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Price : Inland - Rs. 35 (inclusive of postage)
Foreign-US \$ 20 (inclusive of registered air mail book-post charges)

Published by Charan Singh for the Reserve Bank of India, Mumbai - 400 001 and printed by him at
Mouj Printing Bureau, Khatau Wadi, Girgaum, Mumbai - 400 004.

CHAPTER I

INTRODUCTION

1.1 The Reserve Bank of India has a long tradition of compilation and dissemination of monetary statistics, dating back to July 1935. However, monetary statistics have undergone refinements over time. The revised monthly series on monetary data for the period July 1935 through December 1952 were made available through the publication entitled, *Banking and Monetary Statistics*, in 1954. However, the rationale and analytical foundations behind the compilation of monetary aggregates were provided only in 1961 by the First Working Group on Money Supply (FWG), which were further refined and broadened by the Second Working Group (SWG) in 1977.

1.2 Following the recommendations of the SWG, monetary statistics at present are compiled in a balance sheet framework with the data drawn from the banking sector and postal authorities. However, far-reaching changes have since taken place in the macro-economic and financial environment necessitating a fresh look at the compilation of monetary aggregates. In order, therefore, to re-examine the analytical aspects of monetary survey in the light of the changing dimensions and depth of the financial sector consequential to the implementation of financial sector reforms, the present Working Group on 'Money Supply : Analytics and Methodology of Compilation' was set up by Governor, Reserve Bank of India on December 3, 1997 (*Annexure I.1*). The constitution of the Working Group is as follows:

1. Dr. Y.V.Reddy, Chairman
2. Dr. A. Vasudevan, Vice Chairman
3. Professor Ganti Subrahmanyam, Member
4. Professor Romar Correa, Member

5. Dr. B.K.Bhoi, Member
6. Shri Deepak Mohanty, Member-Secretary

1.3 The Chief General Managers (CGMs) of Department of Banking Operations and Development (DBOD), Department of Government and Bank Accounts (DGBA), Exchange Control Department (ECD), Rural Planning and Credit Department (RPCD) and Urban Banks Department (UBD) were associated as special invitees.

1.4 The Working Group was given the following terms of reference:

- a) to examine the adequacy of the existing money stock measures for appropriately reflecting the liquidity in the economic system and in this context, consider the possibility of including any other financial asset(s);
- b) to suggest improvements in the existing reporting system and to recommend new reporting systems, where necessary, from the relevant economic entities;
- c) to suggest suitable arrangements for effecting transition from the present system of reporting, compilation and dissemination of data to the recommended system;
- d) to examine the appropriate form of presentation of data to the public in the light of the widely prevalent practices of central banks; and
- e) to consider any other related matters.

I.1 Present Basis of Compilation

1.5 As indicated above, the analytical framework under which various monetary stocks are compiled

now in India was formalised by the previous two Working Groups¹. The FWG considered “money supply as the most liquid and the most generally accepted means of payment available for mediation of transactions and final settlement of claims”. It, however, recognised that “the aggregate of money supply and time liabilities are more meaningful than money supply (M_1) as such, for some analytical purposes related to the formulation of monetary policies”. This issue was dealt with more elaborately by the SWG as it devised four distinct measures of money stock viz., M_1 , M_2 , M_3 and M_4 in accordance with varying degrees of their liquidity. While recommending a larger set of monetary aggregates, the SWG extended the institutional coverage of the co-operative banking sector to include: a) central co-operative banks and b) primary co-operative banks. Besides, deposits of Post Offices were reckoned as constituents of monetary aggregates. It also distinguished various attributes of monetary aggregates distinct from one another by altering the apportionment of savings deposits into demand and time liabilities on the basis of interest applications on such deposits.

1.2 Need for Review of Monetary Aggregates

1.6 The behaviour of monetary aggregates reflects variations in aggregate demand in a medium- to long-term perspective, in situations typical of underdeveloped economies, where households’ savings are held to an overwhelming extent in the form of currency and deposits. In these economies, the asset structure of banks’ balance sheet is generally dominated by loans and advances to both government and commercial sectors. In several cases, lending to commercial sector is characterised by high proportion of directed lendings. The financial markets are not well developed and are often characterised by

administered nature of interest rates and restricted external capital account transactions. Balance sheets of the banks and financial institutions, as a result, hardly show marked shifts. In such a framework, monetary aggregates estimated on the basis of the balance sheets of banking institutions would provide a good basis for measurement of aggregate demand.

Financial Liberalisation

1.7 The implementation of a series of liberalisation measures in India since the late 1980s provided considerable manoeuvrability to banks and financial institutions in the choice of their portfolios. For the banks, the reserve requirements have been progressively scaled down. Banks have also been afforded considerable operational freedom in the determination of their interest rates. They also have been allowed to venture into newer activity-areas. As a result, banks have been, particularly in the last three years, under increasing competitive pressure to seek resources from sources that go beyond their traditional areas. For example, Certificates of Deposit (CDs) and other money market instruments viz., call money and repos, as well as various external liabilities such as FCNR(B) and NRE deposits have provided the means for mobilising resources. The increase in such managed liabilities coupled with interest rate deregulation has, however, led to both increase and diversification of assets, together with enhancement of risks and uncertainties. Banks have been funding assets which were hitherto not significant *e.g.*, investments in Commercial Paper (CP), shares and debentures of corporates, foreign securities *etc.* These developments were needed to be taken into account by monetary authorities while evaluating the movements in the existing monetary aggregates from the point of view of their impact on aggregate demand.

1.8 Yet another issue which has been increasingly becoming apparent is the gradual blurring of distinctions in the operations among the institutions,

¹ The composition of the two Working Groups is given in Annexure 1.2.

viz., commercial and co-operative banks, development financial institutions and non-banking financial companies. These operations tend to affect the efficacy of the existing monetary aggregates, and efforts are, therefore, required to be made to capture these developments, in order to appropriately capture the changes in aggregate spending.

1.9 At present the sources of money supply do not appropriately reflect banks' investments in equity and debt market instruments and foreign assets. There is no explicit cognisance of valuation of domestic and foreign assets arising out of fluctuations in interest rates and the exchange rate. Besides, there are some structural factors contributing to inadequacies in the measurement of monetary aggregates *viz.*, long delays in receipt of information from the non-scheduled segment of the co-operative sector *i.e.*, district central co-operative banks, urban co-operative banks and salary earners' societies. The data gaps and inadequacies in the short period overstate/understate the monetary aggregates or net non-monetary liabilities (NNML) of the commercial and co-operative banking sector. The behaviour of NNML which are derived as a residual item has, as a result, assumed significance and has often been reflective of the sharp shifts in asset portfolios and other liabilities of banks. But in the absence of full details of the components of NNML, it has become difficult to interpret the movements in monetary variables.

1.10 In recent years, the importance of non-banking financial companies and development financial institutions in respect of intermediating funds has increased substantially. This development would need to be considered since monetary aggregates which typically cover the banking sector may not adequately reflect the state of liquidity in

the economy.

IMF Manual on Monetary and Financial Statistics

1.11 Another development which has prompted a relook into the methodology of compilation of monetary aggregates in India is the need to ensure that the Indian standards in this regard are close to the international ones. The Manual, now available in draft form, on *Monetary and Financial Statistics (MFS)* by the International Monetary Fund (IMF) provides the benchmark for such comparison.² The draft *MFS Manual* of the IMF aims at complementing the *System of National Accounts*, 1993 and the Fund's other methodological manuals (*the Balance of Payments Manual*, Fifth Edition and *Manual on Government Finance Statistics*) and to bring monetary and financial statistics into greater harmonisation with the standards in those manuals. The basic approach of the *MFS Manual* has been to clearly set out i) financial asset boundary including financial derivatives, ii) distinction between financial intermediaries and auxiliaries, iii) development of monetary authorities concept as an analytical framework which in certain cases could be different from that of the central bank, iv) setting out valuation standards, v) measurement of financial transactions, vi) operational definition of money, vii) preparation of sectoral balance sheets and above all, viii) harmonisation of monetary and financial statistics with balance of payments statistics, government financial statistics and the system of national accounts and flow-of-funds.

1.12 Once the provisions of the *MFS Manual* come into effect, it will have implications for collection, coverage, processing and dissemination of statistics. Keeping in view the level of institutional developments and accounting standards, the Working Group proposed that the review of monetary aggregates should take into account the various provisions of the *MFS Manual* to the extent feasible. A major recommendation of the *MFS Manual* is to extend the reporting of

² *Manual on Monetary and Financial Statistics (Revised Draft)*, International Monetary Fund, Statistics Department, August 1996.

financial statistics beyond monetary aggregates. A major challenge in this direction is that, as of now, there is no reporting mechanism in India for data relating to the financial sector at regular intervals except for the central bank, commercial banks and cooperative banks. Apart from the usefulness in mimicking relevant provisions of the *MFS Manual*, the ongoing financial liberalisation and the gradual move towards indirect instruments of monetary control would make it imperative to collect and prepare a comprehensive set of accounts of the entire financial sector at regular intervals for policy purposes.

I.3 Organisation of the Report

1.13 Against this backdrop, the Report is organised into five chapters including the introductory one. A detailed analysis of the present practices of compilation of monetary aggregates and the various measures proposed to be undertaken to address the inadequacies of the aggregates now available are given in Chapter II. Keeping in view the wide area that had to be covered, the Group had set up in its first meeting, four task forces to look into specific areas: i) Task Force on Data Reporting System for Commercial Banks (Convenor: Shri A. Ghosh, Chief General Manager, Department of Banking Operations and Development); ii) Task force on Data Reporting System for Financial Institutions (Convenor: Shri M.M.S. Rekhrao, Chief General Manager, Financial Institutions Division, Department of Banking Supervision); iii) Task Force on Data Reporting System for Co-operative Banks (Convenor: Shri R. Ramanujam, Chief General Manager, Rural Planning and Credit Department) and iv) Task Force on Data Reporting System for Non-Banking Financial Companies (Convenor: Shri T.Bandyopadhyay, Chief General Manager, Department of Non-Banking Supervision). The task forces had representations from commercial banks and financial institutions apart from the concerned officials from the Reserve Bank of India. The recommendations of the task forces are reflected in

Chapter II. The names of the participants in the Task Forces are given in *Annexure I.3*. The Group also received technical material from central banks of other countries and had the benefit of discussions with multilateral international financial institutions, *e.g.* BIS and IMF. The list of international institutions is presented in *Annexure I.4*.

1.14 Chapter II also focuses on conceptual issues in compilation of monetary aggregates and the scope and coverage of the proposed new aggregates. Besides, it lays down the modified data reporting formats for the commercial and co-operative banks and proposes a data reporting system for the financial sector which includes term lending and refinancing institutions, investment institutions, mutual funds and non-banking financial companies. On the basis of the prospective flow of information from financial institutions, the Chapter proposes a compilation of comprehensive financial sector survey which could potentially be developed into a set of flow-of-funds account of the financial sector. This Chapter also presents a cross-country survey of monetary aggregates for as many as 29 countries and an *Annexure* highlighting the evolution of methodology of compilation of monetary aggregates since the First Working Group on Money Supply in 1961.

1.15 Chapter III focuses on issues relating to collection and dissemination of monetary data. This Chapter discusses the proposed improvement in dissemination practices, including seasonal adjustment of monetary data. The Chapter also gives the calendar for the implementation of the revised reporting system and the new official series on monetary aggregates.

1.16 The focus of Chapter IV is on analytical issues pertaining to monetary aggregates which covers the relevance of monetary aggregates for policy purposes. This Chapter looks into the money supply process and evaluates the relative performance of weighted monetary aggregates *vis-a-vis* the traditional simple sum aggregates. The

money supply process is also analysed in a money multiplier framework which is often used for policy purposes, more so with the use of reserve requirements as active instruments of monetary policy. Under a monetary targeting framework, it is essential that the money demand function remains stable and predictable so that the behaviour of monetary aggregates would be able to provide early information on the likely behaviour of aggregate demand in the medium-term perspective. In developed economies, it has been found that financial innovations coupled with sharp drop in transactions cost and the consequent increase in portfolio sensitivity to movements in interest rates, imparted sharp volatility in the behaviour of velocity leading to deemphasis of monetary aggregates as intermediate targets. In India, the research work on velocity behaviour and demand for money has generally found that the money demand function has not as yet seen the kind of instability that has been experienced in many developed economies during the early 1980s. However, considering the fact that predictable relationship among money, output and prices is the fundamental building block for pursuing the monetary targeting approach, this Chapter analyses the issue of causality among these three economic variables. Moreover, estimates of new monetary and liquidity aggregates on a monthly basis for the post-reform period from 1993-94 through 1996-97 are provided in this Chapter based on the framework suggested by this Group. The relative performance of the new aggregates is evaluated and the money demand function has been estimated in a cointegration framework. Given that long-run price stability is the primary objective of

monetary policy, it is critical to understand the transmission mechanism of monetary policy such that appropriate operating instruments corresponding to intermediate target(s) capable of influencing the ultimate target could be identified and used for policy purposes. Keeping this in view, the Chapter also discusses the possible channels of monetary transmission in India on the basis of new aggregates estimated by the Group.

1.17 Chapter V provides summary and recommendations of the Working Group.

1.18 The Group had sought the views of some eminent monetary economists and former top executives of the Reserve Bank and received useful comments and suggestions from a few of them (names in *Annexure I.5*). The Group had also received valuable technical material from a few officials in the Reserve Bank (names in *Annexure I.6*).

1.19 The secretariat of the Group was located in the Division of Money and Banking (DMB), Department of Economic Analysis and Policy (DEAP). Apart from providing logistic support to the Group, the Secretariat prepared a number of position papers on relevant issues for the use of the Group (names in *Annexure I.7*).

1.20 The historical time series data on monetary aggregates on a monthly basis for the 28-year period 1970-71 to 1997-98 is presented in a *Statistical Appendix* for the benefit of researchers and analysts.

CHAPTER II

COMPILATION OF MONETARY AGGREGATES

II.1 Conceptual Issues in Compilation of Monetary Aggregates

Definitions of Money

2.1 There is no unique definition of ‘money’, either as a concept in economic theory or as measured in practice. Money is a means of payment and is thus a lubricant that facilitates exchange. Money also acts as a store of value and a unit of account. In order to serve as a perfect means of payment, ‘money’ should be highly liquid having a fixed nominal or face value. Money may not entail payment of interest because holders of monetary assets derive certain benefits in the form of monetary services in lieu of payment of interest. In the real world, however, money provides monetary services along with tangible remuneration. It is for this reason, money has to have relationship with the activities that economic entities pursue. Money can, therefore, be defined for policy purposes as the set of liquid financial assets, the variation in the stock of which could impact on aggregate economic activity.

2.2 Money as a statistical construct reflects i) assets with monetary characteristics, or ii) specific liquid liabilities of a particular set of financial intermediaries. Since monetary characteristics could differ from asset to asset, money supply measures could be viewed dimension-wise as narrow or broad. Narrow money is highly liquid and readily serves as a means of payment

and does not lose its nominal value; it may accordingly include currency and transferable deposits. In effect, narrow money would perfectly satisfy the demand for transaction balances. The constituents of narrow money are, therefore, limited to the central bank (and the central government if it issues currency) and ‘depository corporations’ such as commercial and co-operative banks. Broad money, on the other hand, would consist of, besides the narrow money, other financial instruments that serve as a store of value and could be converted into cash for use in transactions without much difficulty.

Sectorisation Issue

2.3 As a statistical concept, money could include certain liquid liabilities of a particular set of financial intermediaries or other issuers. For the purpose of compilation of monetary aggregates, the FWG had divided the economy into three sectors: i) the banking sector, ii) the government sector and iii) the private sector comprising the rest of the domestic sector and the foreign sector. This sectorisation was retained by the SWG as well. The nomenclature ‘private’ sector was, however, changed to ‘commercial’ sector in 1970 as it included commercial/manufacturing enterprises in the public sector¹ as well.

2.4 The present Working Group proposes to divide the economy into four exclusive sectors, viz., i) households, ii) non-financial commercial sector, iii) general government and iv) financial corporations. In addition, non-residents constitute the ‘rest of the world sector’ which can have transactions with any of the domestic sectors. The sectorisation of the economy is broadly similar to that of the System of National Accounts 1993 (SNA) as adopted by the *IMF Manual on Monetary and Financial Statistics (MFS Manual)* except that

¹ The SWG pointed out that it would be improper to make a distinction between private and public enterprises in so far as the inclusion of their deposit balances in money stock measures is concerned, as government transfers to public sector enterprises are essentially in the nature of investments in shares and debt obligations and thus directly linked to their commercial operations and rarely in terms of grants and sharing of revenues.

the household sector includes non-profit institutions serving households. The *MFS Manual* defines the financial corporations sector to include apart from the central bank, 'other depository corporations', 'insurance corporations and pension funds', 'other financial intermediaries' and 'financial auxiliaries'. The expression 'depository corporations' is defined by the IMF to include institutions which have deposit liabilities or close substitutes and have common characteristics as 'banks' regardless of whether they are called 'banks'.

Coverage of Depository Corporations

2.5 While deliberating on the sectorisation issue the Group decided that, in the Indian context, even though the development financial institutions and non-banking financial companies are allowed to accept deposits from the 'public', it may not be appropriate to treat these institutions as 'depository corporations' in view of the restrictions prevalent on their deposit taking activities and the relatively small share of their deposit liabilities to total liabilities. For the purpose of money supply compilation, the Group proposes to restrict the coverage of 'depository corporations' only to the banking sector.

2.6 The banking sector in India comprises i) the Reserve Bank of India and ii) the banking system in India defined as per the Banking Regulation Act, 1949, which includes a) the State Bank of India and its subsidiaries, b) nationalised banks, c) regional rural banks, d) all other banking companies in private sector (including foreign banks operating in India) - constituting what are commonly known as commercial banks, e) co-operative banks² and f) any financial institution notified by the Central Government (Box II.1).

² Excluding primary credit societies and co-operative land mortgage/development banks.

Box II.1 : Banking System in India

The Indian banking system is dominated by the scheduled commercial banks, which accounted for almost 90 per cent of bank deposits as at end-March 1997, the balance being accounted for by co-operative banks. The State Bank of India group alone accounts for about a quarter. Nationalised banks account for nearly half of bank deposits, while the Regional Rural Banks account for 3 per cent. The new private sector banks account for 2.0 per cent and the foreign banks 6.4 per cent. Among the co-operatives, the central co-operative banks account for 4.2 per cent followed by urban co-operative banks 3.5 per cent.

Financial Corporations

2.7 Analogous to the notion of the 'depository corporation' and keeping in view the prospective availability of information on the rest of the organised financial sector, the Group proposes to use the concept of financial corporations sector, and define it to include the following institutional categories, viz., 'banking sector', 'development financial institutions', which include term lending institutions and refinancing institutions (FIs), 'insurance corporations', 'mutual funds' and 'non-banking financial companies accepting deposits from the public'.

2.8 The position of primary dealers in the financial corporations sector is unique in the sense that while these are essentially non-banking financial intermediaries operating in the money and government securities markets (and as such classified as non-banking financial companies), their lendings to banks are reckoned as part of inter-bank liabilities. Since primary dealers are not depository corporations, the Group has decided to treat them as non-banks for the purpose of money supply compilation.

Money Issuing/Holding Sector

2.9 The money issuing sector is considered as part of the financial corporation sector, viz., the

banking sector. The money holding sector, on the other hand, comprises resident units outside the money issuing sector. The money holding sector is defined as the 'commercial sector', alternatively defined as 'public', which includes households, non-financial commercial sector and non-depository financial corporations.

Residency

2.10 Residency essentially relates to the country in which the holder has a centre of economic interest. Currency and deposits held by the non-residents in the rest of the world sector would presumably be related to balance of payments considerations such as international capital flows rather than to the domestic demand for monetary assets or to the use of money in domestic transactions and should, therefore, be regarded as external liabilities to be netted from foreign currency assets of the banking system.

2.11 The SWG had included balances under the erstwhile Foreign Currency (Non-Resident) Accounts instituted in November 1975 in money supply accounts along with the balances under the Non-Resident (External) Rupee Accounts instituted in March 1970 which was already being reported under aggregate deposits by scheduled commercial banks. Subsequently, various categories of banks' external deposit liabilities to non-residents including FCNR (B) deposits have been included in money supply. While there is a need to categorise deposit liabilities by residency, it may not be appropriate to exclude all categories of non-resident deposits from domestic monetary aggregates as non-resident rupee deposits are essentially integrated into the domestic financial system. The Group, therefore, proposes that only non-resident repatriable foreign currency fixed deposits should be excluded from deposit liabilities and treated as external liabilities. Accordingly, from among the various categories of non-resident deposits at present, only FCNR(B) deposits may

be classified as external liabilities and excluded from the domestic money stock.

Government Deposits

2.12 The deposits of the Central and state governments with the RBI are set off against the RBI's claims on them and the RBI credit to government is shown on a net basis because the governments generally keep the statutory minimum balance with the RBI. While the Centre's cash balances have always been excluded from money supply, the balances of the state governments have been excluded since April 1956. The Group proposes to continue the existing practice.

Valuation Issues

2.13 Monetary and financial statistics generally should value financial instruments and transactions at market prices. However, many assets (*e.g.* currency, deposits and loans *etc.*) have fixed nominal values, and hence their purchase prices and current market values are identical. The Reserve Bank of India has laid down norms for valuation of investment portfolio of commercial banks with the objective of moving progressively to the international best practice of valuing the entire portfolio on mark to market basis. While short-term investments such as Treasury Bills and commercial paper are valued at carrying cost, long-term investments are to be valued as per market quotations to the extent possible. The mark to market portion of commercial banks' investments in government securities has been raised from 30 per cent during the accounting year 1992-93 to 70 per cent in 1998-99 which would further increase to 100 per cent in the next three years.

2.14 The Group proposes the compilation of monetary survey for India keeping in view the conceptual framework enumerated above.

MONETARY SURVEY

II.2 Monetary and Credit Aggregates

2.15 Money supply³ was initially compiled by the RBI as the sum of public holdings of free currency (excluding those of banks and the Central Government) and deposit money with banks withdrawable on demand. Deposit money with the banks comprised demand liabilities of banks (excluding inter-bank demand deposits), deposits of state governments and 'other' deposits with the RBI. This corresponds to what is often referred to as narrow money in economic literature and is widely known as M_1 . The FWG recommended the compilation of a broader money aggregate by adding time deposits to M_1 . This was referred to as 'aggregate monetary resources' till the SWG rechristened it as M_3 . The SWG also introduced two other measures of money stock (Box II.2).

2.16 On the sources' (assets) side, broad money (M_3) comprises the sum of i) net bank credit to government, ii) bank credit to the commercial sector, iii) net foreign exchange assets of the banking sector, and iv) the government's currency liabilities to the public netted for v) the banking sector's net non-monetary liabilities (NNML). Since money supply is compiled in a balance sheet framework, the NNML could conceptually include

³ The Reserve Bank of India has published data on narrow money viz., money supply with the public and later referred to as M_1 since July 1935. A monthly series on monetary data since July 1935 is available in the *Banking and Monetary Statistics* published by the RBI in 1954. A series on 'total money supply' was published in the *Report on Currency and Finance 1944-45*. Data on broad money referred to as Aggregate Monetary Resources (equivalent to M_1 plus time deposits with banks) was published in the Bank's Annual Report for the first time in 1964-65 and in the Report on Currency and Finance from 1967-68 onwards. A second monthly series on components of money stock was published in the RBI Bulletin, March 1970. A new series of monetary aggregates from March 1970 came into effect with the acceptance of the Report of the Second Working Group.

Box II.2 : Measures of Monetary Aggregates

M_1 = Currency with the Public + Demand Deposits with the Banking System + 'Other' Deposits with the RBI.
 M_2 = M_1 + Savings Deposits of Post Office Savings Banks.
 M_3 = M_1 + Time Deposits with the Banking System.
 M_4 = M_3 + all Deposits with Post Office Savings Banks (excluding National Savings Certificates).

two major items, viz., i) the capital accounts of the entities and ii) unclassified items of liabilities and assets. It may be noted that while the complete balance sheet data of the RBI are available on a weekly basis which could help identify the items that constitute its NNML, the other banks' NNML are computed as a residual item balancing the components and sources of money stock. This issue is discussed in detail later in the Chapter.

Characteristics of Present Aggregates

2.17 On reviewing the present aggregates, the Group recognised that from among the four measures of money, M_1 and M_3 are the two measures which are extensively used both for policy purposes and in academic exercises. Use of data on M_2 and M_4 are conspicuous by their near-absence. The introduction of M_2 and M_4 as money stock measures seems to have been prompted by the fact that during the pre-1969 period, post offices catered banking facilities in many places where banks were not in existence. The strength of this reasoning has lost much of its sharpness with the strong growth of the banking network in rural and semi-urban areas since then. Moreover, operationally two problems have been encountered. First, the monthly flow of data from the postal department has over time been subject to considerable delays, thereby rendering the relevant aggregates less significant for policy purposes. Second, there is also opaqueness in the manner of deployment of postal deposits as the postal department is a part of the general government.

2.18 As between M_1 and M_3 , the latter captures the balance sheet of the banking sector, the institutional category which has been the focus of the policy. In India, as in many countries, the broad money concept has been found to be operationally useful because of better correlation with aggregate economic activity. The narrow money aggregate (M_1), on the other hand, includes apart from currency with the public, the non-interest bearing deposits with the banking sector, including the RBI. However, M_1 does not adequately capture the transactions balances of entities because of the manner in which savings deposits with banks are partitioned into demand and time categories - purely on the basis of interest applications. It needs to be recognised that savings deposits which pay a very low rate of interest and provide chequing facilities function essentially as transactions balances. On the other hand, broad money is too aggregative a concept encompassing term deposits of various maturities apart from Certificates of Deposit (CDs). The Group, therefore, felt that there is a need to provide for an intermediate aggregate between M_1 and M_3 which captures, apart from transaction balances, liabilities of short-term nature which are highly liquid and more interest sensitive.

Proposed New Aggregates

2.19 The Group is of the view that the present set of monetary aggregates are not in conformity with the largely followed norm of progressivity in terms of liquidity. Moreover, the treatment of postal deposits as a part of monetary aggregates may not be in harmony with the notion of 'depository corporation' as in the case of a bank unit, since the postal department is a part of general government. It was felt that as part of financial innovations, while financial institutions may issue financial assets closely resembling bank deposits, it may not be appropriate to treat them as monetary assets unless the institutions provide services similar to that of the banks. Such instruments, which compete with broader monetary aggregates could, therefore, be treated as part of liquidity measures. Thus, the

Working Group sought to differentiate monetary aggregates from other financial aggregates not so much on the basis of the attributes of the instruments themselves as on the nature and functioning of institutions issuing such instruments.

2.20 While constructing the monetary aggregates, the essential guiding principle could be that only the central bank and the depository corporations in the sense of banks capable of creating money are considered. The broadest aggregate that can be arrived at by consolidating the balance sheets of the banking system (e.g. M_3 in India) could be considered as an appropriate index of state of overall liquidity available in the economy so long as the share of non-depository corporations remains insignificant. However, following deregulations, the areas of jurisdictions across various categories of financial entities have been tending to overlap. As a result, the share of non-depository corporations in total financial assets has been growing over time. Therefore, in order to have an appropriate measure of overall state of liquidity at any particular point of time, a need has been felt to have a broader liquidity measure taking explicit cognisance of the importance of non-depository corporations in regard to intermediating liabilities from non-bank, non-government sector. In fact, many countries have dealt with this issue by constructing measures broader than 'broad money' (sometimes called very broad money, or extended money supply, or liquidity and denoted by 'L', M_2+ , M_3 extended or M_3E , MCT, ALP, etc.). Liquidity measures generally include instruments that are considered to be good substitutes for broad money, or include a range of instruments that may be empirically related to overall economic activity or prices.

2.21 In this context, the comparison of monetary aggregates across countries is useful in the evaluation of our own monetary statistics. A survey of 29 countries reveals that there is a wide diversity in the definition of monetary aggregates depending on the development of money substitutes although the basic definition of money supply – the narrow

money (M_1) – has remained relatively unchanged. As regards broader monetary aggregates, apart from currency and deposits, the following instruments merit consideration for inclusion: i) other (outside the ‘depository corporations’) call/term funding and ii) non-convertible debentures (NCDs) issued by banks. While banks in India are yet to issue NCDs, banks rely on call funding from non-bank financial institutions which could be included in broader monetary aggregates (*Annexure II.1*).

2.22 While the Group is of the opinion that the consolidated account of the banking sector may be considered for compilation of monetary aggregates, it proposes that the items of liabilities of non-banking financial institutions which are predominantly held with the public and which compete with broad money aggregates may be included in various measures of liquidity. One such item is postal office deposits on which monthly data are available *albeit* with some time lag. There are, however, other instruments which could be included in the broad measure of liquidity: i) public deposits, term borrowings and certificates of deposit of financial institutions as these liabilities directly compete with the liabilities of the banking sector and ii) those liabilities of non-banking financial companies (NBFCs) such as public deposits (a component of regulated deposits) which are competitive to deposits with commercial banks and bypass the process of bank intermediation. Some countries include Commercial Papers and Treasury Bills under the broad liquidity measure. In the Indian context, these two instruments are predominantly held by banks and financial institutions and hence should not form a part of liquidity of the non-financial non-government sector. A much broader concept of liquidity measures could be defined as the total assets held by the public that are issued by all financial intermediaries. The Group proposes that data on these items can be obtained on a monthly basis for preparation of liquidity aggregates. But keeping in view the difficulties of obtaining data at a higher

frequency from NBFCs, the Group proposes that at least the data could be obtained on quarterly basis to start with.

2.23 Mutual funds that raise resources from the public with liabilities that could substitute for deposits and which invest in short-term money market instruments are included in broader definitions of monetary aggregates in a number of countries. In some countries, prominent among them being the US, money market mutual funds act like depository corporations by issuing chequing facility against units. In India, although policy guidelines for setting up of money market mutual funds (MMMFs) were issued way back in 1992, it was only in 1996 that a few MMMFs were set up. The MMMFs in India have not gained the popularity as in many other countries. Moreover, there are balance sheet restrictions on the functioning of MMMFs. Keeping in view the negligible presence of MMMFs at present, the Group did not favour inclusion of MMMFs either in monetary or in liquidity aggregates. However, the Group is of the view that all the mutual funds could be classified under ‘non-depository financial corporations’.

2.24 While it is important that the compilation of monetary aggregates be uncomplicated and easy to comprehend, it is equally important that the compilation is operationally feasible keeping in view the availability of information and the frequency of availability of such information. Accordingly, the Group recommends compilation of four measures of monetary aggregates, and three measures of liquidity aggregates besides a comprehensive financial sector survey (Box II.3).

2.25 It would thus be seen that the Group sought to define the monetary aggregates by residency criteria with a qualification, the qualification being that they exclude repatriable foreign currency fixed deposits by non-residents. The partition between monetary and liquidity aggregates has been dictated by the fact that while the first relates only to

Box II.3 : Recommended Measures of Financial Aggregates**A. Monetary Aggregates***Weekly Compilation*

M_0 = Currency in Circulation + Bankers' Deposits with the RBI + 'Other' Deposits with the RBI.

Fortnightly Compilation

M_1 = Currency with the Public + Demand Deposits with the Banking System + 'Other' Deposits with the RBI = Currency with the Public + Current Deposits with the Banking System + Demand Liabilities Portion of Savings Deposits with the Banking System + 'Other' Deposits with the RBI.

M_2 = M_1 + Time Liabilities Portion of Savings Deposits with the Banking System + Certificates of Deposit issued by Banks + Term Deposits (excluding FCNR(B) deposits) with a contractual maturity of up to and including one year with the Banking System = Currency with the Public + Current Deposits with the Banking System + Savings Deposits with the Banking System + Certificates of Deposit issued by Banks + Term Deposits (excluding FCNR(B) deposits) with a contractual maturity up to and including one year with the Banking System + 'Other' Deposits with the RBI.

M_3 = M_2 + Term Deposits (excluding FCNR(B) deposits) with a contractual maturity of over one year with the Banking System + Call borrowings from 'Non-Depository' Financial Corporations by the Banking System.

B. Liquidity Aggregates*Monthly compilation*

L_1 = M_3 + all Deposits with the Post Office Savings Banks (excluding National Savings Certificates).

L_2 = L_1 + Term Deposits with Term Lending Institutions and Refinancing Institutions (FIs) + Term borrowing by FIs + Certificates of Deposit issued by FIs.

Quarterly Compilation.

L_3 = L_2 + Public Deposits of Non-Banking Financial Companies.

Financial Sector Survey (FSS) = Aggregate Assets and Liabilities of the Financial Corporations.

monetary liabilities of the central bank and 'depository corporations', *i.e.*, the banking system, the latter also includes select items of financial liabilities of non-depository financial corporations

such as development financial institutions and non-banking financial companies accepting deposits from the public apart from post office savings banks.

2.26 M_0 is essentially the monetary base, *i.e.*, reserve money. M_0 is mainly compiled from the balance sheet of the central bank, *i.e.*, the Reserve Bank of India. M_1 which purely reflects the non-interest bearing monetary liabilities of the banking sector continues to be the same as at present. M_2 which includes savings and short-term deposits is, however, a refined measure recommended by the present Group. Savings deposits are essentially held by households and are withdrawable without any effective constraint. The rules governing the restrictions on number of cheques/withdrawals that could be issued are hardly followed in practice. Term deposits with contractual maturity of up to one year are held for liquidity considerations and for ensuring portfolio management. Hence M_2 may adequately reflect the transactions balances of entities apart from being relatively interest sensitive. M_3 has been redefined to reflect additionally the call fundings of the banking system by other financial institutions.

Credit Aggregates

2.27 Bank credit is often specifically referred to in several writings in monetary economics as a critical variable affecting consumption and capital formation in a direct manner. As such it is often regarded as a more useful indicator of real sector activity than money supply. In India, one of the objectives of monetary policy is clearly stated in official documents as one of ensuring adequate flow of credit to the productive sectors of the economy. But as changes in bank credit were treated as impacting wholly on money supply in the absence of a movement in foreign exchange assets, credit aggregates were hitherto not considered as important. This situation, however, may not continue for long in view of growing openness of the economy. There is a clear need for having

comprehensive measures of credit that relate to 'depository-corporations' and the 'financial sector', which are the main focal points of policy. The Reserve Bank of India extends credit to the government by way of loans and advances and investments in government securities, and to a limited extent to the financial sector including banks. The 'depository corporations' such as commercial and co-operative banks invest in government papers and other market instruments and extend credit to the commercial sector including 'non-depository financial corporations'. The 'non-depository financial corporations' also invest in government securities and extend credit to the commercial sector and to a limited extent to the banking sector by way of refinance.

2.28 At present, while credit to government from the banking system is clearly identified, bank credit to the commercial sector, in the conventional sense, includes only advances in the form of loans, cash credit, overdrafts, bills purchased and discounted and investments in approved securities other than government securities. However, commercial banks have in recent years been investing in securities such as commercial paper, shares and debentures issued by the commercial sector which are not reflected in the conventional credit aggregates. The Group, therefore, proposes to broaden the definition of bank credit to the commercial sector by including all these investments in the conventional credit aggregates.

2.29 Another major problem in the present reporting system has been that there is no estimate of credit flow from the entire financial system either to the government or the commercial sector. The Group proposes to address this lacunae by recommending preparation of a comprehensive financial sector survey on a quarterly basis which would throw up estimates of credit from the financial sector to: i) government and ii) non-financial commercial sector.

2.30 The evolution of methodology of compilation

of money stock measures since the First Working Group in 1961 is given in *Annexure II.2*.

II.3 The Format of the Monetary Survey

2.31 The monetary aggregates thus defined can essentially be presented in a balance sheet framework by consolidation of the accounts of the banking sector. The components derived from the liabilities side could be matched with those on the assets side of the consolidated balance sheet of the banks. The sources (assets) side can functionally be depicted by i) domestic credit, ii) net foreign assets, iii) capital account and iv) other items (net).

Domestic Credit

2.32 The break up of 'domestic credit' would include i) net credit to the government and ii) credit to commercial sector – defined to include households, non-financial corporate sector and non-depository financial corporations. Net bank credit to government is the sum of the net RBI credit to government and the investments of the banking system in government securities. Bank credit to the commercial sector would include RBI credit to the commercial sector - non-depository financial corporations - and bank credit in India of the banking system, which includes i) advances in the form of loans, cash credit and overdrafts in both rupees as well as in foreign currency, ii) inland and foreign bills purchased and discounted (which together constitute what is commonly known as bank credit) and iii) investment in all securities other than government securities. The inclusion of banking systems' investments in shares, debentures, bonds, commercial paper *etc.* issued by the commercial sector under credit to the commercial sector would, in the view of the Group, enhance the value of the commercial credit aggregate as an important informational variable.

Foreign Assets

2.33 Net foreign exchange assets (NFA) of the

banking sector comprise the RBI's net foreign exchange assets and the net foreign currency assets of the banking system. While there is no change in the composition of net foreign exchange assets of the RBI, net foreign currency assets of the banking system should comprise their holdings of foreign currency assets net of i) their holdings of non-resident repatriable foreign currency fixed deposits which is presently defined to include FCNR(B) deposits⁴ and ii) overseas foreign currency borrowings.

Capital Accounts

2.34 The capital account of the banking system, the net unclassified assets and liabilities have hitherto been classified under the omnibus head of net non-monetary liabilities (NNML) of the banking sector comprising the net non-monetary liabilities of the RBI and the banking system. NNML of the banking system would include their i) capital and reserves, ii) revaluation on account of price and exchange rate changes, iii) net inter-bank liabilities, iv) other non-deposit sources including call money borrowings from non-bank parties and v) other net liabilities such as net branch adjustments and other sundry items. Of late unexplained changes in NNML have been a major source of variations in monetary aggregates. While the details on the NNML of the Reserve Bank are available on weekly basis, those of the banking system (commercial and co-operative banks) are derived as a residual, balancing the components and sources of money stock and as such may include errors in the reporting of the data by the commercial and co-operative banks. This is sought to be remedied by modifying the scope and coverage of the reporting format for the banking system. The Group proposes to do away with the present concept of NNML in the presentation of the monetary survey; instead, the

balancing items could be: i) capital accounts and ii) other items (net) which would be in conformity with the international practice.

2.35 The capital account consists of i) paid-up capital, ii) retained earnings, iii) various provisions, iv) revaluation accounts and v) accounts that cover any changes in net worth caused by statistical adjustments used to construct the balance sheet.

2.36 The unclassified liabilities and assets could be reported under the category 'other items' (net). As the Group proposes a considerable expansion of the scope and coverage of the reporting format for the banking system, the residual item should form a very small portion of the balance sheet totals.

2.37 The format for presentation of the monetary survey is given in *Annexure II.3*.

II.4 Treatment of New Instruments

Credit/Debit Cards

2.38 In India, an increasing volume of purchases is being made on credit cards. The Group, therefore, debated on the treatment of transactions undertaken through credit/debit cards and concurred with the views of the Advisory Committee on Monetary Statistics in the United States (Bach Committee, 1974) which was of the view that 'in so far as credit-card purchases and the elimination of physical bank cheques merely provide more convenient and efficient means of transferring demand deposits, they do not call for any redefinition of the money stock – although they may lead to a higher velocity of circulation'. The *MFS Manual* is also of similar view that contingent instruments, such as lines of credit on credit cards, are not financial assets and are not recorded in monetary and financial data, regardless of whether they are electronic in nature or not. Similarly, debit cards which use remote terminals to debit user's deposit account and immediately credit vendors' accounts does not necessitate a redefinition of monetary aggregates

⁴ The Union Budget 1998-99 announced issuance of a new Resurgent India Bond denominated in foreign currencies for subscription by non-resident Indians (NRIs). This instrument could be treated as external liability of the banking sector.

as the transaction serves the same function as a cheque, but the transfer is immediate. Debit cards that use remote automated teller machines (ATMs) are very common in many parts of the world.

Electronic Payments Instruments

2.39 Several new technologies are under development to make payments *via* computer chips, through computer networks or across the worldwide Internet. It has been suggested that electronic equivalents will be developed for all major payments methods: currency, cheques, debit cards, credit cards and travellers' cheques. For example, electronic currency issued by commercial banks appears to have characteristics of a private currency that can compete with the official national currency. These may develop rapidly and have a variety of as yet undetermined, but possibly large, effects on monetary and financial system. If these systems establish themselves, new statistical definitions, classification systems and reporting procedures may be needed.

Treatment of Derivatives

2.40 There are mainly four types of derivatives: currency related derivatives, interest rate derivatives, security/equity related derivatives and commodity-related derivatives. These derivatives may be in the form of forwards, futures, swaps or options or a combination thereof in the form of some hybrid instruments. These have grown enormously in recent years in many industrial countries and have made a noticeable presence in some of the major emerging economies with increasing participation by banks. Financial derivatives that are traded in the market and carry a market value would require to be recognised as financial assets in balance sheets. Instruments such as futures, warrants and exchange-traded options could be classified as financial assets because they are market traded. Besides, interest rate swaps, forward rate agreements, interest rate caps, forwards and collars which could be offset on the market may

need to be treated as financial assets. On the other hand, privately-arranged swaps and other instruments that do not have offset arrangements would not be reckoned as financial assets. In India, as market trading in derivatives is yet to be introduced and transactions in derivatives are privately-arranged, these are treated as off-balance sheet items. The Group is of the view that derivatives may not have any immediate significance in the compilation of monetary aggregates. However, developments in the area of derivatives should be periodically monitored as monetary transmission mechanisms may be affected if large volumes of derivatives hedge a variety of market exposures.

RESERVE BANK OF INDIA SURVEY

2.41 The Group felt that a survey of the Reserve Bank of India's balance sheet with the focus on the monetary base or reserve money (M_0) may continue to be prepared *albeit* with certain modifications on a weekly frequency on the basis of the Weekly Statement of Affairs of the RBI prepared on each Friday under Section 53(1) of the RBI Act 1934. The balance sheet of the RBI is split into two parts pertaining to the Issue Department and the Banking Department, which may be consolidated as per the format suggested in *Annexure II.4*.

II.5 The Format of the RBI Survey

II.5.1 Liabilities

Currency

2.42 Currency in circulation is the sum of i) notes in circulation which is the principal liability of the Reserve Bank under Section 22 of the RBI Act, 1934 and ii) the government's currency liabilities to the public comprising rupee coins and small coins. While rupee and small coins are liabilities of the Central Government, the Bank acts as an agent of the Central Government in the issue, distribution and handling of such coins under

Section 38 of the RBI Act. The government's currency liabilities to the public were taken as claims of banks on the government in the computation of net bank credit to government till October 1962 but treated as an independent source of money stock thereafter.

Other Deposits

2.43 'Other' deposits with the RBI comprise mainly i) deposits of quasi-government and other financial institutions including primary dealers, ii) balances in the accounts of foreign central banks and governments, iii) accounts of international agencies such as the International Monetary Fund *etc.*, iv) provident, gratuity and guarantee funds of the Reserve Bank staff and some temporary accounts netted for balances under certain accounts, viz., a) IMF Account No.1 (since 1948), b) the RBI Employees' Pension/Co-operative Guarantee/Provident funds (since January 1964), and c) the Additional Emoluments (Compulsory Deposits) Act, 1974 (since August 1974) and Compulsory Deposit Scheme (Income Tax Payers) Act, 1974 (since December 1974), d) subscription to the State Government Loans pending allotment and temporarily held under other deposits and v) profits of the RBI held temporarily under the deposits pending transfer to the Central Government. These accounts are excluded from 'Other' Deposits with the RBI and treated as part of 'Other' Liabilities due to their illiquid nature.

Bankers' Deposits

2.44 Bankers' deposits with the RBI comprise balances maintained at the central bank by banks. In terms of Section 42(1) of the Reserve Bank of India Act, 1934, scheduled commercial banks are required to maintain with the Reserve Bank a minimum of cash reserve (CRR) of 3 per cent on

fortnightly basis of their net demand and time liabilities (NDTL) and the RBI is empowered to increase the said CRR to a rate not exceeding 20 per cent of the NDTL under the Act. The state co-operative banks and regional rural banks are required to maintain low level of cash reserve of 3 per cent of their NDTL. CRR for scheduled urban banks is 6 per cent. Non-scheduled banks are required to maintain in cash with themselves or in current account with the RBI, the State Bank of India (SBI) or any other bank notified on this behalf or partly in cash and partly in such accounts a minimum of 3 per cent of their NDTL under Section 18 of the Banking Regulation Act, 1949. Banks, however, could maintain excess reserves with the RBI.

II.5.2 Assets

Credit to Government

2.45 The net RBI credit to government⁵ is the sum of the net claims of the Bank on the Central and the state governments as the central bank is the banker to governments under Sections 20 and 21 of the RBI Act. The net RBI credit to the Centre is the sum of i) loans and advances from the RBI to the Centre and ii) the RBI's holdings of a) Treasury Bills, b) dated securities and c) rupee coins and small coins net of d) the Centre's cash balances. Dated securities of the Central Government include, *inter alia*, marketable securities, special securities, special non-interest bearing securities and gold bonds. The provisions governing the loans and advances to the Centre are changed from time to time and at present, these are laid out in the agreement signed between the RBI and the Government of India on March 26, 1997. Under Section 17(8) of the RBI Act, the Bank is authorised to engage in purchase and sale of Government securities. The Central Government is obliged to maintain a balance of Rs.50 crore on each Friday and Rs.4 crore on all other working days. The net RBI credit to the state governments comprises its loans and

⁵ The RBI used to publish data on the net RBI credit to Government until the SWG split the RBI's net claims on the Government in respect of the Centre and the State Governments.

advances to state governments net of their deposit balances with the central bank.

Credit to Commercial Sector

2.46 The RBI's credit to the commercial sector is the sum of holdings of i) shares/bonds of financial institutions, ii) ordinary debentures of the co-operative sector, iii) debentures of co-operative land mortgage banks, iv) loans to financial institutions, primary dealers and 'others' and v) internal bills purchased and discounted.

Claims on Banks

2.47 The RBI's gross claims on banks include i) its refinance to the banks and ii) fixed investment in banks' shares/bonds/debentures such as holding of shares of the State Bank of India.

Net Foreign Assets

2.48 Net foreign assets of the RBI is the sum of its holdings of i) gold coin and bullion, ii) eligible foreign securities and iii) balances held abroad netted for balances in IMF Account No.1 minus India's quota subscription in rupees.

