.6	+23.3	—96.4
b. Variations in the Banks' Net Foreign Exchange Assets	—17.9	—25.2	+32.1	+1.5	+1.6	—9.4	+0.6
4. Variations in the Non-identifiable Net Non-monetary Liabiilities of the Banking Sector[1] (increase—)	100.9[4]	+7.7	—41.9	+10.6	+6.6	—39.8	—56.8

TABLE I—ANALYSIS OF MONEY SUPPLY VARIATIONS—(*Contd.*)

(Rupees Crores)

	Outstanding as on March 30, 1956	1956-57	1957-58	1958-59	1959-60	1960-61@	1956-57 to 1960-61	Outstanding as on March 31,1961
Money Supply with the Public [1] (1+2+3) ..	2,184.4	+128.9	+77.1	+110.0	+204.9	+201.5	+722.4	2,901.7
1. Currency with the Public[1] ..	1,505.?	+51.8	+51.3	+118.0	+138.7	+167.1	+527.0	2,026.9
2. Other Deposits with the Reserve Bank ..	12.0	—0.4	+8.2	—0.6	+2.5	—2.9	+6.8	19.0
3. Bank Money	667.2	+77.5	+17.6	—7.4	+63.6	+37.3	+188.6	855.8
Factors affecting Money Supply variations.								
1. Net Bank Credit to Government Sector (a+d+e)	1,228.2	+309.6	+502.0	+332.5	+263.9	—7.5	+1400.5	2,623.6
a. Reserve Bank's Net Credit to Government Sector (b—c)	706.7	+330.9	+421.2	+156.4	+145.5	+136.7	+1190.7	1,897.4
b. Aggregate Variations in the Financial Assets of the Reserve Bank (including Rupee Coins)	836.1	+298.1	+427.9	+133.8	+171.1	+136.0	+1166.9	2,002.9
c. Variations in Government Deposits with the Reserve Bank	129.4	—32.8	+6.7	—22.6	+25.6	—0.7	—23.8	105.5
d. Banks' credit to Government Sector	398.3	—11.8	+80.6	+174.4	+103.5	—153.9	+192.8	591.1
e. Government's Net Currency Liabilities to the Public (Variations in Governement Currency Liabilities — Variations in Treasury Balances) ..	123.2	—9.5	+0.2	+1.7	+14.9	+9.7	+17.0	135.1
2. Net Bank Credit to Private Sector (a+b)	392.8	+103.4	—146.7	—141.5	—59.9	+294.4	+49.7	442.5
a. Reserve Bank Credit to Private Sector	6.1	+0.5	—0.7	+2.2	+0.4	+0.2	+2.6	8.9
b. Banks' Net Credit to Private Sector (c-d)	386.7	+102.9	—146.0	—143.7	—60.3	+294.2	+47.1	433.7
c. Variations in Financial Assets of Banks	857.9	+165.5	+91.5	+52.2	+154.4	+242.9	+706.5	1,564.3
d. Variations in Non-monetary Liabilities of Banks	471.2	+62.6	+237.5	+195.9	+214.7	—51.3	+659.4	1,130.6
3. Variations in the Net Foreign Exchange Assets of the Banking Sector (a+b) ..	764.2	—261.7	—282.2	—59.7	+2.7	—63.7	—664.6	99.6
a. Variations in the Net Foreign Exchange Assets of the Reserve Bank	781.5	—277.3	—294.8	—56.1	+5.6	—51.6	—674.2	107.3
b. Variations in the Banks' Net Foreign Exchange Assets	—17.3	+15.6	+12.6	—3.6	—2.9	—12.1	+9.6	—7.7
4. Variations in the Non-identifiable Net Non-monetary Liabilities of the Banking Sector[1] .. .. (Increase—)	157.5	—22.5	+4.1	—21.5	—1.8	—21.6	—63.3	220.8

[1] Excludes Rs. 43.17 crores of India notes returned from Pakistan and awaiting cancellation. (2) Includes 'Hali Sicca' notes and coins.

(3) Adjusted for change in coverage due to inclusion in 1952 of Non-scheduled banks operating exclusively in Part B States.

(4) Adjusted for foreign bills, data relating to which were obtained only since May 14, 1954.

@ Provisional. *Notes ;* Figures relating to small coins are included in variations in money supply while outstanding figures exclude them. Figures may not add up on account of rounding off.

68. During the First Plan period (1951-52 to 1955-56) the total increase in money supply was Rs. 198·7 crores ; there was a substantial decline in the first two years, after which there was a progressive increase, the rise in the last year (1955-56) alone being Rs. 264·3 crores. The government sector accounted for an increase of Rs. 245·2 crores, while the private sector for Rs. 106·0 crores ; the variations in the net foreign exchange assets and the net non-monetary liabilities of the banking sector were responsible for a decline in money supply of Rs. 95·8 crores and Rs. 56·8 crores, respectively.

69. No precise or direct data are available with regard to the net purchases/sales of foreign exchange by the government sector from/to the banking sector; however, it is estimated (as shown later) on the basis of available data that the government sector was responsible for a decline in the banking sector's net foreign exchange assets of the order of Rs. 559 crores, and the private sector for an increase of the order of Rs. 463 crores. If account is taken of this factor the government sector would account for a decline in money supply of about Rs. 314 crores, while the increase in money supply on account of the private sector would be about Rs. 569 crores.

70. During the Second Plan period (1956-57 to 1960-61), the total increase in money supply was Rs. 722·4 crores. The expansion in money supply took place during all the five years, the largest rise of Rs. 204·9 crores being in the year 1959-60. The government sector accounted for an increase of Rs. 1,400·5 crores while the private sector for an increase of Rs. 49·7 crores ; the variations in the net foreign exchange assets and the net non-monetary liabilities of the banking sector were responsible for a decline of Rs. 664·6 crores and Rs. 63·3 crores, respectively.

