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Monetary Concepts and Definitions

Prepared by Emmanuel O. Kumah*

Authorized for Distribution by Kevin W. O'Connor

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Abstract

This paper examines monetary concepts and definitions. It notes that approaches to monetary analysis, and the concept of money itself, have been undergoing substantial change in many countries due in large part to recent innovation, which has affected financial markets, financial instruments, and financial institutions. As a result, many countries increasingly tend to focus on multiple creators and instruments of money as opposed to just currency and transferable demand deposits. This fact is borne out by the paper's survey of national practices in the selection and grouping of instruments in money measures. The paper concludes that the emerging trend towards broader concepts of money implies the need for some rethinking of traditional notion of money measures.

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Summary

This paper examines monetary concepts and definitions. It discusses the concept of money and its relevance in the formulation of financial policy, particularly financial programming. It notes that the concept of money is inextricably linked with the liabilities issued by the banking system to the nonbanking sector. The paper observes, however, that while, from a historical standpoint, one can observe three distinct theories based on the various motives for holding money--that is, for transactions, precautionary, or speculative purposes--much of the empirical work to date has confined the definition of money to narrow money--comprising currency and transferable demand deposits. This emphasis on narrow money--and thus on the transactions motive--appears, however, to be undergoing tremendous change in the light of recent innovation that has affected markets, institutions, and instruments. The paper notes that this innovation--fostered by trends toward more liberal financial markets, high and volatile interest rates, and new technology--is at the root of many attempts by policymakers to broaden the range of quantitative targets for monetary policy in order to capture substitutions among competing monetary instruments. This trend is evident in the paper's survey of national monetary concepts, which details the proliferation of monetary measures across countries involving issuers, instruments, and holders. In view of these emerging trends, the paper concludes, the implied focus of the United Nations' A System of National Accounts (SNA) on narrow money needs to be shifted. Such a reassessment of the present concept of money should cover the current definitions of monetary instruments, as well as those of their issuers and holders.



I. Introduction

This paper examines monetary concepts and definitions in the context of the meeting on financial flows and balances for the United Nations' A System of National Accounts (SNA). ^{1/} Monetary aggregates have become important as intermediate targets for macroeconomic policy in many countries in recent years. Although some countries have shifted away from specific monetary targeting, monetary aggregates still constitute important indicators and instruments of policy. An understanding of issues associated with money and its role in policy requires a discussion of its concept, its evolution, its statistical implementation across countries, and also its treatment in the SNA.

Part II of this paper examines the relationship between money and other main macroeconomic accounts, namely, the balance of payments and the government finance statistics. It concludes that the transactions motive was the prime factor behind the earlier importance attached to narrow money. It is noted, however, that recent developments in financial markets have necessitated finding broader measures of money as intermediate targets or indicators of monetary policy. Part III examines recent developments, particularly inflation and financial innovation, and their impact on money. The emergence of many new instruments capable of being easily converted into money is noted. Part IV surveys national practices in selecting and grouping instruments in monetary measures. Observations are made on the prevalence of broader monetary measures across countries. Part V examines the SNA's current treatment of money and observes that its concept is based solely on an institutional designation: "monetary institutions." Part V concludes that the trends toward broader concepts imply the need for some rethinking in SNA on issues pertaining to issuers, holders, and instruments of money.

II. The Concept of Money and Macroeconomic Policy

There are two main strands of monetary thought. One is based on the use of analytical models (money market models) to postulate relationships between the quantity of money and nominal income or GNP as evidenced by standard closed-economy models. This approach tends to emphasize the importance of controlling money supply in the interest of maintaining price stability. It has inspired the targeting of the growth rate of money stock, which became the centerpiece of economic strategies in many

^{1/} United Nations, A System of National Accounts (New York: United Nations, 1968).

countries in the 1970s. 1/ The other is based on the extension of the monetary approach to the analysis of balance of payments problems, and this strand has been referred to as the "monetary approach to the balance of payments."