Capital Account

2.49 The capital account of the RBI is computed to include paid-up capital, statutory reserve, contingency reserve (CR), exchange fluctuation reserve (EFR) and the exchange equalisation account (EEA) and contributions to the national funds.

Other Items (net)

2.50 Other items (net) constitute liabilities such as bills payable, balances under the RBI Employees' Pension/Co-operative Guarantee/Provident Funds, Compulsory Deposit Schemes, IMF quota subscriptions in rupees, and other sundry liabilities netted from other assets such as the value

of premises, furniture and fittings, debit balances under various heads of expenditure of the bank pending transfer to Profit and Loss Account, loans and advances granted to members of the staff towards housing, purchase of motor vehicles etc. The other sundry liabilities are 'other liabilities' net of CR, EFR, and EEA. The 'other assets' are reckoned net of gold held in the Banking Department since it is part of net foreign assets of the RBI.

COMMERCIAL BANK SURVEY (CBS)

2.51 The Group proposes a comprehensive Commercial Bank Survey (CBS) on the lines of the *MFS Manual* on the basis of the scheduled banks' summary statements on their demand and time liabilities and selected assets as at close of business on every alternate Friday on the basis of returns filed with the RBI in terms of Section 42(2) of the RBI Act beginning March 29, 1985 (Box II.4) supplemented by additional items of liabilities and assets as proposed by the Group essentially to reflect the changing scope of their activities (*Annexure II.5*).

II.6 Reporting Format for Commercial Banks

2.52 With the gradual deregulations of the financial sector and their consequent impact on the balance sheet of banks, a need has arisen to modify the data reporting system of commercial banks as the Section 42 (2) returns in their present form, do not capture i) the total resource flow to the commercial sector since investments in capital market instruments (non-approved securities) e.g., shares and debentures of corporates, Commercial Paper etc. remain unreported and ii) the net foreign currency exposure of the banking sector as it does not incorporate data on holdings of foreign currency assets. Since the importance of these assets have been growing and are expected to grow markedly in future, leaving them outside the framework of money supply would obviously distort the monetary aggregates. In order to address these issues, the

Group had constituted a Task Force (Convenor: Shri Amalendu Ghosh) to broaden the present reporting system. It recognised that the ambit of Sec. 42(2) returns is circumscribed by the need to monitor the statutory cash reserve ratio (CRR) and statutory liquidity ratio (SLR) requirements and, therefore, timely submission of returns by banks was considered of paramount importance. However, in order to effectively address the problem of delays that could arise on account of formal amendment of the statutory format, it is proposed to expand the Sec. 42(2) returns without altering the principal Form A, but adding i) a Memorandum to Form A, incorporating data on paid-up capital, reserves, certificates of deposit, and maturity structure of time deposits, and two Annexures, viz., ii) Annexure A incorporating data on break-up of external liabilities in terms of various schemes *e.g.*, FCNR(B) *etc.*, foreign currency assets and bank credit in India in foreign currency, and domestic liabilities subject to differential/zero reserve prescriptions and iii) Annexure B incorporating detailed data on banks' investments in the three categories of domestic securities, viz., government securities, other approved securities and other market instruments (*Annexure II.6*).

2.53 The gradual deregulation of the financial sector has provided much larger operational freedom to the banking sector but it has also thrown up a changing scenario whereby increasing competitive pressure has been forcing financial units to venture into newer areas hitherto untapped. In the process, the risk profile of banks has changed substantially in the recent period. For example, commercial banks' reliance on Certificates of Deposit (CDs) and other money market instruments viz., call money, reverse repo *etc.* have been becoming important relative to the traditional segment of core deposits. These apart, the banking system has been gradually mobilising resources of medium- and long-term nature not only from capital market but also from external sources as well. Though these managed liabilities help them to suitably adjust to occasional demands placed on

**Box II.4 : Section 42(2) of the
Reserve Bank of India Act**

Every scheduled bank shall send to the Bank a return signed by two responsible officers of such bank showing—

- a) the amount of its demand and time liabilities and the amount of its borrowings from banks in India, classifying them into demand and time liabilities,
- b) the total amount of legal tender notes and coins held by it in India,
- c) the balance held by it at the Bank in India,
- d) the balances held by it at other banks in current account and the money at call and short notice in India,
- e) the investments (at book value) in Central and State Government securities including Treasury Bills and Treasury deposit receipts,
- f) the amount of advances in India,
- g) the inland bills purchased and discounted in India and foreign bills purchased and discounted, at the close of business on each alternate Friday, and every such return shall be sent not later than seven days after the date to which it relates.

their stock of loanable resources, these liabilities have the typical attributes of higher interest sensitivity as well as exchange rate sensitivity. Moreover, following implementation of prudential norms, banks in India in the recent period have also become more security oriented while building up their portfolio. Larger investments in government securities, Commercial Papers, corporate debentures *etc.*, are reflective of this trend. Since progressively all these investments have to be marked to market, their assets are now more interest rate sensitive than earlier. This also brings to the fore the valuation issue of both domestic and foreign assets. Provisions have, therefore, been made in Annexures A and B to obtain data on revaluation on account of i) price changes in respect of domestic securities and ii) exchange rate changes in respect of foreign currency assets/liabilities not swapped into rupees. Banks are, however, advised to provide data on valuation changes as and when they occur.

II.6.1 Liabilities

2.54 Liabilities of a bank may be in the form of deposits (demand or time) or borrowings or other

miscellaneous items of liabilities. The nomenclature ‘demand liabilities’ is used to include all liabilities which are payable on demand and the expression ‘time liabilities’ is used to represent those which are payable otherwise than on demand. Assets/liabilities of a bank are also classified as assets/liabilities within the banking system and with others. These expressions are part of Section 42(2) Returns. Net inter-bank liabilities are excluded from money supply as these are expected to be cancelled out in consolidation of banking data.

Demand Liabilities

2.55 Demand liabilities at present include i) current deposits, ii) demand liabilities portion of savings bank deposits, iii) margins held against letters of credit/guarantees, iv) balances in overdue fixed deposits, cash certificates and cumulative/recurring deposits, v) outstanding Telegraphic Transfers (TTs), Mail Transfers (MTs) and Demand Drafts (DDs), (vi) unclaimed deposits, vii) credit balances in the Cash Credit Account (CC A/c), viii) demand portion of Participation Certificates (PCs) and (ix) deposits held as security for advances which are payable on demand.

Time Liabilities

2.56 Time liabilities include i) fixed deposits, ii) cash certificates, iii) cumulative and recurring deposits, iv) time liabilities portion of savings bank deposits, v) staff security deposits, vi) margins held against letters of credit, if not payable on demand, vii) fixed deposits held as securities for advances, and viii) time portion of PCs.

2.57 In order to achieve progressivity of liquidity in the money stock measures, the Group proposes that banks should classify their time liabilities into short-term and long-term liabilities. Short-term time liabilities are defined here as those with a contractual maturity of one year or less while time

liabilities with contractual maturity over one year are considered as long-term.

Other Demand and Time Liabilities

2.58 Other Demand and Time Liabilities (ODTL) include i) interest accrued on deposits, ii) bills payable, iii) unpaid dividends, iv) suspense accounts balances representing amounts due to other banks or public, v) inter-bank Participation Certificates (PCs), vi) net credit balance in the Branch Adjustment Account, vii) any amount due to the banking system which are not in the nature of deposits or borrowings on account of such items as collection of bills on behalf of other banks and interest due to other banks, and viii) credit balances in the *vostro* account. The Group proposes that borrowings by authorised dealers from banks and other institutions abroad as foreign liabilities be offset against foreign assets.

External Liabilities

2.59 Banks’ external liabilities should include i) non-resident deposits and ii) other deposits/schemes, as per RBI guidelines, iii) inter-bank foreign currency liabilities in the form of deposits and borrowings and iv) overseas borrowings. Foreign currency assets of banks should consist of their holdings of i) balances held abroad (*i.e.*, the cash component of *nostro* accounts *etc.*), ii) short-term foreign deposits and investments in eligible securities, iii) foreign money market instruments including Treasury Bills and iv) foreign shares and bonds.

II.6.2 Assets

Investments

2.60 Banks’ investments in domestic securities comprise their holdings of ‘approved securities’ and ‘other investment’ securities. Approved securities are bifurcated further into government securities and other approved securities.

2.61 The expression ‘approved securities’ emanates from the statutory stipulation that enjoins banks to maintain at the close of business on any day a minimum proportion of their demand and time liabilities in India as liquid assets in the form of cash, gold and unencumbered approved securities comprising Government securities and other approved securities under Section 5(a) of the Banking Regulation Act, 1949. Government securities include Central and state governments’ securities including treasury bills, treasury deposits receipts, treasury savings deposit certificates, recapitalisation bonds and postal obligations. Apart from these investments, scheduled commercial banks’ portfolios include i) commercial paper (CP), ii) units of Unit Trust of India and other mutual funds and iii) shares/bonds/debentures issued by a) public sector undertakings other than public financial institutions, b) public financial institutions and c) non-banking private corporate sector. Public financial institutions include a) term-lending institutions (such as IDBI, ICICI, IFCI, IIBI, Exim Bank and TFCI), b) refinancing institutions (such as NABARD, SIDBI and NHB) and c) investment institutions such as UTI, LIC and GIC and its subsidiaries which are not reported in Section 42(2) returns. The Group proposes that data on such ‘other investments’ be collected and be made a part of bank credit to commercial sector. On the classification of these investments in terms of maturity period, it may be noted that while other approved securities typically carry a maturity period of more than a year, investments in government securities need to be classified into short-term and long-term government securities depending on whether they bear a contractual maturity of up to one year or more than one year.

II.7 Reporting Format for Co-operative Banks

2.62 Co-operative banks include i) scheduled state co-operative banks, ii) non-scheduled state co-operative banks, iii) district central co-operative banks (DCCBs) and iv) primary co-operative banks comprising a) scheduled primary co-operative

banks (SPCBs), b) urban co-operative banks (UCBs) and c) salary earners’ credit societies. Data on scheduled co-operative banks (*i.e.*, scheduled state co-operative banks and scheduled primary co-operative banks) are available in the fortnightly Section 42(2) returns filed by them with the RBI. Data in respect of non-scheduled co-operative banks are available in the monthly returns under Sections 24 and 27 of the Banking Regulation Act.

2.63 While the SWG had factored in an unavoidable lag of two months or so in respect of the flow of data from non-scheduled co-operative banks on account of their large number, the delay has deteriorated further over the years and at present non-scheduled co-operative sector figures flow in with a time lag of nearly a year. As a consequence, money supply compilation has been using month-end estimates based on the linear extrapolation of the average annual growth rates of the past five years.

2.64 In order to examine the possibilities of expediting the flow of data in respect of non-scheduled co-operative banks, the Group had set up a Task Force (Convenor: Shri R. Ramanujam). It has been found that most of these banks are not computerised and do not have adequate infrastructure to ensure timely reporting. In view of the difficulties in obtaining data from major categories of co-operative banks and the time lags in their reporting, the Group felt that a sample survey of major co-operative banks for only the items of liabilities and assets which have a direct bearing on the monetary survey may be reported at a monthly frequency followed by a population survey (*Annexure II.7*). In no case should the reporting delays of the larger of these banks be in excess of one month from the month of reference. For other banks, such reporting delays should not exceed three months. Efforts should, however, be made to encourage these banks to quickly put in place mechanisms to improve their reporting methods so that the reporting system could be current by 2000 AD.

2.65 An analysis of data for non-scheduled co-operative banks showed that in respect of DCCBs, about a third of these banks with deposits of Rs.50 crore and above accounted for about three-fourths of their total deposits at end-November 1996. The majority of these large banks are concentrated in the six states of Maharashtra, Gujarat, Tamil Nadu, Kerala, Uttar Pradesh and Punjab. In respect of UCBs, 230 banks out of a total of 1377 banks with deposits of Rs.25 crore and above accounted for about 62 per cent out of their total deposits as at end-June 1997. The majority of these large banks (184 out of 230) were clustered around Maharashtra (97), Gujarat (68) and Karnataka (19), their combined shares accounting for 51.4 per cent of aggregate deposits of all UCBs.

2.66 The Task Force, therefore, suggested that data on select banking variables in respect of major DCCBs and UCBs would be compiled at RPCD and UBD on a priority basis as per the time frames suggested above and provided expeditiously to the compilers of money supply measures in the Department of Economic Analysis and Policy (DEAP). The Group feels that the two departments, RPCD and UBD, would have to take all necessary steps to impress upon their regional offices as well as the major co-operative banks to improve the infrastructure and to submit the returns on time. Within the medium term of 3 years, all the non-scheduled co-operative banks should submit returns in time preferably through electronic media.

FINANCIAL SECTOR SURVEY (FSS)

2.67 Apart from the compilation of monetary survey and broader liquidity aggregates, the Group proposes the compilation of a comprehensive financial sector survey (FSS) to capture the dynamic interlinkages between the 'depository corporations' and the rest of the organised financial sector. It was felt necessary because in a deregulated environment and with financial innovations, the

distinction between banks and non-banks would get blurred making it imperative to widen the institutional categories which could be the focus of policy. In order to address these issues the Group constituted two Task Forces, one to deal with data reporting system for public financial institutions (Convenor: Shri M.M.S. Rekhrao) and the other to deal with data issues relating specifically to non-bank financial companies (NBFCs) (Convenor: Shri T. Bandopadhyay). These two Task Forces engaged their attention to devise a formal data reporting system for financial institutions for compilation of FSS data (*Annexure II.8*).

II.8 Term Lending Institutions and Refinancing Institutions (FIs)

Liabilities

2.68 The liabilities of term lending institutions and refinancing institutions comprise, apart from i) paid-up capital and ii) reserves, iii) borrowings by way of bonds and debentures, iv) deposits (term deposits and certificates of deposit), v) other borrowings (from banks, other financial institutions, the Reserve Bank, by way of inter-corporate deposits, *etc.*), which may be classified as having contractual maturity of one year or less (short-term) or having contractual maturity of over one year (long-term) and vi) other liabilities. It may be noted that FIs raise resources from the international capital markets by way of bonds/debentures/notes/syndicated loans, *etc.* Raising of resources by each financial institution through selected instruments such as CDs, term money market borrowings, term deposits and ICDs (in case of select FIs) is, at present, linked to its net owned funds (NOF) as at end-March 1997.

2.69 These institutions are prohibited by the Reserve Bank from issuing any instrument with less than one-year maturity except for borrowings from the term money market in a maturity range of 3-6 months. Hence, most liabilities of FIs are of medium to long-term in nature. Thus, term deposits by FIs

have a maturity range of 1-5 years, CDs have a maturity range of 1-3 years, bonds are generally of long-term in nature *i.e.* above 5 years (though some bonds of 1-3 years have also been issued). The maturity of foreign currency borrowings through loans/bonds is generally long term (over 5 years). A minimum amount has been stipulated for CDs and term deposits each at Rs.10 lakh and Rs.10,000 respectively.

Assets

2.70 The assets of financial institutions comprise i) loans and advances (short-term and long-term) in rupees and foreign currency to corporate bodies/state-level financial institutions/RRBs/co-operative banks/housing finance companies, ii) investments (long-term) - in government and other trustee securities, and in shares/debentures of banks/other FIs/corporate bodies, and (short-term) - in call/notice money, bills discounted/rediscounted, commercial paper, CDs of banks, Treasury Bills, *etc.*, iii) deposits - with banks, CDs of FIs and with others, iv) fixed assets, v) cash and bank balances - in India and abroad, and vi) other assets. It may be noted that loans and advances comprise bulk of the assets of term-lending institutions.

2.71 The reporting format for FIs is furnished in *Annexure II.8*. The Group proposes that FIs may furnish the information on a monthly basis within three weeks from the month to which the information relates to.

II.9 Investment Institutions (Insurance Corporations)

Liabilities

2.72 The liabilities of investment institutions in India consist of i) paid-up capital, ii) reserves and reserve fund, iii) life/general insurance fund and iv) other liabilities - in India and outside. The main source of funds is the premia collected on insurance policies. These institutions

generally do not resort to any borrowing.

Assets

2.73 Investments constitute bulk of assets of investment institutions, mostly in Government and other trustee securities. The classification of assets for investment institutions is identical to that for term lending institutions.

2.74 The reporting format for investment institutions (insurance companies) is furnished in *Annexure II.8*. The periodicity of returns will be quarterly as these institutions are not in a position to furnish the data on a monthly basis due to very wide network of their branches. The investment institutions may furnish the information within four weeks from the quarter to which the information relates to. As data on some liability items and asset items are available only after the finalisation of the annual accounts, they are at present able to collect data on their major asset items on a quarterly basis and those on liability items on annual basis. However, it is essential that these institutions improve their data collection and reporting system in order to contribute to efficient policy decisions and better risk management.

II.10 Liabilities and Assets of Mutual Funds

Liabilities

2.75 The liabilities of mutual funds consist of i) initial capital, ii) reserves and reserve fund, iii) value of unit capital and iv) other liabilities. The main source of funds is the funds mobilised under various schemes - domestic (open-ended, closed ended and money market) and offshore funds. These institutions generally do not resort to any borrowings.

Assets

2.76 Investments constitute bulk of assets of mutual funds, largely in shares and debentures of

corporate bodies. The classification of assets for mutual funds is identical to that for term lending institutions.

2.77 The reporting format for mutual funds is furnished in *Annexure II.8*. The periodicity of returns would be on monthly basis. The mutual funds may furnish the information within three weeks from the month to which the information relates to.

II.11 Valuation of Securities

2.78 Ideally, the valuation of securities should be as close to market rates as possible. However, in view of the difficulties expressed by FIs in following different sets of norms from what they are already following for furnishing data for money supply purposes, different categories of FIs (including mutual funds) may submit the returns based on the existing valuation norms being followed by them; however, they would be advised to gradually move over to the international norm of valuation of securities, since this is essential for evolving their own risk management strategies over time.

II.12 Non-Banking Financial Companies (NBFCs)

2.79 Non-banking financial companies (NBFCs), comprising hire purchase finance companies, equipment leasing companies, housing finance companies, investment companies, loan companies, mutual benefit finance companies, chit fund companies, miscellaneous finance companies, residuary non-banking companies *etc.*, provide variety of services similar to those of commercial banks, although they do not provide chequeable facility to their customers. Hence, a part of their deposit liabilities which directly compete with those of the banking system (*viz.*, public deposits, a

component of regulated deposits⁶) and which bypass the intermediation process of the banking system is considered by the Group for inclusion in the broad measure of liquidity.

2.80 The liabilities of NBFCs comprise i) public deposits, ii) borrowings from banks, corporates (through ICDs), foreign governments, authorities, individuals *etc.*, iii) resources raised through issue of convertible or secured debentures, iv) other liabilities (if any). Assets comprise i) investments in government securities and in shares, bonds, debentures, CPs *etc.*, of corporates including PSUs, ii) loans and advances, iii) hire purchase, equipment leasing and bills discounting, iv) overseas lending and v) other assets (if any).

2.81 The major NBFCs are concentrated in six States - West Bengal, Maharashtra, Tamil Nadu, Uttar Pradesh, Karnataka and Delhi. The Group proposes that data on selected items of liabilities and assets can be collected from about 150 large companies (currently to be defined as those having public deposits of Rs.20 crore or above) which account for over 90 per cent of the total public deposits on a quarterly basis, to begin with, which could be improved upon, subsequently (*Annexure II.9*).

II.13 Flow of Funds Accounts of the Financial Sector

2.82 The FSS as envisaged would broadly correspond to the sectoral balance sheet of the financial sector within the SNA or flow of funds (FoF) accounts. In India, flow of funds accounts are prepared on an annual basis with a considerable time lag. While there is little scope for quarterly flow of funds accounts given the reporting system for the real sector, the quarterly flow of funds account of the financial sector could bring out apart from the structure and behaviour of the financial sector, the relationship between the financial activities and the non-financial domestic economy and the rest of the world.

⁶ The other constituents are ICDs, non-convertible debentures, deposits received from shareholders and Directors.

CHAPTER III

COLLECTION AND DISSEMINATION OF MONETARY DATA

3.1 The Reserve Bank of India, as the monetary authority of the country, is the primary source of monetary statistics. The need to construct reliable and up-to-date monetary statistics in order to provide inputs for the formulation and monitoring of monetary policy measures is well recognised all over the world; this is particularly significant where monetary targeting is regarded as an important characteristic of monetary policy. Dissemination of monetary aggregates with the minimal time lag is important to lend transparency to the central bank's operations and influence expectations of economic participants. It also helps to create opportunities for wider debate and to facilitate analysis and research in monetary and financial economics.

III.1 Current Dissemination Practices

3.2 At present, the Reserve Bank disseminates four monetary aggregates through its various publications, besides the reserve money or central bank money. 'Reserve money' (M_0) is compiled on a weekly basis from the Weekly Statements of Affairs of the Reserve Bank of India which are available on each Friday as prescribed by Section 53(1) of the RBI Act, 1934. Data on reserve money are published in the Weekly Statistical Supplement (WSS) to the RBI Bulletin within a fortnight from the reporting Friday under reference. The narrow and broad money aggregates (M_1 and M_3) are compiled fortnightly, primarily based on the Weekly Statements of Affairs of the RBI as well as Section 42(2) returns which are filed by scheduled banks with the RBI on alternate Fridays beginning March 29, 1985. Data on broad money (M_3) are published in the WSS within three weeks from the reporting Friday under reference. Monetary data (M_1 and M_3) for reporting Fridays are also published in detail in the RBI Bulletins. The RBI Bulletins also publish

two other monetary aggregates (M_2 and M_4) including deposits with the post office savings bank *albeit* with a lag. In the Reports on Currency and Finance, monthly data for the financial year are published. The data on three monetary aggregates (M_0 , M_1 and M_3), on a financial year basis, are published in the RBI Annual Reports. Furthermore, data on select monetary ratios and on the income velocity of money are published in the Bank's Annual Reports as well as the Reports on Currency and Finance. These two publications also carry exclusive chapters analysing monetary developments for the year concerned and the rationale of policy initiatives during the course of the year.

Changes in Reporting Format

3.3 In view of proposed changes in the reporting format, monetary data would need to be more detailed, based on the information furnished by banks. Moreover, with the enlargement of the scope and coverage of the Section 42(2) returns, data on such items as certificates of deposit (CDs) issued by banks, external liabilities of banks and banks' investments in 'other securities' would now be available to the public at a higher frequency.

Periodicity of Monetary Data

3.4 The Group proposes compilation of four monetary aggregates, three liquidity measures and a comprehensive Financial Sector Survey (FSS). The frequency of each aggregate and the proposed manner of dissemination are indicated in Table 3.1. The Group proposes that the present practice of compiling monetary base on a weekly basis and monetary aggregates on a fortnightly basis should continue. Data on reserve money and monetary aggregates should be published in the WSS and in

other publications of the Bank, as has been the present practice, and should be placed on the RBI Website.

3.5 The Group recommends that measures of liquidity L_1 and L_2 should, however, be compiled on a monthly basis and published in the RBI Bulletin. It is proposed to publish data on L_3 and FSS on a quarterly basis in the RBI Bulletin. The financial sector survey may be accompanied by a review of the developments in the financial sector during the quarter under reference, to bring to the fore the dynamic interlinkages in the financial sector which could be useful in providing important policy inputs.

returns could be discontinued. However, the Group is of the view that the same for the last Friday of March (not being a reporting Friday) may be continued in order to capture useful information on portfolio shifts of banks. This is in line with the recommendations of the Chakravarty Committee (1985) which suggested rationalisation of these bases.

Treatment of Year-end Data

3.7 The treatment of year-end data for scheduled commercial banks in money supply needs special mention. It has been found that financial year-end monetary aggregates based on their data relating

Table 3.1 : Dissemination of Proposed Monetary Aggregates

Sl. No.	Monetary/Liquidity Aggregates	Frequency of Compilation	RBI Publications				RBI Website
			WSS ¹	RBI Bulletin	RBI Annual Report	RCF ²	
1	2	3	4	5	6	7	8
I. Monetary Aggregates							
	i) M_0	Weekly	✓	✓	✓	✓	✓
	ii) M_1	Fortnightly ³	✓	✓	✓	✓	✓
	iii) M_2	Fortnightly ³	✓	✓	✓	✓	✓
	iv) M_3	Fortnightly ³	✓	✓	✓	✓	✓
II. Liquidity Aggregates							
	i) L_1	Monthly	-	✓	-	✓	✓
	ii) L_2	Monthly	-	✓	-	✓	✓
	iii) L_3	Quarterly	-	✓	-	✓	✓
III. Financial Sector Survey		Quarterly	-	✓	✓	✓	✓

¹ Weekly Statistical Supplement to the RBI Bulletin.

² Report on Currency and Finance.

³ On alternate Fridays beginning March 29, 1985.

Presentation of Data

3.6 At present, money supply is compiled on a reporting Friday basis as well as on the last Friday of the month, in case the Friday is not a reporting Friday. However, monetary aggregates as on the last Friday of the month do not seem to carry much economic significance, given that the random nature of such Fridays make any meaningful statistical comparison difficult. The Group, therefore, proposes that monetary data based on last Friday

to the last reporting Friday of the year *vis-à-vis* those with end-March base have shown substantial variability (Table 3.2) depending on the closeness of the last reporting Friday to the last working day of the month. This is because the last working day of March is the balance-sheet date of scheduled commercial banks, which typically show a year-end bulge in deposits and credit. Moreover, the accounting year-end data (end-March) for both commercial and co-operative banks are obtained through a special return with a considerable lag

unlike those for the reporting Friday data. Hence, as a matter of operational expediency, the Group is of the view that the year-end monetary data should consist of commercial as well as co-operative banks' data for the last reporting Friday of March, and RBI data as of end-March unlike the earlier practice when co-operative banks' data for end-March were considered. However, the year-end monetary data with scheduled commercial banks' data for the balance sheet date (*i.e.*, last working day of March) should continue to be published as a special table in the RBI Bulletin as has been the present practice.

3.8 While March-end data has special economic significance, a proper assessment of monetary conditions in the economy could be made by averaging the data for the fortnights during the financial year. This would insulate the annual flow of information from the computational vagaries that point estimates are subjected to. As may be seen from Table 3.3, while the long-term trend is more or less the same, the financial year growth rates based on average fortnightly figures are much more stable.

III.2 Seasonality in Monetary Data

3.9 The monetary trends at times may deviate significantly from the desired trajectory on account of strong seasonal movements. In view of this, many central banks publish data on seasonally adjusted monetary aggregates¹. Seasonality in Indian monetary data essentially arises out of i) seasonal demand for transactions balances and ii) operational practices of the banking system. This implies that the seasonal patterns of the two principal components of the money supply series, *viz.*, currency with the public and bank deposits should be assessed carefully. Presentation of monetary aggregates as such may not clearly portray the true monetary situation, as the seasonal factors behind

¹ Among central banks that publish deseasonalised aggregates are those of Australia, Canada, Japan, New Zealand, the Netherlands, Spain, the U.K. and the U.S.A.

Table 3.2 : Variations in Broad Money (M₃)

Year	M ₃ Growth Rates (Per cent)		Days between the last reporting Friday and March 31@	M ₃ growth between March 31 and the last reporting Friday (in Rupees crore)
	SCB as on last reporting Friday	SCB as on March 31		
1	2	3	4	5
1988-89	17.8	21.9	6	6,752
1989-90	19.4	19.4	7	8,234
1990-91	15.1	16.1	8	11,775
1991-92	19.3	18.1	10	10,913
1992-93	15.7	15.5	11	12,053
1993-94	18.4	19.3	12	17,778
1994-95	22.3	17.5	0	0
1995-96	13.7	14.2	1	2,768
1996-97P	16.0	16.5	2	6,295
Memo Items				
i. Average	17.5	17.6	—	—
ii. Coefficient of Variation (%)	14.3	12.6	—	—

@ Excluding Sundays. P Provisional.
SCBs : Scheduled Commercial Banks.

Table 3.3 : Financial Year Growth Rates of Broad Money(M₃)
(Per cent)

Year	March-end basis \$	Average basis
1	2	3
1988-89	17.8	17.3
1989-90	19.4	19.0
1990-91	15.1	16.7
1991-92	19.3	17.1
1992-93	15.7	18.7
1993-94	18.4	15.9
1994-95	22.3	19.8
1995-96	13.7	15.7
1996-97P	16.0	16.1
1997-98P	17.0	16.6
Memo Items		
i. Average	17.5	17.3
ii. Coefficient of Variation (%)	15.6	7.7

P Provisional.

\$ With commercial banks' data for the last reporting Friday of March.

monetary movements are not always transparent to the public. It is, therefore, necessary to deseasonalise the monetary data component-wise and then aggregate the resultant components to obtain the deseasonalised monetary aggregates.

Currency with the Public

3.10 An analysis of the average seasonal factors of currency with the public shows that currency demand follows a V shape dipping in the middle of financial year (*i.e.*, September). The demand for transactions balances is usually very high during the first quarter of the financial year (peaking in May), bottoms out by the end of the second quarter and picks up again during the second half of the year. The high currency demand during the first quarter of the year essentially emanates from the realisation of proceeds from the wheat harvest primarily because the entire quantum of wheat procurement takes place during April-June (with May usually accounting for the bulk of total procurement). Transactions demand picks up around October with the festival season and is sustained till March reflecting, *inter alia*, i) rice procurement and ii) pick-up in industrial activity during the second half of the year.

Bank Deposits

3.11 The seasonal behaviour of aggregate bank deposits is largely dictated by quarter-end interest applications, the year-end bulge on the balance sheet date (end-March) and the subsequent 'unwinding' of deposits especially during the first quarter of the financial year. The average seasonal factors of demand deposits decline during the first half of the year till August and thereafter pick up till March reflecting the increase in the economic activity during the second half of the year. The sharp enlargement of seasonal factors for March partly reflects the window dressing by banks. Time deposits on the other hand follow the reverse trend by rising during the second quarter (July-September) and declining thereafter till February.

Underlying Seasonal Factors

3.12 While the underlying seasonal factor for

currency is governed by economic factors, the seasonal factor for deposits, though generally influenced by non-bank non-government sectors' portfolio considerations, has also been affected by the accounting practices of the banking system such as interest applications on time liabilities during the quarter ended September and March of every year. It is, therefore, essential to identify such underlying dynamics in the data series to extract an appropriate set of seasonal factors. As regards breaks in the series, it is worthwhile to note that the seasonal factors for deposits data after the year 1989 are different from those for the earlier period as the banking sector switched over to the financial year (April-March) basis of closing of accounts from the calendar year basis in that year. It is, therefore, essential that the data series for estimation of seasonality should not be too long such that the structural breaks, if any, are identified (Box III.1).

3.13 The average seasonally adjusted factors computed on the basis of X-11 method show that broad money follow a kind of U curve bottoming out around the middle of the financial year while for currency it peaks at the beginning of the financial year. The seasonal factor for aggregate deposits declines during the first quarter of the year and thereafter gradually increases till the end of the year (Table 3.4).

3.14 Considering the importance of deseasonalised data, more so in a monetary targeting framework, the Group recommends that the deseasonalised monetary aggregates be published in the WSS on a regular month-end basis with April 1989 as the base date for analysis of seasonality. The base month has been so chosen on account of change of accounting year of the banking system from end-December to end-March since 1988-89.

Box III.1: Seasonal Adjustment of Monetary Data

The *IMF Manual on Monetary and Financial Statistics* emphasises the importance of seasonal adjustment of series used in current monetary policy. The seasonal adjustment series must be long enough to provide enough observations (six to ten years) but very long series may be unsuitable for adjustment as they incorporate structural shifts in series. The 1988 Hilbert Report on the seasonal adjustment of monetary statistics in the U.K. referred to the US Census X-11 as the *de facto* international standard. At present, the X-11 ARIMA package developed by Statistics Canada is perhaps the most widely used by statistical offices. The Group, however, recommends the use of X-12-ARIMA², relatively a much more powerful deseasonalisation package developed recently by the US Census Bureau. The decision to adjust totals or components is usually made on a case-by-case basis considering the analytical importance of the components relative to the importance of the total³.

Table 3.4 : Average Seasonal Factors of Broad Money (M₃)

Month	Broad Money	Currency with the Public	Aggregate Deposits	Demand Deposits	Time Deposits
1	2	3	4	5	6
April	101.24	103.99	100.70	102.21	100.32
May	101.25	106.17	99.96	101.09	99.70
June	100.57	103.25	99.76	100.54	99.61
July	100.08	99.40	99.89	99.00	100.02
Aug.	99.17	97.57	99.39	97.28	100.03
Sept.	99.19	95.65	99.77	97.82	100.38
Oct.	99.86	97.70	100.22	98.76	100.58
Nov.	99.87	98.75	100.01	100.00	100.01
Dec.	99.77	98.45	100.36	100.04	100.26
Jan.	99.55	99.25	99.80	99.83	99.89
Feb.	99.43	100.21	99.53	99.92	99.43
March	100.02	99.68	100.61	103.54	99.76

Note: Based on data from 1988 April through 1996 March.

III.3 Collection of Monetary Data**3.15 The data collection process is crucial for**

² Blanchi, Marco (1997), "X-12-ARIMA", in *Software Reviews, Economic Journal*, September.

³ Hein, Scott E. and Mack Ott, (1983), "Seasonally Adjusted Money: Procedures, Problems and Proposals", *Federal Reserve Bank of St. Louis Review*, November.

⁴ The data required from FID and DNBS are given by way of an illustrative proforma returns in *Annexures* to Chapter II.

timely compilation and quick dissemination of monetary aggregates. Presently, the required basic data are made available to the Reserve Bank by banks essentially through hard copies which are processed at various levels using up considerable amount of man-hours. The Group proposes that scheduled banks may be encouraged to forward Section 42(2) returns to the Regional Offices of the Department of Banking Operations and Development (DBOD), Rural Planning and Credit Department (RPCD) and Urban Banks Department (UBD), as the case may be, utilising the VSAT network. The regional offices of DBOD, RPCD and UBD would, in turn, transmit banking data electronically *via* the VSAT network to their respective central offices which, after due scrutiny, would forward the data to the Department of Economic Analysis and Policy (DEAP). Over time, however, the data should be made available by the reporting financial institutions on an on-line basis to the Reserve Bank which in turn has to equip itself with wider area networks.

3.16 With the enlargement of the scope and coverage of monetary/financial aggregates to encompass public financial institutions, investment institutions, mutual funds and non-banking financial companies, the Financial Institutions Division (FID) and Department of Non-Banking Supervision (DNBS) would also have to take necessary steps to put in place a system of regular reporting of relevant statistics to DEAP⁴.

3.17 The increase in the number of aggregates on which data need to be disseminated would entail that DEAP is geared to quickly handle the additional flow of information. The Group proposes that the data gathering work should be completely computerised in DEAP on user friendly and versatile information technology platforms. The relational data base management system (RDBMS) is one such available at present. This could be considered by the Reserve Bank with reference to all its activities where data are large and divergent, and have to be gathered on a frequent basis.

3.18 Monetary data should continue to be disseminated through various publications of the Reserve Bank as well as in electronic form. At present, monetary data are available on the Internet in the RBI Home Page as part of the WSS and other reports.

Revised Reporting System

3.19 In view of the change in the reporting format prescribed particularly for the commercial and co-operative banks, financial institutions and mutual funds, the Group proposes that a structured calendar for each data category may be set in place for smooth transition to the new system of reporting as given in Table 3.5.

The New Official Series

3.20 Based on the data available from October 1998, it should be possible to publish new official series of monetary aggregates from early 1999.

3.21 The Group proposes that both the existing and proposed monetary aggregates may initially be published for at least a year in the relevant Reserve Bank publications in order to facilitate an understanding of the elements underlying the shift to the proposed aggregates.

Table 3.5 : Schedule for Collection of Statistics

Sl. No.	Sector	Department(s) of RBI to initiate the work	Revised Reporting to start from
1	2	3	4
1.	Reserve Bank of India	DGBA	October 1998
2.	Scheduled Commercial Banks	DBOD	First Reporting Friday of October 1998
3.	Co-operative Banks	RPCD and UBD	October 1998 / First Reporting Friday of October 1998
4.	Non-Bank Financial Companies	DNBS	October 1998
5.	All categories of Financial Institutions	FID	October 1998

CHAPTER IV

ANALYTICS OF MONETARY AGGREGATES

4.1 Monetary statistics are required not only for theoretical research but also for formulation, implementation and monitoring of financial and monetary policy. Of the maze of monetary statistics, monetary aggregates are often used in many countries either as indicators or direct targets of policy. As pointed out in Chapter II, monetary aggregates are compiled on the basis of consolidated balance sheet of the banking sector. In the process of consolidation, the intra-sectoral holdings of assets and liabilities get netted out, yielding in the event simple sum monetary aggregates. For example, currency with the public is added to bank deposits to obtain broader monetary aggregates. The traditional simple sum monetary aggregates assume perfect substitutability amongst their components. This aspect attracted theoretical as well as empirical criticisms from several quarters. Notwithstanding these criticisms, simple sum monetary aggregates are compiled and published by all the central banks of the world as they are easily understood and are relatively easily and quickly compiled.

IV.1 The Money Supply Process

Weighted Monetary Aggregates

4.2 Research in monetary economics gave rise to a number of alternative monetary aggregates, popularly known as 'superlative monetary indices', or 'weighted monetary aggregates' (WMA) but these are generally found in academic/research journals. Theoretically, the superlative aggregates are shown to provide significant improvement over the simple sum counterparts in measuring the flow of 'money services' in the economy. This is achieved by weighting the quantity of each component asset with its unique rental price which reflects its relative moneyiness. The respective weights of components

in weighted monetary indices are derived from the interest returns on the components. The weight of each component is calculated as the difference between interest return on a 'benchmark' instrument that is held primarily for investment earnings and the instrument under consideration. Currency and non-interest bearing demand deposits have largest weight in the aggregate because they attract no interest. Other highly liquid, low-interest instruments are also given larger weights in comparison with instruments that have high interest returns.

4.3 The Group, therefore, undertook an exercise to examine some of the superlative monetary aggregates such as Divisia, Linear, Fisher, Geometric and Currency Equivalent indices using annual data for the period 1978-1997 with the dividend on Unit Trust of India (UTI) Unit 64 scheme as the 'benchmark' rate. The weighted monetary aggregates were evaluated in terms of their information content with respect to the goal variable (real output) *vis-a-vis* the simple sum aggregates. The empirical results suggested that Divisia and Linear indices were slightly superior to the simple sum aggregates in terms of their information content. Evaluated in the context of money demand analysis, these two indices also performed better in terms of their output and interest rate sensitiveness.

4.4 The weighted monetary aggregates, however, are criticised on the grounds that the weights depend on the choice of benchmark instrument and the indices assume a 'normal' relationship between short-term and long-term interest rates which may not hold in practice. Moreover, the assumption that liquidity is inversely related to the rate of return on a financial instrument has been eroded by financial innovations. Practical problems concerning the

targeting potential of the superlative aggregates and their linkages to the goal variables still remain formidable. For instance, questions like what is the supply function of Divisia M_3 and how to establish its relationship with monetary base are not easily answerable. Moreover, how could one define and measure a Divisia M_3 multiplier? How do the operating instruments of monetary policy influence the ratios involved in these multipliers? Furthermore, there is always an element of judgement involved in the choice of a 'benchmark' rate. In view of these practical difficulties and lack of a potential policy role that the weighted monetary aggregates could have, the Group did not favour compilation and dissemination of weighted monetary aggregates. Moreover, an extensive cross-country survey of 29 countries revealed that except for the United Kingdom (U.K.) no other country publishes weighted monetary aggregates.

Money Multiplier

4.5 Money supply determination is essentially viewed in terms of a relationship between the central bank money and monetary liabilities of the banking system as a whole. The relationship is denoted by money multiplier (m). The monetary base consists of currency and bankers' deposits with the central bank which provides a foundation for expansion of money and credit in the economy. The monetary base is important because it is at times considered an intermediate policy target controlled by authorities that can have measurable impact on income and prices.

4.6 In the Indian context, since broad money is used as a policy target, the Group proposed to

consider the stability and predictability of broad money multiplier in order to determine the usefulness of money supply as a concept. The broad money multiplier (m_b) can be expressed as follows:

$$M_3 = m_b \cdot (M_0) \dots\dots (1)$$

In its simplest form, m_b can be unscrambled as a function of its two proximate determinants, viz., currency-deposit ratio (c) and reserve-deposit ratio (r)¹:

$$m_b = \frac{1+c}{c+r} \dots\dots (2)$$

Both 'c' and 'r' are less than unity.

4.7 The currency-deposit ratio is a behavioural relationship and depends upon the societal preference for currency *vis-a-vis* deposits. It also depends on institutional factors such as the spread of banking habits and the payments system. The reserve-deposit ratio on the other hand is a policy parameter governed by the prescription of statutory minimum reserve requirements on bank deposits.

4.8 It is important to note that the value of the multiplier varies inversely with both 'c' and 'r'. The monthly data on broad money multiplier for the period 1970-71 to 1996-97 show that it varied in the range of 2.17-3.72 with a mean value of 3.0. The multiplier has exhibited an upward trend over time: this would be apparent from the fact that the mean value of the multiplier increased from 2.67 in the 1970s to 3.12 in the 1980s and further to 3.24 in the 1990s so far. The volatility of the multiplier, measured by its standard deviation,

¹ The derivation of money multiplier in its simplest form is as follows:

$$\begin{aligned} M_3 &= m_b M_0 \\ \text{or } m_b &= M_3 / M_0 \\ &= \frac{C+D}{C+R} = \frac{C/D+D/D}{C/D+R/D} = \frac{1+c}{c+r} \end{aligned}$$

where, C : Currency in Circulation.

D : Aggregate Deposits

R : Banks' Reserves with the Central Bank.

which had declined during the 1980s from the 1970s, however, increased in the 1990s mainly due to frequent changes in the cash reserve ratio (Table 4.1).

Table 4.1 : Broad Money Multiplier

Period	Maximum	Minimum	Mean	Standard Deviation
1	2	3	4	5
1970-1997	3.72	2.17	3.00	.323
1970s	3.07	2.17	2.67	.269
1980s	3.37	2.83	3.12	.119
1990s	3.72	2.96	3.24	.193

4.9 Keeping in view the movements in the multiplier, the key question is how stable is the multiplier which could explain the long-run relationship between broad money and the monetary base. In order to focus on this issue, the multiplier equation can be expressed after a logarithmic transformation as follows:

$$\ln(M_3) - \ln(M_0) = \ln(m_b) \dots\dots (3)$$

If the right hand side of the expression can be demonstrated to have been integrated of the order zero, *i.e.*, if it is an $I(0)$ process, then the multiplier could be assumed to be stable in the long run. This would mean that cointegrating long-run relationship between $\ln M_3$ and $\ln M_0$ ought to exist, *i.e.*, both $\ln M_3$ and $\ln M_0$ should be integrated of the same order.

4.10 The cointegration exercise between $\ln M_3$ and $\ln M_0$ was undertaken by checking for unit root using Stock-Watson test statistics for unit root. The Stock-Watson procedure was preferred to the usual Dickey-Fuller test due to presence of higher order autocorrelation in the error residuals. On

confirmation that both $\ln M_3$ and $\ln M_0$ are $I(1)$ processes, Johansen cointegration technique was used to estimate the long-run equation which was estimated as indicated below:

$$\ln(M_3) = 1.475 + 1.0881 \ln(M_0) \dots\dots (4)$$

It can be seen that the long-run elasticity of M_0 is close to unity. Even with a restriction of unit elasticity on monetary base the cointegrating vector could be established pointing to a long-run stable relationship between monetary base and broad money. The process was corroborated by testing for unit root in the multiplier series itself. The Dickey-Fuller test confirmed that $\ln(m_b)$ is trend stationary.

4.11 Thus, given the long-run stability of the multiplier, the money multiplier framework could be utilised for policy purposes. However, the money multiplier approach to money supply is subject to criticism on the grounds that it presupposes a mechanistic relationship. Moreover, with gradual deemphasis on cash reserve ratio (CRR) as a policy instrument, the multiplier approach may not be an appropriate framework to view the money supply process. Nevertheless, the fact that reserve ratios can be effectively used to influence money supply in the short run would need to be recognised.

4.12 In order to evaluate the relative importance of the proximate determinants, the multiplier relationship was reformulated as follows:

$$\ln M_3 = f(\ln M_0, c, r) \dots\dots (5)$$

The regression equation was estimated using Ordinary Least Square (OLS) technique for the entire period (1970-71 to 1997-98) and for the latest

Table 4.2: Regression Results of Broad Money (M_3) Multiplier

No.	Period	Intercept	lnMo	c	r	$\bar{R}^2$	DW
1	2	3	4	5	6	7	8
1.	1970April-1998 March	1.794* (.0555)	1.0022* (.0046)	-1.399* (.0364)	-2.3934* (.0428)	.99	2.19
2.	1991April-1998 March	1.856* (.1657)	1.0093* (.0135)	-1.924* (.1797)	-2.515* (.1187)	.99	2.17

Parenthetic figures indicate standard errors.

* Significant at 1 per cent level.

period of the 1990s so far (Table 4.2).

4.13 The regression results show that monetary base has unit elasticity in respect to broad money and both 'c' and 'r' have the desired negative signs. The semi-elasticities for 'c' and 'r' indicate that the latter has a larger influence in the determination of the multiplier.

4.14 The predictive power of the multiplier equation was found to be quite robust. The out of sample forecast of broad money generated for the twelve month period of the year 1997-98 based on fixed initial value of 'c' yielded very low Root Mean Sum of Squares Prediction Errors (RMSPE). We varied the sample size to see if we could get different outcomes. RMSPE, however, remained bound in the narrow range of 2.3-2.9 per cent reflecting the robustness of the prediction. The result is very significant in the sense that it shows that variations in cash reserve requirements would have predictable impact on money supply notwithstanding the movements in the behavioural currency-deposit ratio.

4.15 In order to gauge the impact of changes in CRR on the multiplier and hence the broad money, the impulse response function for 1.0 percentage point change in CRR was estimated. The response of the multiplier to 1.0 percentage point sustained increase in CRR was a decrease of 0.7 percentage point in the long run. Moreover, it takes around two quarters for a sustained increase in CRR to exert its full effect on the multiplier close to its long-run value. The CRR thus could be considered

an effective instrument of modulating variations in money supply.