71. The estimated declines in the net foreign exchange assets of the banking sector on account of the government sector and the private sector were of the order of Rs. 329 crores and Rs. 236 crores, respectively. Further, the P. L. 480 deposits with the State Bank amounting to about Rs. 200 crores could be regarded as argued later, as the deposits of the government sector. If both these factors are taken into account the government sector would be responsible for an increase in money supply of about Rs. 872 crores, while the private sector for a decline of Rs. 86 crores.

72. The way in which the impact of each of these factors on money supply is worked out is discussed in detail in the following paragraphs.

Government Sector's Deficit or Bank Credit to the Government Sector

73. The Government sector's budget deficit or bank credit to the government sector (including the direct impact of the government sector on money supply) is represented by the net aggregate variation in the following financial assets and non-monetary liabilities of the banking sector, the treasury balances, and the government sector's currency liability to the public.

(*a*) Reserve Bank's holdings of rupee coins and notes,

(*b*) One rupee notes and coins in circulation with the public,

(*c*) Reserve Bank's loans and advances to the government sector,

(*d*) Reserve Bank's holdings of government securities, including Treasury bills,

(*e*) Banks' holdings of government securities, including Treasury bills,

(*f*) Government deposits with the Reserve Bank,

(*g*) Government balances with the treasuries.

74. The net variation in the last two items is deducted from the net variation in the first five items in order to obtain the government sector's budget deficit, as shown in Table II.

TABLE II. BANK CREDIT TO GOVERNMENT SECTOR

(Rs. crores)

	Variations in the Financial Assets of the Reserve Bank				Variations in Government Deposits with the Reserve Bank	Reserve Bank's Net Credit to Government Sector (4-5)	Banks' Credit to Government Sector	Total Net Bank Credit to Government Sector (6+7)	Government's Currency Liabilities to the Public	Variations in Treasury Balances	Impact of Government Sector on Money Supply (8+9—10)
	Loans and Advances to Government	Holdings of Government Securities*	Holdings of Rupee Coins and Notes	Aggregate Variations in the Financial Assets of the Reserve Bank (1+2+3)							
	1	2	3	4	5	6	7	8	9	10	11
1951-52 ..	—0.6	—23.7	+14.8	—9.5	+16.8	—26.3	—24.9	—51.2	—15.4	—0.7	—65.9
1952-53	+2.4	—15.9	+13.0	—0.5	—49.6	+49.1	+8.9	+58.0	—12.5	+3.6	+41.9
1953-54	—2.8	—59.6	+11.7	—50.7	—27.3	—23.4	+18.1	—5.3	—30.4	—3.1	—32·6
1954-55	—0.1	+65.2	+8.5	+73.6	—8.6	+82.2	+28.1	+110.3	—4.7	—1.4	+107.0
1955-56	—0.5	+174.0	+0.8	+174.3	+9.7	+164.6	+21.2	+185.8	+7.3	—1.7	+194.8
Total 1951-52 to 1955-56 ..	-1.6	+140.0	+48.8	+187.2	—59.0	+246.2	+51.4	+297.6	—55.7	—3.3	+245.2
1956-57	+7.7	+270.9	+19.5	+298.1	—32.8	+330.9	—11.8	+319.1	—5.3	+4.2	+309·6
1957-58	+13.6	+407.7	+6.6	+427.9	+6.7	+421.2	+80.6	+501.8	—0.9	—1.1	+502.0
1958-59	+3.5	+129.6	+0.7	+133.8	—22.6	+156.4	+174.4	+330.8	+4.1	+2.4	+332.5
1959-60	—2.4	+179.4	—5.9	+171.1	+25.6	+145.5	+103.5	+249.0	+11.2	—3.7	+263.9
1960-61 ..	+16.7	+123.8	—4.5	+136.0	—0.7	+136.7	—153.9	—17.2	+13.4	+3.7	—7.5
Total 1956-57 to 1960-61 ..	+39.1	+1111.4	+16.4	+1166.9	—23.8	+1190.7	+192.8	+1383.5	+22.5	+5.5	+1400.5

* Including bills purchased and discounted. † Provisional.

75. During the First Plan period, the impact of the government sector on money supply was negative during 1951-52 and 1953-54 ; it was, however, substantially expansionist during the last two years, the expansion of Rs. 194·8 crores during the last year (1955-56) being the largest. During the Second Plan period the increase in money supply on account of the government sector was quite substantial in all the first four years; it was the largest (Rs. 502·0 crores) during 1957-58, after which it became progressively smaller during 1958-59 (Rs. 332·5 crores) and 1959-60 (Rs. 263·9 crores). During the last year (1960-61) the government sector actually accounted for a decline of Rs. 7·5 crores in money supply.

76. The government sector's budget deficit is overstated/understated to the extent to which there was an increase/decrease in the other net non-monetary liabilities of the banking sector as a result of its transactions with the government sector. However, data in this respect are not separately available. Besides, such variations in the other net non-monetary liabilities of the banking sector are not very significant.

77. The government sector's budget deficit does not represent the actual impact of the government sector on money supply as its transactions with regard to the purchases/ sales of foreign exchange from/to the banking sector are not taken into account. These

transactions are merged with such transactions of the other sectors, as separate data with respect to the government sector's purchases/sales of foreign exchange from/to the banking sector are not available. However, it is possible to estimate broadly the magnitude of such transactions, on the basis of available data, by deducting from the variations in the net foreign exchange assets of the banking sector the estimated variations on account of the private sector. The variations in the net foreign exchange assets of the banking sector on account of the private sector are estimated in the following way.