The monetary approach to the balance of payments underlies the Fund's financial programming framework, and it has been applied to the Fund's operational work in many countries. 2/ Money is an important element in financial programming, often serving as one of the policy instruments selected and quantified for monitoring a program. The role of money can be gauged from an examination of the conceptual links among the major macroeconomic accounts--namely, the national income and product accounts, the balance of payments, the government finance statistics, and the monetary accounts. The links permit the derivation of a broad accounting framework for economic analysis and policy formulation. From the point of view of financial programming, the principal links are as follows: (1) the domestic savings/investment gap in the national accounts is equivalent to the current account balance of the balance of payments; (2) the balance of payments is linked to the monetary accounts by the identification of all foreign balances in the latter; (3) the government or public sector accounts are linked to the monetary accounts by the specification of public sector financing by the banking system. Money is defined in terms of the liabilities issued by the banking system to the nonbanking sector, and it is linked by the balance sheet identity to the asset base of the banking system, explained in large measure by the balance of payments and domestic credit (the latter with particular emphasis on government operations vis-à-vis the banking system).

In a simplified model, the demand for money is the only behavioral relationship. The assumption of a stable demand for money function is needed to ensure that an increase in domestic credit will cause the public to initially hold more money than it desires to hold, resulting in a decline in net foreign assets through increased expenditures, until money returns to its original level. Much of the work carried out in the Fund

1/ For the past two decades, monetary thought has been influenced substantially by work in the area of the demand for money and its relationship to ultimate economic objectives, particularly by Friedman and his associates. See Milton Friedman and Anna J. Schwartz, A Monetary History of the United States, (Princeton: Princeton University Press, 1963).

2/ The financial programming framework was originally designed for a small open economy operating under a fixed exchange rate. This assumption is very important for the analysis. The complications that arise from the relaxation of this assumption are addressed in each individual Fund-supported program. See IMF, Theoretical Aspects of the Design of Fund-Supported Adjustment Programs, Occasional Paper No. 55 (IMF: Washington, D.C., 1987), p. 12.

and elsewhere on intermediate targets of money or credit has been based on the assumption of a stable demand for some definable measure of money. 1/ This notion has had a long history. 2/

Three theories can be distinguished that provide some guidelines on the characteristics of money. The theory based on the transactions motive emphasizes that money is a universal means of exchange that is readily acceptable and transferable in transactions. The concept of money derived from this perspective--designated as narrow money (M1)--encompasses currency plus checkable demand deposits at commercial banks. The other two theories, based on the speculative and precautionary motives, offer no clear-cut guidelines on the type of instruments that should be included in the concept of money, although currency and demand (checking) deposits, time deposits at commercial banks, and savings and loan association shares could easily be used for these purposes.

The case for narrow money in much of the analytical work has also been motivated by interest in throwing light on the scope and impact of monetary policy. Thus, the bulk of the empirical work carried out in this area, particularly in the United States and Western Europe, has confined the definition to narrow money on the assumption that M1 is more amenable to control by the monetary authorities. The importance attached to narrow money has also been helped by legal and institutional considerations. However, it is clear that, in situations of high and variable inflation, when future economic policies and developments are generally uncertain, it becomes very difficult to forecast the demand for money.

The financial environment in many countries in the late 1970s and early 1980s was characterized by high and volatile interest rates and rising prices, causing shifts in the demand for money. In addition, the rapid pace of financial innovations in many countries has contributed to the increased adaptation of instruments and institutions in financial markets as well as the emergence of new ones. These developments have contributed to the perception that monetary policy effects are now channeled more through interest rate and exchange rate adjustments than

1/ Note that the choice between money and credit as a policy variable depends on factors such as the exchange rate regime and the openness of the economy. In general, for small open economies under fixed exchange rates, credit policy instruments are more effective, as the ability of the authorities to control the growth of domestic monetary aggregates over any extended time period is very limited. See IMF, Theoretical Aspects of the Design of Fund-Supported Adjustment Programs, for an elaboration of these ideas.

2/ For a discussion of early issues from Irving Fisher onward, see E. W. Laidler, The Demand for Money: Theories and Evidence, Second Edition (New York: Harper & Row, 1977).

through the quantity of credit or money, leading to a search for new targets for monetary policy, including the use of broader monetary aggregates and nonmonetary targets such as credit targets, interest rates, and exchange rates.