IV.2 Demand for Money

4.16 In order to ascertain whether money as defined is demanded in relation to the overall transactions in the economy, it would be necessary to relate the chosen monetary aggregate to some macroeconomic indicator such as GDP or GNP. The literature attempts to find out which of the monetary aggregates, namely narrow money or broad money, is closely correlated with real activity. It is in this context, the demand for money in real terms is sought to be determined by postulating a function wherein real money demand is dependent upon a scale variable (income) and an opportunity cost of money (interest rate).

4.17 The broad money demand equation was examined on the basis of annual data for the period 1970-71 to 1996-97. The choice of annual data was unavoidable due to non-availability of quarterly data series on income (GDP). The nominal money demand equation showed a long-run price elasticity close to unity when the Wholesale Price Index (WPI) is taken as the indicator of price level and an income elasticity of 1.5-1.6.

4.18 Given that the long-run price elasticity is close to unity, two alternate specifications of real demand for broad money equation were estimated with a scale variable and an opportunity cost variable as the explanatory factors. The interest

rate as proxied by the call money rate was not significant though it had the desired negative sign. Even when the GDP deflator was taken as the indicator of price level to derive real money balances, there was no significant change in the estimated income elasticity of demand for broad money. The long-run income elasticity of demand for broad money from the alternate specifications worked out in the narrow range of 1.5 - 1.6 after correction for auto-correlation (Table 4.3).

4.19 The real broad money balances and

period were tested by employing cusum and cusum of square techniques (CUSUM and CUSUMSQ). These tests based on recursive residuals are more suited to detect gradual changes. Both these tests pointed to parameter stability. The CUSUM and CUSUMSQ tests were supplemented by using recursive least square (RLSQ) approach which showed that the paths of the parameter generally did not cross the two standard error bands suggesting that they were fairly stable in the long run. However, the parameter paths were not exactly horizontal

Table 4.3 : Money Demand Equations

No.	Equation	Intercept	ln WPI	ln WPI ₋₁	ln GDPC	ln CMRT	$\bar{R}^2$	DW	ADF Test on Co-integration
1	2	3	4	5	6	7	8	9	10
1.	LnM ₃	-11.39 (-4.50)	1.08 (7.16)	-	1.48 (5.57)	-	.99	1.50	
2.	LnM ₃	-11.89 (-2.66)	-	1.04 (3.73)	1.55 (3.23)	-	.99	1.73	
3.	LnRM ₃	-12.02 (-8.29)	-	-	1.57 (12.91)	-0.03 (-.77)	.99	1.71	
4.	LnRM ₃	12.31 (-9.44)	-	-	1.59 (14.52)	-	.99	1.59	Co-integrated
5.	LnRM ₃ *	-10.93 (-8.60)	-	-	1.45 (13.84)	-0.016 (-.44)	.99	1.88	
6.	LnRM ₃ *	-11.05 (-9.34)	-	-	1.46 (14.74)	-	.99	1.82	Co-integrated

Parenthetic figures indicate t statistics.

* Deflated with GDP Deflator (GDPDF).

M₃ : Nominal Broad Money Stock.

RM₃ : Real Broad Money Stock.

WPI : Wholesale Price Index.

GDPDF : GDP Deflator.

GDPC : GDP at factor cost at constant (1980-81) prices.

CMRT : Call Money Rate.

aggregate income were found to be cointegrated reflecting a long-run equilibrium relationship between real broad money (M₃) and real GDP. However, in order for the broad money demand equation to be adequately used for policy purposes, the stability properties are very critical. In view of the cointegrating relationship, while the stability of the model was ensured, the variations in the parameters within the sample

indicating that they were not constant over time.

4.20 Besides the parameter stability, the predictive stability of the equation is equally important for its use for policy purposes. In order to evaluate the predictive stability, the reduced form money demand equation was estimated for the period 1970-71 to 1992-93 to generate out of sample forecast for the post reform period covering

1993-94 to 1996-97. The actual and predicted values indicated that the equation consistently overpredicted the demand for money (Table 4.4) and the Root Mean Sum of Squares Prediction Error (RMSPE) was relatively high at about 16 per cent. This would imply that there has been an unidirectional short-term deviation from the long-run equilibrium path which needs to be captured in terms of other relevant variables to ensure predictive accuracy. This would also mean that monetary policy exclusively based on the demand function for money could lack precision.

Table 4.4 : Dynamic Forecast of Broad Money (M_3)

Years	$\ln M_3$ (Actual)	$\ln M_3$ (Predicted)	Error
1	2	3	4
1993-94	7.3920	7.4496	-.05761
1994-95	7.4696	7.5932	-.12359
1995-96	7.5412	7.7222	-.18098
1996-97	7.6292	7.8544	-.22519

4.21 It is necessary to emphasise that linkages between monetary aggregates and economic activity have not remained constant over the years. The changing character and content of financial markets over the years have, mainly, been responsible for the earlier revisions and updating of the simple-sum monetary aggregates in India. Since the mid-'seventies, the stability property of the money demand function has come under close scrutiny. Most of the studies in India have addressed this issue of stability in long run relationship, broadly, in two ways: structural stability (model stability) and parameter stability of the structural long-run equations. Since the structural equation represents steady state equilibrium condition, it would have only static stability. Therefore, an appropriate framework of examining this issue could be to study the dynamic stability of an error correction model (ECM) rather than the original structural equation. However, availability of only annual data on GDP and the short period for which the data on other related variables are available following the reforms of the financial sector, posed serious difficulties for empirical estimation of a robust ECM model.

IV.3 New Monetary Aggregates

4.22 In order to evaluate the performance of the new monetary aggregates proposed by the Group, an exercise of estimating the three monetary aggregates (M_1 , M_2 and M_3) and two liquidity aggregates (L_1 and L_2) was undertaken on a monthly basis for the period April 1993 to March 1997 (*Annexures IV.1 and IV.2*). The information content of these new aggregates was tested econometrically by using non-nested models with the index of industrial production and wholesale price index (WPI) as goal variables. The non-nested tests favoured M_2 to both M_1 and M_3 reflecting that M_2 has the potential of emerging as an important aggregate which could be useful for policy purposes. But in a model with M_1 and M_3 the latter was favoured. In a comparison between broader monetary aggregates and liquidity aggregates, the latter seem to perform better. However, given the short sample period and the inherent limitation of taking industrial production as a proxy for overall economic activity, it may yet be premature to derive definitive conclusions.

4.23 In order to capture the emerging dynamics, the monthly data on the new broad money aggregate (M_3) for the period 1993-94 to 1996-97 were reformulated in a money demand function which was estimated following Johansen's cointegration approach. The estimated cointegrating vector is indicated below:

$$\ln RM_3 = 2.81 + 0.78 \ln SIIP - .052 \ln G91 + .10 \ln REERT \dots (6)$$

where,

RM_3 : Real broad money (as proposed by the Group)

SIIP : Seasonally adjusted index of industrial production

G91 : Yield rates of 91-day Treasury Bills

REERT : Trade weighted real effective exchange rate

It would appear that interest rates and exchange rate have become important determinants in

explaining the money demand equation in the recent period. Although this exercise has its own limitations in terms of the short sample period and specification of the scale variable in terms of the index of industrial production, it does point to the emerging dynamics and the alternate channels through which monetary policy could affect the goal variables.

4.24 The cointegrating relationship between real money balances and a set of variables does not, however, necessarily reflect the direction of causation. The issue of causation is, therefore, addressed by examining the causality and the transmission mechanism of monetary policy.

IV.4 Causality among Money, Output and Prices

4.25 The tests of Granger's Causality between nominal money and nominal income carried out in a two variable vector autoregression (VAR) framework showed a bi-directional causality, *i.e.*, while nominal money causes nominal income, the latter also causes the former at an acceptable level of significance. However, when shocks were given to nominal income and nominal money, the forecast error variance decomposition showed that the impact of shock to nominal money on nominal income was much larger and more persistent than the impact of shock to nominal income on nominal money. The causal analysis between real money and real output showed that there is a strong unidirectional causation running from real output to real money. It could be inferred from the causality analysis that an expansionary monetary policy unaccompanied by an increase in real output could only result in increase in nominal income and hence prices. The question of how exactly monetary policy influences output could be addressed effectively by examining the transmission mechanism.

IV.5 Transmission Mechanism of Monetary Policy

4.26 There are at least four distinct monetary transmission channels that one finds in the literature as of concern for policy makers. They are : a) the quantum channel, especially relating to money supply and credit; b) the interest rate channel; c) the exchange rate channel, and d) the asset prices channel. Monetary policy impulses under the quantum channel affect the real output and price level directly through changes in either reserve money, money stock or credit aggregates. The remaining channels are essentially indirect as the policy impulses affect real activities through changes in either interest rates or the exchange rate or asset prices. In an environment where interest rates and the exchange rate are regulated, the quantum channel is the most important channel of transmission of monetary impulses. The quantum channel, however, tends to lose some of its pre-eminence in the deregulated environment. This is not to say that the quantity variables are not important in the determination of the goal variables. The quantum variables, however, tend to become more sensitive to the price mechanism and respond to changes in the interest rates and the exchange rate. It is, however, important to note that none of the channels of monetary transmission operate in isolation. There are, in fact, considerable feedbacks and interactions, which need to be carefully sifted for a proper understanding of the transmission mechanism. Gradual liberalisation of the financial markets from administrative controls, increasing use of interest sensitive funds, globalisation of financial markets and above all, rapid diffusion of financial innovations accentuate the complexity of the monetary transmission process.

4.27 In the Indian context, earlier studies did not find any definitive evidence of a unique transmission process as both money supply and interest rate channels were found to transmit the monetary impulses in the economy. In recent times significant changes have taken place in the financial system. The market determined exchange rate system has been in place since March 1993. In the money market, the overnight (call) rates were freed from

the ceiling of 10 per cent in May 1989 and since then the number of participants in the call money market has increased. The interest rate ceilings on rediscounting of commercial bills were also withdrawn in May 1989. Commercial Paper (CP) was introduced in 1990 and the provisions governing the issuance of CPs have been made more liberal over time. The instrument of Certificates of Deposit (CDs) was introduced in June 1989 and scheduled commercial banks as well as public financial institutions were allowed to set up money market mutual funds (MMMFs) in April 1992. However, more significant have been the changes initiated in the government securities market with steps taken to develop Treasury Bills as money market instruments. New instruments of 364-day auction Treasury Bills (fortnightly) and 91-day auction Treasury Bills were introduced in April 1992 and January 1993, respectively. Recently, 14-day auction Treasury Bills have been introduced in June 1997. Furthermore, the Central Government's market borrowings in dated securities have been put through an auction process since 1992-93. The short-term liquidity management has been undertaken by conducting repos, an instrument introduced in December 1992, and after a period of repose, reactivated since November 1996. The Reserve Bank initially conducted repos for a maturity of upto 14 days which is the cycle for reserve requirements. More recently, the Reserve Bank has been conducting three-day repos to absorb short-term liquidity and even out money market rates. The Reserve Bank has also commenced daily fixed rate repos for a maturity of three days². These developments have not only given a market orientation to the government securities market but the introduction of a variety of financial instruments has facilitated better cash management of various

segments of the economy. Moreover, broadening and deepening of money market has contributed to the development of interlinkages, facilitating liquidity pass through across various segments of the money market.

4.28 In regard to bank lending rates, scheduled commercial banks were given freedom to fix their prime lending rates (PLRs) for credit limits of over Rs.2 lakh from October 1994. The lending rates for credit limit of up to Rs.2 lakh were administered although the element of cross subsidisation between the commercial rates and concessional rates have declined³. However, the outstanding amount of loans below Rs.2 lakh are quite substantial accounting for about 28.0 per cent of total loans by scheduled commercial banks as at the end of March 1995. Another dimension that has had a strong bearing on the lending practices of banks is the institution of prudential norms of income recognition, asset classification and provisioning which have revealed large non-performing assets. As a result, the commercial banks have become more sensitive to credit risk. The large volume of non-performing assets has also kept the spreads high imparting a degree of stickiness to the bank lending rates. The focus of the banks on their prime borrowers during periods of credit squeeze raises the borrowing cost of non-prime borrowers. The PLRs, however, generally responded to the changes in the Bank Rate since April 1997 when the Reserve Bank linked it to all its lending rates. In an important sense, the Bank Rate has been seen as signalling the stance of monetary policy. Interest rates at the shorter-end of the market have generally followed the direction of the Bank Rate, but the effect of Bank Rate changes on long-term interest rates is not yet very clear.

4.29 The emerging evidence on transmission channels was examined for the period April 1993 to March 1997 in a vector autoregression (VAR) model with broad money (M_3 as estimated by the present Group), index of industrial production (used as a proxy for output), non-food bank credit and

² The Reserve Bank has announced on April 29, 1998 that it would soon introduce daily repos on both fixed interest rate and auction basis.

³ The present position in this regard is that effective April 30, 1998, these rates could vary, subject to the ceiling of PLR.

yields on 91-day Treasury Bills (proxy for interest rates). The response of output to one standard deviation shock to money in the short run (12 months horizon) was analysed through two alternate channels, viz., interest rate and credit channel. The results indicated that an expansionary monetary policy reduces interest rate and tends to improve output. Similarly, an expansionary monetary policy increases credit and output. However, output response to expansionary monetary policy operating through interest rate was found to be stronger and more persistent than that of the credit channel. In the deregulated environment, the rate channel appears to have the potential of emerging as a critical variable influencing the credit aggregate.

4.30 An alternate specification of VAR model was set up to examine the impact of money, interest rates and nominal exchange rate on inflation. The results showed that an expansionary monetary policy would reduce the interest rate and depreciate the exchange rate and would ultimately show up in an increase in inflation. The impact of an expansionary monetary policy on inflation was found to be more

pronounced through interest rates as against the exchange rate. The comparatively weak influence of exchange rate may have to be duly taken note of, given the relatively low level of openness of the economy and prevalence of external capital controls.

4.31 The details of empirical results are given in the *Technical Attachment* at the end of this Chapter.

4.32 In light of the incipient empirical evidence, the Group felt that while financial sector reforms would help address the imperfections in various segments of the financial system, it is necessary to formulate appropriate monetary and credit measures to explain the nature of the interface between the real and financial sectors of the economy. The efficacy of monetary policy would hinge critically on the effectiveness of the transmission mechanism in which the rate as well as quantum variables would have decisive roles to play. Monetary and credit measures, therefore, need to be monitored for policy purposes and utilised in the overall financial management for improving the allocative efficiency in the system.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

5.1 The Reserve Bank of India has a long tradition of compilation and dissemination of monetary statistics, dating back to July 1935. However, the rationale and analytical foundations behind the compilation of monetary aggregates were provided to the public only in 1961 through the report of the First Working Group on Money Supply (FWG), which were further refined and broadened by the Second Working Group (SWG) in 1977. Far-reaching changes have since taken place in the macro-economic and financial environment necessitating a fresh look at the compilation of monetary aggregates (*Paras 1.1-1.2*).

5.2 The behaviour of monetary aggregates reflects variations in aggregate demand in a medium- to long-term perspective, in situations typical of underdeveloped economies, where households' savings are held to an overwhelming extent in the form of currency and deposits. The implementation of a series of liberalisation measures in India since the late 1980s provided considerable manoeuvrability to banks and financial institutions in the choice of their portfolios. As a result, banks have been, particularly in the last three years, under increasing competitive pressure to seek resources from sources that go beyond their traditional areas. Yet another issue that has been increasingly becoming apparent is the gradual blurring of distinctions in the operations among the institutions, viz., commercial and co-operative banks, development financial institutions and non-banking financial companies. These operations tend to affect the efficacy of the existing monetary aggregates, and efforts are, therefore, required to be made to capture these developments, in order to appropriately capture the changes in aggregate spending (*Paras 1.6-1.8*).

5.3 Besides there is a need to ensure that the

Indian standards in this regard are close to the international ones. The Manual, now available in draft form, on *Monetary and Financial Statistics (MFS)* by the International Monetary Fund (IMF) provides the benchmark for such comparison. Apart from the usefulness in mimicking relevant provisions of the *MFS Manual*, the ongoing financial liberalisation and the gradual move towards indirect instruments of monetary control would make it imperative to collect and prepare a comprehensive set of accounts of the entire financial sector at regular intervals for policy purposes (*Paras 1.11-1.12*).

5.4 There is no unique definition of 'money', either as a concept in economic theory or as measured in practice. Money is a means of payment and is thus a lubricant that facilitates exchange. Money also acts as a store of value and a unit of account. In the real world, however, money provides monetary services along with tangible remuneration. It is for this reason, money has to have relationship with the activities that economic entities pursue. Money can, therefore, be defined for policy purposes as the set of liquid financial assets, the variation in the stock of which could impact on aggregate economic activity. As a statistical concept, money could include certain liquid liabilities of a particular set of financial intermediaries or other issuers (*Paras 2.1-2.3*).

5.5 With regard to the sectorisation issue the Group decided that, in the Indian context, even though the development financial institutions and non-banking financial companies are allowed to accept deposits from the 'public', it may not be appropriate to treat these institutions as 'depository corporations' in view of the restrictions prevalent on their deposit taking activities and the relatively small share of their deposit liabilities to total

liabilities. For the purpose of money supply compilation, the Group proposes to restrict the coverage of 'depository corporations' only to the banking sector (*Para 2.5*).

5.6 Analogous to the notion of the 'depository corporation' and keeping in view the prospective availability of information on the rest of the organised financial sector, the Group proposes to use the concept of financial corporations sector, and define it to include the following institutional categories, viz., 'banking sector', 'development financial institutions, which include term lending institutions and refinancing institutions (FIs)', 'insurance corporations', 'mutual funds' and 'non-banking financial companies accepting deposits from the public' (*Para 2.7*).

5.7 The money issuing sector is considered as part of the financial corporation sector, viz., the banking sector. The money holding sector on the other hand comprises resident units outside the money issuing sector. The money holding sector is defined as the 'commercial sector', alternatively defined as 'public', which includes households, non-financial commercial sector and non-depository financial corporations (*Para 2.9*).

5.8 Residency essentially relates to the country in which the holder has a centre of economic interest. Currency and deposits held by the non-residents in the rest of the world sector would presumably be related to balance of payments considerations such as international capital flows rather than to the domestic demand for monetary assets or to the use of money in domestic transactions. While there is a need to categorise deposit liabilities by residency it may not be appropriate to exclude all categories of non-resident deposits from domestic monetary aggregates as non-resident rupee deposits are essentially integrated into the domestic financial system. The Group, therefore, proposes that only non-resident repatriable foreign currency fixed deposits should be excluded from deposit liabilities and treated as

external liabilities. Accordingly, from among the various categories of non-resident deposits at present only FCNR (B) deposits may be classified as external liabilities and excluded from the domestic money stock (*Paras 2.10-2.11*).

5.9 On review of the monetary aggregates now being published, the Group recognised that from among the four measures of money, M_1 and M_3 are the two measures which are extensively used both for policy purposes and in academic exercises. Use of data on M_2 and M_4 are conspicuous by their near-absence. The introduction of M_2 and M_4 as money stock measures seems to have been prompted by the fact that during the pre-1969 period, post offices catered banking facilities in many places where banks were not in existence. The strength of this reasoning has lost much of its sharpness with the strong growth of the banking network in rural and semi-urban areas since then. As between M_1 and M_3 , the latter captures the balance sheet of the banking sector, the institutional category which has been the focus of policy. In India as in many countries, the broad money concept has been found to be operationally useful because of better correlation with aggregate economic activity (*Paras 2.17-2.18*).

5.10 The Group is of the view that the present set of monetary aggregates are not in conformity with the largely followed norm of progressivity in terms of liquidity. Moreover, the treatment of postal deposits as monetary aggregates may not be in harmony with the notion of 'depository corporation', since the postal department is a part of general government. It was felt that as part of financial innovations, while financial institutions may issue financial assets closely resembling bank deposits, it may not be appropriate to treat them as monetary assets unless the institutions provide services similar to that of the banks. In fact, many countries have dealt with this issue by constructing measures broader than 'broad money' (sometimes called very broad money, or extended money supply, or liquidity and denoted by 'L', M_2+ , M_3 extended

or M3E, MCT, ALP, *etc.*). Liquidity measures generally include instruments that are considered to be good substitutes for broad money, or include a range of instruments that may be empirically related to overall economic activity or prices. Such instruments, which compete with broader monetary aggregates could, therefore, be treated as part of liquidity measures. Thus, the Working Group sought to differentiate monetary aggregates from other financial aggregates not so much on the basis of the attributes of the instruments themselves as on the nature and functioning of institutions issuing such instruments (*Paras 2.19-2.20*).

5.11 In this context, the comparison of monetary aggregates across countries is useful in the evaluation of our own monetary statistics. A survey of 29 countries reveals that there is a wide diversity in the definition of monetary aggregates depending on the development of money substitutes although the basic definition of money supply – the narrow money (M_1) – has remained relatively unchanged. As regards broader monetary aggregates, apart from currency and deposits, the following instruments merit consideration for inclusion: i) other (outside the ‘depository corporations’) call/term funding and ii) non-convertible debentures (NCDs) issued by banks. While banks in India are yet to issue NCDs, banks rely on call funding from non-bank financial institutions which could be included in broader monetary aggregates (*Para 2.21*).

5.12 While the Group is of the opinion that the consolidated account of the banking sector may be considered for compilation of monetary aggregates, it proposes that the items of liabilities of non-banking financial institutions which are predominantly held with the public and which compete with broad money aggregates may be included in various measures of liquidity. One such item is post office deposits on which monthly data are available albeit with some time lag. There are, however, other instruments which could be included in the broad measure of liquidity: i) public deposits

and certificates of deposit of financial institutions as these liabilities directly compete with the liabilities of the banking sector and ii) those liabilities of non-banking financial companies (NBFCs) such as public deposits (a component of regulated deposits) which are competitive to deposits with commercial banks and bypass the process of bank intermediation. Some countries include Commercial Papers and Treasury Bills under the broad liquidity measure. In the Indian context, these two instruments are predominantly held by banks and financial institutions and hence should not form a part of liquidity of the non-financial non-government sector. Keeping in view the negligible presence of money market mutual funds (MMMFs) at present, the Group did not favour inclusion of MMMFs in monetary or liquidity aggregates, which instead could be classified under ‘non-depository financial corporations’. Accordingly, the Group recommends compilation of four measures of monetary aggregates, and three measures of liquidity aggregates besides a comprehensive financial sector survey (Box II.3, Page 17) (*Paras 2.22-2.24*).

5.13 M_0 is essentially the monetary base, compiled mainly from the balance sheet of the Reserve Bank of India; M_1 purely reflects the non-interest bearing monetary liabilities of the banking sector, M_2 includes besides currency and current deposits, saving and short-term deposits reflecting the transactions balances of entities. M_3 has been redefined to reflect additionally to M_2 the call fundings that the banking system obtains from other financial institutions (*Para 2.26*).

5.14 Bank credit is often specifically referred to in several writings in monetary economics, as a critical variable affecting consumption and capital formation in a direct manner. As such it is often regarded as a more useful indicator of real sector activity than money supply. In India, one of the objectives of monetary policy is clearly stated in official documents as one of ensuring adequate flow of credit to the productive sectors of the economy.

But as changes in bank credit are treated as impacting wholly on money supply in the absence of a movement in foreign exchange assets, credit aggregates were hitherto not considered as important. This situation, however, may not continue for long in view of growing openness of the economy. Hence there is, a clear need for having comprehensive measures of credit. At present while credit to government from the banking system is clearly identified, bank credit to the commercial sector, in the conventional sense, includes only advances in the form of loans, cash credit, overdrafts, bills purchased and discounted and investments in approved securities other than government securities. However, commercial banks have in recent years been investing in securities such as commercial paper, shares and debentures issued by the commercial sector which are not reflected in the conventional credit aggregates. The Group, therefore, proposes to broaden the definition of bank credit to the commercial sector by including all these investments in the conventional credit aggregates. Another major problem in the present reporting system has been that there is no estimate of credit flow from the entire financial system either to the government or the commercial sector. The Group proposes to address this lacunae by recommending preparation of a comprehensive financial sector survey on a quarterly basis which would throw up estimates of credit from the financial sector to: i) government and ii) non-financial commercial sector (*Paras 2.27-2.29*).

5.15 The monetary aggregates thus defined can essentially be presented in a balance sheet framework by consolidation of the accounts of the banking sector. The components derived from the liabilities side could be matched with those on the assets side of the consolidated balance sheet of the banks. The sources (assets) side can functionally be depicted by i) domestic credit, ii) net foreign assets, iii) capital account and iv) other items (net). The break up of domestic credit would include i) net credit to the government and ii) credit to commercial sector. Bank credit to the commercial

sector would also include banks' investments in shares, debentures, bonds, commercial paper *etc.* which would enhance the value of the commercial credit aggregate as an important informational variable (*Paras 2.31-2.32*).

5.16 Net foreign exchange assets (NFA) of the banking sector comprise the RBI's net foreign exchange assets and the net foreign currency assets of the banking system. While there is no change in the composition of net foreign exchange assets of the RBI, net foreign currency assets of the banking system should comprise their holdings of foreign currency assets net of i) their holdings of non-resident repatriable foreign currency fixed deposits which is presently defined to include FCNR(B) deposits and ii) overseas foreign currency borrowings. The capital account of the banking system, the net unclassified assets and liabilities have hitherto been classified under the omnibus head of net non-monetary liabilities (NNML) of the banking sector. Of late unexplained changes in NNML have been a major source of variations in monetary aggregate. The Group proposes to do away with the present concept of NNML in the presentation of the monetary survey; instead, the balancing items could be: i) capital accounts and ii) other items (net) which would be in conformity with the international practice (*Paras 2.33- 2.34*).

5.17 In India, an increasing volume of purchases is being made on credit cards. The Group, therefore, debated on the treatment of transactions undertaken through credit/debit cards. In so far as credit-card purchases and the elimination of physical bank cheques merely provide more convenient and efficient means of transferring demand deposits, they do not call for any redefinition of the money stock – although they may lead to a higher velocity of circulation. The *MFS Manual* is also of a similar view that contingent instruments, such as lines of credit on credit cards, are not financial assets and are not recorded in monetary and financial data, regardless of whether they are electronic in nature or not. Similarly, debit cards which use remote

terminals to debit user's deposit account and immediately credit vendors' accounts does not necessitate a redefinition of monetary aggregates as the transaction serves the same function as cheque, but the transfer is immediate (*Para 2.38*).

5.18 Several new technologies are under development to make payments *via* computer chips, through computer networks, or across the worldwide Internet. It has been suggested that electronic equivalents will be developed for all major payments methods : currency, cheques, debit cards, credit cards and travellers' cheques. For example, electronic currency issued by commercial banks appears to have characteristics of a private currency that can compete with the official national currency. These may develop rapidly and have a variety of as yet undetermined, but possibly large, effects on monetary and financial system. If these systems establish themselves, new statistical definitions, classification systems and reporting procedures may be needed (*Para 2.39*).

5.19 Derivatives have grown enormously in recent years in many industrial countries and have made a noticeable presence in some of the major emerging economies with increasing participation by banks. In India, as market trading in derivatives is yet to be introduced and transactions in derivatives are privately-arranged, these are treated as off-balance sheet items. The Group is of the view that derivatives may not have any immediate significance in the compilation of monetary aggregates. However, developments in the area of derivatives should be periodically monitored as monetary transmission mechanisms may be affected if large volumes of derivatives hedge a variety of market exposures (*Para 2.40*).

5.20 The Group felt that a survey of the Reserve Bank of India's balance sheet with the focus on the monetary base or reserve money (M_0) may continue to be prepared *albeit* with certain modifications on a weekly frequency on the basis of the Weekly Statement of Affairs of the RBI

prepared on each Friday under Section 53(1) of the RBI Act 1934 (*Para 2.41*).

5.21 The Group proposes a comprehensive Commercial Bank Survey (CBS) on the lines of the *MFS Manual* on the basis of the scheduled banks' summary statements on their demand and time liabilities and selected assets as at close of business on every alternate Friday on the basis of returns filed with the RBI in terms of Section 42(2) of the RBI Act beginning March 29, 1985 supplemented by additional items of liabilities and assets as proposed by the Group essentially to reflect the changing scope of their activities (*Para 2.51*).

5.22 In view of the difficulties in obtaining data from major categories of co-operative banks and the time lags in their reporting, the Group felt that a sample survey of major co-operative banks for only the items of liabilities and assets which have a direct bearing on the monetary survey may be reported at a monthly frequency followed by a population survey. In no case should the reporting delays of the larger of these banks be in excess of one month from the month of reference. For other banks, such reporting delays should not exceed three months. Efforts should, however, be made to encourage these banks to quickly put in place mechanisms to improve their reporting methods so that the reporting system could be current by 2000 AD. 'Sunset' provisions may be set in place to ensure that reporting by non-scheduled co-operative banks is complete by 2000 AD (*Para 2.64*).

5.23 Apart from the compilation of monetary aggregates and broader liquidity aggregates, the Group proposes the compilation of a comprehensive financial sector survey (FSS) to capture the dynamic interlinkages between the 'depository corporations' and the rest of the organised financial sector (*Para 2.67*).

5.24 The Group proposes that data on selected items of liabilities and assets can be collected from

about 150 large NBFCs (currently to be defined as those having public deposits of Rs.20 crore or above) which account for over 90 per cent of the total public deposits of all NBFCs on a quarterly basis, to begin with, which could be improved upon, subsequently (*Para 2.81*).

5.25 The FSS as envisaged would broadly correspond to the sectoral balance sheet of the financial sector within the SNA or flow of funds (FoF) accounts. In India, flow of funds accounts are prepared on an annual basis with a considerable time lag. While there is little scope for quarterly flow of funds accounts given the reporting system for the real sector, the quarterly flow of funds account of the financial sector could bring out apart from the structure and behaviour of the financial sector, the relationship between the financial activities and the non-financial domestic economy and the rest of the world (*Para 2.82*).

5.26 The Reserve Bank of India, as the monetary authority of the country, is the primary source of monetary statistics. The need to construct reliable and up-to-date monetary statistics in order to provide inputs for the formulation and monitoring of monetary policy measures is well recognised all over the world; this is particularly significant where monetary targeting is regarded as an important characteristic of monetary policy. Dissemination of monetary aggregates with the minimal time lag is important to lend transparency to the central bank's operations and influence expectations of economic participants. It also helps to create opportunities for wider debate and to facilitate analysis and research in monetary and financial economics (*Para 3.1*).

5.27 In view of proposed changes in the reporting format, monetary data would need to be more detailed, based on the information furnished by banks. Moreover, with the enlargement of the scope and coverage of the Section 42(2) returns, data on such items as certificates of deposit (CDs) issued by banks, external liabilities of banks and banks'

investment in 'other securities' would now be available to the public at a higher frequency (*Para 3.3*).

5.28 The Group proposes compilation of four monetary aggregates, three liquidity measures and a comprehensive Financial Sector Survey (FSS). The frequency of each aggregate and the proposed manner of dissemination are indicated in Table 3.1 (Page 52). The Group proposes that the present practice of compiling monetary base on a weekly basis and monetary aggregates on a fortnightly basis should continue. Data on reserve money and monetary aggregates should be published in the WSS and in other publications of the Bank, as has been the present practice, and should be placed on the RBI Website (*Para 3.4*).

5.29 The Group recommends that measures of liquidity L_1 and L_2 should, however, be compiled on a monthly basis and published in the RBI Bulletin. It is proposed to publish data on L_3 and FSS on a quarterly basis in the RBI Bulletin. The financial sector survey may be accompanied by a review of the developments in the financial sector during the quarter under reference, to bring to the fore the dynamic interlinkages in the financial sector which could be useful in providing important policy inputs (*Para 3.5*).

5.30 At present, money supply is compiled on a reporting Friday basis as well as on the last Friday of the month when it is not a reporting Friday. However, monetary aggregates as on the last Friday of the month do not seem to carry much economic significance, given that the random nature of such Fridays make any meaningful statistical comparison difficult. The Group, therefore, proposes that monetary data based on last Friday returns could be discontinued. However, the Group is of the view that the same for the last Friday of March (not being a reporting Friday) may be continued in order to capture useful information on portfolio shifts of banks (*Para 3.6*).

5.31 The treatment of year-end data for scheduled commercial banks in money supply needs special mention. It has been found that financial year-end monetary aggregates based on their data relating to the last reporting Friday of the year *vis-a-vis* those with end-March base have shown substantial variability depending on the closeness of the last reporting Friday to the last working day of the month. This is because the last working day of March is the balance-sheet date of scheduled commercial banks, which typically show a year-end bulge in deposits and credit. Moreover, the accounting year-end data (end-March) for both commercial and co-operative banks are obtained through a special return with a considerable lag unlike those for the reporting Friday data. Hence, as a matter of operational expediency, the Group is of the view that the year-end monetary data should consist of commercial as well as co-operative banks' data for the last reporting Friday of March, and RBI data as of end-March. However, the year-end monetary data with scheduled commercial banks' data for the balance sheet date (*i.e.*, last working day of March) should continue to be published as a special table in the RBI Bulletin as has been the present practice (*Para 3.7*).

5.32 While March-end data has special economic significance, a proper assessment of monetary conditions in the economy could be made by averaging the data for the fortnights during the financial year. This would insulate the annual flow of information from the computational vagaries that point estimates are subjected to (*Para 3.8*).

5.33 The monetary trends at times may deviate significantly from the desired trajectory on account of strong seasonal movements. In view of this, many central banks publish data on seasonally adjusted monetary aggregates. Seasonality in Indian monetary data essentially arises out of i) seasonal demand for transactions balances and ii) operational practices of the banking system. This implies that the seasonal patterns of the two principal components of the money supply series, *viz.*,

currency with the public and bank deposits should be assessed carefully. Presentation of monetary aggregates as such may not clearly portray the true monetary situation, as the seasonal factors behind monetary movements are not always transparent to the public. It is, therefore, necessary to deseasonalise the monetary data component-wise and then aggregate the resultant components to obtain the deseasonalised monetary aggregates (*Para 3.9*).

5.34 The data collection process is crucial for timely compilation and quick dissemination of monetary aggregates. Presently, the required basic data are made available to the Reserve Bank by banks essentially through hard copies which are processed at various levels using up considerable amount of man-hours. The Group proposes that scheduled banks may be encouraged to forward Section 42(2) returns to the Regional Offices of the Department of Banking Operations and Development (DBOD), Rural Planning and Credit Department (RPCD) and Urban Banks Department (UBD), as the case may be, utilising the VSAT network. The regional offices of DBOD, RPCD and UBD would, in turn, transmit banking data electronically *via* the VSAT network to their respective central offices which, after due scrutiny, would forward the data to the Department of Economic Analysis and Policy (DEAP). Over time, however, the data should be made available by the reporting financial institutions on an on-line basis to the Reserve Bank which in turn has to equip itself with wider area networks (*Para 3.15*).

5.35 With the enlargement of the scope and coverage of monetary/financial aggregates to encompass public financial institutions, investment institutions, mutual funds and non-banking financial companies, the Financial Institutions Division (FID) and Department of Non-Banking Supervision (DNBS) would also have to take necessary steps to put in place a system of regular reporting of relevant statistics to DEAP (*Para 3.16*).

5.36 The increase in the number of aggregates on which data need to be disseminated would entail that DEAP is geared to quickly handle the additional flow of information. The Group proposes that the data gathering work should be completely computerised in DEAP on user friendly and versatile information technology platforms. The relational data base management system (RDBMS) is one such available at present. This could be considered by the Reserve Bank with reference to all its activities where data are large and divergent, and have to be gathered on a frequent basis (*Para 3.17*).

5.37 At present, monetary data are available on the Internet in the RBI Home Page as part of the WSS and other reports. Monetary data should continue to be disseminated through various publications of the Reserve Bank as well as in electronic form (*Para 3.18*).

5.38 In view of the change in the reporting format prescribed particularly for the commercial and co-operative banks, financial institutions and mutual funds, the Group proposes that a structured calendar for each data category may be set in place for smooth transition to the new system of reporting as given in Table 3.5 (Page 56) (*Para 3.19*).

5.39 Based on the data available from October 1998, it should be possible to publish new official series of monetary aggregates from early 1999 (*Para 3.20*).

5.40 The Group proposes that both the existing and proposed monetary aggregates may initially be published for at least a year in the relevant Reserve Bank publications in order to facilitate an understanding of the elements underlying the shift to the proposed aggregates (*Para 3.21*).

5.41 Monetary statistics are required not only for theoretical research but also for formulation, implementation and monitoring of financial and monetary policy. Of the maze of monetary statistics,

monetary aggregates are often used in many countries either as indicators or direct targets of policy. Research in monetary economics gave rise to a number of alternative monetary aggregates, popularly known as 'superlative monetary indices', or 'weighted monetary aggregates' (WMA) but these are generally found in academic/research journals. The WMA, however, are criticised on the grounds that the weights depend on the choice of benchmark instrument and the indices assume a 'normal' relationship between short-term and long-term interest rates which may not hold in practice. In view of these practical difficulties and lack of a potential policy role that the WMA could have, the Group did not favour compilation and dissemination of WMA (*Paras 4.2-4.4*).

5.42 Money supply determination is essentially viewed in terms of a relationship between the central bank money and the monetary liabilities of the banking system as a whole by money multiplier. In the Indian context, since broad money is used as a policy target, the Group proposed to consider the stability and predictability of broad money multiplier. The predictive power of the multiplier equation was found to be quite robust. The result is very significant in the sense that it shows that variations in cash reserve requirements would have predictable impact on money supply notwithstanding the movements in the behavioural currency-deposit ratio (*Paras 4.5-4.14*).

5.43 The response of the multiplier to 1.0 percentage point sustained increase in CRR was a decrease of 0.7 percentage point in the long run. Moreover, it takes around two quarters for a sustained increase in CRR to exert its full effect on the multiplier close to its long-run value. The CRR thus could be considered an effective instrument of modulating the variations in money supply (*Para 4.14*).

5.44 In order to ascertain whether money as defined is demanded in relation to the overall transactions in the economy, it would be necessary

to relate the chosen monetary aggregate to some macroeconomic indicator such as GDP or GNP. The real broad money balances and aggregate income were found to be cointegrated reflecting a long-run equilibrium relationship between real broad money (M_3) and real GDP. However, in order for the broad money demand equation to be adequately used for policy purposes, the stability properties are very critical. The tests for predictive stability showed that there has been an unidirectional short-term deviation from the long-run equilibrium path which needs to be captured in terms of other relevant variables to ensure predictive accuracy. This would also mean that monetary policy exclusively based on the demand function for money could lack precision. Therefore, an appropriate framework of examining this issue could be to study the dynamic stability of an error correction model (ECM) rather than the original structural equation. However, availability of only annual data on GDP and the short period for which the data on other related variables are available following the reforms of the financial sector posed serious difficulties for empirical estimation of a robust ECM model (*Paras 4.16-4.21*).

5.45 In order to evaluate the performance of the new monetary aggregates proposed by the Group, an exercise of estimating the three monetary aggregates (M_1 , M_2 and M_3) and two liquidity aggregates (L_1 and L_2) was undertaken on a monthly basis for the period April 1994 to March 1997. The information content of these new aggregates favoured M_2 to both M_1 and M_3 reflecting that M_2 has the potential of emerging as an important aggregate which could be useful for policy purposes (*Para 4.22*).

5.46 In order to capture the emerging dynamics, the monthly data on the new broad money aggregate (M_3) for the period 1993-94 to 1996-97 were reformulated in a money demand function which was estimated following Johansen's cointegration approach. It would appear that interest rates and exchange rate have become important determinants

in explaining the money demand equation in the recent period. Although this exercise has its own limitations in terms of the short sample period and the specification of the scale variable in terms of the index of industrial production, it does point to the emerging dynamics and the alternate channels through which monetary policy could affect the goal variables (*Para 4.23*).

5.47 The cointegrating relationship between real money balances and a set of variables does not, however, necessarily reflect the direction of causation. The issue of causation is, therefore, addressed by examining the causality and the transmission mechanism of monetary policy (*Para 4.24*).

5.48 The tests of Granger's Causality between nominal money and nominal income showed a bi-directional causality with the impact of nominal money on nominal income being much larger and more persistent. The question of how exactly monetary policy influences output could, however, be addressed effectively by examining the transmission mechanism (*Para 4.25*).

5.49 An examination of transmission channels for the period April 1993 to March 1997 found output response to expansionary monetary policy operating through interest rate to be stronger and more persistent than that of the credit channel. In the deregulated environment, the rate channel appears to have the potential of emerging as a critical variable influencing the credit aggregate (*Paras 4.26-4.29*).

5.50 An alternate specification was set up to examine the impact of money, interest rate and nominal exchange rate on inflation. The results showed that an expansionary monetary policy would reduce interest rate and depreciate exchange rate and would ultimately show up in an increase in inflation. The impact of an expansionary monetary policy on inflation was found to be more pronounced through interest rates as against the

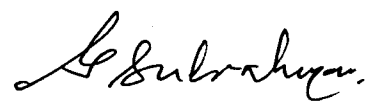
exchange rate. The comparatively weak influence of exchange rate may have to be duly taken note of, given the relatively low level of openness of the economy and prevalence of external capital controls (*Para 4.30*).

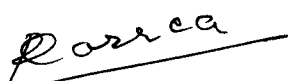
5.51 In light of the incipient empirical evidence, the Group felt that while financial sector reforms would help address the imperfections in various segments of the financial system, it is necessary to formulate appropriate monetary and credit

measures to explain the nature of the interface between the real and financial sectors of the economy. The efficacy of monetary policy would hinge critically on the effectiveness of the transmission mechanism in which the rate as well as quantum variables would have decisive roles to play. Monetary and credit measures therefore need to be monitored for policy purposes and utilised in the overall financial management for improving the allocative efficiency in the system (*Para 4.32*).


(Y.V. Reddy)


(A. Vasudevan)


(Ganti Subrahmanyam)


(Romar Correa)


(B.K. Bhoi)


(Deepak Mohanty)



उप गवर्नर
DEPUTY GOVERNOR

भारतीय रिज़र्व बैंक
केन्द्रीय कार्यालय,
शहीद भगतसिंह मार्ग,
मुंबई - 400 001. भारत.

RESERVE BANK OF INDIA
CENTRAL OFFICE,
SHAHEED BHAGAT SINGH ROAD,
MUMBAI - 400 001. INDIA.

The Governor,
Reserve Bank of India,
Mumbai.

June 23, 1998

Dear Sir,

I have great pleasure in forwarding the *Report of the Working Group on Money Supply: Analytics and Methodology of Compilation*, set up on December 3, 1997.

I would like to place on record our grateful thanks to Dr. C. Rangarajan who visualised the need for a fresh look at monetary aggregates and to Dr. Bimal Jalan for setting up the Working Group and for taking keen interest in its work.

The Report examines the analytical aspects of monetary survey in the light of the changing dimensions of the financial sector consequent to the implementation of financial sector reforms in India. The Report makes a number of suggestions to strengthen the statistical system in order to enlarge the coverage of financial statistics beyond the traditional confines of the banking sector. Accordingly, the Report proposes compilation of comprehensive analytical surveys of the Reserve Bank of India, commercial and co-operative banks and the organised financial sector at regular intervals. The Report proposes compilation of four monetary aggregates, three liquidity aggregates and comprehensive measures of credit aggregates to effectively capture the dynamics of the monetary and financial system. The conceptual framework of the Report is in consonance with various country practices.

The Report captures the essentials of the academic and the real world problems faced by practitioners in money and finance. The Report, therefore, reflects inputs from the academics and the concerned departmental heads of the Reserve Bank and a number of professionals in the financial sector.

The Group places on record its high appreciation for the views provided by distinguished experts in the area, in particular Shri S. Venkitaramanan, Shri V.B. Kadam, Shri M.G. Bhide, Mr. S.M. Fish, Dr. N.A. Mujumdar, Mr. Kevin W.O'Connor and Mr. R. Krueger.

The Group also immensely benefited from the technical material received from a number of central banks and international organisations such as BIS and IMF.

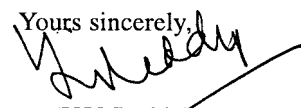
The compilation of the Report has been immensely facilitated by the keen interest evinced and valuable contributions by Professor Ganti Subrahmanyam, Professor Romar Correa and Dr. B.K. Bhoi, Members of the Group.

The Group specially expresses profound thanks to Sarvashri A. Sardar, A.K. Mitra, Indranil Sengupta, S.R. Gokhale, S.N. Mitra and Dr. Sarat Dhal, for putting in hard work in compiling data and literature and for assisting in the drafting of the Report.

On my part, I would like to express my deep appreciation of the contribution of Dr. A. Vasudevan, Vice-Chairman of the Group, especially on technical aspects.

Finally, the Group expresses pleasure in acknowledging the painstaking, thorough, timely and outstanding work done by Shri Deepak Mohanty, Member-Secretary of the Group.

The Group trusts that the Report would be of value not only to the practitioners but also to the academic community and interested public at large.

Yours sincerely,

(Y.V. Reddy)
Chairman

Annexure I.1 : Memorandum

Working Group on Money Supply

It has been decided to set up a Working Group on 'Money Supply : Analytics and Methodology of Compilation' to re-examine the analytical aspects of monetary survey in view of the changing dimensions and depth of the financial sector with the introduction of financial sector reforms.

2. The Terms of Reference of the Working Group are :

- (a) to examine the adequacy of the existing money stock measures for appropriately reflecting the liquidity in the economic system and in this context, consider the possibility of including any other financial asset(s);
- (b) to suggest improvements in the existing reporting system and to recommend new reporting systems where necessary, from the relevant economic entities;
- (c) to suggest suitable arrangements for effecting transition from the present system of reporting, compilation and dissemination of data to the recommended system;
- (d) to examine the appropriate form of presentation of data to the public in the light of the widely prevalent practices of central banks; and
- (e) to consider any other related matters.

3. The constitution of the Working Group would be as follows:

Dr. Y.V.Reddy, Deputy Governor, Reserve Bank of India	Chairman
Dr. A.Vasudevan, Executive Director, Reserve Bank of India	Vice Chairman
Professor Ganti Subrahmanyam, National Institute of Bank Management, Pune	Member
Professor Romar Correa, University of Bombay, Mumbai	Member
Dr. B.K.Bhoi, Director, Monetary Modelling Unit, Department of Economic Analysis and Policy	Member
Shri Deepak Mohanty, Director, Division of Money and Banking, Department of Economic Analysis and Policy	Member-Secretary

4. The Chief General Managers (CGMs) of Department of Banking Operations and Development (DBOD), Department of Government and Bank Accounts (DGBA), Rural Planning and Credit Department (RPCD) and Urban Banks Department (UBD) would be associated as special invitees as and when required. The Working Group may also co-opt any other members as special invitees.