78. The data regarding the purchases/sales of sterling by the Reserve Bank from/to the private sector are published in the Reserve Bank's Report on Currency and Finance. To this is added the variation in the net foreign exchange assets of the banks, this variation being entirely on account of the private sector. From this total, the variation in the non-monetary foreign exchange liability of the Reserve Bank is deducted as the latter represents the liability of the Reserve Bank to the International Monetary Fund, which being a part of the foreign sector, is, for the purpose of the present analysis, included in the private sector. Thus the variation in the banking sector's net foreign exchange assets on account of the private sector is estimated. This estimate is not precise as the data with regard to the Reserve Bank's direct receipts/payments in terms of sterling from/ to the foreign sector are not separately available and are not included in this estimate ; the non-inclusion of such receipts/payments, however, would not vitiate the estimate to any significant extent.

79. The variation in the banking sector's net foreign exchange assets on account of the private sector is thus estimated to be (+) Rs. 463 crores during the First Plan period and (—) Rs. 336 crores during the Second Plan period, while the variation on account of the government sector is estimated to be (—) Rs. 559 crores during the First Plan period and (—) Rs. 329 crores during the Second Plan period. If this factor is taken into account, the net bank credit to the government sector would be reduced by about Rs. 559 crores and about Rs. 329 crores, respectively during the First and the Second Plan periods, while the net bank credit to the private sector would increase by about Rs. 463 crores during the First Plan period and would decline by about Rs. 336 crores during the Second Plan period.

Implications of the P.L. 480 Deposits with the State Bank of India

80. It should be noted that the government sector's budget deficit since 1956-57 is overstated because of the manner in which the transactions relating to the United States P. L. 480 assistances have taken place. Under the agreement between the Government of India and the United States with regard to the P. L. 480 assistance, the Government obtained principally foodgrains from the United States, for which the payment was made in terms of rupees to the United States Embassy. A greater part of these rupee balances (85 per cent) of the United States Embassy was to be given back to the Government in the form of loans and grants. However, because of some technical delays, it was not possible for the United States Embassy to transfer the rupee balances to the Government ; as a result, these balances stood in the name of the United States Embassy with the State Bank principally in the form of time deposits, which were invested mostly in government securities by the State Bank. As a result, bank credit to the government sector increased to the extent of such investment in government securities by the State Bank.

81. This procedure led to a similar increase in the time deposits of the private sector and thus reduced the net bank credit to the private sector by an equivalent amount.

82. A greater part of the United States Embassy's rupee balances with the State Bank would have been paid to the Government under the agreement, but for technical delays. If these balances were, therefore, regarded as time deposits of the government sector, they would tend to increase the non-monetary liabilities of the banking sector to the government sector, and thus, would have to be deducted from bank credit to the government sector with a view to obtaining the net bank credit to the government sector. Thus, the government sector's budget deficit since 1956-57 would be reduced to the extent to

which there was an increase in the P. L. 480 deposits of the United States Embassy with the State Bank. Correspondingly, the net bank credit to the private sector would increase by an equivalent amount.

83. This special and extraordinary factor also affected the composition of the banks' deposit liabilities. But for this special factor, the increase in the banks' time deposits would have been smaller. The P. L. 480 time deposits with the State Bank during the Second Plan period are estimated to be about Rs. 200 crores.

Bank Credit to the Private Sector

84. Bank credit to the private sector is represented by the net aggregate variation in the following financial assets and non-monetary liabilities of the banking sector.

(*a*) Reserve Bank's holdings of private sector's shares and securities,

(*b*) Reserve Bank's loans and advances to the private sector,

(*c*) Banks' holding of private sector's shares and securities.

(*d*) Banks' loans and advances (including bills purchased and discounted) to the private sector,

(*e*) Time deposits of the private sector with the banks.

85. Some comments regarding the composition of items (*a*), (*b*) and (*d*) are necessary. Items (*a*) and (*b*) relate, by and large, to the transactions of the various financial corporations and land mortgage banks with the Reserve Bank. Under item (*d*)—banks' loans and advances to the private sector—the excess of inter-bank assets over inter-bank liabilities is also incuded ; for, though money at call and short notice is usually regarded as an inter-bank asset, it also arises as a result of advances to the private sector and such advances are represented by and large, by the excess of inter-bank assets over inter-bank liabilities.

86. The variation in the last item is deducted from the net variation in the first four items with a view to obtaining the net bank credit to the private sector as shown in Table III. The net bank credit to the private sector includes, as mentioned earlier, the bank credit to the foreign sector.

TABLE III—BANK CREDIT TO PRIVATE SECTOR

(Rupees crores)