Broader monetary aggregates encompass a wider set of financial instruments than M1, issued by a more broadly defined set of financial institutions. The underlying principle behind broader aggregates is that of the so-called "equal treatment criteria," under which financial instruments that can be substitutes for each other are combined at the same level of aggregation. It is possible to use this principle to compile monetary aggregates encompassing various sub-sets of liabilities of banking and nonbank financial institutions. Many countries have constructed broader aggregates, leading to a proliferation of money and liquidity measures (M2, M3, L, etc.). In the Fund, the use of measures incorporating practically all of a banking system's liabilities has long been common practice in reports.

A more sophisticated version arising from this principle is the so-called "index method of aggregation." This measures the degree of moneyness of each financial instrument and calculates weighted sums of these instruments as money, often using the interest rate foregone on these assets as weights. An example is the Divisia quantity index constructed by Barnett of the Federal Reserve Board in the late 1970s. ^{1/} Because there are substantial conceptual and statistical difficulties with the compilation of these aggregates in comparison with the simple sum aggregates such as M2 and M3, they have not been extensively used for policy formulation.

Nonmonetary intermediate targets of monetary policy include credit, prices, exchange rates, and interest rates. The path of many of these variables may be influenced by the stance of monetary policy. This fact brings up the issue of the independence of these targets compared with monetary targets. The choice between money and credit targets in the simplified model presented is largely an empirical issue, depending on factors such as the exchange rate regime, the openness of the economy,

^{1/} Board of Governors of the Federal Reserve System (U.S.), "Improving the Monetary Aggregates," A Report of the Advisory Committee on Monetary Statistics (Washington, D.C., June 1976).

and the ability of the authorities to monitor and control all potential sources of credit to an economy. 1/

III. Recent Innovations in Financial Markets and their Impact on the Definition and Measurement of Money

Financial markets have been characterized by rapid innovation in the last two decades. Spurred on in part by deregulation and new technologies, competition in the financial marketplace became more intense as the international financial system became more integrated, contributing to the emergence of a variety of institutions, instruments, and techniques. Financial market innovations were also occurring in response to macroeconomic disturbances. 2/

In the late 1970s and early 1980s high nominal interest rates increased the penalty associated with holding cash and non-interest-bearing deposits whose yields were limited by law. This concern about earnings in an inflationary environment led the public to seek instruments that enabled them to earn interest on their assets and at the same time economize on their non-interest-bearing transaction balances. For many bank customers, hedging against inflation is widely believed to have taken place first through switching from non-interest-bearing demand deposits to interest-bearing time, savings, and fixed deposits. The origin of floating rate bonds, interest and exchange rate swaps, and futures markets could also be traced to these developments. The movement away from lower-yielding money balances in this era was viewed as a major factor in the difficulties of forecasting the relationship between narrow money and nominal income, the primary basis for targeting narrow money.

New instruments can be subdivided into those that substitute for conventional demand deposits, such as negotiable orders of withdrawal (NOW) accounts, and automatic transfer from savings (ATS) accounts, and those that substitute for savings deposits, such as certificates of deposit (CDs), money market certificates (MMCs), and fixed-term repurchase agreements (RPs). Moreover, new financial products have been introduced to limit or shift interest rate or market risk through interest rate

1/ Note that it is possible for domestic prices to be affected not only by exchange rate adjustments but also by changes in reserve money. Therefore, policy actions on both domestic monetary growth and credit may be necessary to achieve balance of payments and inflation objectives at the same time. For a discussion of these issues, see Manuel Guitian, "Credit Versus Money as an Instrument of Control," in Staff Papers, Vol. XX, No. 3 (Washington, DC: IMF, November 1973).

2/ See Bank for International Settlements "Financial Innovation and Monetary Policy" (Basle, March 1986) for a discussion of these issues.

futures, hedging, and arbitrage instruments. Related to all these developments are new facilities that permit automated transfers, payments, and retrieval of information on numerous accounts through devices such as ATMs (automated teller machines), telephone transfers, cash dispensers, and bank credit cards.