5. The Working Group is expected to submit its Report within three months.
6. The Department of Economic Analysis and Policy (DEAP) would provide secretarial assistance to the Working Group.

Sd/-
(Bimal Jalan)
Governor
December 3, 1997

Annexure I.2 : Composition of Earlier Working Groups on Money Supply

A. First Working Group

1. Dr. S.L.N. Simha
2. Dr. V.V. Bhatt
3. Dr. A.G. Chandavarkar
4. Dr. D.R. Khatkhate

B. Second Working Group

1. Shri M.L. Ghosh
2. Shri A. Raman
3. Shri A. Hasib
4. Dr. N.A. Mujumdar
5. Dr. Meenakshi Tyagarajan
6. Dr. S.L. Shetty
7. Shri K.A. Menon

Annexure I.3 : List of Task Forces

I. Task Force on Data Reporting System for Scheduled Commercial Banks

Convenor

Shri Amalendu Ghosh, Chief General Manager, Department of Banking Operations and Development, Reserve Bank of India

Members

1. Shri A.L. Narasimhan, Additional Chief General Manager, Department of Banking Operations and Development, Reserve Bank of India
2. Shri S.G. Rajyadhyaksha, General Manager, Union Bank of India
3. Shri D. Dasgupta, Deputy General Manager, State Bank of India
4. Dr. K.C. Chakraborty, Deputy General Manager, Bank of Baroda
5. Shri G. Shiva, Vice President, Citi Bank
6. Shri Ashish Parthasarathy, Vice President, HDFC Bank Ltd.
7. Shri Deepak Mohanty, Director, Department of Economic Analysis and Policy, Reserve Bank of India

Special Invitees

1. Shri D.V. Jhaveri, General Manager, Department of Banking Operations and Development, Reserve Bank of India
2. Smt. Chitra Chandramouliswaran, General Manager, Department of Banking Operations and Development, Reserve Bank of India
3. Shri R.N. Deodhar, Deputy General Manager, Exchange Control Department, Reserve Bank of India
4. Shri K.S. Chhabra, Deputy General Manager, Department of Banking Operations and Development, Reserve Bank of India
5. Shri J.N.Vaidya, Assistant General Manager, Department of Banking Operations and Development, Reserve Bank of India

Officials Assisting the Task Force

1. Shri Indranil Sen Gupta, Research Officer, Department of Economic Analysis and Policy, Reserve Bank of India
2. Shri N. Gireesan, Assistant Manager, Department of Banking Operations and Development, Reserve Bank of India

II. Task Force on Data Reporting System for Co-operative Banks

Convenor

Shri R. Ramanujam, Chief General Manager, Rural Planning and Credit Department, Reserve Bank of India

Members

1. Shri S.S. Didolkar, Chief General Manager, Urban Banks Department, Reserve Bank of India
2. Shri O.P. Sharma, General Manager, Urban Banks Department, Reserve Bank of India
3. Shri Amitava Sardar, Director, Department of Economic Analysis and Policy, Reserve Bank of India

Special Invitees

1. Shri S. Karuppasamy, General Manager, Urban Banks Department, Reserve Bank of India
2. Ms. Iplin Surin, Deputy General Manager, Rural Planning and Credit Department, Reserve Bank of India

III. Task Force on Data Reporting System for Non-Banking Financial Companies

Convenor

Shri T. Bandyopadhyay, Chief General Manager, Department of Non-Banking Supervision, Reserve Bank of India

Members

1. Shri S.S. Mishra, Director, Department of Non-Banking Supervision, Reserve Bank of India
2. Shri Amitava Sardar, Director, Department of Economic Analysis and Policy, Reserve Bank of India

IV. Task Force on Data Reporting System for Financial Institutions

Convenor

Shri M.M.S. Rehkrao, Chief General Manager, Financial Institutions Division, Department of Banking Supervision, Reserve Bank of India

Members

1. Shri P.J. Nayak, Executive Trustee, Unit Trust of India
2. Dr. K. Kameswara Rao, Chief General Manager, Industrial Development Bank of India
3. Shri P.M. Venkatasubramanian, General Manager, General Insurance Corporation of India
4. Shri Mathew Joseph, Sr. Vice President, Industrial Credit and Investment Corporation of India
5. Shri V.R. Galkar, Secretary, Investments, Life Insurance Corporation of India
6. Shri Deepak Mohanty, Director, Department of Economic Analysis and Policy, Reserve Bank of India

Special Invitees

1. Shri S.S. Banerjee, Deputy General Manager, Industrial Development Bank of India
2. Shri Janak Raj, Director, Financial Institutions Division, Department of Banking Supervision, Reserve Bank of India

Official Assisting the Task Force

1. Shri A. Karunagaran, Assistant Adviser, Financial Institutions Division, Department of Banking Supervision, Reserve Bank of India

**Annexure I.4 : List of Organisations
Providing Technical Material**

1. Banco Central de la Republica Argentina
2. Reserve Bank of Australia
3. Banco Central do Brasil
4. Bank of Canada
5. Banque de France
6. Deutsche Bundesbank
7. Hongkong Monetary Authority
8. Bank Indonesia
9. Banca d' Italia
10. The Bank of Japan
11. Bank of Korea
12. Banco de Mexico
13. Reserve Bank of New Zealand
14. Banco Central De Reserva Del Peru
15. Bangko Sentral ng Pilipinas
16. Monetary Authority of Singapore
17. Banco de Espana
18. Central Bank of Sri Lanka
19. Banque Nationale Suisse
20. Bank of Thailand
21. Bank of England
22. Federal Reserve System, Washington D.C.
23. Bank for International Settlements (BIS), Basle
24. International Monetary Fund (IMF),
Washington D.C .

**Annexure I.5 : List of Experts
Contributing to the Working Group**

1. Shri S. Venkitaramanan
2. Shri V.B. Kadam
3. Shri M.G. Bhide
4. Dr. N.A. Mujumdar
5. Mr. S.M. Fish
6. Dr. Bandi Kamaiah
7. Mr. Kevin W. O'Connor
8. Mr. Russell Krueger

**Annexure I.6 : List of RBI Officials
Contributing to the Working Group**

1. Dr. T.K. Chakrabarty
2. Dr. Himanshu Joshi
3. Shri Mridul Sagar
4. Shri Partha Ray

Annexure I.7 : Composition of Secretariat

Officers

1. Shri Deepak Mohanty, Director
(Member - Secretary)
2. Shri Amitava Sardar, Director
3. Shri A.K. Mitra, Research Officer
4. Shri Indranil Sen Gupta, Research Officer
5. Dr. Sharat Dhal, Research Officer
6. Shri S.R. Gokhale, Assistant Manager
7. Shri S.N. Mitra, Assistant Manager

Supporting Staff

1. Shri R.S. Salvi
2. Shri N.P. Sahasrabudhe
3. Shri B.S. Dekate

Annexure II.1 : Components of Monetary Aggregates: A Cross-Country Comparison

Country	CU	TC	DD	OCD	SD	FCD	PSD	MF	TD	RP	M1	M2	M3	Broader measures
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. ARGENTINA	✓		✓		✓	✓			✓		2+4	M1* = M1+current accounts in US dollars	M1+6+10	M3* = M3 + (saving a/cs. + term deposits) in US dollars
2. AUSTRALIA	✓		✓						✓		2+4	-	2+4+ 10	Broad Money = M3 +net borrowings from non-bank private sector by NBFIs
3. AUSTRIA	✓		✓		✓				✓		2+4	M1+10	M1+6	-
4. BELGIUM	✓		✓		✓	✓			✓		2+4+Public Authorities' Deposits	-	M1+ (6+7+10+ Savings bonds) upto one year maturity	M4= M3+Treasury certificates M4E=M4+deposits abroad
5. BRAZIL	✓	✓	✓		✓			✓	✓		2+3+4+ domestic currency deposits of cheques etc.	M1+ 9+10	M2+6+ savings deposits with savings and loan associations	M4=M3+private securities (including exchange bills, housing and mortgage bonds, and debentures)
6. CANADA	✓	✓	✓	✓	✓	✓		✓	✓		2+3+4+5	M1+6+ non-personal notice deposits	M2+7 (of residents booked in Canada) +10	M2+=M2+9+deposits with NBFIs and Govt. savings institutions + individual annuities with life insurance companies
7. CZECH REPUBLIC	✓		✓			✓			✓		2+4	M1+10+7 held by residents	-	-
8. FINLAND	✓		✓	✓	✓				✓		2+4+5+6	M1+10	M2+CDs	-
9. FRANCE	✓		✓		✓	✓		✓	✓		2+4	M1+6	M2 + 7 + 9 + 10 + CDs + negotiable debt securities	M4=M3 + negotiable TBs & Notes, CP and medium-term notes
10. GERMANY	✓		✓		✓			✓	✓		2+4 (including DD of public authorities)	M1+10 (up to 4 years)	M2+6 (up to 4 years)	M3 E = M3+deposits abroad, short-term bank debt securities + 9 (domestic and foreign) held by domestic non-banks less the bank deposits and short-term bank debt securities of domestic MMFs.
11. HONG KONG	✓		✓		✓				✓		2+4	M1+6+10+ NCDs	M2+deposits/ NCDs of RLBs and DTCs held by public	-
12. INDONESIA	✓		✓		✓	✓			✓		2+4	M1+6+10+7 held by domestic private sector	-	-
13. IRELAND	✓		✓		✓	✓	✓		✓		2+4+7	-	M1+6+10 + borrowings from other credit institutions by banks	M3E=M3 + 8
14. ITALY	✓		✓		✓	✓	✓		✓	✓	2+4+(7+8) (demand deposits)	2+4+ 6(S.T.)+ 7+8+10+CDs(S.T.)	-	L= M2 +11+CDs (M.T.+L.T.) + saving certificates at Post Office +Bankers' Acceptances + TBs (in Lire & ECU)
15. JAPAN	✓		✓		✓		✓		✓	✓	2+4	M2+CDs=M1+6+ 10+CDs	M3+ CDs=M2+ CDs+8+ trusts, etc.	L = M2+CDs+8+Co-ops + Trust Money+11 (bonds with RP) +12+Bank Debentures+Govt. Bonds +Investment Trust+Foreign Bonds
16. KOREA	✓		✓		✓	✓			✓		2+4	M1+6+7+10	-	MCT=M2+CDs+Trust Money

Note: CU: currency, TC: travellers' cheques, DD: demand deposits, OCD: other chequeable deposits, SD: savings deposits, FCD: foreign currency deposits, PSD: postal savings deposits, MF: mutual funds/ money market mutual funds, TD: time deposits, RP: repurchase agreements, M1*, M3*: Bi-monetary aggregates, E: extended, NBFIs: non-bank financial institutions, TBs: Treasury Bills, CDs: certificates of deposit, CP: commercial paper, S.T.: short-term, M.T.: medium-term, L.T.: long term, NCDs: non-convertible debentures, RLBs: restricted licence banks, DTCs: deposit-taking companies, ECU: European currency unit, AMR=Aggregate monetary resources, ALP, ALP2: liquidity measures of Spain, RMF: retail money market mutual funds (MMFs), IMF: institutional MMFs, ST.: small denomination term deposits, LT: large denomination term deposits.

REPORT : WORKING GROUP ON MONEY SUPPLY

Annexure II.1 : Components of Monetary Aggregates: A Cross-Country Comparison (concl'd.)

Country	CJ	TC	DD	OD	SD	FCD	PSD	MF	TD	RP	M1	M2	M3	Broader measures
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
17. MALAYSIA	✓		✓		✓				✓		2+4	M1+6+10+ Negotiable Instrument of Deposits+Central Bank Certificates	M2 + Broad Quasi-Money	-
18. MAURITIUS	✓		✓		✓				✓		2+4	-	AMR = M1+6+10	-
19. NETHERLANDS	✓		✓		✓	✓			✓		2+4	M1+7+10 (S.T.)	M2 + 6 (S.T.)	-
20. NEW ZEALAND	✓		✓						✓		2+4	M1+net other call funding	M2+net term funding	-
21. PHILIPPINES	✓		✓		✓				✓		2+4	-	M1+ 6+10+ deposit substitutes of deposit money banks	-
22. SINGAPORE	✓		✓		✓		✓		✓		2+4	M1+6+10+ CDs	M2+net-deposits with NFIs (post-office savings bank and finance companies)	-
23. SPAIN	✓		✓		✓	✓			✓	✓	2+4	M1+6	M2+7+10+11+ Assets participations +Credit institutions' S.T. bonds+ Deposit Money institutions' L.T. bonds	ALP=M4 = M3 + non-deposit money credit institutions' LT bonds+ Insurance Operations+TBS+ securities of other public administration etc. ALP2 = ALP+CP.
24. SWEDEN	✓		✓		✓	✓	✓		✓		-	-	2+4+6+7+8+10	(i) M3+National saving, (ii) M3 + National saving + TBS
25. SWITZERLAND	✓		✓	✓	✓				✓		2+4+5	M1+6 (excluding pension funds accounts)	M2+10 in domestic currency	-
26. TAIWAN	✓	✓	✓		✓	✓			✓	✓	M1A= 2+3+4 M1B=M1A+6	M1B+7+10+ 11+non-resident domestic currency deposits	-	-
27. THAILAND	✓		✓								Money Supply = 2+4	-	-	-
28. UK	✓		✓						✓		-	2+4 (non-interest bearing bank deposits)+ other bank retail deposits + building society retail shares and deposits	-	M4 = M2 + wholesale deposits of banks and building societies
29. USA	✓	✓	✓	✓	✓			(I)RMF (I)ST (II)IMF (II)LT	Ⓚ Retail Ⓚ Others		2+3+4+5	M1+6+9(I)+ 10(I)+11(I)	M2+9(II)+10(II)+ 11(II)+Euro dollars held by residents abroad	L = Liquidity = M3+ Non-bank public holdings of US savings bonds, short-term treasury securities, CP and banker's acceptances, net of MMF holdings of these assets.

Note: CJ: currency, TC: travellers' cheques, DD: demand deposits, OD: other chequeable deposits, SD: savings deposits, FCD: foreign currency deposits, PSD: postal savings deposits, MF: mutual funds/ money market mutual funds, TD: time deposits, RP: repurchase agreements, M1*, M3*: Bi-monetary aggregates, E: extended, NFIs: non-bank financial institutions, TBS: Treasury Bills CDs: certificates of deposit, CP: commercial paper, S.T.: short-term, M.T.: medium-term, L.T.: long term, NCDs: non-convertible debentures, AMR=Aggregate monetary resources, ALP, ALP2: Liquidity measures of Spain, RMF: retail money market mutual funds (MMFs), IMF: institutional MMFs, ST: small denomination term deposits, LT: large denomination term deposits.

Annexure II.2 : Evolution of Methodology of Compilation of Money Stock Measures : Components and Sources

A. COMPONENTS (C)			
FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
C.I. Currency with the Public (C.I.1+C.I.2-C.I.3-C.I.4-C.I.5) C.I.1 Notes in circulation C.I.2 Circulation of Rupee coins and small coins <i>i.e.</i>, Government's currency liabilities to the Public C.I.3 Currency returned by Pakistan C.I.4 Cash on hand with banks <i>i.e.</i>, commercial banks and state co-operative banks C.I.5 Balances of the Central and State Governments held at treasuries C.II. Aggregate Deposits with Banks (C.II.1+C.II.2) C.II.1 Demand Deposits with banks (including inter-bank demand deposits with state co-operative banks) C.II.2 Time Deposits with banks (including inter-bank time deposits with state co-operative banks)	C.I. Currency with the Public (C.I.1+C.I.2-C.I.3-C.I.4) C.I.1 Notes in circulation C.I.2 Circulation of Rupee coins and small coins <i>i.e.</i>, Government's currency liabilities to the Public C.I.3 Currency returned by Pakistan C.I.4 Cash on hand with the banking system <i>i.e.</i>, commercial banks, state co-operative banks, central co-operative banks and primary co-operative banks C.II. Aggregate Deposits with the Banking System (C.II.1+C.II.2) C.II.1 Demand Deposits with the banking system C.II.2 Time Deposits with the banking system	C.I. Currency with the Public (C.I.1+C.I.2-C.I.3) C.I.1 Notes in circulation C.I.2 Circulation of Rupee coins and small coins <i>i.e.</i>, Government's currency liabilities to the Public C.I.3 Cash on hand with the banking system C.II. Aggregate Deposits held by Residents with the Banking System (C.II.1+C.II.2-C.II.2.2.1-C.II.2.3.1) C.II.1 Demand Deposits with the banking system C.II.2 Time Deposits with the banking system (C.II.2.1+C.II.2.2+C.II.2.3) C.II.2.1 Certificates of Deposit (CDs) C.II.2.2 Short-term¹ time deposits C.II.2.2.1 Foreign Currency Repatriable short-term¹ Fixed Deposits held by Non-Residents	Comprise rupee coins and small coins. Ten-rupee coins issued since October 1969, two rupee-coins issued since November 1982 and five rupee coins issued since November 1985 are included under rupee coins. Net of return of Indian notes from Pakistan. The FWG considered only commercial and state co-operative banks while the SWG extended the coverage to central co-operative banks and primary co-operative banks consisting of urban co-operative banks and salary earners' societies. Since August 1967, no adjustment has been made in regard to balances held at treasuries in view of their meagre amounts. With the inclusion of central and urban co-operative banks, the SWG treated inter-bank deposits with the banking system as part of net non-monetary liabilities (<i>i.e.</i>, other items (net) as defined by the present Working Group). The present Working Group has considered aggregate deposits, on residency basis, thereby excluding repatriable foreign currency fixed deposits held by non-residents, <i>e.g.</i> FCNR(B) deposits, from money supply. The present Working Group has provided a break-up of time deposits into CDs and other time deposits on the basis of maturity structure partitioned at one year.

¹ Of contractual maturity of one year or less.

REPORT : WORKING GROUP ON MONEY SUPPLY

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
C.III. 'Other' deposits with the RBI (C.III.1-C.III.2) C.III.1 Other Deposits with the RBI C.III.2 IMF Deposits with RBI in Account No.1	C.III. 'Other' deposits with the RBI (C.III.1-C.III.2-C.III.3-C.III.4-C.III.5) C.III.1 Other Deposits with the RBI C.III.2 IMF Deposits with RBI in Account No.1 C.III.3 RBI Employees' Pension/ Provident/Co-operative Guarantee Funds C.III.4 Compulsory Deposits with RBI C.III.5 Profits of the RBI held temporarily under other deposits and subscriptions to state governments' loans pending allotment. C.IV. Post Office Total Deposits C.IV.1 Post Office Savings Deposits	C.II.2.3 Long-term² time deposits C.II.2.3.1 Foreign Currency Repatriable long-term² Fixed Deposits held by Non-Residents C.II.3 Savings Accounts C.II.3.1 Time Liabilities portion of Savings Accounts C.III. 'Other' deposits with the RBI (C.III.1-C.III.2-C.III.3-C.III.4-C.III.5) C.III.1 Other Deposits with the RBI C.III.2 IMF Deposits with RBI in Account No.1 C.III.3 RBI Employees' Pension/ Provident/Co-operative Guarantee Funds C.III.4 Compulsory Deposits with RBI C.III.5 Profits of the RBI held temporarily under other deposits and subscriptions to state governments' loans pending allotment. C.IV. Post Office Total Deposits C.IV.1 Post Office Savings Deposits C. V. Call / Term Money Borrowings by Scheduled Commercial Banks from non-bank sources (excluding PDs) C.VI. Narrow Money (M_1) (C.I+C.II.1+C.III) C.VII. M_2 (C.VI+C.II.2.1+C.II.2.2-C.II.2.2.1+C.II.3.1)	Balances under Reserve Bank Employees' Pension/Provident and Co-operative Guarantee Funds have been excluded from money supply since January 1964. Balances under Additional Emoluments (Compulsory Deposits) Act 1974 and the Compulsory Deposit Scheme (Income Tax Payers) Act were excluded from money supply effective August 16, 1974 and December 13, 1974, respectively. Post Office Deposits were included in the monetary aggregates by the SWG but would now be part of liquidity aggregates. Borrowings represent money at call and short notice obtained from outside the banking system, but exclude refinance from RBI and financial institutions. There is a break in the M_1 series following the reclassification of demand and time components of savings accounts <i>vide</i> circular DBOD.No.Ref.BC. 127/C-96(Ret)-77 dated October 15, 1977. This is a new measure proposed by the present Working Group.
C.IV. Money Supply with the Public (C.I+C.II.1+C.III)	C.V. Narrow Money (M_1) (C.I+C.II.1+C.III)	C.VI. Narrow Money (M_1) (C.I+C.II.1+C.III)	
	C.VI. M_2 (C.V+C.IV.1)		

² Of contractual maturity of above one year.

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
C.V. Aggregate Monetary Resources (C.IV+C.II.2)	C.VII. Broad Money (M₃) (C.V+C.II.2) C.VIII. M₄ (C.IV+C.VII)	C.VIII. Broad Money (M₃) (C.VII+C.II.2.3-C.II.2.3.1+C.V) C.IX. L₁ (C.IV + C.VIII) C.X. Term Deposits of Financial Institutions (FIs) C.XI. Certificates of Deposit issued by FIs C.XII. Term Borrowings by FIs C.XIII. L₂ (C.IX + C.X + C.XI + C.XII) C.XIV. Public Deposits by Non-Banking Financial Companies (NBFCs) C.XV. L₃ (C.XIII + C.XIV)	Data on aggregate monetary resources proposed by the FWG were first published in the Bank's Annual Report 1964-65 and in the Report on Currency and Finance 1967-68. Includes IDBI, ICICI, IFCI, IIBI, EXIM Bank, TFCI, NABARD, SIDBI and NHB. Includes NBFCs having public deposits of Rs. 20 crore or above.
B. SOURCES (S)			
S.I Net Bank Credit to Government Sector (S.I.1+S.I.2)	S.I Net Bank Credit to Government Sector (S.I.1+S.I.2)	S.I Net Bank Credit to Government (S.I.1+S.I.2)	The SWG had split both RBI's claims on Government into those in respect of Central and State Governments. The present Working Group proposes to publish the maturity structure of the RBI's holdings of Government securities partitioned at maturity of up to one year.
S.I.1 Net RBI credit to Government Sector (S.I.1.1+S.I.1.2+S.I.1.3+S.I.1.4+S.I.1.5-S.I.1.6+S.I.1.7-S.I.1.8)	S.I.1 Net RBI credit to Government Sector (S.I.1.1+S.I.1.2)	S.I.1 Net RBI credit to Government (S.I.1.1+S.I.1.2)	
	S.I.1.1 Net RBI credit to the Central Government (S.I.1.1.1+S.I.1.1.2+S.I.1.1.3+S.I.1.1.4+S.I.1.1.5-S.I.1.1.6)	S.I.1.1 Net RBI credit to the Central Government (S.I.1.1.1+S.I.1.1.2+S.I.1.1.3+S.I.1.1.4+S.I.1.1.5-S.I.1.1.6)	
S.I.1.1 Loans and Advances to the Central Government	S.I.1.1.1 Loans and Advances to the Central Government	S.I.1.1.1 Loans and Advances to the Central Government	
S.I.1.2 Bills Purchased and Discounted	S.I.1.1.2. Bills Purchased and Discounted	S.I.1.1.2 Bills Purchased and Discounted	
S.I.1.3 Investments in Treasury Bills	S.I.1.1.3 Investments in Treasury Bills	S.I.1.1.3 Investments in short-term ¹ Central Government securities	The present Working Group has separated the maturity structure of investments in Government securities in respect of contractual maturity. While short-term securities are defined as those having contractual maturity of up to one year, long-term securities are those with contractual maturity of above one year.

¹ Of contractual maturity of one year or less.

REPORT : WORKING GROUP ON MONEY SUPPLY

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
S.I.1.4 Investments in Government of India securities S.I.1.5 Rupee coins held by the RBI S.I.1.6 Deposits of the Central Government with the RBI S.I.1.7 Loans and Advances to State Governments S.I.1.8 Deposits of State Governments S.I.2 Other Banks' credit to Government (S.I.2.1+S.I.2.2) S.I.2.1 Other Banks' investments in Government securities S.I.2.2 Government's Currency Liabilities to the Public adjusted for balances in treasuries	S.I.1.1.4 Investments in Government of India securities S.I.1.1.5 Rupee coins held by the RBI S.I.1.1.6 Deposits of the Central Government with the RBI S.I.1.2 Net RBI credit to the State Government (S.I.1.2.1-S.I.1.2.2) S.I.1.2.1 Loans and Advances to State Government S.I.1.2.2 Deposits of State Governments S.I.2 Other Banks' credit to Government (=S.I.2.1) S.I.2.1 Other Banks' investments in Government securities	S.I.1.1.4 Investments in long-term² Central Government securities S.I.1.1.5 Rupee coins held by the RBI S.I.1.1.6 Deposits of the Central Government with the RBI S.I.1.2 Net RBI credit to the State Government (S.I.1.2.1-S.I.1.2.2) S.I.1.2.1 Loans and Advances to State Governments S.I.1.2.2 Deposits of State Governments S.I.2 Credit to Government by the Banking System (S.I.2.1+S.I.2.2) S.I.2.1 Investments in short-term¹ Government Securities by the Banking System S.I.2.2 Investments in long-term² Government Securities by the Banking System	The present Working Group has separated the maturity structure of investments in Government securities in respect of contractual maturity. While short-term securities are defined as those having contractual maturity of up to one year, long-term securities are those with contractual maturity of above one year. Treasury Bills are to be valued at carrying cost. Banks are required to provide for depreciation in respect of the 'current' category of government securities (i.e., those in which they intend to deal in) as per RBI guidelines since 1992-93. Such depreciation has a corresponding effect on their other items (net). Recapitalisation bonds received from Government are exempted from revaluation. Banks, however, will be required to mark their entire portfolio to the market over time. Government's currency liabilities to the Public were carved out as an independent source of money stock since October 1962.

¹ Of contractual maturity of one year or less.

² Of contractual maturity of above one year.

ANNEXURE II

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
S.II Total Bank Credit to Private Sector (S.II.1+S.II.2)	S.II Total Bank Credit to Commercial Sector (S.II.1+S.II.2)	S.II Bank Credit to Commercial Sector (S.II.1+S.II.2)	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 too.
S.II.1 RBI credit to Private Sector (S.II.1.1+S.II.1.2)	S.II.1 RBI credit to Commercial Sector (S.II.1.1+S.II.1.2+S.II.1.3)	S.II.1 RBI credit to Commercial Sector (S.II.1.1+S.II.1.2+S.II.1.3)	
S.II.1.1 RBI’s investments in shares/bonds of financial institutions, ordinary debentures of co-operative sectors, CLMB debentures <i>etc.</i>	S.II.1.1 RBI’s investments in shares/bonds of financial institutions, ordinary debentures of co-operative sectors, CLMB debentures <i>etc.</i>	S.II.1.1 RBI’s investments in shares/bonds of financial institutions, ordinary debentures of co-operative sectors, CLMB debentures, <i>etc.</i>	
S.II.1.2 Loans to financial institutions	S.II.1.2 Loans to financial institutions	S.II.1.2 Loans to financial institutions	On the establishment of National Bank for Agriculture and Rural Development (NABARD) on July 12, 1982, certain assets and liabilities of the RBI were transferred to NABARD, necessitating some reclassification of aggregates on the sources side of money stock since that date. The present Working Group has decided to reclassify the RBI’s refinance to NABARD as credit to commercial sector rather than as claims on banks as had been the practice hitherto.
	S.II.1.3 Internal Bills (under Bills Rediscounting Scheme)	S.II.1.3 Internal Bills (under Bills Rediscounting Scheme)	With the introduction of the Bills Rediscounting Scheme, the commercial banks started discounting the internal bills with the RBI which are included in the RBI credit to commercial sector since June 1971.
S.II.2 Other Banks’ net credit to Private Sector (S.II.2.1+S.II.2.2-S.II.2.3-S.II.2.4-S.II.2.5)	S.II.2 Other Banks’ credit to Commercial Sector (S.II.2.1+S.II.2.2)	S.II.2 Credit to the Commercial Sector by the Banking System(S.II.2.1+S.II.2.2+S.II.2.3+S.II.2.4)	
S.II.2.1 Bank Credit	S.II.2.1 Bank Credit	S.II.2.1 Bank Credit	Includes loans, cash credit and overdrafts and internal and foreign bills purchased and discounted.
S.II.2.2 Other Investments	S.II.2.2 Other Investments	S.II.2.2 Investments in Other Approved Securities	The present Working Group has separated banks’ investments in other approved securities.
		S.II.2.3 Other Investments	Include investments in securities which are not approved for maintenance of statutory liquidity ratio (SLR) such as Commercial Papers, units of UTI and mutual funds and shares/debentures/bonds of the public and private non-bank sector.

REPORT : WORKING GROUP ON MONEY SUPPLY

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
S.II.2.3 Net inter-bank Liabilities S.II.2.4 Loans from financial institutions S.II.2.5 Time deposits held by Banks (including inter-bank time deposits held by state co-operative banks)		S.II.2.4 Net lendings to Primary Dealers	Private equity shares and debentures should be valued at Stock Exchange quotations or as otherwise specified by the RBI. Public sector shares are to be valued at break-up value as per the previous balance sheet or as otherwise specified by the RBI. CPs are to be valued at carrying cost. Mutual Fund Units should be valued as per Stock Exchange quotations or otherwise valued at the latest net asset value declared by the Mutual Fund. As data for central and primary co-operative banks were not included in money supply, the FWG had adjusted bank credit for net inter-bank liabilities. These were, however, treated as part of net non-monetary liabilities by the SWG on extension of full coverage to the co-operative sector. The FWG had adjusted bank credit against loans from select financial institutions which received refinance from the RBI which had already been reckoned in the RBI credit to the commercial sector. The SWG did away with this adjustment as it was argued that these FIs had substantial access to sources of funds other than those from the RBI. Banks' net lendings to PDs, net of their call borrowings from PDs, are part of net inter-bank assets under the present reporting format. However, as the banking sector in money supply excludes PDs, this item is now included as part of credit from the banking system by the present Working Group. This adjustment was considered necessary since the FWG was concerned with M_1. 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 were 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.

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
S.III Net Foreign Exchange Assets of the Banking Sector (S.III.1+S.III.2)	S.III Net Foreign Exchange Assets of the Banking Sector (S.III.1+S.III.2)	S.III Net Foreign Exchange Assets of the Banking Sector (S.III.1+S.III.2)	
S.III.1 Net Foreign Exchange Assets of the RBI (S.III.1.1+S.III.1.2+S.III.1.3-S.III.1.4-S.III.1.5)	S.III.1 Net Foreign Exchange Assets of the RBI (S.III.1.1+S.III.1.2+S.III.1.3-S.III.1.4+S.III.1.5)	S.III.1 Net Foreign Exchange Assets of the RBI (S.III.1.1+S.III.1.2-S.III.1.3+S.III.1.4)	
S.III.1.1 Gold Coin and Bullion	S.III.1.1 Gold Coin and Bullion	S.III.1.1 Gold Coin and Bullion	Inclusive of valuation of Gold following its revaluation close to international market price effective October 17, 1990. Such revaluation has a corresponding effect on Reserve Bank's net non-monetary liabilities (capital account).
		S.III.1.2 Foreign Currency Assets of the RBI (S.III.1.2.1+S.III.1.2.2)	Since July 1996, foreign currency assets are being valued at the exchange rate prevailing at the end of every week. Such revaluation has a corresponding effect on Reserve Bank's net non-monetary liabilities (capital account).
S.III.1.2 Foreign Securities	S.III.1.2 Foreign Securities	S.III.1.2.1 Foreign Securities	Certain foreign securities <i>e.g.</i> , IBRD shares, Commonwealth bonds <i>etc.</i> which were part of RBI's claims on Government were reclassified as part of its foreign assets by the SWG.
S.III.1.3 Balances held abroad	S.III.1.3 Balances held abroad	S.III.1.2.2 Balances held abroad	
S.III.1.4 IMF A/c No. 1	S.III.1.4 IMF A/c No. 1	S.III.1.3 IMF A/c No. 1	
S.III.1.5 Special currency withdrawn from Gulf States held under Other deposits of the RBI if any.	S.III.1.5 Quota subscription in rupees.	S.III.1.4 Quota subscription in rupees.	
S.III.2 Net Foreign Exchange Assets of Banking System	S.III.2 Net Foreign Exchange Assets of Banking System (Authorised Dealers' Balances)	S.III.2 Net Foreign Currency Assets of Banking System (S.III.2.1-S.III.2.2-S.III.2.3)	Data on authorised dealers' balances were incorporated on the basis of BAL Statement compiled at ECD. The present Working Group has incorporated data on foreign currency assets and foreign exchange liabilities of the banking system with a view to measuring the net foreign currency exposure of banks.
		S.III.2.1 Foreign Currency Assets of the Banking System	Includes balances held abroad (<i>i.e.</i> , the cash component of <i>nostro</i> accounts, <i>etc.</i>) and investments in eligible foreign securities and bonds.

REPORT : WORKING GROUP ON MONEY SUPPLY

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
	S.IV Government's Currency Liabilities to the Public	S.III.2.2 Overseas Borrowings of the Banking System. S.III.2.3 Non-Resident Repatriable Foreign Currency Fixed Deposits with the Banking System (C.II.2.2.1 + C.II.2.3.1.) S.IV. Government's Currency Liabilities to the Public	Include at present FCNR(B) deposits. Net of Indian currency returned by Pakistan awaiting adjustment.
S.IV. Net non-monetary Liabilities of the Banking Sector (S.IV.1+S.IV.2)	S.V. Net non-monetary Liabilities of the Banking Sector (S.V.1+S.V.2)	S.V. Capital Account of the Banking Sector (S.V.1+S.V.2)	The present Working Group has bifurcated the non-monetary liabilities of the Banking Sector into the capital account and other items (net).
S.IV.1 Net non-monetary Liabilities of the RBI (S.IV.1.1+S.IV.1.2+S.IV.1.3+S.IV.1.4+S.IV.1.5-S.IV.1.6+S.IV.1.7)	S.V.1 Net non-monetary Liabilities of the RBI (S.V.1.1+S.V.1.2+S.V.1.3+S.V.1.4+S.V.1.5+S.V.1.6+S.V.1.7+S.V.1.8-S.V.1.9)	S.V.1 Capital Account of the RBI (S.V.1.1+S.V.1.2+S.V.1.3+S.V.1.4+S.V.1.5+S.V.1.6)	
S.IV.1.1 Paid-up Capital	S.V.1.1 Paid-up Capital	S.V.1.1 Paid-up capital	
S.IV.1.2 Reserves	S.V.1.2 Reserves	S.V.1.2 Reserves	
S.IV.1.3 Contributions to National Funds	S.V.1.3 Contributions to National Funds	S.V.1.3 Contingency Reserve	
S.IV.1.4 Bills Payable	S.V.1.4 RBI Employees' Pensions/Provident/ Guarantee Funds	S.V.1.4 Exchange Fluctuation Reserve	
S.IV.1.5 Other Liabilities	S.V.1.5 Compulsory Deposits with the RBI	S.V.1.5 Exchange Equalisation Account	
S.IV.1.6 Other Assets net of Gold in Banking Department	S.V.1.6 Bills Payable	S.V.1.6 Contributions to National Funds	
S.IV.1.7 Indian currency returned by Pakistan awaiting adjustment	S.V.1.7 Other Liabilities	S.V.2 Capital Account of the Banking System (S.V.2.1+S.V.2.2)	
	S.V.1.8 IMF Quota Subscription and other payments in rupees included in IMF A/c No. 1	S.V.2.1 Paid-up Capital	
	S.V.1.9 Other Assets net of Gold in Banking Department	S.V.2.2 Reserves	
S.IV.2 Non-identifiable net non-monetary liabilities of other Banks (residual)	S.V.2 Net non-monetary liabilities of the Banking System (residual)	S.VI. Other items (net) of the Banking Sector (S.VI.1+S.VI.2)	

ANNEXURE II

FIRST WORKING GROUP	SECOND WORKING GROUP	PRESENT WORKING GROUP	REMARKS
1	2	3	4
		S.VI.1 Other items (net) of the RBI (S.VI.1.1+S.VI.1.2+S.VI.1.3+S.VI.1.4-S.VI.1.5-S.VI.1.6-S.VI.1.7+S.VI.1.8-S.VI.1.9) S.VI.1.1 RBI Employees' Pensions/Provident/Guarantee Funds S.VI.1.2 Compulsory Deposits with the RBI S.VI.1.3 Bills Payable S.VI.1.4 Other Liabilities S.VI.1.5 Contingency Reserve S.VI.1.6 Exchange Fluctuation Reserve S.VI.1.7 Exchange Equalisation Account S.VI.1.8 IMF Quota Subscription and other payments in rupees included in IMF A/c No. 1. S.VI.1.9 Other Assets net of Gold in Banking Department S.VI.2 Other items (net) of the Banking System (residual)	Excludes contingency reserve, exchange fluctuation reserve and exchange equalisation account which now form part of capital account and are, therefore, adjusted.

Annexure II.3 : Monetary SurveyStatement of position at the close of business on Friday¹

(Rupees crore)

Components		Sources	
1	2	3	4
C.I	Currency with the Public	S.I	Net Bank Credit to the Government (S.I.1+S.I.2)
		S.I.1	Net RBI credit to the Government (S.I.1.1+S.I.1.2)
C.II	Aggregate Deposits of Residents ² (C.II.1+C.II.2)	S.I.1.1	Net RBI credit to the Central Government
C.II.1	Demand Deposits	S.I.1.2	Net RBI credit to State Governments
C.II.2	Time Deposits (C.II.2.1+C.II.2.2+C.II.2.3)	S.I.2	Credit to the Government by the Banking System
C.II.2.1	Short-term ³ Time Deposits (other than CDs)	S.II	Bank Credit to the Commercial Sector (S.II.1+S.II.2)
C.II.2.2	Certificates of Deposit (CDs)	S.II.1	RBI Credit to the Commercial Sector
C.II.2.3	Long-term ⁴ Time Deposits	S.II.2	Credit to the Commercial Sector by the Banking System
C.III	'Other' Deposits with RBI	S.III	Domestic Credit of the Banking Sector (S.I+S.II)
C.IV	Call/Term Funding from Financial Institutions	S.IV	Government's Currency Liabilities to the Public
	Monetary Aggregates	S.V	Net Foreign Exchange Assets of the Banking Sector (S.V.1+S.V.2)
C.V	Narrow Money (M_1) (C.I+C.II.1+C.III)	S.V.1	Net Foreign Exchange Assets of the RBI
C.VI	M_2 (C.V+C.II.2.1+C.II.2.2+I.2)	S.V.2	Net Foreign Currency Assets of the Banking System
C.VII	Broad Money (M_3) (C.I+ C.II+C.III+C.IV)	S.VI	Other items (net) of the Banking Sector
		S.VII	Capital Account (S.VII.1+S.VII.2)
		S.VII.1	Paid-up Capital
		S.VII.2	Reserves
Memo Items			
I.1	Savings (Demand Liabilities) Deposits		
I.2	Savings (Time Liabilities portion) Deposits		
II.1	Net Bank Credit to Primary Dealers		

1 Where Friday is a public holiday under the Negotiable Instruments Act, 1881 (26 of 1881) for one or more offices of a scheduled bank, the return shall give the preceding working day's figures in respect of such office or offices, but shall nevertheless be deemed to relate to that Friday.

2 Excludes repatriable fixed foreign currency denominated deposits, e.g., FCNR(B) deposits held by non-residents.

3 Of contractual maturity of one year or less.

4 Of contractual maturity of more than one year.

Note : The monetary survey would cover data categories for (i) Reserve Bank of India, (ii) Scheduled Commercial Banks and (iii) Co-operative Banks.

Annexure II.4 : Reserve Bank of India (RBI) Survey

Statement of position at the close of business on Friday

(Rupees crore)

Components		Sources	
1	2	3	4
C.I	Currency in Circulation	S.I	Domestic Credit of the RBI (S.II+S.III+S.IV)
C.II	Bankers' Deposits with the RBI	S.II	Net RBI credit to the Government (S.II.1+S.II.2)
C.II.1	Scheduled Commercial Banks	S.II.1	Net RBI credit to the Central Government (S.II.1.1+S.II.1.2+S.II.1.3+S.II.1.4-S.II.1.5)
C.III	'Other' Deposits with the RBI	S.II.1.1	Loans and Advances to the Central Government
		S.II.1.2	Investments in short-term ¹ Central Government securities
		S.II.1.3	Investments in long-term ² Central Government securities
		S.II.1.4	Rupee Coins held by the RBI
C.IV	Reserve Money (C.I+C.II+C.III = S.I+S.V+S.VI-S.VII-S.VIII)	S.II.1.5	Deposits of the Central Government
		S.II.2	Net RBI credit to State Governments (S.II.2.1-S.II.2.2)
		S.II.2.1	Loans and Advances to State Governments
		S.II.2.2	Deposits of State Governments
		S.III	Claims on Banks
		S.III.1	Loans and Advances to Commercial Banks
		S.IV	Credit to Commercial Sector
		S.IV.1	Credit to Primary Dealers
		S.IV.2	Loans and Advances to NABARD
		S.V	Government's Currency Liabilities to the Public
		S.VI	Net Foreign Exchange Assets of the RBI
		S.VI.1	Gold
		S.VI.2	Foreign Currency Assets
		S.VII	Other Items (net)
		S.VIII	Capital Account
		S.VIII.1	Exchange Fluctuation Reserve
Memo Items			
1.	Central Government Securities (Face Value)		
2.	Repos (-) / Reverse Repos (+) (Face Value)		
3.	Subscription to fresh Central Government Securities during the financial year (Face Value)		

¹ Of contractual maturity of one year or less.² Of contractual maturity of more than one year.

Annexure II.5 : Commercial Bank Survey

Statement of position at the close of business on Friday¹
(Rupees crore)

Components		Sources	
1	2	3	4
C.I.	Aggregate Deposits of Residents with Commercial Banks ² (C.I.1-S.IV.2)	S.I.	Credit to the Government (S.I.1+S.I.2)
C.I.1	Aggregate Deposits of Commercial Banks (C.I.1.1+C.I.1.2)	S.I.1	Investments in short-term ³ Government Securities
C.I.1.1	Demand Deposits	S.I.2	Investments in long-term ⁵ Government Securities
C.I.1.2	Time Deposits (C.I.1.2.1+C.I.1.2.2+C.I.1.2.3)		
C.I.1.2.1	Short-term ³ Time Deposits (other than CDs)	S.II.	Credit to the Commercial Sector (S.II.1+S.II.2+S.II.3)
C.I.1.2.2	Certificates of Deposits (CDs)	S.II.1	Bank Credit in India ⁴ (S.II.1.1+S.II.1.2+S.II.1.3)
C.I.1.2.3	Long-term ⁵ Time Deposits	S.II.1.1	Bank Credit in India in Rupees (other than PDs)
		S.II.1.2	Bank Credit in India in Foreign Currency
C.II.	Non-Bank Borrowings ⁶	S.II.1.3	Net Advances to Primary Dealers (PDs)
		S.II.2	Investments in Other Approved Securities
		S.II.3	Other Investments (S.II.3.1+S.II.3.2+S.II.3.3)
		S.II.3.1	Commercial Paper (CP)
		S.II.3.2	Short-term ³ Other Investments (Other than CP)
		S.II.3.3	Long-term ⁵ Other Investments
		S.III.	Domestic Credit of Commercial Banks (S.I+S.II)
		S.IV.	Net Foreign Currency Assets of Commercial Banks (S.IV.1-S.IV.2-S.IV.3)
		S.IV.1	Foreign Currency Assets
		S.IV.2	Non-Resident Foreign Currency Repatriable Fixed Deposits (S.IV.2.1+S.IV.2.2.)
		S.IV.2.1	Short-term ³
		S.IV.2.2	Long-term ⁵
		S.IV.3	Overseas Foreign Currency Borrowings
		S.V.	Other items (net)
		S.V.1	Net Inter-Bank Liabilities
		S.VI.	Capital Account (S.VI.1+S.VI.2)
		S.VI.1	Paid-up Capital
		S.VI.2	Reserves
		S.VII.	Cash with Banks
Memo Items			
I.1	Non-Resident Rupee Deposits		
I.2	FCNR(B) Deposits		
II.1	Savings (Demand Liabilities portion) Deposits		
II.2	Savings (Time Liabilities portion) Deposits		
III.	Food Credit		

1. Where Friday is a public holiday under the Negotiable Instruments Act, 1881 (26 of 1881) for one or more offices of a scheduled bank, the return shall give the preceding working day's figures in respect of such office or offices, but shall nevertheless be deemed to relate to that Friday.

2. Excludes repatriable foreign currency denominated fixed deposits, e.g. FCNR(B) deposits, held by non-residents with banks.

3. Of contractual maturity of one year or less.

4. Includes loans and advances, cash credit, overdrafts, bills purchased and discounted etc.

5. Of contractual maturity of more than one year.

6. Excludes refinance from RBI, IDBI etc.

Note : The commercial bank survey would cover data categories for scheduled commercial banks only due to negligible presence of non-scheduled commercial banks.

Annexure II.6**Form A**

(To be submitted by a scheduled bank
which is not a state co-operative bank)

Statement of position at the close of business on Friday¹

(Rupees rounded off to the nearest thousand)

Name of the Bank :

I. Liabilities to the Banking System in India²

- a) Demand and time deposits from Banks
- b) Borrowings from Banks³
- c) Other Demand and Time Liabilities⁴
- Total of I

II. Liabilities to Others in India

- a) Aggregate Deposits (Other than from Banks)
 - (i) Demand
 - (ii) Time
- b) Borrowings⁵
- c) Other demand and time liabilities
- Total of II
- Total of I + II

III. Assets with the Banking System in India

- a) Balances with Banks
 - (i) In current account
 - (ii) In other accounts
- b) Money at call and short notice
- c) Advances to banks *i.e.*, dues from banks
- d) Other Assets
- Total of III

1 Where Friday is a public holiday under the Negotiable Instruments Act, 1881 (26 of 1881) for one or more offices of a scheduled bank, the return shall give the preceding working day's figures in respect of such office or offices, but shall nevertheless be deemed to relate to that Friday.