	Variations in the Financial Assets of the Reserve Bank		Total (1+2)	Variations in the Financial Assets of Banks		Total (4+5)	Variations in Non-Monetary Liabilities of Banks	Banks' Net Credit to Private Sector (6—7)	Total Net Bank Credit to Private Sector (3+8)
	Shares and Bonds	Loans and Advances		Shares and Bonds	Loans and Advances				
	1	2	3	4	5	6	7	8	9
1951-52 ..	+ 0.1	—	+ 0.1	+ 1.5	+ 54.7	+ 56.2	— 8.8	+ 65.0	+ 65.1
1952-53 ..	+ 0.2	—	+ 0.2	+ 0.1	— 41.0	— 40.9	+ 35.8	— 76.7	— 76.5
1953-54 ..	+ 3.0	+ 0.3	+ 3.3	+ 2.9	+ 9.2	+ 12.1	+ 16.4	— 4.3	— 1.0
1954-55 ..	+ 0.3	— 0.3	—	+ 3.6	+ 71.1@	+ 74.7	+ 51.7	+ 23.0	+ 23.0
1955-56 ..	+ 0.6	+ 0.6	+ 1.2	+ 3.9	+132.9	+136.8	+ 42.6	+ 94.2	+ 95.4
Total 1951-52 to 1955-56 ..	+ 4.2	+ 0.6	+ 4.8	+ 12.0	+226.9	+238.9	+137.7	+101.2	+106.0
1956-57 ..	—	+ 0.5	+ 0.5	+ 1.3	+164.2	+165.5	+ 62.6	+102.9	+103.4
1957-58 ..	+ 0.3	— 1.0	— 0.7	+ 12.4	+ 79.1	+ 91.5	+237.5	—146.0	—146.7
1958-59 ..	+ 1.3	+ 0.9	+ 2.2	+ 4.9	+ 47.3	+ 52.2	+195.9	—143.7	—141.5
1959-60 ..	+ 0.5	— 0.1	+ 0.4	+ 16.9	+137.5	+154.4	+214.7	— 60.3	— 59.9
1960-61* ..	+ 0.4	— 0.2	+ 0.2	— 6.1	+249.0	+242.9	— 51.3	+294.2	+294.4
Total 1956-57 to 1960-61 ..	+ 2.5	+ 0.1	+ 2.6	+ 29.4	+677.1	+706.5	+659.4	+ 47.1	+ 49.7

@ Adjusted for 'foreign bills', data relating to which were obtained only since May 14, 1954.
* Provisional.

87. The total net bank credit to the private sector during the First Plan period was Rs. 106·0 crores. It was, however, quite substantial during 1951-52 and in the last two years only ; it was the largest (Rs. 95·4 crores) during 1955-56. It was substantially negative (Rs. 76·5 crores) during 1952-1953 and was negligible during 1953-54. During the Second Plan period, the total net bank credit to the private sector was Rs. 49·7 crores only, the substantial net bank credit of Rs. 103·4 crores during 1956-57 and Rs. 294·4 crores during 1960-61 being offset to a significant extent by the negative figures for the intervening three years.

88. The net bank credit to the private sector would be overstated/understated to the extent to which there was an increase/ decrease in the other net non-monetary liabilities of the banking sector as a result of the private sector's transactions with the banking sector. The data regarding such variations in the net non-monetary liabilities of the banking sector, as a result of its transactions with the private sector, are not separately available.

89. The net bank credit to the private sector does not represent the total impact of the private sector on money supply as its transactions with regard to the purchases/ sales of foreign exchange from/to the banking sector are not taken into account ; no separate data regarding such transactions are readily available and hence they are merged with the similar transactions of the other sectors. It is estimated, however, as pointed out earlier, that the banking sector's net foreign exchange assets increased by about Rs. 463 crores during the First Plan period and declined by about Rs. 336 crores during the Second Plan period as a result of its transactions with the private sector. If account is taken of this factor, the net bank credit to the private sector would, as mentioned earlier, be higher by about Rs. 463 crores during the first Plan period, and would be lower by about Rs. 336 crores during the Second Plan period.

90. Further, as mentioned earlier, the net bank credit to the private sector during the Second Plan period is understated to the extent of about Rs. 200 crores because of the extraordinary increase in the Unied States Embassy's P. L. 480 time deposits with the State Bank.

Variation in the Net Foreign Exchange Assets of the Banking Sectors

91. The transactions in respect of purchases/sales of foreign exchange of the Government sector and the private sector with the banking sector are reflected in the variations in the foreign exchange assets and the non-monetary foreign exchange liabilities of the banking sector, and particularly of the Reserve Bank as, due to exchange control, the variations in the banks' foreign exchange assets and non-monetary foreign exchange liabilities are not very significant. Foreign exchange assets of the banking sector comprise the gold holdings and the foreign assets of the Reserve Bank, and the foreign exchange assets of the banks; the non-monetary foreign exchange liabilities of the banking sector comprise the Reserve Bank's non-monetary liability to the International Monetary Fund and the borrowings from abroad of the banks.

92. The variations in the non-monetary foreign exchange liabilities of the banking sector are deducted from the variations in its foreign exchange assets, with a view to obtaining the variations in its net foreign exchange assets as shown in Table IV.

93. Complete data regarding the variations in the net foreign exchange assets of the banks are not shown in their published returns (for the financial year). They include only some non-monetary foreign exchange liabilities ; and even these are merged with the other liabilities, so that no separate information is available with regard to them. The information, therefore, regarding the variation in the banks' net foreign exchange assets is obtained from the balance of payments data. Reliance on this source may have introduced some error in the calculation of the banks' net foreign exchange assets ; for the balance of payments data may not completely tally with those which should normally figure in the banks' returns.