Markets for traditional financial instruments have expanded (for example, those for short-term instruments) and, at the same time, new financial markets for unconventional bonds (for example, floating rate bonds, zero coupon bonds, etc.), financial futures, options, and stock index futures have also become commonplace in industrialized countries. Another phenomenon is the development of secondary markets to service both old and new security issues. Finally, the historical distinctions between classes of financial institutions in terms of their liabilities and functions have been blurred as financial services offered by commercial banks, other banks, and nonbanks have in many cases become similar, thereby encouraging substitution among instruments (for example, money market mutual funds are close substitutes for bank deposits).

Various factors have contributed to the recent spate of innovations. A prominent factor, particularly in many developed countries, is the liberalization of domestic financial markets and the relaxation of capital controls. ^{1/} Prior to the late 1970s, financial markets were characterized by many regulations, and innovations were spurred on in part by the need to circumvent the effects of regulation. In the 1980s, trends toward deregulation in some countries have enabled commercial banks to offer interest-bearing assets that were previously being issued solely by institutions other than commercial banks. In the United States, for example, legislative changes made it possible for banks to offer money market certificates in 1978, NOW accounts on a nationwide basis in 1980, and money market deposits in 1982, all of which bore market-related interest rates. Also, the removal of restrictions on capital movements in the United States in 1974, the United Kingdom in 1979, and Japan, France, and Germany in the 1980s has provided some of the momentum for financial innovations.

Financial innovations have also been facilitated by the advent of new technology. These technological advances have increased the convenience and rapidity of the public's access to financial products and reduced the costs of transactions and transfers among accounts. For example, the public has taken advantage of cash management techniques such as ATMs, debit cards, electronic and satellite funds transfers, and information retrieval systems. All these new facilities have enabled customers to economize on their transaction balances.

^{1/} However, deregulation has not always been a deliberate policy but has also been a reaction to innovation.

The combination of all these developments has resulted in considerable difficulty in distinguishing between instruments traditionally considered money (currency and demand deposits) and many other instruments, such as time and savings deposits and money market funds. Because of the ease of convertibility, many of these instruments have now acquired some "moneyness" or partial medium-of-exchange properties. As a result, it has become difficult to define and to measure money, and the old line dividing narrow money and other financial instruments has become blurred, contributing to a proliferation of money measures in some countries.

IV. A Survey of National Monetary Concepts

This section discusses the main features of monetary aggregates recorded in over 150 countries (mainly members of the Fund). National monetary aggregates refer to measures used by individual countries to group and/or describe monetary instruments. These measures are taken from national statistical publications. 1/ In general, monetary measures can be distinguished on three fronts: the instruments that are consolidated or grouped into money, the institutional issuers of these instruments, and the holders of these instruments. The combination of these three provides the level of consolidation, which is generally shown by the symbol M followed by a numerical subscript such as 1, 2, or 3, for example, M1, M2, M3, with the higher numbered subscript indicating a more inclusive monetary aggregate. Perhaps the main fact that emerges from this review is the proliferation of money measures, which has of course been influenced by the extensive list of instruments and institutional issuers. Also, one cannot fail to notice the broadening over time of national money measures. However, it would be misleading to draw conclusions about the narrowness or otherwise of monetary measures based on country descriptions, such as M1, M2, M3 without a careful study of the instruments, holders, and issuers.

Monetary aggregates observed in this study include a wide variety of instruments such as currency, demand deposits (both checkable and noncheckable), call deposits, time, savings, and fixed deposits, foreign currency deposits, repurchase agreements, bills, certificates of deposit, bonds, other commercial paper, restricted deposits, and deposits of savings schemes. While for the majority of cases the holders of these

1/ It should be noted that the monetary aggregates used as intermediate targets of policy in any given country are usually formulated in the annual report of the central bank (or similar monetary authority) and they are not necessarily all those contained in the statistical publication. Also, in some countries, the formulation of monetary aggregates and their measurement has preceded their regular publication in statistical publications.

instruments are residents of the country for which the measures are compiled, there are more than 17 countries in which instruments held by nonresidents are included in monetary aggregates. 1/ No single explanation can be offered for this practice. However, it is noteworthy that most of these countries have substantial emigrant populations whose remittances are of considerable importance to their home countries.