2 The expression "Banking System" or "Banks" wherever it appears in the return means the banks and any other financial institutions referred to in sub-clause (i) to (vi) of clause (d) of the Explanation below Section 42(I) of the Reserve Bank of India Act, 1934.

3 In case of RRBs, apart from the sponsor bank.

4 If it is not possible to provide the figure against I (c) separately from II (c), the same may be included in the figure against II (c). In such a case, the net liability to the banking system will be worked out as the excess, if any, of the aggregate of I (a) and I (b) over the aggregate of III.

5 Other than from Reserve Bank of India, Industrial Development Bank of India, National Bank for Agriculture and Rural Development and Export-Import Bank of India.

IV. Cash in India (i.e., cash in hand)

V. Investments in India

(at book value)

- a) Central and State Government securities including Treasury Bills, Treasury Deposits Receipts, Treasury Savings Deposit Certificates and Postal obligations
 - b) Other Approved Securities
- Total of V

VI. Bank Credit in India (excluding inter-bank advances)

- a) Loans, cash credits and overdrafts
 - b) Inland Bills purchased and discounted
 - (i) Bills Purchased
 - (ii) Bills Discounted
 - c) Foreign Bills purchased and discounted
 - (i) Bills purchased
 - (ii) Bills discounted
- Total of VI
- Total of III+IV+V+VI

A. Net Liabilities for the purpose of Section 42 of the Reserve Bank of India Act 1934 = Net Liability to the Banking System + Liabilities to Others in India *i.e.*, (I-III) + II, if (I - III) is a *plus* figure or II only, if (I - III) is a *minus* figure.

B. Amount of minimum deposit required to be kept with the Reserve Bank of India under the Act (rounded off to the nearest rupee)

C. Savings Bank Account (vide Regulation 7)

Demand Liabilities in India
Time Liabilities in India

Memorandum to Form A

- 1. Paid-up Capital
- 1.1 Reserves
- 2. Time Deposits
 - 2.1 Short-term (of contractual maturity of one year or less)
 - 2.2 Long-term (of contractual maturity of more than one year)
- 3. Certificates of Deposit
- 4. Net Demand and Time Liabilities (after deduction of liabilities under zero reserve prescription, Annexure A)
- 5. Amount of Deposits required to be maintained as per current rate of CRR
- 6. Any other liability on which CRR is required to be maintained as per current RBI instructions under Sec. 42 and 42(1A) of the RBI Act.
- 7. Total CRR required to be maintained under Section 42 and 42(1A) of the RBI Act.

Annexure A**Name of the Bank :**

(Amount in Rupees rounded off to the nearest thousand)

Items	Outstanding at at book value	Revaluation value	Interest
1	2	3	4
Liabilities Liabilities to others in India I. Non-Resident Deposits (I.1+I.2+I.3+I.4) I.1 Non-Resident External Rupee Account (NRE) I.2 Non-Resident Non-Repatriable Rupee Account (NRNR) I.3 Foreign Currency Non-Resident Banks Scheme [FCNR(B)] (I.3.1+I.3.2) I.3.1 Short-term ¹ I.3.2 Long-term ² I.4 Others (to be specified) II. Other Deposits/Schemes (II.1+II.2+II.3+II.4+II.5+II.6) II.1 Exchange Earner's Foreign Currency Accounts II.2 Resident Foreign Currency Accounts II.3 ESCROW Accounts by Indian Exporters II.4 Foreign Credit Line for Pre-shipment Credit account and Overseas Rediscounting of Bills II.5 Credit Balances in ACU (US dollar) Account II.6 Others (to be specified) III. Foreign Currency Liabilities to the Banking System in India (III.1+III.2) III.1 Inter-bank Foreign Currency Deposits III.2 Inter-bank Foreign Currency Borrowings IV. Overseas Borrowings ³ Assets V. Assets with the banking system in India V.1 Foreign currency lending V.2 Others VI. Assets with others in India VI.1 Bank Credit in India in Foreign Currency ⁴ VI.2 Others VII. Overseas foreign currency assets ⁵			

1. Of contractual maturity of one year or less.

2. Of contractual maturity of more than one year.

3. Pertains to the portion not swapped into Rupees.

4. Loans out of FCNRB deposits.

5. Includes balances held abroad (i.e., cash component of *nostro* account, debit balances in ACU (US dollar) account and credit balances in the commercial banks of ACU countries), ii) short-term foreign deposits and investments in eligible securities, iii) foreign money market instruments including Treasury Bills and iv) foreign shares and bonds.

REPORT : WORKING GROUP ON MONEY SUPPLY

	Amount in Rupees rounded off to the nearest thousand
VIII. External Liabilities to Others subject to differential/zero CRR prescription (I+ II) IX. External Liabilities fully subject to CRR prescription (IV) X. Net Inter-Bank Liabilities (I-III of Form 'A') XI. Any other liabilities coming within the purview of zero prescription XII. Liabilities subject to zero CRR prescription (VIII+X+XI)	
<i>Memo Items</i>	
1. FCNR(B) Deposits Balance as on the Reporting Fortnight Balance as on 11.04.1997 Increase over 11.04.1997	

Annexure B**Name of the Bank :**

(Amount in Rupees rounded off to the nearest thousand)

Items	Outstanding at book value	Revaluation Value
1	2	3
I. Investments in Approved Securities (I.1+I.2) I.1 Investments in Government securities (I.1.1+I.1.2 = Item V (a) of Form A) I.1.1 Short-term ¹ I.1.2 Long-term ² I.2 Investments in Other Approved Securities (= Item V (b) of Form A) II. Other Investments (II.1+II.2+II.3+II.4) Investments in II.1 Commercial Paper II.2 Units of Unit Trust of India and other Mutual Funds II.3 Shares issued by II.3.1 Public Sector Undertakings II.3.2 Private Corporate Sector II.3.3 Public Financial Institutions II.4 Bonds/debentures issued by II.4.1 Public Sector Undertakings II.4.2 Private Corporate Sector II.4.3 Public Financial Institutions		
<i>Memo Items</i>		
1. Subscriptions to shares/ debentures/bonds in the Primary Market 2. Subscription through Private Placements		

1 Of contractual maturity of one year or less.

2 Of contractual maturity of more than one year.

Annexure II.7 : Co-operative Bank Survey

(Rupees crore)

	Components		Sources
1	2	3	4
C.I	Aggregate Deposits with Co-operative Banks (C.I.1+C.I.2)	S.I.	Credit to the Government
C.I.1	Demand Deposits	S.II	Credit to the Commercial Sector (S.II.1+S.II.2+S.II.3)
C.I.2	Time Deposits	S.II.1	Bank Credit in India ¹
		S.II.2	Investments in Other Approved Securities
		S.II.3	Other Investments
		S.III	Domestic Credit of Co-operative Banks (S.I+S.II)
		S.IV	Other Items (net)
		S.V	Capital Account (S.V.1+S.V.2)
		S.V.1	Paid-up Capital
		S.V.2	Reserves
		S.VI.	Cash with Banks

¹ Includes loans and advances, cash credit, overdrafts and bills purchased and discounted *etc.*

Note : The co-operative bank survey would cover data categories for (i) scheduled state co-operative banks, (ii) non-scheduled state co-operative banks, (iii) district central co-operative banks (DCCBs) and (iv) primary co-operative banks (PCBs).

Annexure II.8 : Liabilities and Assets of Financial Institutions

(Rupees crore)

Liabilities	FIs	Inv. Inst.	MFs	Assets	FIs	Inv. Inst.	MFs
L.I. Paid - up Capital/Initial Capital L.II. Reserves and Reserve Fund L.III. Other Borrowings L.III.1 Rupee Borrowings L.III.1.1 Short - term¹ L.III.1.1.1 RBI L.III.1.1.2 Banks L.III.1.1.3 Corporate market L.III.1.1.4 Others L.III.1.2 Long - term² L.III.1.2.1 RBI L.III.1.2.2 Banks L.III.1.2.3 Others L.III.2 Foreign Currency Borrowings L.IV. Borrowings by way of Bonds and Debentures L.IV.1 SLR Bonds L.IV.2 Others L.V. Deposits L.V.1 Term Deposits L.V.2 Certificates of Deposit L.VI. Value of Unit Capital⁵ L.VI.1 Domestic Funds L.VI.1.1 Open ended schemes L.VI.1.2 Close ended schemes L.VI.1.3 Money market schemes L.VI.2 Offshore funds L.VII. Life/General Insurance Fund L.VIII. Other Liabilities L.VIII.1 In India L.VIII.2 Outside India L.IX. Total Liabilities		X	X	A.I. Loans and Advances A.I.1 Rupee Loans A.I.1.1 Short- term ¹ A.I.1.2 Long - term ² of which: to banks A.I.2 Foreign Currency Loans A.I.2.1 In India A.I.2.2 Overseas A.II. Investments A.II.1. Short - Term¹ A.II.1.1 Call/ Notice money A.II.1.2 Bills discounted/ rediscounted A.II.1.3 Commercial paper A.II.1.4 Certificates of Deposit of banks A.II.1.5 Treasury Bills A.II.1.6 Others A.II.2. Long-Term² A.II.2.1 Government & other trustee securities A.II.2.2 Financial Sector A.II.2.2.1 Shares of banks A.II.2.2.2 Debentures of banks A.II.2.2.3 Shares of other FIs ³ A.II.2.2.4 Debentures of other FIs ³ A.II.2.2.5 Shares of Corporates bodies ⁴ A.II.2.2.6 Debentures of Corporates bodies ⁴ A.II.2.2.7 Others A.III. Deposits A.III.1 With banks (excluding CDs) A.III.2 CDs of FIs A.III.3 With others A.IV. Fixed Assets A.V. Cash and Bank balances A.V.1 In India A.V.2 Outside India A.VI. Other assets A.VII. Total Assets			
Memo Items Net valuation loss/gain on 1. Foreign Currency assets/liabilities 2. Govt. & other trustee securities 3. Bonds and debentures							

1 Of contractual maturity of one year or less.

2 Of contractual maturity of more than one year.

3 As notified under Section 4A of the Companies Act, 1956, Exim Bank and NABARD.

4 Including PSUs.

5 Data may be furnished on face value or 'net asset value' basis according to the practice being followed by the mutual fund.

FIs:Term-lending institutions and refinancing institutions.

Inv. Inst. : Investment Institutions (insurance companies).

MFs : Mutual Funds.

Note: The data categories for financial institutions would cover i) term lending institutions and refinancing institutions (FIs) such as IDBI, IFCI, ICICI, SIDBI, IIBI, SCICI, TFCI, NHB, EXIM Bank and NABARD; ii) investment institutions such as LIC, GIC and its subsidiaries; and iii) UTI and other mutual funds.

x indicates 'of no relevance'.

Annexure II.9 : Liabilities and Assets of Non-Banking Financial Companies¹

(Rupees crore)

Liabilities	Assets
(1)	(2)
L.I. Paid-up Capital L.II. Reserves and Reserve Fund L.III. Public Deposits L.III.1 Short - term ² L.III.2 Long -term ³ L.IV. Borrowings by way of issue of convertible or secured debentures L.V. Other Borrowings L.V.1 Banks L.V.2 Inter-corporate Deposits (ICDs) L.V.3 Foreign Governments L.V.4 Authorities L.V.5 Individuals L.V.6 Others L.VI. Other liabilities L.VI.1 In India L.VI.2 Outside India L.VII. Total Liabilities	A.I. Investments A.I.1. Government securities A.I.2. Corporate Sector ⁴ A.I.2.1 Shares A.I.2.2 Bonds A.I.2.3 Debentures A.I.2.4 Commercial Papers A.I.2.5 Others A.II. Loans and Advances A.II.1 In India A.II.2 Outside India A.III. Other Assets A.III. 1 Hire purchase A.III. 2 Equipment leasing A.III. 3 Bills discounting A.III. 4 Others A.IV. Total Assets
<i>Memo Items</i>	
Highest and lowest interest rates 1. Paid on deposits 2. Charged on loans and advances	

1 Accepting deposits from the public.

2 Of contractual maturity of one year or less.

3 Of contractual maturity of more than one year.

4 Corporates (including PSUs).

Note : The data categories for non-banking financial companies (NBFCs) would only cover NBFCs having public deposits of Rs.20 crore or above.

Annexure IV.1 : New Monetary / Liquidity Aggregates

(Rupees crore)

Last Friday/ Last Reporting Friday/ March 31	Currency with the Public	Demand Deposits with Banks	Savings (Demand) Deposits with Banks	CDs issued by Banks	Time Deposits with Banks	Savings (Time) Deposits with Banks	Short- term Time Deposits	FCNR(B) Deposits with Banks	'Other' Deposits with RBI	'Other' Borro- wings by Banks	Post Office Deposits	Term Money Borrowings by FIs	CDs issued by FIs	TDs with FIs	NM ₁	NM ₂	NM ₃	L ₁	L ₂
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1993-94																			
April	72,684	54,915	10,378	10,648	2,48,632	53,866	41,486	0	5,552	63	10,853	365	1,263	12	1,33,151	2,33,600	3,81,846	3,92,699	3,94,339
May	74,933	54,378	10,321	11,267	2,50,938	54,171	41,464	0	4,472	13	10,813	365	1,515	13	1,33,783	2,36,213	3,84,734	3,95,547	3,97,440
June	74,397	54,273	10,387	12,529	2,52,910	54,661	41,115	78	3,150	579	10,929	365	2,040	14	1,31,820	2,36,975	3,85,231	3,96,160	3,98,579
July	73,132	52,935	10,490	11,997	2,56,815	55,481	44,545	169	5,285	33	11,087	365	2,019	15	1,31,352	2,38,090	3,88,031	3,99,118	4,01,517
August	72,820	53,027	10,517	10,687	2,62,293	55,514	43,797	322	2,751	137	11,162	365	2,234	19	1,28,598	2,35,845	3,90,706	4,01,868	4,04,486
September	72,905	52,513	10,787	8,692	2,63,940	57,207	47,168	492	5,408	66	11,248	365	2,296	31	1,30,826	2,38,485	3,94,340	4,05,588	4,08,280
October	74,598	54,896	10,939	6,952	2,68,628	58,985	45,174	1,369	2,092	53	11,343	365	2,361	73	1,31,586	2,40,604	3,98,898	4,10,241	4,13,040
November	77,671	55,724	11,205	6,755	2,69,655	59,406	47,410	1,811	3,468	158	11,549	365	2,366	117	1,36,863	2,46,966	4,04,865	4,16,414	4,19,262
December	78,259	57,728	11,286	6,622	2,74,646	59,791	47,283	2,124	1,626	124	11,736	365	2,215	166	1,37,613	2,49,682	4,10,259	4,21,995	4,24,741
January	79,488	61,236	11,621	5,780	2,77,990	61,548	48,427	2,361	1,676	1	11,768	465	2,222	202	1,42,400	2,56,480	4,18,030	4,29,798	4,32,687
February	81,356	64,512	11,867	5,131	2,79,661	62,739	49,208	2,791	1,594	188	11,783	490	2,106	283	1,47,462	2,62,947	4,24,520	4,36,303	4,39,182
March	82,301	65,952	11,967	5,571	2,83,629	64,099	51,480	3,475	2,525	8	12,247	510	2,120	334	1,50,778	2,69,403	4,30,940	4,43,187	4,46,151
1994-95																			
April	87,188	68,410	12,302	6,121	2,92,623	66,308	55,592	3,909	1,955	50	12,223	272	2,230	341	1,57,552	2,83,618	4,46,316	4,58,539	4,61,382
May	91,183	68,361	12,345	6,016	2,93,797	67,150	58,834	4,370	1,945	24	12,314	422	2,148	373	1,61,489	2,91,544	4,50,940	4,63,254	4,66,197
June	90,603	68,235	12,572	5,512	2,94,687	69,424	63,842	4,646	4,147	4	12,454	327	2,022	387	1,62,985	2,97,616	4,53,031	4,65,485	4,68,221
July	88,983	68,049	13,097	5,347	3,00,172	70,807	71,161	5,316	7,168	75	12,675	424	2,094	431	1,64,200	3,04,347	4,59,131	4,71,806	4,74,755
August	88,306	66,850	13,341	5,861	3,05,978	72,091	71,829	5,747	3,301	791	12,877	424	2,607	485	1,58,457	3,04,938	4,59,479	4,72,356	4,75,872
September	85,415	74,163	13,958	5,955	3,16,325	73,799	77,895	7,528	3,440	72	12,970	313	2,658	513	1,63,018	3,17,227	4,71,887	4,84,857	4,88,341
October	89,771	76,101	14,036	5,799	3,18,631	73,921	77,735	8,137	4,077	103	13,079	412	2,604	520	1,69,949	3,23,326	4,80,546	4,93,625	4,97,161
November	92,568	76,446	14,442	6,051	3,19,077	75,309	76,065	8,389	4,153	107	13,270	413	2,653	517	1,73,167	3,26,438	4,83,962	4,97,232	5,00,815
December	94,906	75,597	14,814	6,577	3,21,107	76,706	74,213	8,690	3,581	541	13,488	413	3,135	547	1,74,084	3,27,998	4,87,041	5,00,529	5,04,624
January	97,665	73,999	14,915	6,708	3,23,469	78,522	72,505	9,146	3,185	170	13,545	285	3,039	554	1,74,849	3,29,399	4,89,342	5,02,887	5,06,765
February	1,00,116	75,317	14,902	7,601	3,26,129	78,461	71,563	9,430	2,959	254	13,616	412	2,959	555	1,78,393	3,33,059	4,95,346	5,08,962	5,12,888
March	1,00,681	88,193	15,826	8,017	3,39,169	81,638	73,174	9,648	3,383	201	14,348	549	2,964	557	1,92,257	3,51,704	5,21,980	5,36,328	5,40,398

Annexure IV.1 : New Monetary / Liquidity Aggregates

(Rupees crore)

Last Friday/ Last Reporting Friday/ March 31	Currency with the Public	Demand Deposits with Banks	Savings (Demand) Deposits with Banks	CDs issued by Banks	Time Deposits with Banks	Savings (Time) Deposits with Banks	Short- term Time Deposits	FCNR(B) Deposits with Banks	'Other' Deposits with RBI	'Other' Borro- wings by Banks	Post Office Deposits	Term Money Borrowings by FIs	CDs issued by FIs	TDs with FIs	NM ₁	NM ₂	NM ₃	L ₁	L ₂
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1995-96																			
April	1,06,813	81,095	16,099	9,145	3,34,789	80,389	73,928	10,013	6,004	100	14,224	510	2,798	559	1,93,912	3,51,371	5,18,788	5,33,012	5,36,879
May	1,10,455	80,123	16,169	11,054	3,37,296	80,913	73,918	10,596	6,489	67	14,287	310	2,649	560	1,97,067	3,56,462	5,23,833	5,38,120	5,41,639
June	1,10,612	76,755	16,288	11,843	3,41,774	81,002	74,485	11,573	6,945	65	14,489	400	2,853	562	1,94,313	3,54,698	5,24,579	5,39,068	5,42,883
July	1,08,539	77,600	16,734	12,094	3,44,589	82,499	74,255	12,345	7,422	248	14,642	469	2,916	562	1,93,561	3,54,987	5,26,053	5,40,695	5,44,642
August	1,08,255	77,674	16,928	12,308	3,49,402	83,430	74,093	12,776	7,334	430	14,792	535	3,369	564	1,93,262	3,55,760	5,30,318	5,45,110	5,49,578
September	1,07,368	83,117	17,069	13,873	3,59,656	85,779	72,260	14,028	4,613	561	14,937	561	4,228	565	1,95,097	3,62,397	5,41,286	5,56,223	5,61,577
October	1,12,870	80,987	17,518	14,389	3,62,191	86,710	75,362	14,930	5,940	468	15,119	496	4,286	565	1,99,797	3,70,317	5,47,527	5,62,646	5,67,993
November	1,12,230	78,748	17,064	15,274	3,65,134	86,534	78,524	15,926	6,923	404	15,244	317	3,922	565	1,97,902	3,71,310	5,47,514	5,62,758	5,67,562
December	1,13,786	77,642	16,876	17,161	3,69,681	86,378	80,298	16,448	6,073	404	15,478	303	3,839	566	1,97,501	3,75,265	5,51,138	5,66,616	5,71,324
January	1,16,580	77,597	16,930	17,934	3,75,114	88,036	82,974	17,505	6,325	569	15,525	223	3,971	569	2,00,501	3,83,121	5,58,680	5,74,205	5,78,968
February	1,19,197	78,765	16,931	17,145	3,79,580	88,426	82,883	18,940	3,689	933	15,538	277	4,030	570	2,01,651	3,86,416	5,63,224	5,78,762	5,83,639
March	1,18,258	93,233	17,949	16,316	3,89,172	90,962	85,948	19,648	3,344	587	16,443	184	4,411	571	2,14,835	4,04,717	5,84,945	6,01,388	6,06,554
1996-97																			
April	1,25,532	86,930	18,799	21,181	3,96,302	90,881	91,174	20,280	5,350	1,067	16,110	215	4,567	572	2,17,812	4,15,698	5,94,902	6,11,012	6,16,366
May	1,28,500	84,111	17,965	21,380	3,98,201	90,583	93,030	20,836	5,358	732	16,234	215	4,864	546	2,17,970	4,17,604	5,96,067	6,12,301	6,17,926
June	1,27,179	84,940	18,111	21,331	4,05,943	90,752	97,806	22,024	6,716	601	16,356	393	4,988	546	2,18,834	4,22,008	6,03,354	6,19,710	6,25,637
July	1,24,979	85,993	19,000	18,203	4,11,407	92,518	98,480	22,426	5,045	843	16,574	607	5,013	545	2,16,017	4,20,172	6,05,841	6,22,415	6,28,580
August	1,21,002	87,469	19,030	15,572	4,16,878	94,173	1,01,575	23,097	5,731	470	16,715	1,000	3,911	545	2,14,202	4,19,790	6,08,453	6,25,168	6,30,624
September	1,19,735	91,747	19,421	13,760	4,26,195	95,286	1,05,613	23,259	6,009	689	16,828	836	3,939	537	2,17,491	4,26,140	6,21,116	6,37,944	6,43,256
October	1,23,632	88,315	19,227	13,052	4,27,342	95,292	1,05,431	23,803	7,310	741	16,764	863	4,728	507	2,19,257	4,25,722	6,23,538	6,40,302	6,46,400
November	1,29,017	86,468	18,848	11,976	4,32,487	95,611	1,04,098	24,162	6,404	796	16,775	763	4,713	488	2,21,889	4,27,170	6,31,011	6,47,786	6,53,750
December	1,29,385	87,780	19,080	11,480	4,37,599	96,307	1,01,626	24,616	4,528	747	16,882	532	4,750	447	2,21,693	4,26,578	6,35,423	6,52,305	6,58,034
January	1,28,604	93,532	19,264	10,759	4,47,934	99,517	1,01,691	25,074	4,483	773	16,770	579	4,668	446	2,26,618	4,34,103	6,50,252	6,67,022	6,72,715
February	1,30,902	94,801	19,403	11,226	4,51,964	1,01,188	99,488	26,125	3,551	770	16,774	535	4,348	439	2,29,253	4,37,605	6,55,862	6,72,636	6,77,958
March	1,32,522	1,04,564	20,110	12,134	4,60,610	1,03,423	98,920	26,906	3,194	937	17,188	645	4,299	406	2,40,280	4,51,564	6,74,921	6,92,109	6,97,459

CDs : Certificates of Deposit

FIs : Financial Institutions

TDs : Term Deposits

NM₁, NM₂, NM₃ : Relevant New Monetary Aggregates

L₁, L₂ : Liquidity Aggregates

Note : 1. NM₁ = Currency with the Public + Demand Deposits with Banks + 'Other' Deposits with RBI.

2. NM₂ = Currency with the Public + Demand Deposits + CDs issued by Banks + Savings (Time) Deposits + Time Deposits of less than one year of contractual maturity.

3. NM₃ = Currency with the Public + Demand Deposits with Banks + Time Deposits with Banks - FCNR(B) Deposits + 'Other' Deposits with RBI + 'Other' Borrowings by Banks.

4. L₁ = NM₁ + Post Office Deposits.

5. L₂ = L₁ + Term Money Borrowings by FIs + CDs issued by FIs + TDs with FIs.

6. Post Office Deposits include Post Office Savings Bank Deposits, Time Deposits, Recurring Deposits, Cumulative Deposits and 'Other' Deposits.

7. The data on 'Short-term Time Deposits i.e., with less than one year of contractual maturity' for commercial and co-operative banks were estimated on the basis of half yearly returns of term structure of Time Deposits of select banks. The monthly estimates were computed by linear interpolation of the half-yearly data.

8. Financial Institutions (FIs) include IDBI, ICICI, IFCI, IIBI, SIDBI, TFCI, SCICI, NHB, EXIM Bank and NABARD.

9. It may be noted that in the redefinition of monetary / liquidity aggregates, M₁ has remained unchanged. Hence NM₁ is the same as M₁.

Annexure IV.2 : Year-on-year Variations in New Monetary / Liquidity Aggregates

Last Friday/ Last Reporting Friday/ end-March	Absolute Variations (Rupees crore)					Percentage Variations				
	NM ₁	NM ₂	NM ₃	L ₁	L ₂	NM ₁	NM ₂	NM ₃	L ₁	L ₂
1	2	3	4	5	6	7	8	9	10	11
1994-95										
April	24,401	50,018	64,471	65,841	67,044	18.3	21.4	16.9	16.8	17.0
May	27,706	55,331	66,206	67,707	68,757	20.7	23.4	17.2	17.1	17.3
June	31,165	60,641	67,801	69,326	69,643	23.6	25.6	17.6	17.5	17.5
July	32,848	66,258	71,100	72,688	73,238	25.0	27.8	18.3	18.2	18.2
August	29,859	69,093	68,773	70,488	71,386	23.2	29.3	17.6	17.5	17.6
September	32,192	78,742	77,547	79,269	80,061	24.6	33.0	19.7	19.5	19.6
October	38,363	82,722	81,648	83,384	84,121	29.2	34.4	20.5	20.3	20.4
November	36,304	79,473	79,097	80,818	81,553	26.5	32.2	19.5	19.4	19.5
December	36,471	78,316	76,782	78,534	79,883	26.5	31.4	18.7	18.6	18.8
January	32,449	72,920	71,313	73,090	74,079	22.8	28.4	17.1	17.0	17.1
February	30,931	70,112	70,826	72,659	73,706	21.0	26.7	16.7	16.7	16.8
March	41,479	82,301	91,039	93,140	94,246	27.5	30.5	21.1	21.0	21.1
Annual Average	32,847	70,494	73,884	75,579	76,476	24.1	28.7	18.4	18.3	18.4
1995-96										
April	36,359	67,753	72,472	74,473	75,497	23.1	23.9	16.2	16.2	16.4
May	35,578	64,918	72,893	74,866	75,442	22.0	22.3	16.2	16.2	16.2
June	31,328	57,083	71,548	73,583	74,662	19.2	19.2	15.8	15.8	15.9
July	29,361	50,640	66,922	68,889	69,887	17.9	16.6	14.6	14.6	14.7
August	34,805	50,822	70,839	72,754	73,706	22.0	16.7	15.4	15.4	15.5
September	32,079	45,170	69,399	71,366	73,236	19.7	14.2	14.7	14.7	15.0
October	29,848	46,991	66,981	69,021	70,832	17.6	14.5	13.9	14.0	14.2
November	24,735	44,871	63,551	65,525	66,746	14.3	13.7	13.1	13.2	13.3
December	23,417	47,267	64,097	66,087	66,700	13.5	14.4	13.2	13.2	13.2
January	25,652	53,722	69,337	71,317	72,202	14.7	16.3	14.2	14.2	14.2
February	23,258	53,357	67,879	69,801	70,752	13.0	16.0	13.7	13.7	13.8
March	22,577	53,013	62,966	65,061	66,157	11.7	15.1	12.1	12.1	12.2
Annual Average	29,083	52,967	68,240	70,229	71,318	17.4	16.9	14.4	14.4	14.6
1996-97										
April	23,900	64,327	76,114	78,000	79,487	12.3	18.3	14.7	14.6	14.8
May	20,903	61,142	72,234	74,181	76,287	10.6	17.2	13.8	13.8	14.1
June	24,521	67,309	78,775	80,642	82,754	12.6	19.0	15.0	15.0	15.2
July	22,456	65,185	79,788	81,720	83,938	11.6	18.4	15.2	15.1	15.4
August	20,940	64,031	78,134	80,057	81,045	10.8	18.0	14.7	14.7	14.7
September	22,394	63,744	79,830	81,721	81,679	11.5	17.6	14.7	14.7	14.5
October	19,460	55,405	76,011	77,656	78,407	9.7	15.0	13.9	13.8	13.8
November	23,988	55,860	83,497	85,028	86,188	12.1	15.0	15.3	15.1	15.2
December	24,192	51,313	84,285	85,689	86,710	12.2	13.7	15.3	15.1	15.2
January	26,117	50,982	91,572	92,817	93,747	13.0	13.3	16.4	16.2	16.2
February	27,602	51,188	92,638	93,874	94,319	13.7	13.2	16.4	16.2	16.2
March	25,445	46,847	92,638	90,721	90,905	11.8	11.6	15.4	15.1	15.0
Annual Average	23,493	58,111	82,126	83,509	84,622	11.8	15.8	15.1	14.9	15.0

Note : 1. NM₁ = Currency with the Public + Demand Deposits with Banks + 'Other' Deposits with RBI.

2. NM₂ = Currency with the Public + Demand Deposits with Banks + CDs issued by Banks + Savings (Time) Deposits + Time Deposits of less than one year of contractual maturity.

3. NM₃ = Currency with the Public + Demand Deposits with Banks + Time Deposits with Banks - FCNR(B) Deposits + 'Other' Deposits with RBI + 'Other' Borrowings by Banks

4. L₁ = NM₃ + Post Office Deposits.

5. L₂ = L₁ + Term Money Borrowings by FIs + CDs issued by FIs + TDs with FIs.

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1970-71										
Apr.	4,286	165	4,121	64	176	2,526	3,160	4,526	6,711	9,871
May	4,345	173	4,172	58	192	2,523	3,201	4,595	6,753	9,954
Jun.	4,351	201	4,150	50	195	2,599	3,270	4,596	6,799	10,069
Jul.	4,230	170	4,060	40	185	2,654	3,315	4,455	6,754	10,069
Aug.	4,156	167	3,989	51	204	2,647	3,358	4,411	6,687	10,045
Sep.	4,168	183	3,985	58	209	2,686	3,392	4,435	6,729	10,121
Oct.	4,270	192	4,078	74	198	2,708	3,450	4,542	6,860	10,310
Nov.	4,265	182	4,083	55	190	2,732	3,500	4,510	6,870	10,370
Dec.	4,337	180	4,157	63	198	2,745	3,546	4,598	6,965	10,511
Jan.	4,427	181	4,246	59	207	2,817	3,590	4,693	7,122	10,712
Feb.	4,491	182	4,309	48	213	2,858	3,650	4,752	7,215	10,865
Mar.	4,557	186	4,371	60	205	2,943	3,646	4,822	7,374	11,020
1971-72										
Apr.	4,674	182	4,492	51	227	2,919	3,730	4,952	7,462	11,192
May	4,720	199	4,521	37	226	2,976	3,790	4,983	7,534	11,324
Jun.	4,787	212	4,575	32	225	3,031	3,851	5,044	7,638	11,489
Jul.	4,625	187	4,438	24	224	3,043	3,931	4,873	7,505	11,436
Aug.	4,606	184	4,422	50	228	3,048	3,941	4,884	7,520	11,461
Sep.	4,650	179	4,471	41	243	3,066	3,954	4,934	7,578	11,532
Oct.	4,674	201	4,473	49	247	3,109	4,072	4,970	7,631	11,703
Nov.	4,684	198	4,486	49	257	3,144	4,185	4,990	7,679	11,864
Dec.	4,779	216	4,563	66	268	3,284	4,334	5,113	7,913	12,247
Jan.	4,898	207	4,691	64	257	3,260	4,337	5,219	8,015	12,352
Feb.	4,970	186	4,784	57	253	3,242	4,386	5,280	8,083	12,469
Mar.	5,006	205	4,801	80	296	3,442	4,370	5,382	8,323	12,693
1972-73										
Apr.	5,118	216	4,902	76	266	3,369	4,501	5,460	8,347	12,848
May	5,231	236	4,995	71	283	3,458	4,578	5,585	8,524	13,102
Jun.	5,241	293	4,948	66	302	3,719	4,683	5,609	8,733	13,416
Jul.	5,065	226	4,839	57	257	3,662	4,778	5,379	8,558	13,336
Aug.	5,027	232	4,795	76	233	3,694	4,853	5,336	8,565	13,418
Sep.	4,879	210	4,669	51	277	3,691	4,944	5,207	8,411	13,355
Oct.	4,967	234	4,733	66	294	3,759	5,013	5,327	8,558	13,571
Nov.	5,080	235	4,845	51	302	3,797	5,115	5,433	8,693	13,808
Dec.	5,190	283	4,907	56	311	3,996	5,228	5,557	8,959	14,187
Jan.	5,315	238	5,077	38	290	3,906	5,282	5,643	9,021	14,303
Feb.	5,480	252	5,228	42	313	3,998	5,325	5,835	9,268	14,593
Mar.	5,680	242	5,438	58	295	4,204	5,313	6,033	9,700	15,013
1973-74										
Apr.	5,932	267	5,665	45	336	4,172	5,534	6,313	9,882	15,416
May	6,112	290	5,822	46	345	4,204	5,629	6,503	10,072	15,701
Jun.	6,138	349	5,789	40	565	4,415	5,747	6,743	10,244	15,991
Jul.	6,014	288	5,726	44	583	4,398	5,894	6,641	10,168	16,062
Aug.	5,808	273	5,535	37	616	4,499	6,029	6,461	10,071	16,100
Sep.	5,857	267	5,590	45	760	4,496	6,146	6,662	10,131	16,277
Oct.	6,053	284	5,769	34	756	4,438	6,238	6,843	10,241	16,479
Nov.	6,036	288	5,748	40	777	4,521	6,367	6,853	10,309	16,676
Dec.	6,085	307	5,778	39	681	4,677	6,445	6,805	10,494	16,939
Jan.	6,246	263	5,983	38	771	4,652	6,455	7,055	10,673	17,128
Feb.	6,425	280	6,145	34	721	4,690	6,429	7,180	10,869	17,298
Mar.	6,595	274	6,321	53	625	4,826	6,424	7,273	11,200	17,624

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1974-75										
Apr.	6,839	301	6,538	38	540	4,899	6,557	7,417	11,475	18,032
May	6,938	323	6,615	54	600	5,012	6,663	7,592	11,681	18,344
Jun.	6,950	398	6,552	47	587	5,172	6,766	7,584	11,771	18,537
Jul.	6,680	311	6,369	55	628	5,260	6,908	7,363	11,684	18,592
Aug.	6,469	302	6,167	41	586	5,177	7,065	7,096	11,385	18,450
Sep.	6,379	300	6,079	56	559	5,130	7,185	6,994	11,265	18,450
Oct.	6,431	319	6,112	37	633	5,192	7,226	7,101	11,341	18,567
Nov.	6,455	318	6,137	44	595	5,231	7,314	7,094	11,412	18,726
Dec.	6,447	309	6,138	49	548	5,376	7,384	7,044	11,563	18,947
Jan.	6,505	320	6,185	54	454	5,374	7,488	7,013	11,613	19,101
Feb.	6,592	331	6,261	62	588	5,444	7,547	7,242	11,767	19,314
Mar.	6,701	354	6,347	75	828	5,553	7,574	7,604	11,975	19,549
1975-76										
Apr.	6,940	356	6,584	51	527	5,546	7,729	7,518	12,181	19,910
May	7,088	361	6,727	56	521	5,620	7,857	7,665	12,403	20,260
Jun.	7,095	433	6,662	65	507	5,815	8,031	7,667	12,542	20,573
Jul.	6,812	331	6,481	55	609	5,931	8,199	7,476	12,467	20,666
Aug.	6,708	320	6,388	45	597	5,907	8,330	7,350	12,340	20,670
Sep.	6,636	319	6,317	43	550	5,946	8,397	7,229	12,306	20,703
Oct.	6,799	321	6,478	48	599	5,936	8,565	7,446	12,462	21,027
Nov.	6,792	342	6,450	55	516	6,027	8,697	7,363	12,532	21,229
Dec.	6,827	384	6,443	60	538	6,149	8,806	7,425	12,652	21,458
Jan.	6,776	345	6,431	59	588	6,181	8,981	7,423	12,671	21,652
Feb.	6,913	329	6,584	40	591	6,238	9,139	7,544	12,862	22,001
Mar.	7,053	348	6,705	77	678	6,543	9,155	7,808	13,325	22,480
1976-77										
Apr.	7,337	355	6,982	44	730	6,466	9,480	8,111	13,492	22,972
May	7,542	368	7,174	43	740	6,644	9,718	8,325	13,861	23,579
Jun.	7,649	414	7,235	46	657	6,757	9,978	8,352	14,038	24,016
Jul.	7,445	376	7,069	53	736	6,822	10,240	8,234	13,944	24,184
Aug.	7,382	349	7,033	75	754	6,891	10,467	8,211	13,999	24,466
Sep.	7,449	352	7,097	71	865	7,050	10,635	8,385	14,218	24,853
Oct.	7,668	411	7,257	105	836	7,062	10,923	8,609	14,424	25,347
Nov.	7,647	390	7,257	85	969	7,158	11,184	8,701	14,500	25,684
Dec.	7,767	450	7,317	91	817	7,797	11,467	8,675	15,205	26,672
Jan.	7,877	402	7,475	81	913	7,397	11,540	8,871	14,953	26,493
Feb.	8,031	393	7,638	63	949	7,464	11,637	9,043	15,165	26,802
Mar.	8,288	415	7,873	121	1,389	8,030	11,757	9,798	16,024	27,781
1977-78										
Apr.	8,617	429	8,188	79	1,083	7,773	12,171	9,779	16,040	28,211
May	8,681	450	8,231	70	1,241	7,923	12,448	9,992	16,224	28,672
Jun.	8,783	485	8,298	53	1,165	8,019	12,735	10,001	16,370	29,105
Jul.	8,436	448	7,988	54	1,220	8,080	13,031	9,710	16,122	29,153
Aug.	8,432	450	7,982	51	1,512	8,172	13,208	9,995	16,205	29,413
Sep.	8,399	482	7,917	62	1,407	8,416	13,305	9,868	16,395	29,700
Oct.	8,548	503	8,045	67	1,597	8,545	13,444	10,212	16,657	30,101
Nov.	8,876	523	8,353	68	1,671	8,602	13,639	10,615	17,023	30,662
Dec.	8,959	549	8,410	70	1,479	9,271	13,964	10,508	17,751	31,715
Jan.	8,846	547	8,299	66	1,787	8,927	14,264	10,699	17,292	31,556
Feb.	8,925	486	8,439	51	1,546	9,000	14,466	10,522	17,490	31,956
Mar.	9,152	521	8,631	70	1,719	5,687	18,518	10,941	14,388	32,906

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1978-79										
Apr.	9,555	518	9,037	60	2,029	5,403	19,067	11,644	14,500	33,567
May	9,868	542	9,326	70	1,750	5,465	19,237	11,688	14,861	34,098
Jun.	9,917	689	9,228	107	2,214	5,817	19,705	12,238	15,152	34,857
Jul.	9,583	532	9,051	115	1,823	5,404	20,205	11,521	14,570	34,775
Aug.	9,579	521	9,058	119	2,094	5,502	20,379	11,792	14,679	35,058
Sep.	9,541	535	9,006	143	2,027	5,658	20,710	11,711	14,807	35,517
Oct.	9,920	568	9,352	149	2,062	5,741	20,971	12,131	15,242	36,213
Nov.	10,020	559	9,461	144	2,146	5,890	21,303	12,310	15,495	36,798
Dec.	10,189	735	9,454	190	2,293	6,830	22,057	12,672	16,474	38,531
Jan.	10,510	679	9,831	242	2,433	6,707	22,046	13,185	16,780	38,826
Feb.	10,557	605	9,952	208	2,666	6,330	22,360	13,431	16,490	38,850
Mar.	10,835	604	10,231	166	3,081	6,895	22,820	14,082	17,292	40,112
1979-80										
Apr.	11,306	622	10,684	78	2,873	6,637	23,046	14,257	17,399	40,445
May	11,641	640	11,001	149	2,933	6,697	23,338	14,723	17,847	41,185
Jun.	11,807	813	10,994	145	2,911	7,324	24,058	14,863	18,463	42,521
Jul.	11,788	638	11,150	177	2,958	6,936	24,459	14,923	18,263	42,722
Aug.	11,805	641	11,164	232	2,835	7,096	24,955	14,872	18,492	43,447
Sep.	10,971	619	10,352	283	3,225	7,257	25,222	14,479	17,892	43,114
Oct.	11,423	703	10,720	473	3,698	7,218	25,433	15,594	18,411	43,844
Nov.	11,398	647	10,751	258	3,659	7,258	25,807	15,315	18,267	44,074
Dec.	11,594	798	10,796	305	3,424	7,442	26,845	15,323	18,543	45,388
Jan.	11,827	664	11,163	314	3,632	7,364	26,587	15,773	18,841	45,428
Feb.	12,150	677	11,473	383	3,197	7,474	26,776	15,730	19,330	46,106
Mar.	12,382	728	11,654	391	3,800	7,955	27,226	16,573	20,000	47,226
1980-81										
Apr.	12,871	722	12,149	316	3,576	7,890	27,540	16,763	20,355	47,895
May	13,100	773	12,327	231	3,731	7,799	27,975	17,062	20,357	48,332
Jun.	12,924	872	12,052	240	3,365	7,922	28,617	16,529	20,214	48,831
Jul.	12,578	731	11,847	319	3,601	7,711	29,062	16,498	19,877	48,939
Aug.	12,448	761	11,687	254	3,653	7,851	29,457	16,355	19,792	49,249
Sep.	12,383	738	11,645	180	3,582	7,893	29,840	16,145	19,718	49,558
Oct.	12,987	790	12,197	158	4,185	7,971	30,329	17,330	20,326	50,655
Nov.	13,349	835	12,514	248	3,982	8,377	30,451	17,579	21,139	51,590
Dec.	13,486	889	12,597	218	3,956	8,852	31,413	17,660	21,667	53,080
Jan.	13,645	837	12,808	148	3,808	8,785	31,796	17,601	21,741	53,537
Feb.	13,946	829	13,117	116	4,002	8,844	32,072	18,064	22,077	54,149
Mar.	14,307	881	13,426	411	4,734	9,587	32,350	19,452	23,424	55,774
1981-82										
Apr.	14,719	859	13,860	265	4,046	9,394	33,009	19,030	23,519	56,528
May	14,972	924	14,048	159	4,186	9,526	33,660	19,317	23,733	57,393
Jun.	15,026	1,083	13,943	122	4,578	9,939	34,471	19,726	24,004	58,475
Jul.	15,036	931	14,105	184	5,066	9,678	35,021	20,286	23,967	58,988
Aug.	14,177	926	13,251	201	4,604	9,672	35,434	18,982	23,124	58,558
Sep.	14,137	908	13,229	161	4,765	9,608	35,804	19,063	22,998	58,802
Oct.	14,952	1,034	13,918	164	4,806	9,856	36,233	19,922	23,938	60,171
Nov.	14,706	946	13,760	133	4,639	9,813	36,546	19,478	23,706	60,252
Dec.	14,717	938	13,779	187	4,620	10,633	37,468	19,524	24,599	62,067
Jan.	14,877	948	13,929	174	4,718	10,123	37,330	19,769	24,226	61,556
Feb.	15,152	914	14,238	113	4,530	10,130	37,498	19,795	24,481	61,979
Mar.	15,411	937	14,474	168	5,419	10,295	37,815	20,998	24,937	62,752