94. The variations in the net foreign exchange assets of banks may not be accurate because of another reason also. The non-

TABLE IV.—VARIATIONS IN THE NET FOREIGN EXCHANGE ASSETS OF THE BANKING SECTOR

(Rupees crores)

	Variations in the Foreign Exchange Assets of the Reserve Bank	Variations in the Non-Monetary Foreign Exchange Liabilities of the Reserve Bank	Variations in the Net Foreign Exchange Assets of the Reserve Bank (1—2)	Variations in the Foreign Exchange Assets of Banks	Variations in the Foreign Exchange Liabilities of Banks	Variations in the Net Foreign Exchange Assets of Banks (4—5)	Variations in the Net Foreign Exchange Assets of the Banking Sector (3+6)
	1	2	3	4	5	6	7
1951-52	—161.1	—	—161.1	— 3.8	+ 21.4	— 25.2	—186.3
1952-53	+ 0.6	—	+ 0.6	+ 1.7	— 30.4	+ 32.1	+ 32.7
1953-54	+ 29.3	— 17.1	+ 46.4	+ 2.1	+ 0.6	+ 1.5	+ 47.9
1954-55	— 23.0	— 17.4	— 5.6	+ 1.0	— 0.6	+ 1.6	— 4.0
1955-56	+ 16.1	— 7.2	+ 23.3	+ 0.7	+ 10.1	— 9.4	+ 13.9
Total 1951-52 to 1955-56 ..	—138.1	— 41.7	— 96.4	+ 1.7	+ 1.1	+ 0.6	— 95.8
1956-57	—219.3	+ 58.0	—277.3	—	— 15.6	+ 15.6	—261.7
1957-58	—259.8	+ 35.0	—294.8	+ 0.8	— 11.8	+ 12.6	—282.2
1958-59	— 53.9	+ 2.2	— 56.1	— 1.3	+ 2.3	— 3.6	— 59.7
1959-60	— 15.9	— 21.5	+ 5.6	— 1.5	+ 1.4	— 2.9	+ 2.7
1960-61*	— 60.9	— 9.3	— 51.6	— 1.9	+ 10.2	— 12.1	— 63.7
Total 1956-57 to 1960-61 ..	—609.8	+ 64.4	—674.2	— 3.9	— 13.5	+ 9.6	—664.6

* Provisional.

monetary foreign exchange liabilities, other than those which are identified, are not taken into account due to lack of data ; such non-monetary foreign exchange liabilities are merged with the other non-identifiable net non-monetary liabilities of the banking sector.

Variation in the Non-identifiable Net Non-monetary Liabilities of the Banking Sector

95. The non-identifiable net non-monetary liabilities of the banking sector include the following assets and liabilities.

(*a*) Capital and reserves of the Reserve Bank,

(*b*) Capital and reserves of banks,

(*c*) 'Other Liabilities' of the Reserve Bank,

(*d*) 'Other Liabilities' of banks (excluding the banks' borrowings from abroad),

(*e*) 'Other Assets' of the Reserve Bank,

(*f*) 'Other Assets' of banks (excluding the banks' foreign exehange assets).

96. The above mentioned items represent the assets and liabilities of the banking sector that are not taken account of, because of lack of required data, while calculating the impact on money supply of the government sector, the private sector and the variations in the net foreign exchange assets of the banking sector.

97. The first four items represent the non-monetary liabilities of the banking sector, while last two represent its 'other assets'. In item (*a*)—Reserve Bank's capital and reserves—there has been a negligible variation during the period covered by this study ; the variation in the Reserve Bank's reserves during 1956-57 on account of the revaluation of gold held with the Reserve Bank is ignored for obvious reasons.

98. Item (f)—'Other assets' of the banks—had to be derived, as the data given in the banks' returns for the financial year suffer from inadequate coverage. The excess of total liabilities over total assets of the banks is treated as representing the assets not reported; this figure is then added to the 'other assets' (which are reported) to derive the figure for the total of banks' 'other assets.' From this figure, the foreign exchange assets of the banks are excluded.

99. The aggregate net variations in the non-identifiable net non-monetary liabilities of the banking sector are obtained by deducting the variations in the 'other' assets from the variations in the non-monetary liabilities as shown in Table V.

TABLE V. — VARIATIONS IN THE NON-IDENTIFIABLE NET NON-MONETARY LIABILITIES OF THE BANKING SECTOR

(Rupees crores)

	Reserve Bank			Banks			Net Non-Monetary Liabilities of the Banking Sector (3+6)
	Other Assets	Non-Monetary Liabilities	Net Non-Monetary Liabilities (2—1)	Other Assets	Non-Monetary Liabilities	Net Non-Monetary Liabilities (5—4)	
	1	2	3	4	5	6	7
1951-52	+20.5	+ 2.8	—17.7	+ 0.1	+10.1	+10.0	— 7.7
1952-53	—22.3	+ 4.8	+27.1	— 6.7	+ 8.1	+14.8	+41.9
1953-54	+ 1.0	— 5.6	— 6.6	+ 1.2	— 2.8	— 4.0	—10.6
1954-55	+12.7	+ 4.8	— 7.9	+ 1.0	+ 2.3	+ 1.3	— 6.6
1955-56	— 3.6	+19.6	+23.2	+ 5.5	+22.1	+16.6	+39.8
Total 1951-52 to 1955-56 ..	+ 8.3	+26.4	+18.1	+ 1.1	+39.8	+38.7	+56.8
1956-57	— 4.1	+33.9	+38.0	+14.8	— 0.7	—15.5	+22.5
1957-58	+ 0.5	+ 6.4	+ 5.9	+ 1.2	— 8.8	—10.0	— 4.1
1958-59	— 2.0	+13.2	+15.2	+13.9	+20.2	+ 6.3	+21.5
1959-60	+ 2.2	+25.7	+23.5	+47.9	+26.2	—21.7	+ 1.8
1960-61*	+ 5.6	+ 5.1	— 0.5	—14.0	+8.1	+22.1	+21.6
Total 1956-57 to 1960-61	+ 2.2	+84.3	+82.1	+63.8	+45.0	—18.8	+63.3

*Provisional.

ANALYSIS OF MONEY SUPPLY IN INDIA—II

Introductory

100. So far we have discussed the concept of money supply as used in India, the mechanics of money supply variations and finally the changes in money supply in India during the First and Second Five Year Plan periods. This article deals with some aspects of forecasting of money supply variations in India, including, in particular, a somewhat detailed discussion of the extent to which banks can create money. A developing economy requires, among other things, a continuous expansion of money supply and in a planned economy like ours it is particularly important to ensure that the expansion of money supply is neither excessive nor deficient. The estimate of the required order of money supply increase has also an important bearing (*a*) on the financing pattern of government investment, to wit, the quantum of deficit financing, which, as was explained in the previous article, has been so far a major determinant of money supply expansion and (*b*) on the magnitude of Reserve Bank credit to the commercial and co-operative banking sectors, which to some extent determines the expansion of bank credit to the private sector.

101. Given the estimates of Reserve Bank credit to the Government and the banking sector and of the variation in the net foreign exchange assets of the Reserve Bank in any period, the probable expansion of money supply during the period can be forecast on the basis of certain assumptions regarding the credit creation by banks. The magnitude of the estimated rise in money supply may be in excess of the growth of real income, resulting in inflationary pressures, or it may be deficient, leading to deflationary conditions. If non-inflationary growth is desired the rate of growth of money supply should broadly approximate to the pace of increase in real income, and to this end suitable adjustments have to be made in the variants of Reserve Bank credit to the Government, Reserve Bank credit to the banking sector and utilisation of foreign exchange reserves. An exercise in the forecasting of money supply variations should in this context be of interest; the object of this article is to indicate the method of estimating changes in money supply.

102. Money supply, as explained in the previous article, comprises currency (which is the monetary liability of the Reserve Bank and to some extent of the Government), the 'other deposits' of the Reserve Bank (which is the monetary liability of the Reserve Bank) and bank money (which is the liability of the banks). If money supply comprised only currency, money supply variations would depend entirely upon the variations in the Government's currency liability to the public and the variations in the financial assets and the net non-monetary liabilities of only the Reserve Bank. This would, by and large, be equal to deficit financing and the variation in the Reserve Bank's net foreign exchange reserves. However, money supply also comprises bank money or the monetary liability of the banks. This makes the estimation procedure with regard to money supply somewhat complex.

Ratio of Bank Money to Bank Reserves indicates the extent of Multiple Credit creation by Banks

103. Banks, in the course of their lending operations, both to the Government and the private sector, 'create' money on the basis of certain reserves. These reserves comprise currency as well as deposits with the Reserve Bank. For the sake of convenience, the expression 'government money' may be employed to refer to the monetary liabilities of the Reserve Bank and the Government to the banking system as well as the public. That is to say, government money would be equal to the sum of currency with the public and bank reserves—that is, notes and coins held by the banks in their tills and their deposits with the Reserve Bank.* Banks, it is well known, work on a fractional reserve system; that is, they keep certain reserves of government money and, on the basis of these reserves, create, through their lending and investment operations, bank money, the magnitude of which is a multiple of their holdings of government money. Hence, the creation of bank money by the banks is generally referred to as 'multiple credit creation.'

* Besides, government money would also include 'other' deposits of the Reserve Bank; this, however, constitutes a negligible part of government money.

104. The net result of this multiple creation of credit by banks is that the variation in money supply is larger than the variation in government money. The extent of multiple creation of credit varies from country to country, depending essentially on the statutory requirements in this regard, the composition of banks' assets and liabilities, the conventions regarding their reliance on the central bank and the extent of integration and development of the money market.

Is all Bank Money Created

105. It may be argued that since banks' demand deposits comprise not only 'created deposits' but also 'genuine deposits' (that is, deposits kept with the banks by the public out of their savings), it would not be correct to treat all bank money as created money. However, in the technical sense, whether these deposits are 'created' or 'genuine' is not of any significance in this matter. Bank money is by definition the liability of banks and in that sense is created by the banks. In fact, even if the banks kept hundred per cent reserves of government money that is, even if all demand deposits were 'genuine,' to the extent to which people prefer to transact their business in terms of bank money rather than in terms of government money, bank money would be the creation of banks; for banks, in that case, would exchange their own liability for government money. Of course, in this most unlikely case (for, banks would not be performing any function in this case) of hundred per cent reserves of government money, banks would not be able to do any lending and to increase money supply. The bank money would always be equal to the magnitude of government money held by them. However, the composition of money supply, in this case, would be different from the case, where there were no bank money ; in the extreme case where people exchange all their government money for bank money, money supply with the public would consist of only bank money, which would still be equal to total government money, on the assumption of hundred per cent reserves.

Case of hundred per cent Reserves

Case of Fractional Reserves

106. In practice, however, bank reserves are only a fraction of bank money. With the fractional reserve system, banks would be able to increase money supply ; in this case bank money would be a multiple of the government money held with the banks. This would be true even if all the demand deposits with the banks were genuine. To take an example. Suppose people deposit, out of their savings, government money of the value of Rs. 100 with the banks. So long as and to the extent to which bank money is an accepted medium of payment as well as of holding cash balances, banks would find that, during a given period, say, a year, only a certain proportion, say, 20 per cent, of the demand deposits is withdrawn in the form of government money. Banks, then, would hold government money only to this extent, that is, 20 per cent of deposits and the rest of the government money, that is Rs. 80, obtained from the people, would be lent out to them ; these loans would be in the form of government money as it is assumed that all deposits are genuine deposits. Total money supply, in this case, would be equal to bank money of Rs. 100 plus government money, lent out to the public by the banks, of Rs. 80, that is, Rs. 180, though total government money with the public as well as banks would be only Rs. 100. That is to say, the addition to the money supply as a result of the banks' operations is Rs. 80. Money supply with the public would comprise 44 per cent currency and 56 per cent bank money. Banks have been able to create bank money of Rs. 100, on the basis of reserves of government money of Rs. 20.