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1982-83										
Apr.	16,176	943	15,233	135	5,024	10,284	38,324	21,335	25,652	63,976
May	16,465	995	15,470	125	4,905	10,459	38,815	21,495	26,054	64,869
Jun.	16,658	1,109	15,549	148	4,835	10,913	39,519	21,641	26,610	66,129
Jul.	16,088	985	15,103	145	4,830	10,525	40,494	21,063	25,773	66,267
Aug.	15,970	949	15,021	131	4,901	10,494	41,367	21,002	25,646	67,013
Sep.	15,746	901	14,845	118	5,198	10,506	41,683	21,062	25,469	67,152
Oct.	16,303	1,051	15,252	121	5,434	10,609	42,196	21,858	25,982	68,178
Nov.	16,814	1,024	15,790	135	5,093	10,642	42,679	22,042	26,567	69,246
Dec.	16,872	1,244	15,628	243	5,907	12,588	44,327	23,022	28,459	72,786
Jan.	16,818	1,014	15,804	135	4,693	10,962	44,543	21,646	26,901	71,444
Feb.	16,983	965	16,018	134	4,878	10,954	44,828	21,995	27,106	71,934
Mar.	17,639	980	16,659	186	5,285	11,690	44,649	23,110	28,535	73,184
1983-84										
Apr.	18,456	1,053	17,403	111	4,513	11,461	45,584	23,080	28,975	74,559
May	19,064	1,095	17,969	102	4,895	11,690	46,088	24,061	29,761	75,849
Jun.	19,084	1,136	17,948	165	5,228	11,996	47,268	24,477	30,109	77,377
Jul.	18,444	1,092	17,352	185	5,063	12,196	48,599	23,692	29,733	78,332
Aug.	18,331	1,054	17,277	156	5,683	11,902	49,287	24,170	29,335	78,622
Sep.	18,057	1,036	17,021	182	5,929	11,934	49,702	24,168	29,137	78,839
Oct.	18,887	1,102	17,785	178	6,201	12,082	50,458	25,266	30,045	80,503
Nov.	19,264	1,086	18,178	132	6,257	12,152	51,202	25,653	30,462	81,664
Dec.	19,314	1,244	18,070	157	6,549	13,761	53,094	26,020	31,988	85,082
Jan.	19,601	1,073	18,528	218	5,712	12,554	53,118	25,531	31,300	84,418
Feb.	19,978	1,025	18,953	194	6,264	12,324	53,687	26,436	31,471	85,158
Mar.	20,643	1,040	19,603	291	8,060	13,504	53,127	28,994	33,398	86,525
1984-85										
Apr.	21,659	1,131	20,528	259	6,352	13,045	53,946	28,270	33,832	87,778
May	22,263	1,185	21,078	283	5,891	13,346	54,756	28,437	34,707	89,463
Jun.	22,469	1,456	21,013	406	8,267	14,432	56,677	31,142	35,851	92,528
Jul.	21,701	1,193	20,508	408	6,792	13,816	57,327	28,901	34,732	92,059
Aug.	21,488	1,168	20,320	338	7,090	13,804	58,104	28,916	34,462	92,566
Sep.	21,691	1,140	20,551	227	6,956	13,746	58,559	28,874	34,524	93,083
Oct.	22,637	1,271	21,366	321	7,017	14,024	59,254	29,975	35,711	94,965
Nov.	22,742	1,209	21,533	336	7,361	14,248	60,397	30,439	36,117	96,514
Dec.	23,142	1,400	21,742	302	6,945	15,841	62,539	30,389	37,885	1,00,424
Jan.	23,289	1,109	22,180	203	9,151	14,937	62,863	32,643	37,320	1,00,183
Feb.	23,763	1,170	22,593	271	6,989	14,752	63,428	31,023	37,616	1,01,044
Mar.	23,875	1,203	22,672	595	10,746	16,648	63,018	35,216	39,915	1,02,933
1985-86										
Apr.	24,869	1,257	23,612	143	5,684	16,017	63,797	30,696	39,772	1,03,569
May	25,781	1,303	24,478	188	6,434	15,551	64,845	32,403	40,217	1,05,062
Jun.	25,826	1,401	24,425	512	8,699	15,672	66,075	35,037	40,609	1,06,684
Jul.	25,059	1,385	23,674	198	8,816	16,464	67,727	34,073	40,336	1,08,063
Aug.	24,169	1,338	22,831	214	7,855	16,336	69,146	32,238	39,381	1,08,527
Sep.	23,855	1,313	22,542	224	10,447	16,573	69,834	34,526	39,339	1,09,173
Oct.	24,610	1,301	23,309	248	8,412	16,451	70,663	33,270	40,008	1,10,671
Nov.	25,523	1,306	24,217	210	9,037	16,285	71,522	34,770	40,712	1,12,234
Dec.	25,644	1,270	24,374	250	9,257	16,878	73,315	35,151	41,502	1,14,817
Jan.	25,259	1,265	23,994	385	10,076	17,552	75,249	35,720	41,931	1,17,180
Feb.	25,743	1,269	24,474	227	9,151	17,559	75,519	35,121	42,260	1,17,779
Mar.	26,524	1,465	25,059	289	11,352	18,747	75,299	38,165	44,095	1,19,394

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1986-87										
Apr.	27,612	1,384	26,228	189	8,635	18,014	76,574	36,436	44,431	1,21,005
May	28,649	1,417	27,232	232	11,997	17,966	77,578	40,878	45,430	1,23,008
Jun.	28,766	1,499	27,267	271	10,222	18,382	79,493	39,259	45,920	1,25,413
Jul.	28,153	1,500	26,653	200	11,270	18,684	80,817	39,623	45,537	1,26,354
Aug.	26,999	1,421	25,578	280	11,080	18,978	81,858	38,359	44,836	1,26,694
Sep.	26,751	1,369	25,382	268	11,343	19,893	82,793	38,362	45,543	1,28,336
Oct.	27,759	1,419	26,340	218	10,990	18,966	84,023	38,967	45,524	1,29,547
Nov.	28,450	1,378	27,072	242	12,773	19,201	85,644	41,465	46,515	1,32,159
Dec.	28,552	1,391	27,161	293	12,755	21,067	87,312	41,600	48,521	1,35,833
Jan.	28,644	1,421	27,223	271	13,965	21,595	89,420	42,880	49,089	1,38,509
Feb.	29,186	1,407	27,779	280	14,140	21,106	90,176	43,606	49,165	1,39,341
Mar.	29,913	1,531	28,382	309	14,586	22,825	90,116	44,808	51,516	1,41,632
1987-88										
Apr.	31,555	1,425	30,130	297	14,955	21,591	91,139	46,807	52,018	1,43,157
May	32,700	1,483	31,217	265	14,587	20,844	92,020	47,552	52,326	1,44,346
Jun.	32,802	1,544	31,258	372	15,386	21,078	94,213	48,560	52,708	1,46,921
Jul.	31,123	1,462	29,661	203	15,944	21,611	97,209	47,270	51,475	1,48,684
Aug.	31,171	1,490	29,681	215	16,255	21,478	98,017	47,641	51,374	1,49,391
Sep.	31,364	1,432	29,932	255	16,886	22,181	98,999	48,505	52,368	1,51,367
Oct.	33,060	1,521	31,539	305	16,837	21,638	99,756	50,202	53,482	1,53,238
Nov.	33,190	1,537	31,653	329	17,655	22,071	1,01,258	51,174	54,053	1,55,311
Dec.	33,509	1,531	31,978	472	17,689	22,635	1,03,620	51,670	55,085	1,58,705
Jan.	33,742	1,621	32,121	349	18,074	23,418	1,05,092	52,165	55,888	1,60,980
Feb.	34,445	1,567	32,878	352	17,712	23,203	1,05,676	52,509	56,433	1,62,109
Mar.	35,122	1,563	33,559	397	17,970	24,599	1,05,720	53,489	58,555	1,64,275
1988-89										
Apr.	36,659	2,303	34,356	426	18,586	23,761	1,08,012	55,671	58,543	1,66,555
May	37,563	1,701	35,862	493	18,088	23,714	1,09,088	56,144	60,069	1,69,157
Jun.	37,812	1,659	36,153	460	19,128	23,585	1,08,251	57,400	60,198	1,68,449
Jul.	36,199	1,717	34,482	348	19,166	25,532	1,15,516	55,713	60,362	1,75,878
Aug.	35,879	1,711	34,168	321	20,311	25,201	1,15,821	56,511	59,690	1,75,511
Sep.	35,566	1,651	33,915	316	20,713	25,104	1,16,948	56,595	59,335	1,76,283
Oct.	36,789	1,782	35,007	333	20,608	25,126	1,18,268	57,730	60,466	1,78,734
Nov.	38,404	1,843	36,561	305	22,070	25,162	1,19,862	60,779	62,028	1,81,890
Dec.	37,455	2,038	35,417	368	22,175	30,048	1,25,568	59,998	65,833	1,91,401
Jan.	38,354	1,824	36,530	328	20,532	27,303	1,24,822	59,214	64,161	1,88,983
Feb.	39,121	1,717	37,404	392	21,626	26,790	1,25,328	61,139	64,586	1,89,914
Mar.	40,119	1,790	38,329	694	22,145	27,763	1,26,707	62,958	66,786	1,93,493
1989-90										
Apr.	42,073	1,841	40,232	347	21,119	27,744	1,29,649	63,539	68,323	1,97,972
May	43,978	1,944	42,034	391	22,646	27,825	1,30,569	67,015	70,250	2,00,819
Jun.	43,146	2,319	40,827	466	22,654	30,053	1,33,425	66,266	71,346	2,04,771
Jul.	42,186	1,988	40,198	574	22,707	30,118	1,34,853	65,467	70,890	2,05,743
Aug.	42,222	1,983	40,239	424	24,117	30,184	1,36,746	66,763	70,847	2,07,593
Sep.	42,129	1,965	40,164	421	23,993	30,878	1,38,461	66,543	71,463	2,09,924
Oct.	43,708	2,143	41,565	591	25,714	31,968	1,41,195	70,013	74,124	2,15,319
Nov.	45,408	2,172	43,236	617	25,856	32,661	1,41,745	71,881	76,514	2,18,259
Dec.	45,611	2,139	43,472	559	25,092	34,200	1,44,310	71,262	78,231	2,22,541
Jan.	46,315	1,895	44,420	523	25,281	32,923	1,46,790	72,119	77,866	2,24,656
Feb.	47,633	1,890	45,743	475	26,393	33,568	1,47,940	74,501	79,786	2,27,726
Mar.	48,286	1,986	46,300	598	28,707	34,162	1,49,890	77,591	81,060	2,30,950

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1990-91										
Apr.	50,864	2,046	48,818	749	26,353	35,680	1,52,448	77,966	85,247	2,37,695
May	52,836	2,240	50,596	587	27,324	34,452	1,53,236	80,747	85,635	2,38,871
Jun.	51,660	2,520	49,140	815	26,725	35,719	1,55,831	79,200	85,674	2,41,505
Jul.	50,010	2,244	47,766	676	25,951	35,395	1,58,463	76,637	83,837	2,42,300
Aug.	49,688	2,266	47,422	440	26,117	34,851	1,59,192	76,245	82,713	2,41,905
Sep.	49,659	2,183	47,476	578	26,650	35,430	1,61,846	76,887	83,484	2,45,330
Oct.	51,977	2,326	49,651	921	28,589	35,600	1,63,024	81,487	86,172	2,49,196
Nov.	51,445	2,239	49,206	1,890	26,962	37,608	1,64,635	80,297	88,704	2,53,339
Dec.	52,503	2,330	50,173	1,423	27,041	37,760	1,67,058	80,967	89,356	2,56,414
Jan.	53,502	2,068	51,434	1,274	27,553	37,321	1,68,350	82,329	90,029	2,58,379
Feb.	54,660	2,124	52,536	2,247	25,463	38,074	1,70,291	82,370	92,857	2,63,148
Mar.	55,282	2,234	53,048	674	31,823	39,170	1,72,936	87,779	92,892	2,65,828
1991-92										
Apr.	57,893	2,311	55,582	789	32,549	39,314	1,76,555	91,231	95,685	2,72,240
May	60,266	2,493	57,773	1,717	25,819	40,223	1,77,952	87,802	99,713	2,77,665
Jun.	59,501	2,716	56,785	1,408	31,595	40,966	1,79,204	92,504	99,159	2,78,363
Jul.	57,114	2,610	54,504	1,056	29,949	41,978	1,81,684	88,119	97,538	2,79,222
Aug.	56,456	2,350	54,106	994	33,107	41,576	1,84,234	90,557	96,676	2,80,910
Sep.	56,133	2,310	53,823	938	32,771	42,446	1,87,737	89,842	97,207	2,84,944
Oct.	58,284	2,333	55,951	2,162	32,732	45,653	1,89,407	93,178	1,03,766	2,93,173
Nov.	60,456	2,506	57,950	1,860	34,090	48,835	1,91,830	96,406	1,08,645	3,00,475
Dec.	61,629	2,523	59,106	903	33,576	49,158	1,94,391	96,108	1,09,167	3,03,558
Jan.	62,554	2,454	60,100	1,801	35,458	49,671	1,96,493	99,813	1,11,572	3,08,065
Feb.	63,584	2,439	61,145	1,622	38,813	51,342	1,99,063	1,04,019	1,14,109	3,13,172
Mar.	63,738	2,640	61,098	885	34,882	52,423	2,02,643	99,505	1,14,406	3,17,049
1992-93										
Apr.	67,023	2,721	64,302	2,089	41,423	53,781	2,06,572	1,10,535	1,20,172	3,26,744
May	67,093	2,890	64,203	5,756	35,047	55,028	2,09,301	1,07,896	1,24,987	3,34,288
Jun.	66,806	2,953	63,853	5,724	32,883	51,956	2,15,074	1,05,413	1,21,533	3,36,607
Jul.	65,423	2,743	62,680	7,003	34,841	51,560	2,18,790	1,07,267	1,21,243	3,40,033
Aug.	64,999	2,608	62,391	6,656	34,024	49,477	2,21,717	1,05,679	1,18,524	3,40,241
Sep.	64,484	2,721	61,763	5,937	34,555	49,014	2,25,201	1,04,976	1,16,714	3,41,915
Oct.	67,232	2,904	64,328	5,104	36,163	49,356	2,31,882	1,08,499	1,18,788	3,50,670
Nov.	65,911	2,751	63,160	5,164	37,645	50,779	2,33,907	1,08,720	1,19,103	3,53,010
Dec.	67,265	2,680	64,585	697	36,095	51,191	2,37,476	1,04,057	1,16,473	3,53,949
Jan.	68,791	2,694	66,097	1,785	38,034	51,209	2,38,787	1,08,610	1,19,091	3,57,878
Feb.	70,421	2,659	67,762	1,048	38,979	51,095	2,40,648	1,10,448	1,19,905	3,60,553
Mar.	71,326	3,053	68,273	1,313	38,140	54,480	2,42,759	1,10,779	1,24,066	3,66,825
1993-94										
Apr.	75,513	2,829	72,684	5,552	41,498	54,915	2,48,632	1,22,563	1,33,151	3,81,783
May	78,016	3,083	74,933	4,472	37,025	54,378	2,50,938	1,19,513	1,33,783	3,84,721
Jun.	77,545	3,148	74,397	3,150	32,646	54,273	2,52,910	1,13,341	1,31,820	3,84,730
Jul.	76,096	2,964	73,132	5,285	40,665	52,935	2,56,815	1,22,046	1,31,352	3,88,167
Aug.	75,703	2,883	72,820	2,751	44,890	53,027	2,62,293	1,23,344	1,28,598	3,90,891
Sep.	75,791	2,886	72,905	5,408	40,066	52,513	2,63,940	1,21,265	1,30,826	3,94,766
Oct.	77,515	2,917	74,598	2,092	43,580	54,896	2,68,628	1,23,187	1,31,586	4,00,214
Nov.	80,768	3,097	77,671	3,468	42,233	55,724	2,69,655	1,26,469	1,36,863	4,06,518
Dec.	81,121	2,862	78,259	1,626	44,050	57,728	2,74,646	1,26,797	1,37,613	4,12,259
Jan.	82,477	2,989	79,488	1,676	46,548	61,236	2,77,990	1,30,701	1,42,400	4,20,390
Feb.	84,412	3,056	81,356	1,594	48,280	64,512	2,79,661	1,34,286	1,47,462	4,27,123
Mar.	85,396	3,095	82,301	2,525	50,751	65,952	2,83,629	1,38,672	1,50,778	4,34,407

Statistical Appendix SA.1 : Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
1994-95										
Apr.	90,368	3,180	87,188	1,955	49,395	68,410	2,92,623	1,41,718	1,57,553	4,50,176
May	94,554	3,371	91,183	1,945	47,611	68,361	2,93,797	1,44,110	1,61,489	4,55,287
Jun.	94,082	3,479	90,603	4,147	49,421	68,235	2,94,687	1,47,649	1,62,985	4,57,672
Jul.	92,280	3,297	88,983	7,168	50,789	68,049	3,00,172	1,50,238	1,64,200	4,64,372
Aug.	91,440	3,134	88,306	3,301	56,257	66,850	3,05,978	1,50,998	1,58,457	4,64,435
Sep.	88,877	3,462	85,415	3,440	54,185	74,163	3,16,325	1,46,502	1,63,017	4,79,342
Oct.	93,213	3,442	89,771	4,077	57,196	76,101	3,18,631	1,54,486	1,69,949	4,88,580
Nov.	95,852	3,284	92,568	4,153	55,948	76,446	3,19,077	1,55,954	1,73,167	4,92,245
Dec.	98,170	3,264	94,906	3,581	52,627	75,597	3,21,107	1,54,379	1,74,084	4,95,191
Jan.	1,00,918	3,253	97,665	3,185	54,322	73,999	3,23,469	1,58,425	1,74,849	4,98,319
Feb.	1,03,348	3,232	1,00,116	2,959	57,933	75,317	3,26,129	1,64,240	1,78,392	5,04,522
Mar.	1,04,681	4,000	1,00,681	3,383	61,218	88,193	3,39,169	1,69,283	1,92,257	5,31,427
1995-96										
Apr.	1,10,313	3,500	1,06,813	6,004	58,545	81,095	3,34,789	1,74,862	1,93,912	5,28,701
May	1,14,268	3,813	1,10,455	6,489	54,605	80,123	3,37,296	1,75,363	1,97,067	5,34,363
Jun.	1,14,764	4,151	1,10,612	6,945	56,630	76,755	3,41,774	1,78,339	1,94,313	5,36,087
Jul.	1,12,222	3,683	1,08,539	7,422	57,972	77,600	3,44,589	1,77,617	1,93,561	5,38,150
Aug.	1,12,028	3,774	1,08,255	7,334	57,575	77,674	3,49,402	1,76,937	1,93,262	5,42,665
Sep.	1,11,020	3,652	1,07,368	4,613	59,028	83,117	3,59,656	1,74,661	1,95,097	5,54,753
Oct.	1,16,989	4,120	1,12,870	5,940	55,607	80,987	3,62,191	1,78,537	1,99,797	5,61,988
Nov.	1,15,855	3,625	1,12,230	6,923	52,492	78,748	3,65,134	1,75,271	1,97,902	5,63,036
Dec.	1,17,359	3,573	1,13,786	6,073	50,506	77,642	3,69,681	1,73,938	1,97,501	5,67,182
Jan.	1,20,221	3,642	1,16,580	6,325	49,498	77,597	3,75,114	1,76,044	2,00,501	5,75,615
Feb.	1,22,733	3,537	1,19,197	3,689	56,497	78,765	3,79,580	1,82,920	2,01,651	5,81,231
Mar.	1,22,569	4,311	1,18,258	3,344	68,544	93,233	3,89,172	1,94,457	2,14,835	6,04,007
1996-97 P										
Apr.	1,29,357	3,825	1,25,532	5,350	59,407	86,930	3,96,302	1,94,114	2,17,812	6,14,115
May	1,32,656	4,156	1,28,500	5,358	54,648	84,111	3,98,201	1,92,662	2,17,970	6,16,171
Jun.	1,31,608	4,429	1,27,179	6,716	54,656	84,940	4,05,943	1,92,980	2,18,834	6,24,777
Jul.	1,29,229	4,250	1,24,979	5,045	53,346	85,993	4,11,407	1,87,619	2,16,017	6,27,424
Aug.	1,25,173	4,171	1,21,002	5,731	53,419	87,469	4,16,878	1,84,323	2,14,202	6,31,080
Sep.	1,23,916	4,181	1,19,735	6,009	54,187	91,747	4,26,195	1,84,111	2,17,491	6,43,686
Oct.	1,27,908	4,276	1,23,632	7,310	54,331	88,315	4,27,342	1,89,550	2,19,257	6,46,599
Nov.	1,33,395	4,378	1,29,017	6,404	51,074	86,468	4,32,487	1,90,874	2,21,889	6,54,376
Dec.	1,33,592	4,207	1,29,385	4,528	52,091	87,780	4,37,599	1,90,211	2,21,693	6,59,292
Jan.	1,32,945	4,342	1,28,604	4,483	46,084	93,532	4,47,934	1,83,512	2,26,618	6,74,553
Feb.	1,35,240	4,338	1,30,902	3,551	45,551	94,801	4,51,964	1,84,342	2,29,253	6,81,217
Mar.	1,37,217	4,695	1,32,522	3,194	59,574	1,04,564	4,60,610	1,99,985	2,40,280	7,00,891
1997-98 P										
Apr.	1,43,581	4,442	1,39,139	3,426	53,720	1,00,358	4,70,926	2,00,728	2,42,923	7,13,849
May	1,48,603	4,823	1,43,780	3,454	56,422	97,702	4,74,757	2,08,479	2,44,936	7,19,693
Jun.	1,49,370	5,058	1,44,312	5,198	54,242	1,00,668	4,79,400	2,08,810	2,50,178	7,29,579
Jul.	1,47,880	4,811	1,43,069	5,448	52,956	96,931	4,87,104	2,06,284	2,45,448	7,32,552
Aug.	1,42,240	4,838	1,37,402	4,122	55,945	97,038	4,95,325	2,02,307	2,38,562	7,33,887
Sep.	1,39,915	4,633	1,35,282	4,134	58,441	1,04,389	5,07,670	2,02,489	2,43,804	7,51,474
Oct.	1,45,505	4,964	1,40,541	3,599	58,274	1,00,990	5,13,721	2,07,378	2,45,130	7,58,851
Nov.	1,49,149	5,016	1,44,133	5,049	52,133	99,982	5,17,365	2,06,332	2,49,164	7,66,529
Dec.	1,49,013	4,627	1,44,385	4,325	58,352	1,02,406	5,19,802	2,11,689	2,51,117	7,70,918
Jan.	1,48,006	4,794	1,43,213	3,514	62,675	1,05,868	5,26,929	2,14,195	2,52,594	7,79,524
Feb.	1,49,660	4,945	1,44,715	2,734	59,965	1,06,143	5,37,555	2,12,360	2,53,593	7,91,148
Mar.	1,50,823	5,044	1,45,779	3,604	71,806	1,16,297	5,54,619	2,26,233	2,65,680	8,20,299

P Provisional

Note : 1. Reserve Money (M₀) = Currency in Circulation + 'Other' Deposits with the RBI + Bankers' Deposits with the RBI.

2. Narrow Money (M₁) = Currency with the Public + 'Other' Deposits with the RBI + Demand Deposits with Banks.

3. Broad Money (M₃) = Currency with the Public + 'Other' Deposits with the RBI + Demand Deposits with Banks + Time Deposits with Banks.

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1970-71															
Apr.	4,862	3,395	212	1,255	5,519	80	5,439	618	610	8	364	1,492	621	871	486
May	4,842	3,366	208	1,268	5,588	83	5,505	684	681	3	374	1,534	640	894	523
Jun.	4,853	3,428	149	1,276	5,728	86	5,642	672	672	0	374	1,558	643	915	530
Jul.	4,821	3,390	75	1,356	5,739	101	5,638	651	646	5	368	1,510	600	910	475
Aug.	4,794	3,305	100	1,389	5,741	99	5,642	623	622	1	365	1,478	561	917	481
Sep.	4,840	3,301	139	1,400	5,820	101	5,719	633	628	5	365	1,537	566	971	467
Oct.	4,976	3,354	207	1,415	5,892	101	5,791	654	652	2	371	1,583	594	989	451
Nov.	4,987	3,361	187	1,439	5,893	100	5,793	684	667	17	371	1,565	619	946	443
Dec.	4,961	3,310	209	1,442	6,127	102	6,025	626	605	21	375	1,578	623	955	620
Jan.	5,091	3,437	202	1,452	6,305	114	6,191	578	563	15	374	1,636	662	974	665
Feb.	5,140	3,453	233	1,454	6,393	120	6,273	552	546	6	378	1,598	649	949	671
Mar.	5,455	3,667	333	1,455	6,522	132	6,390	551	530	21	384	1,892	866	1,026	642
1971-72															
Apr.	5,582	3,704	422	1,456	6,444	136	6,308	574	557	17	386	1,794	711	1,083	458
May	5,738	3,859	409	1,470	6,445	148	6,297	587	564	23	393	1,839	782	1,057	392
Jun.	5,782	3,855	456	1,471	6,523	147	6,376	581	562	19	401	1,798	824	974	447
Jul.	5,778	4,098	160	1,520	6,591	153	6,438	574	562	12	392	1,899	852	1,047	360
Aug.	5,754	3,998	163	1,593	6,568	155	6,413	583	575	8	389	1,833	763	1,070	367
Sep.	5,792	3,950	216	1,626	6,644	176	6,468	594	589	5	396	1,894	773	1,121	380
Oct.	5,967	3,948	352	1,667	6,698	170	6,528	589	595	-6	400	1,951	812	1,139	317
Nov.	6,061	3,991	371	1,699	6,733	170	6,563	599	591	8	402	1,931	847	1,084	312
Dec.	6,102	3,878	479	1,745	7,061	179	6,882	606	590	16	403	1,925	942	983	526
Jan.	6,232	3,966	506	1,760	7,114	200	6,914	645	625	20	403	2,042	974	1,068	493
Feb.	6,268	3,999	522	1,747	7,180	219	6,961	636	620	16	407	2,022	990	1,032	503
Mar.	6,625	4,249	621	1,755	7,363	232	7,131	619	608	11	412	2,326	1,271	1,055	531
1972-73															
Apr.	6,789	4,213	759	1,817	7,256	205	7,051	635	609	26	413	2,245	1,035	1,210	296
May	6,905	4,994	109	1,802	7,384	197	7,187	653	627	26	419	2,259	1,032	1,227	271
Jun.	7,016	5,105	84	1,827	7,609	205	7,404	618	605	13	424	2,251	1,072	1,179	258
Jul.	7,108	5,007	56	2,045	7,481	212	7,269	582	568	14	413	2,248	1,093	1,155	216
Aug.	7,094	4,864	55	2,175	7,469	208	7,261	573	544	29	412	2,130	970	1,160	223
Sep.	6,953	4,736	39	2,178	7,508	207	7,301	559	540	19	419	2,084	991	1,093	257
Oct.	7,252	4,823	80	2,349	7,583	208	7,375	552	537	15	417	2,233	1,006	1,227	268
Nov.	7,357	4,922	85	2,350	7,664	211	7,453	557	529	28	435	2,205	1,038	1,167	289
Dec.	7,372	4,955	122	2,295	8,031	210	7,821	543	518	25	439	2,198	1,047	1,151	360
Jan.	7,520	5,034	135	2,351	8,114	209	7,905	566	535	31	442	2,339	1,073	1,266	361
Feb.	7,504	5,116	137	2,251	8,470	215	8,255	585	552	33	450	2,416	1,111	1,305	476
Mar.	7,976	5,461	235	2,280	8,762	266	8,496	583	569	14	457	2,765	1,435	1,330	480

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Government (3+4+5)	Net RBI Credit to Central Government	Net RBI Credit to State Governments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1973-74															
Apr.	8,137	5,707	168	2,262	8,763	247	8,516	591	581	10	463	2,538	1,153	1,385	300
May	8,257	5,787	192	2,278	8,847	245	8,602	627	590	37	476	2,506	1,156	1,350	369
Jun.	8,442	6,067	76	2,299	9,048	290	8,758	609	588	21	483	2,591	1,150	1,441	389
Jul.	8,619	6,029	180	2,410	8,920	280	8,640	672	664	8	478	2,627	1,226	1,401	236
Aug.	8,554	5,975	62	2,517	8,872	268	8,604	646	627	19	482	2,454	1,200	1,254	247
Sep.	8,610	6,038	105	2,467	9,097	298	8,799	639	612	27	482	2,551	1,197	1,354	324
Oct.	8,742	6,130	156	2,456	9,379	301	9,078	611	582	29	490	2,743	1,213	1,530	397
Nov.	8,788	6,219	135	2,434	9,610	323	9,287	522	512	10	489	2,733	1,248	1,485	423
Dec.	8,624	5,926	168	2,530	10,162	382	9,780	564	531	33	490	2,901	1,253	1,648	561
Jan.	8,788	6,090	198	2,500	10,204	434	9,770	543	527	16	491	2,898	1,272	1,626	587
Feb.	8,779	6,130	155	2,494	10,285	499	9,786	587	574	13	495	2,848	1,338	1,510	665
Mar.	8,939	6,092	368	2,479	10,791	560	10,231	663	661	2	502	3,271	1,641	1,630	731
1974-75															
Apr.	9,010	6,212	266	2,532	10,956	591	10,365	661	660	1	509	3,104	1,419	1,685	598
May	9,080	6,335	200	2,545	11,012	597	10,415	653	678	-25	520	2,921	1,389	1,532	651
Jun.	9,134	6,344	220	2,570	11,343	652	10,691	673	671	2	521	3,134	1,481	1,653	657
Jul.	9,366	6,478	175	2,713	11,320	623	10,697	594	598	-4	516	3,204	1,511	1,693	484
Aug.	9,256	6,365	131	2,760	11,176	574	10,602	555	553	2	514	3,051	1,426	1,625	385
Sep.	9,315	6,372	134	2,809	11,181	550	10,631	516	524	-8	513	3,075	1,498	1,577	399
Oct.	9,537	6,494	153	2,890	11,281	515	10,766	505	509	-4	517	3,273	1,483	1,790	396
Nov.	9,580	6,545	133	2,902	11,374	550	10,824	521	494	27	522	3,271	1,572	1,699	422
Dec.	9,423	6,350	194	2,879	11,753	589	11,164	456	403	53	523	3,208	1,605	1,603	590
Jan.	9,658	6,534	240	2,884	12,075	598	11,477	286	252	34	524	3,442	1,664	1,778	529
Feb.	9,786	6,634	266	2,886	12,241	623	11,618	361	319	42	526	3,600	1,759	1,841	633
Mar.	9,999	6,620	501	2,878	12,730	663	12,067	414	369	45	531	4,125	2,061	2,064	981
1975-76															
Apr.	10,231	6,813	411	3,007	12,623	649	11,974	413	390	23	538	3,895	1,916	1,979	633
May	10,401	6,954	456	2,991	12,748	618	12,130	382	333	49	549	3,820	1,928	1,892	683
Jun.	10,538	7,085	425	3,028	12,976	625	12,351	367	309	58	554	3,862	1,964	1,898	633
Jul.	10,907	7,448	205	3,254	12,830	613	12,217	371	303	68	552	3,994	2,048	1,946	403
Aug.	10,740	7,398	153	3,189	12,970	568	12,402	323	283	40	545	3,908	2,046	1,862	449
Sep.	10,465	7,065	133	3,267	13,241	600	12,641	417	369	48	545	3,965	2,099	1,866	616
Oct.	10,596	7,124	228	3,244	13,666	629	13,037	467	460	7	550	4,252	2,215	2,037	670
Nov.	10,614	7,169	177	3,268	13,878	648	13,230	542	486	56	551	4,356	2,305	2,051	637
Dec.	10,323	6,846	182	3,295	14,354	707	13,647	599	531	68	549	4,367	2,375	1,992	985
Jan.	10,171	6,662	185	3,324	14,875	739	14,136	535	511	24	549	4,478	2,403	2,075	1,180
Feb.	10,241	6,718	199	3,324	15,081	708	14,373	754	717	37	552	4,627	2,447	2,180	1,097
Mar.	10,629	6,331	593	3,705	15,614	734	14,880	939	924	15	556	5,258	2,645	2,613	1,315

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1976-77															
Apr.	10,788	6,860	349	3,579	15,614	714	14,900	820	829	-9	556	4,806	2,321	2,485	1,124
May	10,767	6,910	326	3,531	15,830	712	15,118	1,039	1,079	-40	557	4,614	2,358	2,256	1,099
Jun.	10,841	6,939	308	3,594	16,028	740	15,288	1,274	1,280	-6	556	4,683	2,458	2,225	987
Jul.	10,676	6,688	253	3,735	16,466	800	15,666	1,423	1,436	-13	548	4,929	2,572	2,357	1,081
Aug.	10,625	6,609	187	3,829	16,473	787	15,686	1,523	1,555	-32	549	4,704	2,499	2,205	1,023
Sep.	10,522	6,462	179	3,881	16,747	822	15,925	1,635	1,674	-39	549	4,600	2,512	2,088	1,211
Oct.	10,643	6,485	162	3,996	17,225	813	16,412	1,660	1,754	-94	560	4,741	2,458	2,283	1,293
Nov.	10,742	6,582	156	4,004	17,492	816	16,676	1,795	1,821	-26	557	4,902	2,539	2,363	1,308
Dec.	10,535	6,300	193	4,042	18,418	833	17,585	2,037	2,029	8	559	4,877	2,671	2,206	1,432
Jan.	10,658	6,463	134	4,061	18,307	844	17,463	2,140	2,140	0	558	5,170	2,683	2,487	1,415
Feb.	10,829	6,515	188	4,126	18,363	871	17,492	2,257	2,353	-96	564	5,211	2,854	2,357	1,406
Mar.	11,804	7,147	615	4,042	18,851	898	17,953	2,529	2,599	-70	568	5,971	3,433	2,538	1,404
1977-78															
Apr.	12,104	6,997	507	4,600	18,626	885	17,741	2,866	2,936	-70	573	5,958	3,158	2,800	1,039
May	12,325	7,252	547	4,526	18,625	860	17,765	3,127	3,208	-81	584	5,989	3,302	2,687	843
Jun.	12,449	7,389	540	4,520	18,986	840	18,146	3,262	3,312	-50	583	6,175	3,593	2,582	930
Jul.	12,110	7,004	327	4,779	19,134	861	18,273	3,484	3,484	0	576	6,151	3,369	2,782	827
Aug.	11,934	6,944	246	4,744	19,185	872	18,313	3,547	3,583	-36	577	5,830	3,131	2,699	904
Sep.	11,932	6,606	373	4,953	19,526	887	18,639	3,612	3,701	-89	579	5,949	3,086	2,863	808
Oct.	12,047	6,668	442	4,937	19,642	915	18,727	3,712	3,801	-89	577	5,877	3,064	2,813	873
Nov.	12,292	6,839	490	4,963	19,815	925	18,890	3,811	3,961	-150	590	5,846	3,085	2,761	895
Dec.	12,123	6,783	322	5,018	20,867	961	19,906	4,101	4,062	39	590	5,966	3,157	2,809	947
Jan.	12,278	6,829	355	5,094	20,676	983	19,693	4,201	4,174	27	588	6,187	3,075	3,112	845
Feb.	12,587	6,712	346	5,529	18,839	981	17,858	4,069	4,071	-2	619	4,158	3,045	1,113	838
Mar.	13,727	6,887	757	6,083	21,222	954	20,268	4,445	4,532	-87	593	7,081	3,708	3,373	926
1978-79															
Apr.	14,066	7,303	698	6,065	21,045	900	20,145	4,572	4,681	-109	598	6,714	3,196	3,518	660
May	13,895	7,238	666	5,991	21,371	920	20,451	4,649	4,694	-45	608	6,425	3,106	3,319	668
Jun.	13,915	8,122	107	5,686	22,210	1,067	21,143	4,488	4,572	-84	613	6,369	3,056	3,313	813
Jul.	14,104	7,432	240	6,432	21,946	1,068	20,878	4,616	4,626	-10	607	6,498	3,087	3,411	635
Aug.	14,052	7,293	295	6,464	22,032	1,018	21,014	4,687	4,735	-48	604	6,317	2,849	3,468	696
Sep.	13,952	7,372	150	6,430	22,573	1,044	21,529	4,807	4,855	-48	601	6,416	3,081	3,335	770
Oct.	14,207	7,506	135	6,566	23,074	1,080	21,994	4,863	4,928	-65	604	6,535	2,927	3,608	805
Nov.	14,137	7,571	109	6,457	23,423	1,105	22,318	5,106	5,187	-81	606	6,474	3,080	3,394	812
Dec.	14,117	7,648	97	6,372	25,077	1,161	23,916	5,146	5,218	-72	605	6,414	2,998	3,416	941
Jan.	14,134	7,528	155	6,451	25,252	1,203	24,049	5,144	5,226	-82	604	6,308	2,677	3,631	1,146
Feb.	14,648	7,825	113	6,710	24,935	1,250	23,685	5,353	5,348	5	604	6,690	2,866	3,824	1,157
Mar.	15,930	9,077	339	6,514	25,532	1,250	24,282	5,338	5,431	-93	603	7,291	3,735	3,556	1,117

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1979-80															
Apr.	16,213	8,651	191	7,371	25,297	1,228	24,069	5,569	5,678	-109	605	7,239	2,893	4,346	797
May	16,585	9,369	149	7,067	25,584	1,215	24,369	5,655	5,738	-83	610	7,249	3,260	3,989	902
Jun.	16,852	9,607	141	7,104	26,635	1,220	25,415	5,596	5,643	-47	608	7,170	3,387	3,783	1,031
Jul.	17,224	9,777	142	7,305	27,091	1,216	25,875	5,626	5,660	-34	603	7,822	3,566	4,256	1,091
Aug.	17,136	9,499	142	7,495	27,403	1,254	26,149	5,595	5,660	-65	598	7,285	3,214	4,071	933
Sep.	16,096	8,340	172	7,584	27,810	1,348	26,462	5,550	5,616	-66	594	6,936	2,820	4,116	1,229
Oct.	16,551	8,759	242	7,550	28,143	1,381	26,762	5,624	5,728	-104	595	7,069	2,205	4,864	1,094
Nov.	16,833	8,955	234	7,644	28,738	1,438	27,300	5,505	5,581	-76	593	7,595	2,618	4,977	1,132
Dec.	17,387	9,485	173	7,729	29,772	1,490	28,282	5,691	5,736	-45	591	8,053	3,442	4,611	1,290
Jan.	18,101	10,265	199	7,637	30,067	1,523	28,544	5,557	5,602	-45	590	8,887	3,566	5,321	1,160
Feb.	18,598	10,438	157	8,003	30,375	1,539	28,836	5,442	5,487	-45	591	8,900	3,587	5,313	1,105
Mar.	20,014	11,727	678	7,609	31,011	1,546	29,465	5,343	5,388	-45	592	9,734	4,558	5,176	1,200
1980-81															
Apr.	20,792	12,070	387	8,335	30,657	1,504	29,153	5,047	5,092	-45	595	9,196	3,670	5,526	785
May	20,999	12,480	201	8,318	30,897	1,532	29,365	5,070	5,115	-45	601	9,235	3,808	5,427	941
Jun.	21,147	12,106	316	8,725	31,316	1,563	29,753	4,922	4,967	-45	601	9,155	3,856	5,299	832
Jul.	21,679	12,555	301	8,823	31,415	1,504	29,911	4,797	4,842	-45	599	9,551	4,135	5,416	832
Aug.	21,481	11,853	279	9,349	31,404	1,496	29,908	5,190	5,235	-45	600	9,426	3,976	5,450	868
Sep.	22,243	12,175	326	9,742	31,678	1,521	30,157	5,050	5,095	-45	600	10,013	4,483	5,530	911
Oct.	22,237	12,449	454	9,334	32,548	1,524	31,024	4,907	4,952	-45	604	9,641	3,617	6,024	964
Nov.	23,283	13,173	449	9,661	33,240	1,600	31,640	4,849	4,894	-45	610	10,392	4,146	6,246	999
Dec.	23,161	13,482	388	9,291	34,590	1,623	32,967	4,690	4,735	-45	613	9,974	4,270	5,704	1,089
Jan.	23,721	13,427	433	9,861	35,256	1,627	33,629	4,734	4,779	-45	614	10,788	4,412	6,376	1,133
Feb.	23,888	13,767	469	9,652	35,897	1,648	34,249	4,851	4,896	-45	618	11,105	4,503	6,602	1,169
Mar.	25,718	15,278	1,165	9,275	36,641	1,700	34,941	4,730	4,775	-45	618	11,933	5,360	6,573	1,276
1981-82															
Apr.	26,651	15,139	861	10,651	36,686	1,709	34,977	4,562	4,607	-45	623	11,994	4,993	7,001	1,084
May	26,902	15,541	955	10,406	37,155	1,689	35,466	4,451	4,496	-45	630	11,745	4,997	6,748	1,003
Jun.	27,549	16,242	1,036	10,271	37,704	1,689	36,015	4,300	4,248	52	633	11,711	5,108	6,603	986
Jul.	28,363	16,486	976	10,901	38,198	1,764	36,434	4,300	4,248	52	634	12,507	4,780	7,727	958
Aug.	27,072	15,552	643	10,877	38,220	1,758	36,462	3,768	3,716	52	634	11,136	4,369	6,767	1,048
Sep.	27,647	16,300	754	10,593	38,773	1,784	36,989	3,682	3,607	75	635	11,935	5,157	6,778	1,140
Oct.	28,539	17,010	1,124	10,405	40,019	1,775	38,244	3,618	3,543	75	645	12,650	5,449	7,201	1,274
Nov.	28,851	16,885	1,132	10,834	40,277	1,801	38,476	3,449	3,374	75	647	12,972	5,588	7,384	1,227
Dec.	28,510	16,853	1,229	10,428	41,931	1,872	40,059	3,303	3,238	65	649	12,326	5,672	6,654	1,355
Jan.	28,842	17,092	1,550	10,200	42,751	1,909	40,842	3,006	2,941	65	653	13,696	5,869	7,827	1,493
Feb.	29,263	17,369	1,694	10,200	42,973	1,912	41,061	2,645	2,580	65	653	13,555	5,997	7,558	1,584
Mar.	30,633	18,486	1,954	10,193	43,462	2,044	41,418	2,768	2,706	62	657	14,768	6,522	8,246	1,673

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Government (3+4+5)	Net RBI Credit to Central Government	Net RBI Credit to State Governments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1982-83															
Apr.	32,004	18,068	2,520	11,416	43,208	2,029	41,179	2,761	2,699	62	663	14,660	6,051	8,609	1,407
May	32,956	18,755	2,457	11,744	43,606	2,062	41,544	2,603	2,541	62	667	14,963	6,288	8,675	1,301
Jun.	33,402	18,945	2,517	11,940	44,132	2,132	42,000	2,490	2,435	55	670	14,565	6,285	8,280	1,227
Jul.	34,166	21,652	-191	12,705	44,125	1,641	42,484	2,007	1,952	55	670	14,701	5,913	8,788	1,252
Aug.	34,385	21,126	-191	13,450	44,021	1,665	42,356	2,153	2,098	55	670	14,216	5,725	8,491	1,359
Sep.	33,396	20,676	116	12,604	44,725	1,731	42,994	1,798	1,730	68	670	13,437	5,052	8,385	1,191
Oct.	35,174	22,160	366	12,648	45,667	1,779	43,888	1,637	1,569	68	669	14,969	5,935	9,034	1,250
Nov.	35,203	21,958	370	12,875	46,323	1,924	44,399	1,526	1,458	68	677	14,483	5,594	8,889	1,249
Dec.	34,471	22,610	371	11,490	49,933	1,928	48,005	1,622	1,535	87	678	13,918	5,976	7,942	1,876
Jan.	35,091	21,425	588	13,078	49,231	1,918	47,313	1,850	1,763	87	679	15,407	6,224	9,183	1,497
Feb.	35,299	22,036	421	12,842	49,550	1,919	47,631	1,685	1,598	87	680	15,280	6,311	8,969	1,652
Mar.	35,257	21,853	970	12,434	51,162	1,925	49,237	1,828	1,729	99	682	15,745	6,074	9,671	2,025
1983-84															
Apr.	36,894	21,469	1,259	14,166	51,031	1,926	49,105	1,795	1,696	99	687	15,848	5,519	10,329	1,562
May	37,844	22,519	1,238	14,087	51,407	1,931	49,476	1,972	1,873	99	690	16,064	5,627	10,437	1,437
Jun.	38,267	23,399	983	13,885	52,053	1,921	50,132	2,069	1,878	191	694	15,706	5,805	9,901	1,407
Jul.	38,924	23,228	393	15,303	52,744	1,925	50,819	2,158	1,967	191	697	16,191	5,796	10,395	1,278
Aug.	38,504	26,031	-2,649	15,122	52,595	1,930	50,665	1,940	1,749	191	696	15,113	4,956	10,157	1,369
Sep.	37,901	22,645	446	14,810	53,778	2,249	51,529	1,740	1,644	96	697	15,277	4,869	10,408	1,356
Oct.	38,755	22,956	794	15,005	54,676	2,249	52,427	1,728	1,632	96	701	15,357	4,500	10,857	1,434
Nov.	39,571	23,716	802	15,053	55,120	2,249	52,871	1,564	1,468	96	707	15,298	4,661	10,637	1,372
Dec.	39,380	23,516	951	14,913	58,148	2,251	55,897	1,156	1,079	77	710	14,312	4,479	9,833	1,992
Jan.	40,181	23,277	1,096	15,808	57,694	2,250	55,444	1,272	1,195	77	711	15,440	4,669	10,771	1,671
Feb.	40,612	23,894	1,066	15,652	58,486	2,251	56,235	1,293	1,216	77	715	15,948	4,761	11,187	2,055
Mar.	40,642	25,802	1,008	13,832	60,726	2,380	58,346	1,646	1,624	22	720	17,209	5,311	11,898	2,771
1984-85															
Apr.	42,505	25,400	1,359	15,746	60,266	2,377	57,889	1,621	1,599	22	725	17,339	5,204	12,135	2,014
May	43,522	25,704	1,355	16,463	60,742	2,379	58,363	1,510	1,488	22	730	17,041	5,370	11,671	2,151
Jun.	44,932	28,802	447	15,683	62,592	2,391	60,201	1,783	1,712	71	734	17,513	5,796	11,717	2,852
Jul.	45,592	27,331	932	17,329	62,066	2,379	59,687	1,920	1,849	71	736	18,255	5,987	12,268	1,661
Aug.	45,696	27,366	788	17,542	62,438	2,467	59,971	2,216	2,145	71	740	18,524	6,409	12,115	1,819
Sep.	45,283	27,123	503	17,657	63,420	2,573	60,847	2,297	2,228	69	744	18,661	6,419	12,242	2,122
Oct.	46,400	27,771	1,093	17,536	65,010	2,759	62,251	2,296	2,227	69	750	19,491	6,768	12,723	2,143
Nov.	46,962	27,893	1,297	17,772	66,052	2,772	63,280	2,585	2,516	69	755	19,840	7,007	12,833	2,213
Dec.	47,637	26,749	1,962	18,926	68,817	2,780	66,037	2,388	2,414	-26	759	19,177	7,014	12,163	2,739
Jan.	48,484	28,999	2,462	17,023	69,275	2,768	66,507	2,021	2,047	-26	763	20,360	7,589	12,771	3,193
Feb.	49,028	28,393	1,901	18,734	69,459	2,765	66,694	2,155	2,181	-26	769	20,367	7,640	12,727	2,654
Mar.	50,343	31,857	2,493	15,993	70,953	2,752	68,201	3,134	2,899	235	778	22,275	8,737	13,538	3,174