Given the Ratio of Bank Money to Bank Reserves the variation in Bank Money depends on the Ratio of Bank Reserves to Government Money

107. The extent of creation of bank money by the banks does not depend only on the ratio of bank money to bank reserves ; it also depends on the ratio of bank reserves to government money. The ratio of bank reserves to government money would be different in different countries; each country's ratio would depend upon the extent of development of the banking habit (which in turn depends on the extent of economic development and the growth of the banking system) and the ratio of bank money to bank reserves.

108. Table VI presents the average ratio* of bank money to bank reserves as well as that of bank reserves to government money for the period 1951-60 for four countries besides India, namely, the U.S.A., the U.K., West Germany and Japan. It will be noticed that the ratios vary rather widely as between different countries. Thus, the ratio of bank money to bank reserves is the highest in Japan (23·33) and the lowest in West Germany (2·39). The Indian ratio is 6·65 which is about the same as that of the U.K., while the United States ratio is 4·95. It is beyond the scope of this article to go into the reasons for these divergences. A few points may, however, be mentioned. The high ratio in Japan is due to a combination of factors, namely, highly developed banking habit, absence till recently of any statutory reserve requirements, the high proportion of time deposits, substantial reliance of industry on banks and of banks on the central bank. In the case of the United States, the low ratio is largely due to the high statutory requirements and the unit character of banking system (in contrast to the U. K. system of branch banking), necessitating the maintenance of relatively larger cash reserves.

TABLE VI. CERTAIN MONETARY RATIOS† : AVERAGE FOR THE PERIOD 1951-60

	India*	United States	United Kingdom	West Germany	Japan††
(*a*) Currency to Money Supply (per cent)	68.41	20.83	31.93	46.71	27.20
(*b*) Bank Money to Money Supply (per cent) ..	31.59	79.17	68.07	53.29	72.80
(*c*) Bank Reserves to Government Money (per cent)	6.29	43.43	24.54	32.28	10.29
(*d*) Bank Money to Bank Reserves	6.652	4.952	6.557	2.393	23.328
(*e*) Money Supply to Government Money	1.355	2.716	2.364	1.450	3.298

† The ratios relate to the averages of year-end figures.
* For the period 1951-52 to 1960-61 (April to March).
†† For the period 1953-60.

Sources : (1) For India, Reserve Bank of India, Report on Currency and Finance.
(2) For other countries, International Monetary Fund, International Financial Statistics.

109. The average ratio of bank reserves to government money is lowest for India at 6·3 per cent and is the highest for the U.S.A. at 43·4 per cent. The Japanese ratio is 10·3 per cent, while the U.K. and the West German ratios are 24·5 per cent and 32·3 per cent, respectively. The divergences in these ratio as between different countries are largely explained by the extent of banking development and economic development generally. As such, these divergences are reflected in the divergences with regard to the ratio of bank money to money supply. Only in the case of Japan, though the ratio of bank money to money supply is as high as 73 per cent, the ratio of bank reserves to government money is only 10·3 per cent ; this is due to the extremely low reserves which the Japanese banks keep.

* These ratios are calculated on the basis of year-end data.

Impact on Bank Money and Money supply of a certain increase in Government Money

110. Given a certain increase in government money, the ratio of bank reserves to government money and that of bank money to bank reserves would indicate the extent of increase in bank money as a result of multiple credit creation by the banks. The change in money supply is the sum of the two items, *i.e.*, bank money and government money with the public (*i.e.*, total government money less government money held by banks). We may work out, in the case of India and the U.S.A., the total expansion of money supply as a result of an increase of government

money of 100 units (rupees for India and dollars for the U.S.A.).

Item	India	U.S.A.
	Rs.	$
1. Total increase in government money	100·00	100·00
2. Increase in bank reserves	6·29	43·43
3. Increase in government money with the public (1-2).	93·71	56·57
4. Increase in bank money (2 multiplied by ratio (d) of Table VI *i.e.*, 6·652 for India and 4·952 for the U.S.A.)	41·84	215·07
5. Increase in money supply (3+4)	135·55	271·64

111. Thus in India, an increase of Rs. 100 of government money would result in a total increase in money supply of Rs. 135·55 ; in the U.S.A., the corresponding increase in money supply would be $ 271·64. In other words, the ratio of total increase in money supply to the increase in government money is 1·36 : 1 in India and 2·72 : 1 in the U.S.A. It will be noticed that these are identical with the ratios given against item (e) of Table VI. In other words, the impact on money supply of a certain increase in government money can be calculated directly by multiplying the increase in government money by the ratio of money supply to government money.

112. It would be seen from Table VI that the impact of credit creation by the banks on money supply is much smaller in India than in the other countries. The average money supply to government money ratio was only 1·36 : 1 in India as against 3·30: 1 in Japan, 2·36 : 1 in the U.K. and 2·72 : 1 in the U.S.A.

Forecasting Method for Money Supply Variation

113. Thus, if the magnitude of the increase in government money is known, it would be possible to forecast the total increase in money supply on the basis of certain normal relationship between money supply and government money. Although for purposes of illustration the average ratios for a period of 10 years were taken, it is perhaps more meaningful to use the marginal ratios, for the purpose of forecasting money supply variations. The question then arises whether in a developing economy like ours, the marginal ratio for a period of, say, five years, can be regarded as holding good for a similar future period. It is observed (see Table VII) that the year-to-year variation in the ratio of money supply to government money in the past 10 years has been very small. The average of the year-end ratios during the First Plan period was 1·36 : 1 and for the Second Plan it was 1·35:1; the marginal ratio for the Second Plan was 1·33 : 1. Therefore, it is unlikely that the marginal ratio for the Third Plan would show a major change. A marginal ratio of something like 1·36 : 1 should be regarded as a reasonably good estimate for the Third Plan period.

114. The method of forecasting money supply variation may be illustrated with reference to the Third Five Year Plan period, on the basis of the information given in the Plan document and certain other assumptions. We have already assumed the ratio of money supply to government money to be 1·36 : 1. It only remains for us to estimate the increase in government money during the Third Plan period.

Factors Affecting Government Money Variation

115. It has already been mentioned that government money comprises currency with the public and the reserves of banks, the latter being the total of till money and deposits with the Reserve Bank. Hence, in estimating changes in government money, account should also be taken of the Reserve Bank's transactions with the banks. Government money, thus, can be affected by the following factors:

(*a*) Reserve Bank's credit to the Government sector,

TABLE VII. — CERTAIN MONETARY RATIOS*: INDIA

	Currency to Money Supply (per cent)	Bank Money(a) to Money supply (per cent)	Bank Reserves to Government Money (per cent)	Bank Money(b) to Bank Reserves	Money Supply to Government Money
1951-52	67.40	32.60	6.53	6.585	1.365
1952-53	67.86	32.14	6.50	6.520	1.359
1953-54	68.42	31.58	6.04	6.908	1.357
1954-55	68.31	31.69	6.01	7.082	1.366
1955-56	68.90	31.10	5.87	7.045	1.355
First Plan Average (1951-52 to 1955-56)	68.21	31.79	6.18	6.832	1.360
1956-57	67.30	32.70	5.85	7.638	1.389
1957-58	67.26	32.74	6.30	6.969	1.376
1958-59	69.03	30.97	6.20	6.542	1.344
1959-60	68.91	31.09	7.83	5.110	1.322
1960-61	69.87	30.13	5.57	7.083	1.339
Second Plan Average (1956-57 to 1960-61)	68.55	31.45	6.37	6.525	1.352
Average for 1951-52 to 1960-61	68.41	31.59	6.29	6.652	1.355
Marginal during the Second Plan with reference to the First Plan	69.51	30.49	6.90	5.766	1.329

* Ratios relate to the year-end figures. (a) Including 'other' deposits with the Reserve Bank. (b) Excluding 'other' deposits with the Reserve Bank.
Source : Reserve Bank of India, Report on Currency and Finance.

(*b*) Reserve Bank's credit to the private sector,

(*c*) Reserve Bank's credit to the banks,

(*d*) Net change in the foreign exchange assets of the Reserve Bank,

(*e*) Variation in the net non-monetary liabilities of the Reserve Bank.

The following assumptions are made, purely for illustrative purposes, regarding the factors affecting government money in the Third Plan period.

(*a*) Reserve Bank's net credit to the government sector would be Rs. 550 crores as mentioned in the Third Plan document.†

(*b*) Reserve Bank's net credit to the non-government sector (mostly to the co-operative institutions), would be Rs. 250 crores, as compared to a little over Rs. 100 crores in the Second Plan.

(*c*) Reserve Bank's net non-monetary liabilities would increase by Rs. 50 crores.

(*d*) There would be no change in the net foreign exchange assets of the Reserve Bank, as stated in the Third Plan.

(*e*) The other transactions of the Reserve Bank, on balance, would have no impact on government money

Estimated Increase in Money Supply during Third Plan period

116. *On the basis of these assumptions*, the aggregate increase in government money would be Rs. 750 crores (Reserve Bank's net credit to the government sector of Rs. 550 crores plus Reserve Bank's net credit of Rs. 250 crores to the non-government sector minus increase in the Reserve Bank's net non-monetary liability

† Net bank credit to the government sector would be larger than this figure by the amount of increase in the banks' investment in government securities as well as their advances to the government sector.

of Rs. 50 crores). On the basis of the ratio of money supply to government money of 1·36 : 1, the expansion of money supply in the Third Plan would be a little over Rs. 1,000 crores, or approximately 35 per cent of the level at the end of the Second Plan (Rs. 2,900 crores). As against this estimated increase in money supply, the estimated increase in net national income (at constant prices) in the Third Plan period is 30 per cent. There would be some additional requirement of money supply to meet the increase in the demand for money as a result of the likely extension of the monetised sector and some increase in the ratio of cash balances to incomes. Provided the above assumptions are realised, it would appear that an increase in government money of the order of Rs. 750 crores and the resultant increase in money supply may turn out to be non-inflationary.

117. It should be emphasised that the above approach of equating the rate of growth of national income and that of money supply is a simplified one. An increase in money supply which is smaller than the rate of increase of national income may turn out to be inflationary, while an increase of a larger order than that of national income may not at all be inflationary. The outcome depends not merely upon the increase in the aggregate supply of and demand for goods but also on their composition; for example, in Indian conditions, the rate of increase of the supply of food articles is of crucial importance. There is also the possibility of changes in the velocity of circulation of money. However, as a broad objective of policy, it may not be inappropriate to provide for an approximate parity of the rate of growth of money supply and of national income in order to achieve a non-inflationary growth, it being understood that the rate of expansion of money supply would be suitably modified in the light of the emergent economic trends. How the total of Reserve Bank credit, consistent with the non-inflationary increase in money supply, should be distributed between the Government and the private sector is a matter that has to be decided upon, from time to time, in the light of the relative requirements of the two sectors.