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1985-86															
Apr.	51,169	28,016	1,940	21,213	70,314	2,749	67,565	3,403	3,168	235	784	22,101	7,842	14,259	1,881
May	52,034	30,132	1,472	20,430	71,058	2,738	68,320	3,582	3,347	235	784	22,396	7,977	14,419	1,907
Jun.	54,006	33,238	1,360	19,408	71,279	2,737	68,542	2,981	2,834	147	792	22,374	8,032	14,342	2,108
Jul.	54,516	33,013	1,376	20,127	72,542	2,722	69,820	2,586	2,439	147	799	22,380	8,255	14,125	1,979
Aug.	54,289	31,136	1,062	22,091	72,636	2,806	69,830	2,825	2,678	147	812	22,035	8,062	13,973	1,806
Sep.	54,237	33,865	453	19,919	73,580	3,082	70,498	2,761	2,722	39	820	22,225	8,330	13,895	1,914
Oct.	55,613	33,569	51	21,993	74,931	3,065	71,866	3,239	3,200	39	828	23,940	9,278	14,662	1,835
Nov.	57,160	35,539	83	21,538	75,311	3,065	72,246	3,083	3,044	39	828	24,148	9,563	14,585	1,774
Dec.	57,448	36,389	8	21,051	77,036	3,074	73,962	2,976	2,892	84	848	23,491	9,768	13,723	1,708
Jan.	58,975	37,364	58	21,553	79,244	3,059	76,185	2,869	2,785	84	895	24,803	10,376	14,427	1,935
Feb.	59,366	36,629	-19	22,756	79,719	3,069	76,650	2,818	2,734	84	919	25,043	10,135	14,908	1,924
Mar.	58,321	38,047	631	19,643	82,803	3,052	79,751	3,872	3,741	131	939	26,541	10,707	15,834	2,462
1986-87															
Apr.	60,661	37,054	77	23,530	82,006	3,059	78,947	3,923	3,792	131	963	26,548	10,312	16,236	1,803
May	63,907	42,072	66	21,769	82,007	3,056	78,951	3,989	3,858	131	945	27,840	10,869	16,971	1,750
Jun.	64,786	41,000	-15	23,801	82,439	3,048	79,391	3,929	3,736	193	990	26,731	10,952	15,779	1,452
Jul.	65,195	42,116	33	23,046	83,876	3,041	80,835	3,176	2,983	193	1,014	26,907	11,387	15,520	1,823
Aug.	65,437	40,611	81	24,745	83,157	3,012	80,145	3,362	3,169	193	1,049	26,311	11,111	15,200	1,548
Sep.	65,207	40,186	0	25,021	84,309	3,425	80,884	3,303	3,162	141	1,067	25,550	11,053	14,497	1,575
Oct.	66,909	40,827	110	25,972	85,767	3,410	82,357	3,424	3,283	141	1,068	27,621	11,478	16,143	1,747
Nov.	68,489	43,440	42	25,007	86,589	3,423	83,166	3,564	3,423	141	1,102	27,585	11,578	16,007	1,613
Dec.	69,223	43,345	101	25,777	88,281	3,423	84,858	4,078	3,829	249	1,121	26,870	11,953	14,917	1,734
Jan.	71,083	45,023	114	25,946	91,377	3,428	87,949	3,957	3,708	249	1,158	29,066	12,422	16,644	1,871
Feb.	71,368	45,702	-20	25,686	91,537	3,418	88,119	4,228	3,979	249	1,176	28,968	12,659	16,309	2,010
Mar.	72,020	45,138	1,147	25,735	94,741	3,394	91,347	4,815	4,621	194	1,192	31,136	13,444	17,692	2,760
1987-88															
Apr.	75,073	48,525	124	26,424	92,611	3,397	89,214	4,561	4,367	194	1,211	30,299	12,492	17,807	1,675
May	75,374	48,356	112	26,906	92,952	3,403	89,549	4,508	4,314	194	1,211	29,699	12,437	17,262	2,593
Jun.	77,262	50,226	142	26,894	93,384	3,387	89,997	4,604	4,422	182	1,239	29,568	12,562	17,006	1,706
Jul.	77,447	48,906	133	28,408	95,714	3,791	91,923	4,270	4,088	182	1,273	30,020	12,717	17,303	1,796
Aug.	77,574	48,377	-19	29,216	95,739	3,789	91,950	4,088	3,906	182	1,286	29,296	12,016	17,280	2,318
Sep.	78,905	49,735	9	29,161	96,563	3,801	92,762	4,132	4,023	109	1,298	29,531	12,095	17,436	1,734
Oct.	79,976	49,388	160	30,428	98,061	3,806	94,255	4,363	4,254	109	1,299	30,461	11,854	18,607	3,149
Nov.	81,288	50,893	234	30,161	98,254	3,800	94,454	4,531	4,422	109	1,325	30,087	12,337	17,750	2,837
Dec.	82,413	51,767	382	30,264	1,00,341	3,803	96,538	4,769	4,528	241	1,333	30,151	12,650	17,501	2,507
Jan.	83,965	52,451	204	31,310	1,03,410	3,804	99,606	4,637	4,396	241	1,356	32,388	13,442	18,946	3,396
Feb.	84,008	52,633	150	31,225	1,04,626	3,803	1,00,823	4,421	4,180	241	1,369	32,315	13,497	18,818	3,871
Mar.	84,370	51,697	990	31,683	1,07,487	3,790	1,03,697	5,672	5,416	256	1,380	34,634	14,225	20,409	4,441

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1988-89															
Apr.	87,441	55,205	63	32,173	1,05,908	3,814	1,02,094	5,483	5,227	256	1,392	33,669	13,335	20,334	3,305
May	89,421	56,698	54	32,669	1,06,709	3,817	1,02,892	5,288	5,032	256	1,392	33,653	13,593	20,060	2,744
Jun.	92,277	58,674	114	33,489	1,07,036	3,847	1,03,189	5,099	4,584	515	1,402	37,365	13,694	23,671	2,473
Jul.	95,232	59,041	216	35,975	1,09,942	3,818	1,06,124	4,585	4,070	515	1,420	35,301	15,110	20,191	2,258
Aug.	93,821	58,727	308	34,786	1,10,224	3,929	1,06,295	4,849	4,334	515	1,424	34,807	14,633	20,174	2,422
Sep.	93,585	58,420	94	35,071	1,11,020	4,150	1,06,870	4,871	4,106	765	1,432	34,625	14,728	19,897	3,121
Oct.	95,287	59,171	229	35,887	1,13,719	4,233	1,09,486	5,575	4,810	765	1,441	37,288	14,842	22,446	2,688
Nov.	96,557	59,779	187	36,591	1,15,025	4,325	1,10,700	6,180	5,415	765	1,441	37,313	15,168	22,145	4,800
Dec.	96,800	59,756	269	36,775	1,22,345	4,405	1,17,940	5,966	5,471	495	1,459	35,169	15,532	19,637	4,170
Jan.	98,871	61,032	112	37,727	1,21,722	4,397	1,17,325	5,415	4,920	495	1,465	38,490	16,146	22,344	3,434
Feb.	98,565	61,440	84	37,041	1,23,041	4,423	1,18,618	5,072	4,577	495	1,470	38,234	16,302	21,932	5,447
Mar.	96,475	58,200	1,415	36,860	1,27,882	5,524	1,22,358	6,800	6,201	599	1,475	39,139	16,936	22,203	7,079
1989-90															
Apr.	1,00,005	61,922	198	37,885	1,29,412	4,641	1,24,771	6,566	5,967	599	1,488	39,499	15,899	23,600	5,222
May	1,02,943	64,591	173	38,179	1,30,379	5,007	1,25,372	5,812	5,213	599	1,488	39,803	16,163	23,640	6,706
Jun.	1,05,313	66,058	39	39,216	1,31,753	4,422	1,27,331	6,543	5,968	575	1,507	40,345	16,592	23,753	4,864
Jul.	1,07,554	67,340	163	40,051	1,31,948	4,437	1,27,511	6,398	5,823	575	1,511	41,668	17,167	24,501	3,360
Aug.	1,08,445	68,138	19	40,288	132,172	4,400	1,27,772	5,799	5,224	575	1,514	40,337	16,974	23,363	4,442
Sep.	1,08,682	67,311	123	41,248	1,33,485	4,480	1,29,005	5,789	5,045	744	1,517	39,549	17,025	22,524	5,092
Oct.	1,09,805	68,069	270	41,466	1,37,728	4,755	1,32,973	6,247	5,503	744	1,526	39,987	16,649	23,338	6,539
Nov.	1,12,489	70,603	110	41,776	1,38,540	4,913	1,33,627	6,080	5,336	744	1,526	40,376	16,616	23,760	6,009
Dec.	1,13,658	70,811	255	42,592	1,42,649	4,920	1,37,729	6,134	5,551	583	1,541	41,441	17,258	24,183	5,442
Jan.	1,16,873	73,456	215	43,202	1,44,227	4,943	1,39,284	6,060	5,477	583	1,542	44,046	17,914	26,132	4,400
Feb.	1,17,318	74,004	208	43,106	1,45,533	4,944	1,40,589	6,351	5,768	583	1,549	43,025	18,148	24,877	6,176
Mar.	1,17,151	72,013	1,670	43,468	1,51,704	6,349	1,45,355	6,818	6,068	750	1,555	46,278	17,536	28,742	7,472
1990-91															
Apr.	1,21,320	76,062	344	44,914	1,52,960	5,371	1,47,589	6,526	5,776	750	1,562	44,673	17,323	27,350	6,174
May	1,25,379	79,071	504	45,804	1,52,996	4,979	1,48,017	5,782	5,032	750	1,561	46,847	17,845	29,002	7,445
Jun.	1,26,248	79,716	-6	46,538	1,53,379	4,961	1,48,418	6,365	5,637	728	1,577	46,064	18,426	27,638	5,741
Jul.	1,28,429	80,199	28	48,202	1,54,381	4,919	1,49,462	5,763	5,035	728	1,579	47,852	18,878	28,974	3,755
Aug.	1,28,602	78,557	49	49,996	1,54,615	5,244	1,49,371	6,110	5,382	728	1,583	49,005	18,599	30,406	4,029
Sep.	1,29,539	79,283	6	50,250	1,55,173	5,448	1,49,725	4,746	4,233	513	1,586	45,714	18,424	27,290	4,755
Oct.	1,32,766	82,252	206	50,308	2,02,682	5,521	1,97,161	10,267	9,754	513	1,600	98,119	25,028	73,091	7,182
Nov.	1,35,719	84,990	233	50,496	1,60,838	5,496	1,55,342	9,635	9,122	513	1,602	54,455	25,421	29,034	4,275
Dec.	1,36,305	85,043	214	51,048	1,61,896	5,521	1,56,375	9,113	8,424	689	1,606	52,506	25,248	27,258	5,407
Jan.	1,37,841	86,634	116	51,091	1,64,441	5,489	1,58,952	8,347	7,658	689	1,611	53,861	26,135	27,726	6,956
Feb.	1,38,653	87,120	343	51,190	1,65,852	5,505	1,60,347	8,713	8,024	689	1,615	51,685	26,489	25,196	6,252
Mar.	1,40,193	86,758	2,090	51,345	1,71,769	6,342	1,65,427	10,581	7,983	2,598	1,621	58,336	27,022	31,314	10,007

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1991-92															
Apr.	1,44,417	90,028	682	53,707	1,73,305	6,354	1,66,951	9,018	6,420	2,598	1,627	56,127	26,628	29,499	12,748
May	1,48,144	94,293	206	53,645	1,73,746	5,520	1,68,226	9,397	6,799	2,598	1,639	55,261	27,593	27,668	6,938
Jun.	1,50,638	95,928	1	54,709	1,71,858	5,492	1,66,366	9,439	6,758	2,681	1,643	55,215	27,279	27,936	9,961
Jul.	1,53,661	97,339	333	55,989	1,71,331	5,436	1,65,895	8,865	6,184	2,681	1,645	56,280	28,546	27,734	5,728
Aug.	1,54,319	97,062	350	56,907	1,70,514	5,407	1,65,107	10,335	7,654	2,681	1,652	55,910	28,927	26,983	7,359
Sep.	1,54,051	95,649	261	58,141	1,71,119	5,433	1,65,686	11,647	7,870	3,777	1,658	53,531	28,509	25,022	7,480
Oct.	1,58,112	98,624	356	59,132	1,75,335	5,486	1,69,849	12,817	9,040	3,777	1,664	54,755	27,653	27,102	5,661
Nov.	1,61,389	99,875	204	61,310	1,75,523	5,531	1,69,992	15,112	11,335	3,777	1,676	53,225	27,160	26,065	4,945
Dec.	1,59,009	96,570	424	62,015	1,76,962	5,532	1,71,430	17,455	14,353	3,102	1,681	51,549	27,051	24,498	4,599
Jan.	1,63,403	1,00,721	218	62,464	1,79,661	5,636	1,74,025	17,522	14,420	3,102	1,688	54,209	28,501	25,708	5,631
Feb.	1,64,607	1,01,211	387	63,009	1,81,249	6,299	1,74,950	19,041	15,939	3,102	1,695	53,420	27,672	25,748	6,160
Mar.	1,58,263	92,266	1,750	64,247	1,87,993	7,260	1,80,733	21,226	18,838	2,388	1,704	52,137	27,415	24,722	5,102
1992-93															
Apr.	1,64,605	97,485	422	66,698	1,95,627	7,522	1,88,105	20,809	18,421	2,388	1,714	56,011	25,268	30,743	10,239
May	1,67,851	1,00,251	230	67,370	1,96,557	7,368	1,89,189	20,593	18,205	2,388	1,727	52,440	25,454	26,986	5,569
Jun.	1,64,720	96,179	157	68,384	1,96,721	7,353	1,89,368	22,729	19,687	3,042	1,736	49,299	25,371	23,928	5,672
Jul.	1,69,935	1,00,380	-11	69,566	1,97,624	6,056	1,91,568	23,318	20,276	3,042	1,743	52,587	26,765	25,822	5,588
Aug.	1,69,211	97,923	0	71,288	1,96,345	6,074	1,90,271	22,573	19,531	3,042	1,750	49,638	25,339	24,299	5,740
Sep.	1,69,138	97,779	73	71,286	1,98,814	6,027	1,92,787	21,245	18,932	2,313	1,758	49,040	24,922	24,118	5,329
Oct.	1,71,657	99,378	351	71,928	2,05,080	6,024	1,99,056	20,237	17,924	2,313	1,776	48,080	23,851	24,229	6,897
Nov.	1,74,205	1,01,815	116	72,274	2,05,516	5,991	1,99,525	18,736	16,423	2,313	1,785	47,232	22,852	24,380	5,442
Dec.	1,70,718	93,716	523	76,479	2,08,862	5,997	2,02,865	18,316	16,075	2,241	1,792	45,739	22,314	23,425	8,268
Jan.	1,75,036	1,01,333	422	73,281	2,12,929	6,005	2,06,924	17,989	15,748	2,241	1,800	49,876	24,233	25,643	7,535
Feb.	1,74,994	1,01,040	444	73,510	2,15,752	6,052	2,09,700	16,680	14,439	2,241	1,811	48,684	23,825	24,859	10,487
Mar.	1,76,238	96,523	1,926	77,789	2,20,135	6,220	2,13,915	24,443	22,647	1,796	1,824	55,815	28,246	27,569	9,885
1993-94															
Apr.	1,86,370	1,08,624	192	77,554	2,23,711	6,461	2,17,250	26,425	24,629	1,796	1,837	56,560	27,290	29,270	8,110
May	1,88,314	1,10,249	30	78,035	2,23,075	6,444	2,16,631	25,235	23,439	1,796	1,851	53,754	27,490	26,264	4,990
Jun.	1,90,332	1,05,724	28	84,580	2,21,804	6,399	2,15,405	24,503	23,299	1,204	1,863	53,772	28,243	25,529	4,271
Jul.	1,96,046	1,13,021	66	82,959	2,22,226	6,463	2,15,763	25,757	24,553	1,204	1,873	57,735	28,565	29,170	4,635
Aug.	1,98,764	1,12,768	182	85,814	2,19,302	6,286	2,13,016	27,349	26,145	1,204	1,883	56,407	28,941	27,466	5,021
Sep.	1,98,553	1,08,640	154	89,759	2,19,925	6,302	2,13,623	28,673	26,689	1,984	1,883	54,268	26,822	27,446	4,419
Oct.	1,95,321	1,06,263	175	88,883	2,25,572	6,283	2,19,289	29,683	27,699	1,984	1,911	52,273	24,978	27,295	5,834
Nov.	1,98,676	1,08,512	404	89,760	2,26,267	6,288	2,19,979	30,742	28,758	1,984	1,927	51,094	24,828	26,266	5,408
Dec.	1,97,493	1,04,760	406	92,327	2,29,283	6,314	2,22,969	34,308	32,990	1,318	1,943	50,768	24,957	25,811	5,341
Jan.	2,04,549	1,05,110	584	98,855	2,33,939	6,282	2,27,657	37,025	35,707	1,318	1,956	57,079	25,929	31,150	6,991
Feb.	2,05,449	1,02,131	783	1,02,535	2,34,800	6,267	2,28,533	42,974	41,656	1,318	1,973	58,073	25,912	32,161	7,387
Mar.	2,03,918	96,783	2,517	1,04,618	2,37,774	6,445	2,31,329	54,612	51,422	3,190	1,990	63,887	26,037	37,850	5,552

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1994-95															
Apr.	2,11,426	95,988	241	1,15,197	2,40,073	6,431	2,33,642	58,006	54,816	3,190	2,012	61,341	24,321	37,020	6,552
May	2,15,588	98,288	109	1,17,192	2,39,768	6,427	2,33,340	59,529	56,339	3,190	2,032	61,630	24,402	37,227	5,318
Jun.	2,17,291	98,490	141	1,18,661	2,38,038	6,483	2,31,555	62,698	58,279	4,418	2,058	62,413	23,992	38,421	6,191
Jul.	2,19,469	1,00,571	315	1,18,583	2,41,331	6,474	2,34,857	66,533	62,114	4,418	2,075	65,036	25,874	39,162	4,561
Aug.	2,13,780	93,023	343	1,20,414	2,41,055	6,444	2,34,610	67,549	63,131	4,418	2,089	60,038	23,795	36,243	9,763
Sep.	2,08,684	88,441	288	1,19,955	2,54,050	6,499	2,47,551	71,435	67,018	4,417	2,113	56,939	23,793	33,146	5,936
Oct.	2,13,945	93,242	106	1,20,596	2,56,898	6,501	2,50,397	74,040	69,624	4,417	2,132	58,436	22,935	35,501	5,814
Nov.	2,15,130	94,523	89	1,20,519	2,59,643	6,296	2,53,348	74,529	70,112	4,417	2,119	59,177	23,800	35,377	6,615
Dec.	2,15,999	91,249	334	1,24,416	2,65,251	6,317	2,58,934	72,786	68,369	4,417	2,145	60,989	22,149	38,840	8,115
Jan.	2,15,587	94,898	420	1,20,270	2,72,274	6,572	2,65,702	73,334	68,918	4,417	2,166	65,043	23,205	41,838	8,657
Feb.	2,17,966	97,502	254	1,20,211	2,75,820	6,496	2,69,323	73,392	68,975	4,417	2,190	64,845	22,938	41,907	11,762
Mar.	2,22,419	98,913	2,565	1,20,941	2,92,723	6,593	2,86,131	79,032	74,720	4,312	2,379	65,127	29,358	35,769	13,470
1995-96															
Apr.	2,32,354	1,09,663	142	1,22,549	2,90,112	6,581	2,83,530	78,082	73,770	4,312	2,245	74,092	26,615	47,477	9,075
May	2,33,253	1,10,449	17	1,22,787	2,90,628	6,562	2,84,066	77,672	73,360	4,312	2,273	69,463	27,158	42,306	9,859
Jun.	2,33,950	1,11,912	-17	1,22,055	2,93,053	6,550	2,86,503	75,271	71,511	3,760	2,296	68,483	25,905	42,578	11,992
Jul.	2,42,851	1,19,988	-19	1,22,882	2,94,823	6,525	2,88,297	75,945	72,185	3,760	2,326	77,794	30,954	46,840	7,566
Aug.	2,37,723	1,13,168	88	1,24,467	2,97,017	6,479	2,90,538	75,951	72,191	3,760	2,353	70,380	26,496	43,884	9,154
Sep.	2,35,847	1,07,627	569	1,27,651	3,06,711	6,540	3,00,172	75,333	71,863	3,471	2,392	65,531	25,544	39,987	11,214
Oct.	2,43,072	1,12,926	274	1,29,872	3,10,786	6,391	3,04,395	78,727	75,256	3,471	2,425	73,022	30,655	42,366	11,919
Nov.	2,45,146	1,13,285	97	1,31,764	3,13,766	6,524	3,07,242	78,093	74,622	3,471	2,452	76,421	32,223	44,198	10,514
Dec.	2,44,551	1,10,425	329	1,33,796	3,17,900	6,493	3,11,408	78,531	74,622	3,908	2,484	76,283	32,201	44,083	11,785
Jan.	2,50,679	1,16,004	435	1,34,240	3,27,260	6,500	3,20,761	78,171	74,262	3,908	2,437	82,932	34,794	48,138	11,200
Feb.	2,49,185	1,16,177	347	1,32,661	3,30,937	6,560	3,24,376	78,470	74,562	3,908	2,468	79,828	37,020	42,808	19,825
Mar.	2,57,778	1,18,768	2,581	1,36,429	3,44,648	6,855	3,37,793	82,141	74,092	8,049	2,503	83,063	32,297	50,766	21,955
1996-97P															
Apr.	2,68,445	1,31,388	444	1,36,613	3,41,454	6,487	3,34,966	83,182	75,133	8,049	2,534	81,500	32,310	49,189	10,437
May	2,70,384	1,32,495	-14	1,37,902	3,38,276	6,479	3,31,797	82,612	74,563	8,049	2,570	77,670	32,948	44,722	9,517
Jun.	2,74,975	1,34,337	193	1,40,445	3,39,487	6,471	3,33,016	82,104	76,024	6,080	2,597	74,385	34,208	40,177	7,566
Jul.	2,79,011	1,32,936	223	1,45,851	3,42,314	6,438	3,35,876	84,764	78,684	6,080	2,628	81,292	39,580	41,712	6,289
Aug.	2,73,934	1,24,286	255	1,49,393	3,37,835	6,428	3,31,407	85,915	79,835	6,080	2,772	69,376	36,202	33,174	6,949
Sep.	2,73,583	1,22,569	342	1,50,671	3,44,243	6,181	3,38,061	92,141	81,651	10,490	2,816	69,096	36,949	32,147	7,500
Oct.	2,77,242	1,25,029	709	1,51,504	3,47,082	6,175	3,40,907	93,968	83,478	10,490	2,843	74,535	36,085	38,450	7,402
Nov.	2,81,149	1,26,238	711	1,54,199	3,48,772	6,277	3,42,495	95,791	85,301	10,490	2,890	74,226	37,082	37,144	6,537
Dec.	2,82,148	1,25,149	933	1,56,066	3,52,311	6,274	3,46,037	96,059	85,386	10,673	2,808	74,034	36,998	37,036	6,660
Jan.	2,84,955	1,18,114	940	1,65,901	3,61,408	6,265	3,55,143	96,570	85,897	10,673	2,849	71,229	36,786	34,443	6,233
Feb.	2,85,589	1,16,802	812	1,67,975	3,62,998	6,228	3,56,769	95,643	84,970	10,673	2,887	65,899	34,113	31,786	6,756
Mar.	2,88,572	1,20,702	3,479	1,64,391	3,76,012	6,247	3,69,765	1,05,496	94,817	10,679	2,918	72,108	35,184	36,924	7,005

Statistical Appendix SA.2 : Sources of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Net Bank Credit to Govern- ment (3+4+5)	Net RBI Credit to Central Govern- ment	Net RBI Credit to State Govern- ments	Other Banks' Investments in Govern- ment Securi- ties	Bank Credit to Commer- cial Sector (7+8)	RBI Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Govern- ment's Currency Liabilities to Public	Net Non- monetary Liabilities of Banking Sector (14+15)	Net Non- monetary Liabilities of RBI	Net Non- monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1997-98P															
Apr.	2,98,880	1,22,177	1,209	1,75,494	3,74,456	6,938	3,67,518	1,06,211	95,532	10,679	2,952	68,650	34,030	34,620	5,949
May	3,03,405	1,27,417	105	1,75,883	3,73,496	7,155	3,66,341	1,10,077	99,398	10,679	2,994	70,279	34,347	35,932	5,758
Jun.	3,07,775	1,24,740	212	1,82,823	3,73,866	7,151	3,66,715	1,13,934	1,03,255	10,679	3,025	69,022	34,881	34,141	5,307
Jul.	3,13,104	1,23,713	290	1,89,100	3,77,570	7,731	3,69,839	1,15,965	1,05,286	10,679	3,062	77,149	39,012	38,137	5,213
Aug.	3,06,625	1,10,447	170	1,96,008	3,77,474	7,800	3,69,674	1,19,924	1,09,245	10,679	3,098	73,234	33,792	39,442	5,338
Sep.	3,03,640	1,12,971	723	1,89,946	3,81,147	7,544	3,73,603	1,17,351	1,06,672	10,679	3,103	53,768	34,187	19,580	5,663
Oct.	3,15,069	1,14,638	975	1,99,457	3,86,621	7,608	3,79,013	1,19,388	1,08,709	10,679	3,107	65,334	33,583	31,751	5,925
Nov.	3,18,556	1,18,282	1,031	1,99,242	3,88,129	7,913	3,80,216	1,18,501	1,07,822	10,679	3,112	61,769	37,463	24,306	5,634
Dec.	3,21,870	1,27,894	1,103	1,92,873	3,92,157	7,750	3,84,407	1,17,284	1,06,605	10,679	3,116	63,509	41,540	21,969	6,761
Jan.	3,18,289	1,28,889	1,681	1,87,720	4,10,180	7,805	4,02,376	1,18,827	1,08,148	10,679	3,120	70,894	42,303	28,591	6,855
Feb.	3,21,301	1,29,434	1,058	1,90,809	4,17,070	7,917	4,09,154	1,18,612	1,07,933	10,679	3,120	68,956	43,696	25,260	6,594
Mar.	3,28,461	1,33,617	565	1,94,279	4,29,952	8,186	4,21,766	1,26,569	1,15,890	10,679	3,120	67,803	42,240	25,563	7,096

P Provisional

- Note**
1. Sources of Reserve Money (M_0) = Net RBI Credit to Central Government + Net RBI Credit to State Governments + RBI Credit to Commercial Sector + Net Foreign Exchange Assets of the RBI + Government's Currency Liabilities to Public - Net Non-monetary Liabilities of RBI + RBI's Gross Claims on Banks.
 2. Sources of Broad Money Stock (M_3) = Net Bank Credit to Government + Bank Credit to Commercial Sector + Net Foreign Exchange Assets of the RBI + Net Foreign Exchange Assets of Other Banks + Government's Currency Liabilities to Public - Net Non-monetary Liabilities of Banking Sector.

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sect- or	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1971-72													
Apr.	9.1	29.0	15.6	18.0	9.4	11.2	13.4	14.8	9.1	16.8	16.0	-7.1	20.2
May	8.6	17.7	18.0	18.4	8.4	11.6	13.8	18.5	14.6	15.3	14.4	-14.2	19.9
Jun.	10.0	15.4	16.6	17.8	9.7	12.3	14.1	19.1	12.5	13.9	13.0	-13.5	15.4
Jul.	9.3	21.1	14.7	18.6	9.4	11.1	13.6	19.9	20.9	14.8	14.2	-11.8	25.8
Aug.	10.8	11.8	15.1	17.4	10.7	12.5	14.1	20.0	21.0	14.4	13.7	-6.4	24.0
Sep.	11.6	16.3	14.1	16.6	11.3	12.6	13.9	19.7	19.7	14.2	13.1	-6.2	23.2
Oct.	9.5	24.7	14.8	18.0	9.4	11.2	13.5	19.9	17.7	13.7	12.7	-9.9	23.2
Nov.	9.8	35.3	15.1	19.6	10.6	11.8	14.4	21.5	18.7	14.3	13.3	-12.4	23.4
Dec.	10.2	35.4	19.6	22.2	11.2	13.6	16.5	23.0	17.2	15.2	14.2	-3.2	22.0
Jan.	10.6	24.2	15.7	20.8	11.2	12.5	15.3	22.4	15.4	12.8	11.7	11.6	24.8
Feb.	10.7	18.8	13.4	20.2	11.1	12.0	14.8	21.9	15.8	12.3	11.0	15.2	26.5
Mar.	9.9	44.4	17.0	19.9	11.6	12.9	15.2	21.4	15.9	12.9	11.6	12.3	22.9
1972-73													
Apr.	9.5	17.2	15.4	20.7	10.3	11.9	14.8	21.6	13.7	12.6	11.8	10.6	25.1
May	10.8	25.2	16.2	20.8	12.1	13.1	15.7	20.3	29.4	14.6	14.1	11.2	22.8
Jun.	9.5	34.2	22.7	21.6	11.2	14.3	16.8	21.3	32.4	16.6	16.1	6.4	25.2
Jul.	9.5	14.7	20.3	21.5	10.4	14.0	16.6	23.0	22.2	13.5	12.9	1.4	18.4
Aug.	9.1	2.2	21.2	23.1	9.3	13.9	17.1	23.3	21.7	13.7	13.2	-1.7	16.2
Sep.	4.9	14.0	20.4	25.0	5.5	11.0	15.8	20.0	19.9	13.0	12.9	-5.9	10.0
Oct.	6.3	19.0	20.9	23.1	7.2	12.1	16.0	21.5	22.2	13.2	13.0	-6.3	14.5
Nov.	8.5	17.5	20.8	22.2	8.9	13.2	16.4	21.4	23.3	13.8	13.6	-7.0	14.2
Dec.	8.6	16.0	21.7	20.6	8.7	13.2	15.8	20.8	27.8	13.7	13.6	-10.4	14.2
Jan.	8.5	12.8	19.8	21.8	8.1	12.6	15.8	20.7	26.9	14.1	14.3	-12.2	14.5
Feb.	10.3	23.7	23.3	21.4	10.5	14.7	17.0	19.7	27.9	18.0	18.6	-8.0	19.5
Mar.	13.5	-0.3	22.1	21.6	12.1	16.5	18.3	20.4	28.5	19.0	19.1	-5.8	18.9
1973-74													
Apr.	15.9	26.3	23.8	23.0	15.6	18.4	20.0	19.9	35.5	20.8	20.8	-6.9	13.1
May	16.8	21.9	21.6	23.0	16.4	18.2	19.8	19.6	15.9	19.8	19.7	-4.0	10.9
Jun.	17.1	87.1	18.7	22.7	20.2	17.3	19.2	20.3	18.8	18.9	18.3	-1.5	15.1
Jul.	18.7	126.8	20.1	23.4	23.5	18.8	20.4	21.3	20.4	19.2	18.9	15.5	16.9
Aug.	15.5	164.4	21.8	24.2	21.1	17.6	20.0	20.6	22.8	18.8	18.5	12.7	15.2
Sep.	20.0	174.4	21.8	24.3	27.9	20.4	21.9	23.8	27.5	21.2	20.5	14.3	22.4
Oct.	21.9	157.1	18.1	24.4	28.5	19.7	21.4	20.5	27.1	23.7	23.1	10.7	22.8
Nov.	18.8	157.3	19.1	24.5	26.1	18.6	20.8	19.5	26.4	25.4	24.6	-6.3	23.9
Dec.	17.2	119.0	17.0	23.3	22.5	17.1	19.4	17.0	19.6	26.5	25.0	3.9	32.0
Jan.	17.5	165.9	19.1	22.2	25.0	18.3	19.8	16.9	21.0	25.8	23.6	-4.1	23.9
Feb.	17.2	130.4	17.3	20.7	23.1	17.3	18.5	17.0	19.8	21.4	18.5	0.3	17.9
Mar.	16.1	111.9	14.8	20.9	20.6	15.5	17.4	12.1	11.6	23.2	20.4	13.7	18.3
1974-75													
Apr.	15.3	60.7	17.4	18.5	17.5	16.1	17.0	10.7	8.8	25.0	21.7	11.8	22.3
May	13.5	73.9	19.2	18.4	16.7	16.0	16.8	10.0	9.5	24.5	21.1	4.1	16.6
Jun.	13.2	3.9	17.1	17.7	12.5	14.9	15.9	8.2	4.6	25.4	22.1	10.5	21.0
Jul.	11.1	7.7	19.6	17.2	10.9	14.9	15.8	8.7	7.4	26.9	23.8	-11.6	22.0
Aug.	11.4	-4.9	15.1	17.2	9.8	13.0	14.6	8.2	6.5	26.0	23.2	-14.1	24.3
Sep.	8.9	-26.4	14.1	16.9	5.0	11.2	13.4	8.2	5.5	22.9	20.8	-19.2	20.5
Oct.	6.2	-16.3	17.0	15.8	3.8	10.7	12.7	9.1	5.9	20.3	18.6	-17.3	19.3
Nov.	6.9	-23.4	15.7	14.9	3.5	10.7	12.3	9.0	5.2	18.4	16.6	-0.2	19.7
Dec.	5.9	-19.5	14.9	14.6	3.5	10.2	11.9	9.3	7.2	15.7	14.2	-19.1	10.6
Jan.	4.1	-41.1	15.5	16.0	-0.6	8.8	11.5	9.9	7.3	18.3	17.5	-47.3	18.8
Feb.	2.6	-18.4	16.1	17.4	0.9	8.3	11.7	11.5	8.2	19.0	18.7	-38.5	26.4
Mar.	1.6	32.5	15.1	17.9	4.6	6.9	10.9	11.9	8.7	18.0	17.9	-37.6	26.1

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Se- ctor	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1975-76													
Apr.	1.5	-2.4	13.2	17.9	1.4	6.2	10.4	13.6	9.7	15.2	15.5	-37.5	25.5
May	2.2	-13.2	12.1	17.9	1.0	6.2	10.4	14.5	9.8	15.8	16.5	-41.5	30.8
Jun.	2.1	-13.6	12.4	18.7	1.1	6.5	11.0	15.4	11.7	14.4	15.5	-45.5	23.2
Jul.	2.0	-3.0	12.8	18.7	1.5	6.7	11.2	16.5	15.0	13.3	14.2	-37.5	24.7
Aug.	3.7	1.9	14.1	17.9	3.6	8.4	12.0	16.0	16.2	16.1	17.0	-41.8	28.1
Sep.	4.0	-1.6	15.9	16.9	3.4	9.2	12.2	12.3	10.9	18.4	18.9	-19.2	28.9
Oct.	5.7	-5.4	14.3	18.5	4.9	9.9	13.2	11.1	9.7	21.1	21.1	-7.5	29.9
Nov.	5.2	-13.3	15.2	18.9	3.8	9.8	13.4	10.8	9.5	22.0	22.2	4.0	33.2
Dec.	5.9	-1.8	14.4	19.3	5.4	9.4	13.3	9.6	7.8	22.1	22.2	31.4	36.1
Jan.	4.2	29.5	15.0	19.9	5.8	9.1	13.4	5.3	2.0	23.2	23.2	87.1	30.1
Feb.	4.9	0.5	14.6	21.1	4.2	9.3	13.9	4.6	1.3	23.2	23.7	108.9	28.5
Mar.	5.3	-18.1	17.8	20.9	2.7	11.3	15.0	6.3	-4.4	22.7	23.3	126.8	27.5
1976-77													
Apr.	5.7	38.5	16.6	22.7	7.9	10.8	15.4	5.4	0.7	23.7	24.4	98.5	23.4
May	6.4	42.0	18.2	23.7	8.6	11.8	16.4	3.5	-0.6	24.2	24.6	172.0	20.8
Jun.	7.8	29.6	16.2	24.2	8.9	11.9	16.7	2.9	-2.1	23.5	23.8	247.1	21.3
Jul.	9.3	20.9	15.0	24.9	10.1	11.8	17.0	-2.1	-10.2	28.3	28.2	283.6	23.4
Aug.	10.0	26.3	16.7	25.7	11.7	13.4	18.4	-1.1	-10.7	27.0	26.5	371.5	20.4
Sep.	12.3	57.3	18.6	26.7	16.0	15.5	20.0	0.5	-8.5	26.5	26.0	292.1	16.0
Oct.	12.8	39.6	19.0	27.5	15.6	15.7	20.5	0.4	-9.0	26.0	25.9	255.5	11.5
Nov.	12.6	87.8	18.8	28.6	18.2	15.7	21.0	1.2	-8.2	26.0	26.0	231.2	12.5
Dec.	13.8	51.9	26.8	30.2	16.8	20.2	24.3	2.1	-8.0	28.3	28.9	240.1	11.7
Jan.	16.2	55.3	19.7	28.5	19.5	18.0	22.4	4.8	-3.0	23.1	23.5	300.0	15.5
Feb.	16.2	60.6	19.7	27.3	19.9	17.9	21.8	5.7	-3.0	21.8	21.7	199.3	12.6
Mar.	17.5	104.9	22.7	28.4	25.5	20.3	23.6	11.1	12.9	20.7	20.7	169.3	13.6
1977-78													
Apr.	17.4	48.4	20.2	28.4	20.6	18.9	22.8	12.2	2.0	19.3	19.1	249.5	24.0
May	15.1	67.7	19.3	28.1	20.0	17.0	21.6	14.5	4.9	17.7	17.5	201.0	29.8
Jun.	14.8	77.3	18.7	27.6	19.7	16.6	21.2	14.8	6.5	18.5	18.7	156.0	31.9
Jul.	13.3	65.8	18.4	27.3	17.9	15.6	20.5	13.4	4.7	16.2	16.6	144.8	24.8
Aug.	14.2	100.5	18.6	26.2	21.7	15.8	20.2	12.3	5.1	16.5	16.7	132.9	23.9
Sep.	12.8	62.7	19.4	25.1	17.7	15.3	19.5	13.4	2.2	16.6	17.0	120.9	29.3
Oct.	11.5	91.0	21.0	23.1	18.6	15.5	18.8	13.2	2.8	14.0	14.1	123.6	24.0
Nov.	16.1	72.4	20.2	22.0	22.0	17.4	19.4	14.4	3.9	13.3	13.3	112.3	19.3
Dec.	15.3	81.0	18.9	21.8	21.1	16.7	18.9	15.1	7.7	13.3	13.2	101.3	22.3
Jan.	12.3	95.7	20.7	23.6	20.6	15.6	19.1	15.2	5.7	12.9	12.8	96.3	19.7
Feb.	11.1	62.9	20.6	24.3	16.4	15.3	19.2	16.2	3.0	2.6	2.1	80.3	-20.2
Mar.	10.4	23.8	-29.2	57.5	11.7	-10.2	18.4	16.3	-3.6	12.6	12.9	75.8	18.6
1978-79													
Apr.	10.9	87.3	-30.5	56.7	19.1	-9.6	19.0	16.2	4.4	13.0	13.6	59.5	12.7
May	13.7	41.0	-31.0	54.5	17.0	-8.4	18.9	12.7	-0.2	14.7	15.1	48.7	7.3
Jun.	12.9	90.0	-27.5	54.7	22.4	-7.4	19.8	11.8	9.9	17.0	16.5	37.6	3.1
Jul.	13.6	49.4	-33.1	55.1	18.7	-9.6	19.3	16.5	6.1	14.7	14.3	32.5	5.6
Aug.	13.6	38.5	-32.7	54.3	18.0	-9.4	19.2	17.7	5.0	14.8	14.7	32.1	8.4
Sep.	13.6	44.1	-32.8	55.7	18.7	-9.7	19.6	16.9	11.6	15.6	15.5	33.1	7.9
Oct.	16.1	29.1	-32.8	56.0	18.8	-8.5	20.3	17.9	12.6	17.5	17.4	31.0	11.2
Nov.	12.9	28.4	-31.5	56.2	16.0	-9.0	20.0	15.0	10.7	18.2	18.1	34.0	10.7
Dec.	13.7	55.0	-26.3	58.0	20.6	-7.2	21.5	16.4	12.8	20.2	20.1	25.5	7.5
Jan.	18.8	36.1	-24.9	54.6	23.2	-3.0	23.0	15.1	10.2	22.1	22.1	22.4	2.0
Feb.	18.3	72.4	-29.7	54.6	27.6	-5.7	21.6	16.4	16.6	32.4	32.6	31.6	60.9
Mar.	18.4	79.2	21.2	23.2	28.7	20.2	21.9	16.0	31.8	20.3	19.8	20.1	3.0

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Se- ctor	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1979-80													
1 Apr.	2	18.3 3	41.6 4	22.8 5	20.9 6	22.4 7	20.0 8	20.5 9	15.3 10	18.5 11	20.2 12	19.5 13	21.8 14 7.8
May		18.0	67.6	22.5	21.3	26.0	20.1	20.8	19.4	29.4	19.7	19.2	21.6 12.8
Jun.		19.1	31.5	25.9	22.1	21.4	21.9	22.0	21.1	18.3	19.9	20.2	24.7 12.6
Jul.		23.0	62.3	28.3	21.1	29.5	25.3	22.9	22.1	31.6	23.4	23.9	21.9 20.4
Aug.		23.2	35.4	29.0	22.5	26.1	26.0	23.9	21.9	30.2	24.4	24.4	19.4 15.3
Sep.		15.0	59.1	28.3	21.8	23.6	20.8	21.4	15.4	13.1	23.2	22.9	15.5 8.1
Oct.		15.2	79.3	25.7	21.3	28.5	20.8	21.1	16.5	16.7	22.0	21.7	15.6 8.2
Nov.		13.8	70.5	23.2	21.1	24.4	17.9	19.8	19.1	18.3	22.7	22.3	7.8 17.3
Dec.		13.8	49.3	9.0	21.7	20.9	12.6	17.8	23.2	24.0	18.7	18.3	10.6 25.6
Jan.		12.5	49.3	9.8	20.6	19.6	12.3	17.0	28.1	36.4	19.1	18.7	8.0 40.9
Feb.		15.1	19.9	18.1	19.7	17.1	17.2	18.7	27.0	33.4	21.8	21.7	1.7 33.0
Mar.		14.3	23.3	15.4	19.3	17.7	15.7	17.7	25.6	29.2	21.5	21.3	0.1 33.5
1980-81													
Apr.		13.8	24.5	18.9	19.5	17.6	17.0	18.4	28.2	39.5	21.2	21.1	-9.4 27.0
May		12.5	27.2	16.5	19.9	15.9	14.1	17.4	26.6	33.2	20.8	20.5	-10.3 27.4
Jun.		9.5	15.6	8.2	19.0	11.2	9.5	14.8	25.5	26.0	17.6	17.1	-12.0 27.7
Jul.		6.7	21.7	11.2	18.8	10.6	8.8	14.6	25.9	28.4	16.0	15.6	-14.7 22.1
Aug.		5.4	28.9	10.6	18.0	10.0	7.0	13.4	25.4	24.8	14.6	14.4	-7.2 29.4
Sep.		12.9	11.1	8.8	18.3	11.5	10.2	14.9	38.2	46.0	13.9	14.0	-9.0 44.4
Oct.		13.7	13.2	10.4	19.3	11.1	10.4	15.5	34.4	42.1	15.7	15.9	-12.7 36.4
Nov.		17.1	8.8	15.4	18.0	14.8	15.7	17.1	38.3	47.1	15.7	15.9	-11.9 36.8
Dec.		16.3	15.5	18.9	17.0	15.3	16.8	16.9	33.2	42.1	16.2	16.6	-17.6 23.9
Jan.		15.4	4.8	19.3	19.6	11.6	15.4	17.9	31.0	30.8	17.3	17.8	-14.8 21.4
Feb.		14.8	25.2	18.3	19.8	14.8	14.2	17.4	28.4	31.9	18.2	18.8	-10.9 24.8
Mar.		15.5	24.6	20.5	18.8	17.4	17.1	18.1	28.5	30.3	18.2	18.6	-11.5 22.6
1981-82													
Apr.		14.4	13.1	19.1	19.9	13.5	15.5	18.0	28.2	25.4	19.7	20.0	-9.6 30.4
May		14.3	12.2	22.1	20.3	13.2	16.6	18.7	28.1	24.5	20.3	20.8	-12.2 27.2
Jun.		16.3	36.0	25.5	20.5	19.3	18.7	19.7	30.3	34.2	20.4	21.0	-12.6 27.9
Jul.		19.5	40.7	25.5	20.5	23.0	20.6	20.5	30.8	31.3	21.6	21.8	-10.4 30.9
Aug.		13.9	26.0	23.2	20.3	16.1	16.8	18.9	26.0	31.2	21.7	21.9	-27.4 18.1
Sep.		14.2	33.0	21.7	20.0	18.1	16.6	18.7	24.3	33.9	22.4	22.7	-27.1 19.2
Oct.		15.1	14.8	23.6	19.5	15.0	17.8	18.8	28.3	36.6	23.0	23.3	-26.3 31.2
Nov.		10.2	16.5	17.1	20.0	10.8	12.1	16.8	23.9	28.2	21.2	21.6	-28.9 24.8
Dec.		9.1	16.8	20.1	19.3	10.6	13.5	16.9	23.1	25.0	21.2	21.5	-29.6 23.6
Jan.		9.0	23.9	15.2	17.4	12.3	11.4	15.0	21.6	27.3	21.3	21.4	-36.5 27.0
Feb.		8.6	13.2	14.5	16.9	9.6	10.9	14.5	22.5	26.2	19.7	19.9	-45.5 22.1
Mar.		7.7	14.5	7.4	16.9	7.9	6.5	12.5	19.1	21.0	18.6	18.5	-41.5 23.8
1982-83													
Apr.		9.9	24.2	9.5	16.1	12.1	9.1	13.2	20.1	19.3	17.8	17.7	-39.5 22.2
May		10.0	17.2	9.8	15.3	11.3	9.8	13.0	22.5	20.7	17.4	17.1	-41.5 27.4
Jun.		10.9	5.6	9.8	14.6	9.7	10.9	13.1	21.2	16.6	17.0	16.6	-42.1 24.4
Jul.		7.0	-4.7	8.8	15.6	3.8	7.5	12.3	20.5	31.3	15.5	16.6	-53.3 17.5
Aug.		12.6	6.5	8.5	16.7	10.6	10.9	14.4	27.0	35.8	15.2	16.2	-42.9 27.7
Sep.		11.4	9.1	9.3	16.4	10.5	10.7	14.2	20.8	26.8	15.4	16.2	-51.2 12.6
Oct.		9.0	13.1	7.6	16.5	9.7	8.5	13.3	23.2	30.3	14.1	14.8	-54.8 18.3
Nov.		14.3	9.8	8.4	16.8	13.2	12.1	14.9	22.0	30.0	15.0	15.4	-55.8 11.6
Dec.		14.6	27.9	18.4	18.3	17.9	15.7	17.3	20.9	34.2	19.1	19.8	-50.9 12.9
Jan.		13.0	-0.5	8.3	19.3	9.5	11.0	16.1	21.7	25.4	15.2	15.8	-38.5 12.5
Feb.		12.1	7.7	8.1	19.5	11.1	10.7	16.1	20.6	26.9	15.3	16.0	-36.3 12.7
Mar.		14.5	-2.5	13.6	18.1	10.1	14.4	16.6	15.1	18.2	17.7	18.9	-34.0 6.6

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Se- ctor	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1983-84													
Apr.	14.1	-10.2	11.4	18.9	8.2	13.0	16.5	15.3	18.8	18.1	19.2	-35.0	8.1
May	15.8	-0.2	11.8	18.7	11.9	14.2	16.9	14.8	20.1	17.9	19.1	-24.2	7.4
Jun.	14.6	8.1	9.9	19.6	13.1	13.1	17.0	14.6	23.5	17.9	19.4	-16.9	7.8
Jul.	14.6	4.8	15.9	20.0	12.5	15.4	18.2	13.9	7.3	19.5	19.6	7.5	10.1
Aug.	14.8	16.0	13.4	19.1	15.1	14.4	17.3	12.0	23.2	19.5	19.6	-9.9	6.3
Sep.	14.7	14.1	13.6	19.2	14.7	14.4	17.4	13.5	9.5	20.2	19.9	-3.2	13.7
Oct.	15.8	14.1	13.9	19.6	15.6	15.6	18.1	10.2	3.6	19.7	19.5	5.6	2.6
Nov.	14.6	22.9	14.2	20.0	16.4	14.7	17.9	12.4	8.0	19.0	19.1	2.5	5.6
Dec.	14.5	10.9	9.3	19.8	13.0	12.4	16.9	14.2	4.0	16.5	16.4	-28.7	2.8
Jan.	16.5	21.7	14.5	19.3	17.9	16.4	18.2	14.5	8.6	17.2	17.2	-31.2	0.2
Feb.	17.6	28.4	12.5	19.8	20.2	16.1	18.4	15.1	8.4	18.0	18.1	-23.3	4.4
Mar.	17.0	52.5	15.5	19.0	25.5	17.0	18.2	15.3	18.1	18.7	18.5	-10.0	9.3
1984-85													
Apr.	17.4	40.7	13.8	18.3	22.5	16.8	17.7	15.2	18.3	18.1	17.9	-9.7	9.4
May	16.8	20.3	14.2	18.8	18.2	16.6	17.9	15.0	14.1	18.2	18.0	-23.4	6.1
Jun.	17.7	58.1	20.3	19.9	27.2	19.1	19.6	17.4	23.1	20.2	20.1	-13.8	11.5
Jul.	17.7	34.1	13.3	18.0	22.0	16.8	17.5	17.1	17.7	17.7	17.5	-11.0	12.7
Aug.	17.2	24.8	16.0	17.9	19.6	17.5	17.7	18.7	5.1	18.7	18.4	14.2	22.6
Sep.	20.1	17.3	15.2	17.8	19.5	18.5	18.1	19.5	19.8	17.9	18.1	32.0	22.2
Oct.	19.9	13.2	16.1	17.4	18.6	18.9	18.0	19.7	21.0	18.9	18.7	32.9	26.9
Nov.	18.1	17.6	17.2	18.0	18.7	18.6	18.2	18.7	17.6	19.8	19.7	65.3	29.7
Dec.	19.8	6.0	15.1	17.8	16.8	18.4	18.0	21.0	13.7	18.3	18.1	106.6	34.0
Jan.	18.8	60.2	19.0	18.3	27.9	19.2	18.7	20.7	24.6	20.1	20.0	58.9	31.9
Feb.	18.9	11.6	19.7	18.1	17.4	19.5	18.7	20.7	18.8	18.8	18.6	66.7	27.7
Mar.	15.7	33.3	23.3	18.6	21.5	19.5	19.0	23.9	23.5	16.8	16.9	90.4	29.4
1985-86													
Apr.	14.8	-10.5	22.8	18.3	8.6	17.6	18.0	20.4	10.3	16.7	16.7	109.9	27.5
May	15.8	9.2	16.5	18.4	13.9	15.9	17.4	19.6	17.2	17.0	17.1	137.2	31.4
Jun.	14.9	5.2	8.6	16.6	12.5	13.3	15.3	20.2	15.4	13.9	13.9	67.2	27.8
Jul.	15.5	29.8	19.2	18.1	17.9	16.1	17.4	19.6	20.8	16.9	17.0	34.7	22.6
Aug.	12.5	10.8	18.3	19.0	11.5	14.3	17.2	18.8	13.8	16.3	16.4	27.5	19.0
Sep.	10.0	50.2	20.6	19.3	19.6	13.9	17.3	19.8	24.9	16.0	15.9	20.2	19.1
Oct.	8.7	19.9	17.3	19.3	11.0	12.0	16.5	19.9	20.9	15.3	15.4	41.1	22.8
Nov.	12.2	22.8	14.3	18.4	14.2	12.7	16.3	21.7	27.4	14.0	14.2	19.3	21.7
Dec.	10.8	33.3	6.5	17.2	15.7	9.5	14.3	20.6	36.0	11.9	12.0	24.6	22.5
Jan.	8.5	10.1	17.5	19.7	9.4	12.4	17.0	21.6	28.8	14.4	14.6	42.0	21.8
Feb.	8.3	30.9	19.0	19.1	13.2	12.3	16.6	21.1	29.0	14.8	14.9	30.8	23.0
Mar.	11.1	5.6	12.6	19.5	8.4	10.5	16.0	15.8	19.4	16.7	16.9	23.5	19.2
1986-87													
Apr.	11.0	51.9	12.5	20.0	18.7	11.7	16.8	18.6	32.3	16.6	16.8	15.3	20.1
May	11.1	86.5	15.5	19.6	26.2	13.0	17.1	22.8	39.6	15.4	15.6	11.4	24.3
Jun.	11.4	17.5	17.3	20.3	12.1	13.1	17.6	20.0	23.4	15.7	15.8	31.8	19.5
Jul.	12.3	27.8	13.5	19.3	16.3	12.9	16.9	19.6	27.6	15.6	15.8	22.8	20.2
Aug.	11.7	41.1	16.2	18.4	19.0	13.9	16.7	20.5	30.4	14.5	14.8	19.0	19.4
Sep.	12.1	8.6	20.0	18.6	11.1	15.8	17.6	20.2	18.7	14.6	14.7	19.6	15.0
Oct.	12.8	30.6	15.3	18.9	17.1	13.8	17.1	20.3	21.6	14.5	14.6	5.7	15.4
Nov.	11.5	41.3	17.9	19.7	19.3	14.3	17.8	19.8	22.2	15.0	15.1	15.6	14.2
Dec.	11.3	37.8	24.8	19.1	18.3	16.9	18.3	20.5	19.1	14.6	14.7	37.0	14.4
Jan.	13.4	38.6	23.0	18.8	20.0	17.1	18.2	20.5	20.5	15.3	15.4	37.9	17.2
Feb.	13.4	54.5	20.2	19.4	24.2	16.3	18.3	20.2	24.8	14.8	15.0	50.0	15.7
Mar.	12.8	28.5	21.8	19.7	17.4	16.8	18.6	23.5	18.6	14.4	14.5	24.4	17.3

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sec- tor	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1987-88													
Apr.	14.3	73.2	19.9	19.0	28.5	17.1	18.3	23.8	31.0	12.9	13.0	16.3	14.1
May	14.1	21.6	16.0	18.6	16.3	15.2	17.3	17.9	14.9	13.3	13.4	13.0	6.7
Jun.	14.0	50.5	14.7	18.5	23.7	14.8	17.1	19.3	22.5	13.3	13.4	17.2	10.6
Jul.	10.5	41.5	15.7	20.3	19.3	13.0	17.7	18.8	16.1	14.1	13.7	34.4	11.6
Aug.	15.5	46.7	13.2	19.7	24.2	14.6	17.9	18.5	19.1	15.1	14.7	21.6	11.3
Sep.	17.2	48.9	11.5	19.6	26.4	15.0	17.9	21.0	23.8	14.5	14.7	25.1	15.6
Oct.	19.1	53.2	14.1	18.7	28.8	17.5	18.3	19.5	21.0	14.3	14.4	27.4	10.3
Nov.	16.7	38.2	14.9	18.2	23.4	16.2	17.5	18.7	17.2	13.5	13.6	27.1	9.1
Dec.	17.4	38.7	7.4	18.7	24.2	13.5	16.8	19.1	19.4	13.7	13.8	16.9	12.2
Jan.	17.8	29.4	8.4	17.5	21.7	13.9	16.2	18.1	16.5	13.2	13.3	17.2	11.4
Feb.	18.0	25.3	9.9	17.2	20.4	14.8	16.3	17.7	15.2	14.3	14.4	4.6	11.6
Mar.	17.4	23.2	7.8	17.3	19.4	13.7	16.0	17.1	14.5	13.5	13.5	17.8	11.2
1988-89													
Apr.	16.2	24.3	10.1	18.5	18.9	12.5	16.3	16.5	13.8	14.4	14.4	20.2	11.1
May	14.9	24.0	13.8	18.5	18.1	14.8	17.2	18.6	17.3	14.8	14.9	17.3	13.3
Jun.	15.3	24.3	11.9	14.9	18.2	14.2	14.7	19.4	16.8	14.6	14.7	10.8	26.4
Jul.	16.3	20.2	18.1	18.8	17.9	17.3	18.3	23.0	20.7	14.9	15.4	7.4	17.6
Aug.	15.1	25.0	17.3	18.2	18.6	16.2	17.5	20.9	21.4	15.1	15.6	18.6	18.8
Sep.	13.4	22.7	13.2	18.1	16.7	13.3	16.5	18.6	17.5	15.0	15.2	17.9	17.2
Oct.	11.3	22.4	16.1	18.6	15.0	13.1	16.6	19.1	19.8	16.0	16.2	27.8	22.4
Nov.	15.7	25.0	14.0	18.4	18.8	14.8	17.1	18.8	17.5	17.1	17.2	36.4	24.0
Dec.	11.8	25.4	32.8	21.2	16.1	19.5	20.6	17.5	15.4	21.9	22.2	25.1	16.6
Jan.	13.7	13.6	16.6	18.8	13.5	14.8	17.4	17.8	16.4	17.7	17.8	16.8	18.8
Feb.	13.6	22.1	15.5	18.6	16.4	14.4	17.2	17.3	16.7	17.6	17.6	14.7	18.3
Mar.	14.2	23.2	12.9	19.9	17.7	14.1	17.8	14.3	12.6	19.0	18.0	19.9	13.0
1989-90													
Apr.	14.8	13.6	16.8	20.0	14.1	16.7	18.9	14.4	12.2	22.2	22.2	19.8	17.3
May	17.1	25.2	17.3	19.7	19.4	16.9	18.7	15.1	13.9	22.2	21.8	9.9	18.3
Jun.	14.1	18.4	27.4	23.3	15.4	18.5	21.6	14.1	12.6	23.1	23.4	28.3	8.0
Jul.	16.5	18.5	18.0	16.7	17.5	17.4	17.0	12.9	14.1	20.0	20.2	39.5	18.0
Aug.	17.7	18.7	19.8	18.1	18.1	18.7	18.3	15.6	16.0	19.9	20.2	19.6	15.9
Sep.	18.5	15.8	23.0	18.4	17.6	20.4	19.1	16.1	15.2	20.2	20.7	18.8	14.2
Oct.	18.8	24.8	27.2	19.4	21.3	22.6	20.5	15.2	15.0	21.1	21.5	12.1	7.2
Nov.	18.2	17.2	29.8	18.3	18.3	23.4	20.0	16.5	18.1	20.4	20.7	-1.6	8.2
Dec.	21.8	13.2	13.8	14.9	18.8	18.8	16.3	17.4	18.5	16.6	16.8	2.8	17.8
Jan.	20.8	23.1	20.6	17.6	21.8	21.4	18.9	18.2	20.4	18.5	18.7	11.9	14.4
Feb.	21.8	22.0	25.3	18.0	21.9	23.5	19.9	19.0	20.4	18.3	18.5	25.2	12.5
Mar.	20.4	29.6	23.0	18.3	23.2	21.4	19.4	21.4	23.7	18.6	18.8	0.3	18.2
1990-91													
Apr.	20.9	24.8	28.6	17.6	22.7	24.8	20.1	21.3	22.8	18.2	18.3	-0.6	13.1
May	20.1	20.7	23.8	17.4	20.5	21.9	18.9	21.8	22.4	17.3	18.1	-0.5	17.7
Jun.	19.7	18.0	18.9	16.8	19.5	20.1	17.9	19.9	20.7	16.4	16.6	-2.7	14.2
Jul.	18.5	14.3	17.5	17.5	17.1	18.3	17.8	19.4	19.1	17.0	17.2	-9.9	14.8
Aug.	17.7	8.3	15.5	16.4	14.2	16.7	16.5	18.6	15.3	17.0	16.9	5.4	21.5
Sep.	17.9	11.1	14.7	16.9	15.5	16.8	16.9	19.2	17.8	16.2	16.1	-18.0	15.6
Oct.	18.9	11.2	11.4	15.5	16.4	16.3	15.7	20.9	20.8	47.2	48.3	64.4	145.4
Nov.	13.3	4.3	15.1	16.1	11.7	15.9	16.1	20.7	20.4	16.1	16.3	58.5	34.9
Dec.	15.1	7.8	10.4	15.8	13.6	14.2	15.2	19.9	20.1	13.5	13.5	48.6	26.7
Jan.	15.5	9.0	13.4	14.7	14.2	15.6	15.0	17.9	17.9	14.0	14.1	37.7	22.3
Feb.	14.8	-3.5	13.4	15.1	10.6	16.4	15.6	18.2	17.7	14.0	14.1	37.2	20.1
Mar.	14.5	10.9	14.7	15.4	13.1	14.6	15.1	19.7	20.5	13.2	13.8	55.2	26.1

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment Sec- tor	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sec- tor	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991-92													
Apr.	13.8	23.5	10.2	15.8	17.0	12.2	14.5	19.0	18.4	13.3	13.1	38.2	25.6
May	14.1	-5.5	16.8	16.1	8.7	16.4	16.2	18.2	19.3	13.6	13.7	62.5	18.0
Jun.	15.2	18.2	14.7	15.0	16.8	15.7	15.3	19.3	20.3	12.0	12.1	48.3	19.9
Jul.	14.2	15.4	18.6	14.7	15.0	16.3	15.2	19.6	21.4	11.0	11.0	53.8	17.6
Aug.	13.6	26.8	19.3	15.7	18.8	16.9	16.1	20.0	23.6	10.3	10.5	69.2	14.1
Sep.	13.0	23.0	19.8	16.0	16.8	16.4	16.1	18.9	20.6	10.3	10.7	145.4	17.1
Oct.	12.1	14.5	28.2	16.2	14.3	20.4	17.6	19.1	19.9	-13.5	-13.9	24.8	-44.2
Nov.	17.5	26.4	29.9	16.5	20.1	22.5	18.6	18.9	17.5	9.1	9.4	56.8	-2.3
Dec.	17.4	24.2	30.2	16.4	18.7	22.2	18.4	16.7	13.6	9.3	9.6	91.5	-1.8
Jan.	16.9	28.7	33.1	16.7	21.2	23.9	19.2	18.5	16.3	9.3	9.5	109.9	0.6
Feb.	16.3	52.4	34.8	16.9	26.3	22.9	19.0	18.7	16.2	9.3	9.1	118.5	3.4
Mar.	15.3	9.6	33.8	17.2	13.4	23.2	19.3	12.9	6.3	9.4	9.3	100.6	-10.6
1992-93													
Apr.	15.8	27.3	36.8	17.0	21.2	25.6	20.0	14.0	8.3	12.9	12.7	130.7	-0.2
May	11.3	35.7	36.8	17.6	22.9	25.3	20.4	13.3	6.3	13.1	12.5	119.1	-5.1
Jun.	12.3	4.1	26.8	20.0	14.0	22.6	20.9	9.3	0.3	14.5	13.8	140.8	-10.7
Jul.	14.5	16.3	22.8	20.4	21.7	24.3	21.8	10.6	3.1	15.3	15.5	163.0	-6.6
Aug.	15.1	2.8	19.0	20.3	16.7	22.6	21.1	9.7	0.9	15.1	15.2	118.4	-11.2
Sep.	14.9	5.4	15.5	20.0	16.8	20.1	20.0	9.8	2.2	16.2	16.4	82.4	-8.4
Oct.	15.4	10.5	8.1	22.4	16.4	14.5	19.6	8.6	0.8	17.0	17.2	57.9	-12.2
Nov.	9.0	10.4	4.0	21.9	12.8	9.6	17.5	7.9	1.9	17.1	17.4	24.0	-11.3
Dec.	9.1	7.5	4.1	22.2	8.3	6.7	16.6	7.4	-3.0	18.0	18.3	4.9	-11.3
Jan.	10.0	7.3	3.1	21.5	8.8	6.7	16.2	7.1	0.6	18.5	18.9	2.7	-8.0
Feb.	10.8	0.4	-0.5	20.9	6.2	5.1	15.1	6.3	-0.2	19.0	19.9	-12.4	-8.9
Mar.	11.9	9.3	3.9	19.8	11.3	8.4	15.7	11.4	4.6	17.1	18.4	15.2	7.1
1993-94													
Apr.	12.7	0.2	2.1	20.4	10.9	10.8	16.8	13.2	11.4	14.4	15.5	27.0	1.0
May	16.3	5.6	-1.2	19.9	10.8	7.0	15.1	12.2	10.0	13.5	14.5	22.5	2.5
Jun.	16.1	-0.7	4.5	17.6	7.5	8.5	14.3	15.5	9.9	12.8	13.7	7.8	9.1
Jul.	16.3	16.7	2.7	17.4	13.8	8.3	14.2	15.4	12.6	12.4	12.6	10.5	9.8
Aug.	16.5	31.9	7.2	18.3	16.7	8.5	14.9	17.5	15.2	11.7	12.0	21.2	13.6
Sep.	17.5	15.9	7.1	17.2	15.5	12.1	15.5	17.4	11.1	10.6	10.8	35.0	10.7
Oct.	15.3	20.5	11.2	15.8	13.5	10.8	14.1	13.8	6.9	10.0	10.2	46.7	8.7
Nov.	22.5	12.2	9.7	15.3	16.3	14.9	15.2	14.0	6.6	10.1	10.3	64.1	8.2
Dec.	20.6	22.0	12.8	15.7	21.9	18.2	16.5	15.7	11.8	9.8	9.9	87.3	11.0
Jan.	19.9	22.4	19.6	16.4	20.3	19.6	17.5	16.9	3.7	9.9	10.0	105.8	14.4
Feb.	19.9	23.9	26.3	16.2	21.6	23.0	18.5	17.4	1.1	8.8	9.0	157.6	19.3
Mar.	19.7	33.1	21.1	16.8	25.2	21.5	18.4	15.7	0.3	8.0	8.1	123.4	14.5
1994-95													
Apr.	19.7	19.0	24.6	17.7	15.6	18.3	17.9	13.4	-11.6	7.3	7.5	119.5	8.5
May	21.2	28.6	25.7	17.1	20.6	20.7	18.3	14.5	-10.8	7.5	7.7	135.9	14.7
Jun.	21.3	51.4	25.7	16.5	30.3	23.6	19.0	14.2	-6.8	7.3	7.5	155.9	16.1
Jul.	21.3	24.9	28.6	16.9	23.1	25.0	19.6	11.9	-11.0	8.6	8.8	158.3	12.6
Aug.	20.8	25.3	26.1	16.7	22.4	23.2	18.8	7.6	-17.5	9.9	10.1	147.0	6.4
Sep.	17.3	35.2	41.2	19.8	20.8	24.6	21.4	5.1	-18.6	15.5	15.9	149.1	4.9
Oct.	20.3	31.2	38.6	18.6	25.4	29.2	22.1	9.5	-12.3	13.9	14.2	149.4	11.8
Nov.	18.7	32.5	37.2	18.3	23.3	26.5	21.1	8.3	-12.9	14.8	15.2	142.4	15.8
Dec.	21.0	19.5	31.0	16.9	21.8	26.5	20.1	9.4	-12.9	15.7	16.1	112.2	20.1
Jan.	22.4	16.7	20.8	16.4	21.2	22.8	18.5	5.4	-9.7	16.4	16.7	98.1	14.0
Feb.	22.4	20.0	16.7	16.6	22.3	21.0	18.1	6.1	-4.5	17.5	17.8	70.8	11.7
Mar.	22.6	20.6	33.7	19.6	22.1	27.5	22.3	9.1	2.2	23.1	23.7	44.7	1.9

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.3 : Year - on - year Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₂)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sec- tor	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1995-96													
Apr.	22.1	18.5	18.5	14.4	23.4	23.1	17.4	9.9	14.2	20.8	21.4	34.6	20.8
May	20.8	14.7	17.2	14.8	21.7	22.0	17.4	8.2	12.4	21.2	21.7	30.5	12.7
Jun.	22.0	14.6	12.5	16.0	20.8	19.2	17.1	7.7	13.6	23.1	23.7	20.1	9.7
Jul.	21.6	14.1	14.0	14.8	18.2	17.9	15.9	10.7	19.3	22.2	22.8	14.1	19.6
Aug.	22.5	2.3	16.2	14.2	17.2	22.0	16.8	11.2	21.7	23.2	23.8	12.4	17.2
Sep.	24.9	8.9	12.1	13.7	19.2	19.7	15.7	13.0	21.7	20.7	21.3	5.5	15.1
Oct.	25.5	-2.8	6.4	13.7	15.6	17.6	15.0	13.6	21.1	21.0	21.6	6.3	25.0
Nov.	20.9	-6.2	3.0	14.4	12.4	14.3	14.4	14.0	19.8	20.8	21.3	4.8	29.1
Dec.	19.5	-4.0	2.7	15.1	12.7	13.5	14.5	13.2	21.0	19.8	20.3	7.9	25.1
Jan.	19.1	-8.9	4.9	16.0	11.1	14.7	15.5	16.3	22.2	20.2	20.7	6.6	27.5
Feb.	18.8	-2.5	4.6	16.4	11.4	13.0	15.2	14.3	19.2	20.0	20.4	6.9	23.1
Mar.	17.1	12.0	5.7	14.7	14.9	11.7	13.7	15.9	20.1	17.7	18.1	3.9	27.5
1996-97 P													
Apr.	17.3	1.5	7.2	18.4	11.0	12.3	16.2	15.5	19.8	17.7	18.1	6.5	10.0
May	16.1	0.1	5.0	18.1	9.9	10.6	15.3	15.9	20.0	16.4	16.8	6.4	11.8
Jun.	14.7	-3.5	10.7	18.8	8.2	12.6	16.5	17.5	20.0	15.8	16.2	9.1	8.6
Jul.	15.2	-8.0	10.8	19.4	5.6	11.6	16.6	14.9	10.8	16.1	16.5	11.6	4.5
Aug.	11.7	-7.2	12.6	19.3	4.2	10.8	16.3	15.2	9.8	13.7	14.1	13.1	-1.4
Sep.	11.6	-8.2	10.4	18.5	5.4	11.5	16.0	16.0	13.9	12.2	12.6	22.3	5.4
Oct.	9.3	-2.3	9.0	18.0	6.2	9.7	15.1	14.1	10.7	11.7	12.0	19.4	2.1
Nov.	15.1	-2.7	9.8	18.4	8.9	12.1	16.2	14.7	11.4	11.2	11.5	22.7	-2.9
Dec.	13.8	3.1	13.1	18.4	9.4	12.2	16.2	15.4	13.3	10.8	11.1	22.3	-2.9
Jan.	10.6	-6.9	20.5	19.4	4.2	13.0	17.2	13.7	1.8	10.4	10.7	23.5	-14.1
Feb.	10.2	-19.4	20.4	19.1	0.8	13.7	17.2	14.6	0.5	9.7	10.0	21.9	-17.4
Mar.	12.0	-13.1	12.2	18.4	2.8	11.8	16.0	11.9	1.6	9.1	9.5	28.4	-13.2
1997-98 P													
Apr.	11.0	-9.6	15.4	18.8	3.4	11.5	16.2	11.3	-7.0	9.7	9.7	27.7	-15.8
May	12.0	3.2	16.2	19.2	8.2	12.4	16.8	12.2	-3.8	10.4	10.4	33.2	-9.5
Jun.	13.5	-0.8	18.5	18.1	8.2	14.3	16.8	11.9	-7.1	10.1	10.1	38.8	-7.2
Jul.	14.4	-0.7	12.7	18.4	9.9	13.6	16.8	12.2	-6.9	10.3	10.1	36.8	-5.1
Aug.	13.6	4.7	10.9	18.8	9.8	11.4	16.3	11.9	-11.1	11.7	11.5	39.6	5.6
Sep.	12.9	7.9	13.8	19.1	10.0	12.1	16.7	11.0	-7.8	10.7	10.5	27.4	-22.2
Oct.	13.8	7.3	14.4	20.2	9.4	11.8	17.4	13.6	-8.3	11.4	11.2	27.1	-12.3
Nov.	11.8	2.1	15.6	19.6	8.1	12.3	17.1	13.3	-6.3	11.3	11.0	23.7	-16.8
Dec.	11.5	12.0	16.7	18.8	11.3	13.3	16.9	14.1	2.2	11.3	11.1	22.1	-14.2
Jan.	11.3	36.0	13.2	17.6	16.7	11.5	15.6	11.7	9.1	13.5	13.3	23.0	-0.5
Feb.	10.7	31.6	12.0	18.9	15.2	10.6	16.1	12.5	10.8	14.9	14.7	24.0	4.6
Mar.	9.9	20.5	11.2	20.4	13.1	10.6	17.0	13.8	10.7	14.3	14.1	20.0	-6.0

Statistical Appendix SA.4 : Annual Averages of Components of Money Stock

(Rupees crore)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Cash with Banks	Currency with the Public	'Other' Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)
1	2	3	4	5	6	7	8	9	10	11
Annual Basis : Year-end Averages of Month-end Figures										
1970-71	4,324	180	4,143	57	198	2,703	3,423	4,578	6,903	10,326
1971-72	4,756	196	4,560	50	246	3,130	4,073	5,052	7,740	11,814
1972-73	5,189	241	4,948	59	285	3,771	4,968	5,534	8,778	13,746
1973-74	6,108	286	5,823	41	628	4,499	6,111	6,778	10,363	16,474
1974-75	6,616	324	6,292	51	596	5,235	7,140	7,262	11,578	18,717
1975-76	6,870	349	6,521	55	568	5,987	8,491	7,493	12,562	21,052
1976-77	7,674	390	7,284	73	863	7,128	10,752	8,610	14,485	25,237
1977-78	8,721	489	8,232	63	1,452	8,201	13,766	10,237	16,496	30,263
1978-79	10,006	591	9,416	143	2,218	5,970	20,905	12,367	15,529	36,434
1979-80	11,674	683	10,992	266	3,262	7,222	25,313	15,202	18,479	43,792
1980-81	13,169	805	12,364	237	3,848	8,290	30,075	17,253	20,891	50,966
1981-82	14,824	946	13,878	169	4,665	9,889	35,857	19,658	23,936	59,793
1982-83	16,544	1,013	15,531	146	5,082	10,886	41,952	21,773	26,563	68,515
1983-84	19,094	1,086	18,007	173	5,863	12,296	50,101	25,129	30,476	80,577
1984-85	22,560	1,220	21,340	329	7,463	14,387	59,239	30,352	36,056	95,295
1985-86	25,239	1,323	23,916	257	8,768	16,674	70,249	34,264	40,847	1,11,096
1986-87	28,286	1,428	26,858	254	11,980	19,723	83,817	40,520	46,836	1,30,653
1987-88	32,815	1,515	31,301	318	16,663	22,196	99,393	49,795	53,814	1,53,207
1988-89	37,493	1,811	35,682	399	20,429	25,757	1,17,849	58,321	61,838	1,79,687
1989-90	44,391	2,022	42,369	499	24,523	31,357	1,39,631	69,413	74,225	2,13,856
1990-91	52,007	2,235	49,772	1,023	27,213	36,422	1,62,276	80,243	87,217	2,49,493
1991-92	59,801	2,474	57,327	1,345	32,945	45,299	1,88,433	94,090	1,03,970	2,92,403
1992-93	67,231	2,781	64,450	4,023	36,486	51,577	2,26,843	1,07,740	1,20,050	3,46,893
1993-94	79,196	2,984	76,212	3,300	42,686	56,841	2,65,811	1,25,182	1,36,353	4,02,164
1994-95	95,649	3,367	92,282	3,608	53,909	73,310	3,12,597	1,53,165	1,69,200	4,81,797
1995-96	1,15,862	3,782	1,12,080	5,925	56,458	80,278	3,59,032	1,78,245	1,98,283	5,57,315
1996-97 P	1,31,020	4,271	1,26,749	5,307	53,197	89,721	4,26,072	1,89,524	2,21,777	6,47,848
1997-98 P	1,46,979	4,833	1,42,146	4,051	57,911	1,02,398	5,07,098	2,08,940	2,48,594	7,55,692
Decadal Basis : Decadal Averages of Annual Average Figures										
1971-1980	7,194	373	6,821	86	1,032	5,385	10,494	8,311	12,291	22,785
1981-1990	26,805	1,374	25,431	283	11,715	18,129	77,565	38,803	43,843	1,21,409
1991-1998 P	93,468	3,341	90,127	3,573	45,101	66,981	3,06,020	1,42,141	1,60,680	4,66,701

P Provisional

- Note :** 1. Reserve Money (M₀) = Currency in Circulation + 'Other' Deposits with the RBI + Bankers' Deposits with the RBI.
 2. Narrow Money (M₁) = Currency with the Public + 'Other' Deposits with the RBI + Demand Deposits with Banks.
 3. Broad Money (M₃) = Currency with the Public + 'Other' Deposits with the RBI + Demand Deposits with Banks + Time Deposits with Banks.

REPORT : WORKING GROUP ON MONEY SUPPLY

Statistical Appendix SA.5 : Averages of Variations in Monetary Aggregates

(Per cent)

Last Friday/ Last Reporting Friday/ end-March	Currency in Circulation	Bankers' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Reserve Money (M ₀)	Narrow Money (M ₁)	Broad Money (M ₃)	Net Bank Credit to Govern- ment	Net RBI Credit to Central Govern- ment	Bank Credit to Commer- cial Sector	Other Banks' Credit to Commer- cial Sector	Net Foreign Exchange Assets of the Banking Sector	Net Non- monetary Liabilities of Banking Sector
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Annual Basis : Annual Averages of Year-on-year Monthly Variations													
1971-72	10.0	24.5	15.8	18.9	10.3	12.1	14.4	20.2	16.5	14.2	13.2	-3.8	22.6
1972-73	9.1	16.4	20.4	22.0	9.5	13.4	16.3	21.2	24.7	14.7	14.4	-2.3	17.8
1973-74	17.7	120.2	19.4	23.0	22.5	18.1	19.9	19.0	22.2	22.1	21.0	4.0	19.4
1974-75	8.4	2.4	16.4	16.9	7.3	11.8	13.7	9.5	7.1	21.7	19.7	-14.9	20.6
1975-76	3.9	-3.4	14.3	18.9	3.2	8.5	12.4	11.3	8.3	19.0	19.4	10.6	28.9
1976-77	11.7	51.2	19.0	26.5	14.9	15.3	19.8	2.9	-4.1	24.9	25.0	238.4	16.9
1977-78	13.7	70.8	15.6	27.9	19.0	14.1	20.0	14.3	3.7	14.4	14.5	132.9	20.6
1978-79	14.7	54.2	-26.0	52.8	20.7	-5.6	20.3	15.7	11.0	18.4	18.3	34.0	11.7
1979-80	16.8	49.1	21.5	21.1	23.1	19.2	20.3	21.2	24.9	21.4	21.2	14.1	19.6
1980-81	12.8	18.4	14.8	18.8	13.5	13.0	16.4	30.3	35.2	17.1	17.2	-11.8	28.6
1981-82	12.7	21.7	19.6	19.3	14.1	14.8	17.4	25.5	28.7	20.9	21.2	-25.6	25.5
1982-83	11.6	9.4	10.0	16.9	10.8	10.9	14.5	21.3	26.3	16.2	16.8	-45.0	17.2
1983-84	15.4	15.3	13.0	19.4	15.3	14.7	17.6	13.8	12.8	18.5	18.8	-13.9	6.5
1984-85	18.2	28.1	16.9	18.3	20.8	18.3	18.3	19.0	18.1	18.6	18.5	34.1	22.0
1985-86	11.9	18.1	16.1	18.6	13.0	13.4	16.6	19.9	22.0	15.3	15.4	48.2	23.2
1986-87	12.1	38.7	18.2	19.3	18.3	14.6	17.6	20.5	24.9	15.1	15.2	24.2	17.7
1987-88	16.0	40.9	12.8	18.6	23.0	14.9	17.3	19.1	19.3	13.8	13.8	19.9	11.3
1988-89	14.3	22.7	16.0	18.5	17.2	14.9	17.3	18.5	17.1	16.5	16.6	19.4	18.1
1989-90	18.4	20.0	21.8	18.6	18.9	20.0	19.0	16.3	16.7	20.1	20.3	15.6	14.2
1990-91	17.2	11.4	16.4	16.3	15.8	17.6	16.7	19.8	19.6	18.3	18.6	22.9	31.0
1991-92	15.0	21.4	24.1	16.1	17.3	19.1	17.1	18.3	17.8	8.6	8.7	76.6	4.8
1992-93	12.5	11.4	15.0	20.3	14.8	16.0	18.7	9.6	2.2	16.2	16.3	70.6	-7.2
1993-94	17.8	17.0	10.2	17.2	16.2	13.6	15.9	15.4	8.4	11.0	11.4	59.1	10.2
1994-95	20.7	27.1	29.2	17.6	22.4	24.1	19.8	9.5	-10.5	13.1	13.4	123.6	11.5
1995-96	21.2	5.1	9.8	14.9	16.5	17.4	15.7	12.3	18.9	20.9	21.4	12.8	21.0
1996-97 P	13.1	-5.5	11.8	18.7	6.4	11.8	16.2	15.0	11.1	12.9	13.3	17.3	-0.8
1997-98 P	12.2	9.5	14.2	19.0	10.3	12.1	16.6	12.5	-2.1	11.6	11.5	28.6	-8.3
Decadal Basis : Decadal Averages of Annual Average Figures													
1971-1980	11.9	40.4	13.1	24.7	14.4	12.0	17.4	16.6	14.9	18.8	18.4	40.1	20.7
1981-1990	14.8	22.6	16.1	18.4	16.7	15.4	17.2	19.4	20.6	17.3	17.5	10.0	18.7
1991-1998 P	16.1	12.3	16.3	17.7	14.8	16.3	17.2	13.2	6.5	13.5	13.7	55.5	4.5

P Provisional

Note : 1. Reserve Money (M₀) = Currency in Circulation + 'Other' Deposits with the RBI + Bankers' Deposits with the RBI.

2. Narrow Money (M₁) = Currency with the Public + 'Other' Deposits with the RBI + Demand Deposits with Banks.

3. Broad Money (M₃) = Currency with the Public + 'Other' Deposits with the RBI + Demand Deposits with Banks + Time Deposits with Banks.

Technical Attachment

IV.1 Weighted Monetary Aggregates

Table 1 : Summary Statistics

Aggregates	Maximum	Minimum	Mean	Standard Deviation	Skewness	Kurtosis	Coefficient of variation
$\ln M_3$	13.46	10.40	11.94	0.95	0.014	-1.20	0.079
$\ln M_3D$	13.36	10.40	11.87	0.92	0.058	-1.20	0.077
$\ln M_3L$	13.35	10.40	11.87	0.92	0.054	-1.20	0.077

Table 2 : Correlation with Output, Prices and Reserve Money

	$\ln GDPC$	$\ln WPI$	$\ln M_0$
$\ln M_3$	0.99405	0.99527	0.96162
$\ln M_3D$	0.99438	0.99540	0.96272
$\ln M_3L$	0.99436	0.99537	0.96272

Table 3 : Income Elasticity of Demand for Money

$\ln M_3(R)$	$\ln M_3D(R)$	$\ln M_3L(R)$
1.5786	1.5817	1.5810

where $\ln GDPC$: log of real gross domestic product
 $\ln WPI$: log of wholesale price index
 $\ln M_0$: log of reserve money
 $\ln M_3$: log of simple sum broad money aggregate
 $\ln M_3D$: log of divisia money aggregate
 $\ln M_3L$: log of linear money aggregate
 (R) : denotes in real terms

Period of Data Series : 1977-78 to 1996-97 **Frequency of Data :** Annual

Remarks : It could be seen from the statistics presented above that there is hardly any significant difference in the information content between the simple sum monetary aggregate on the one hand and superlative monetary aggregates such as divisia and linear monetary aggregates on the other.

IV.2 Money Multiplier**Panel A****Table 4 : Unit Root Tests**

Variable	Dickey Fuller (DF) trend	5% critical value	Augmented Dickey Fuller (ADF)(1) trend	5% critical value	Stock and Watson (SW)(4)*	1% critical value
$\ln M_3$	-4.27	-3.41	-14.34	-3.41	-25.45	-29.20
$\ln M_o$	-2.42	-3.41	-15.57	-3.41	-22.42	-29.20
$\ln m_b$	-4.97	-3.43	-3.42	-3.42	-	-
c	-2.60	-3.43	-2.91	-3.42	-	-
r	-4.43	-3.43	-2.10	-3.43	-	-

* Stock and Watson unit root test with fourth order autocorrelation

where, $\ln M_3$: log of broad money

$\ln M_o$: log of reserve money

$\ln m_b$: log of broad money multiplier

c : currency-deposit ratio

r : reserve-deposit ratio

Period of Data Series : 1970-71 to 1996-97 **Frequency of Data :** Monthly

Remarks : The monthly data for the period April 1970 to March 1997 for the variables such as $\ln M_3$, $\ln M_o$, $\ln m_b$, c and r were tested for presence of unit root prior to undertaking the cointegrating regression. The SW unit root test with fourth order autocorrelation could not reject the null hypothesis of presence of unit root in $\ln M_3$. In the case of $\ln M_o$, the null hypothesis of presence of unit root could not be rejected by both DF and SW. The null hypothesis of presence of unit root in $\ln m_b$ could, however, be rejected by both DF and ADF tests indicating that the series is stationary. For both 'c' and 'r', the null hypothesis of presence of unit root could be rejected by DF and ADF tests.

Panel B

The impulse response function of 1.0 percentage point change in reserve requirements (CRR) on broad money multiplier was estimated by simulating the following model with two equations and one identity. In the equation for 'c', index of industrial production (iip) was included to reflect the behavioural nature of currency-deposit ratio.

- (i) $c = 0.04951* + 0.70489* c(-1) + 0.00014* iip(-1) - 0.0017* T$
(ii) $r = 0.01926* + 0.86335* r(-1) + 0.42492* \Delta r$
(iii) $m_b = (1 + c) / (c + r)$

* Significant at 5 per cent level

where, iip : index of industrial production

Δr : changes in reserve requirements

T : time trend

IV.3 Demand for Money

Table 5 : Unit Root Test (Annual Data)

Variable	Dickey Fuller (DF) trend	5% critical value	Augmented Dickey Fuller (ADF)(1) trend	5% critical value
lnRM ₃	-2.32	-3.54	-2.61	-3.54
lnGDPC	-1.30	-3.54	-1.00	-3.54
lnCMRT	-3.62	-3.54	-3.81	-3.54

where, lnRM₃ : log of real broad money

lnGDPC : log of GDP at constant prices

lnCMRT : log of call money rate (annual weighted monthly averages)

Period of Data Series : 1970-71 to 1996-97 **Frequency of Data :** Annual

Remarks : The annual data on real broad money and real GDP were tested for the null hypothesis of presence of unit root which could not be rejected at the five per cent level of significance. However, call money rate was found to be stationary. Hence, for the long run cointegrating vector for real money demand, only GDP was used as an explanatory variable. However, call money rate was used for estimating the error correction modelling.

The error correction model for the money demand function estimated following the Engle-Granger is as follows:

$$\Delta \ln RM_3 = -0.011 + 0.442* \Delta \ln RM_3 (-1) + 0.788* \Delta \ln GDPC + 0.406 \Delta \ln GDPC (-1) - 0.045 \Delta \ln CMRT - 0.208* \text{Err}(-1)$$

$$R^2 = 0.45 \quad DW = 1.76 \quad \text{Durbin's-h} = 1.49$$

* Significant at 5 per cent level

where, Err : Error correction term

(-1) : denotes lag of one period

IV.4 New Monetary Aggregates

Panel A

Table 6 : Information Efficiency of New Monetary Aggregates : Non-Nested Models

Tests statistics	Goal Variable : lnSWPI				
	M ₁ vs M ₂	M ₁ vs M ₃	M ₂ vs M ₃	M ₃ vs L ₁	M ₃ vs L ₂
Cox's Test	-3.60	-3.48	-1.86*	-5.36	-5.02
Wald's Test	-2.90	-2.79	-1.61*	-5.11	-4.72
Fisher and McAlwer Test	3.08	2.93	1.62*	7.85	6.58
Akaike Information Criteria	-4.67	-4.05	0.62	-0.49	-1.08

* Not significant at the conventional 5 per cent level

where, lnSWPI : log of seasonally adjusted wholesale price index

M₁, M₂ and M₃ : relevant monetary aggregates

L₁, L₂ : relevant liquidity aggregates

Period of Data Series : 1993-94 to 1996-97 **Frequency of Data :** Monthly

Remarks : The relevant test statistics were found to be significant at the conventional 5 per cent level except for the model M_2 vs M_3 . Hence, the superior information content of M_2 , L_1 and L_2 vis-a-vis M_1 and M_3 could not be rejected.

Panel B

Estimated Cointegrated Vectors for New Monetary Aggregates

$$(i) \ln RM_2 = -0.24 + 1.15 \ln SIIP - 0.027 \ln G91 + 0.23 \ln REERT$$

$$(ii) \ln RM_3 = 2.81 + 0.78 \ln SIIP - 0.052 \ln G91 + 0.10 \ln REERT$$

$$(iii) \ln RL_2 = 2.94 + 0.79 \ln SIIP - 0.054 \ln G91 + 0.07 \ln REERT$$

where, $\ln RM$: log of relevant real monetary aggregate

$\ln RL$: log of relevant real liquidity aggregate

$\ln SIIP$: log of seasonally filtered index of industrial production

$\ln G91$: log of yields on 91-day Treasury Bills (weekly averages)

$\ln REERT$: log of trade based real effective exchange rate

IV.5 Causality between Nominal Money and Nominal Income

X causes ($\rightarrow$) Y	'F' Statistics	Level of significance
Nominal Money $\rightarrow$ Nominal Income	5.51	1.0 %
Nominal Income $\rightarrow$ Nominal Money	3.55	3.8 %

Period of Data Series : 1970-71 to 1996-97 **Frequency of Data :** Annual

IV.6 Transmission Mechanism of Monetary Policy

Panel A

Money, Interest Rate, Credit and Output

$$\ln SM_3 = C + \sum \ln SM_3 + \sum G91 + \sum \ln SNFC + \sum \ln SIIP$$

$$G91 = C + \sum \ln SM_3 + \sum G91 + \sum \ln SNFC + \sum \ln SIIP$$

$$\ln SNFC = C + \sum \ln SM_3 + \sum G91 + \sum \ln SNFC + \sum \ln SIIP$$

$$\ln SIIP = C + \sum \ln SM_3 + \sum G91 + \sum \ln SNFC + \sum \ln SIIP$$

Σ : denotes $\sum_{k=1}^p \alpha_{ij,t-k}$, $i = 1, \dots, 4$, $j = 1, \dots, 4$

Table 7 : Block Exogeneity Test

	$\ln SM_3$	G91	$\ln SNFC$	$\ln SIIP$
$\ln SM_3$	85.51*	0.66	0.94	0.44
G91	3.87*	60.32*	1.23	1.77
$\ln SNFC$	4.46*	5.26*	257.76*	0.92
$\ln SIIP$	2.87*	2.98*	1.76**	1.95**

* Significant at 5 per cent level.

** Significant at around 10 per cent level.

where, C : intercept term

$\ln SM_3$: log of seasonally adjusted nominal broad money

G91 : yields on 91-day Treasury Bills (weekly averages)

$\ln SNFC$: log of seasonally adjusted non-food bank credit

$\ln SIIP$: log of seasonally filtered index of industrial production

Period of Data Series : 1993-94 to 1996-97 **Frequency of Data :** Monthly

Remarks : The block exogeneity test for the four variable vector autoregression (VAR) model shows that (i) money supply is purely exogeneous, (ii) interest rate depends on money supply and its own lag, (iii) supply of non-food credit depends on liquidity, interest rates and its own lag and (iv) output depends on liquidity, interest rates and its own lag.

Panel B

Money, Interest Rate, Exchange Rate and Inflation

$$M_{3g} = C + \sum M_{3g} + \sum G91 + \sum NER + \sum \Pi$$

$$G91 = C + \sum M_{3g} + \sum G91 + \sum NER + \sum \Pi$$

$$NER = C + \sum M_{3g} + \sum G91 + \sum NER + \sum \Pi$$

$$\Pi = C + \sum M_{3g} + \sum G91 + \sum NER + \sum \Pi$$

$$\Sigma : \text{denotes } \sum_{k=1}^p \alpha_{ij}, i = 1, \dots, 4, j = 1, \dots, 4$$

Table 8 : Block Exogeneity Test

	M_{3g}	G91	NER	Π
M_{3g}	9.02*	1.22	1.28	1.58
G91	2.46**	61.97*	0.85	1.66
NER	3.22**	1.12	13.90*	0.12
Π	4.85*	2.90**	6.68*	14.07*

* Significant at 5 per cent level.

** Significant at around 10 per cent level.

where, M_{3g} : year-on-year growth rate of broad money supply

G91 : yields on 91-day Treasury Bills (weekly averages)

NER : nominal exchange rate (rupee/US \$)

Π : inflation rate

Period of Data Series : 1993-94 to 1996-97 **Frequency of Data :** Monthly

Remarks : The block exogeneity test for the four variable vector autoregression (VAR) model shows that (i) year-on-year growth of broad money supply (M_{3g}) is purely exogenous, (ii) interest rate depends on year-on-year growth of money supply and its own lag, (iii) nominal exchange rate (NER) depends on year-on-year growth in money supply and its own lag, (iv) inflation rate (Π) depends on money supply, interest rates and exchange rate. Although there is evidence of interaction between interest rates and exchange rate, the effect was found to be weak in VAR framework.