Country practices in regard to the treatment of resident-owned instruments in monetary aggregates are not uniform. First, although all countries have currency, demand, time, and savings deposits in their monetary measures, there are marked differences in the levels of consolidation because of institutional and holder differences. Second, in many but not all of the financially developed countries, money market instruments such as bills, repurchase agreements, bankers' acceptances, and certificates of deposit are included in broad money measures. 2/ Third, a relatively small number of countries include only one or a few of these instruments--bonds, other commercial paper, restricted deposits, and contractual savings--in their broader money measures. 3/ Finally, foreign currency deposits are often, though not always, separately identified and included in money measures. In about half of the countries surveyed, foreign currency deposits of demand, time, and savings types are included in money measures. The number of these countries may be underestimated because in many of them these kinds of deposits are not separately identified in national publications.

Country practices also vary in terms of the institutional issuers of monetary instruments. The survey revealed five main issuers--central banks, commercial banks, other banks, the government/treasury, and post office savings banks. While currency issue has been the customary responsibility of the central bank, there are many instances in which the government or treasury has issued some coins and/or notes. 4/ The central bank's role in the issuance of monetary instruments is not limited

1/ These include Algeria, Austria, Botswana, Djibouti, India, Lebanon, Lesotho, Mozambique, Pakistan, Papua New Guinea, the Philippines, Portugal, Sudan, Swaziland, Tanzania, Turkey, and the United States.

2/ Countries following this practice include Argentina, Australia, Brazil, Chile, Denmark, France, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, the Philippines, Portugal, Singapore, Spain, Thailand, the United Kingdom, the United States, Uruguay, and Venezuela.

3/ These include Argentina, Bolivia, Brazil, Chile, Costa Rica, Ecuador, France, Korea, Libya, Mauritania, the Philippines, Romania, Saudi Arabia, Somalia, Suriname, Sweden, Syria, the United States, Venezuela, and the Yemen Arab Republic.

4/ This is the case, for example, in Australia, Austria, Canada, France, Germany, Greece, Haiti, Iran, Italy, Japan, Panama, Spain, Switzerland, Tonga, the United Kingdom, and Western Samoa.

to the issue of currency. Other instruments issued by the central bank include time, savings, and foreign currency deposits as well as bonds. 1/

In virtually all countries domestic currency demand deposits are predominantly issued by commercial banks, and in close to half of the cases by other banks. However, in a large number of countries these deposits are also issued by the central bank. 2/

Commercial banks and other banks are the prime issuers of bank deposits other than demand deposits--mainly time, savings, fixed, and foreign currency deposits--as well as certificates of deposit and repurchase agreements. Commercial banks also issue bills, bonds, and other relatively less liquid instruments, although other institutions are equally important here. In particular, the government/treasury issues treasury bills and/or bonds included in broader money aggregates in a number of countries. 3/ Perhaps more striking are the treasury holdings of deposit liabilities in many francophone African countries. 4/

The post office institutions are important issuers of monetary instruments--demand, time, savings, and foreign currency deposits--in many countries, especially the francophone countries. 5/ In many of these countries, time and savings deposits are also issued by post office institutions and, in a few cases, the same applies to foreign currency deposits (in Luxembourg, for example) and call money (in Germany, for example). However, compared with other institutions, the importance of

1/ For example, central bank bills and/or bonds are found in Argentina, Brazil, Chile, Italy, Kuwait, Malaysia, and the Philippines, among others.

2/ This practice occurs, for example, in Austria, Cape Verde, Dominican Republic, Ecuador, Germany, Guatemala, Guyana, Hungary, India, Lebanon, Malawi, Mauritius, Norway, Panama, Peru, Romania, Tanzania, Turkey, and Yugoslavia.

3/ For instance, Brazil, Chile, Denmark, France, Honduras, Italy, Malawi, Mexico, the Netherlands, the Philippines, the United Kingdom, and the United States.

4/ For instance, Algeria, Benin, Burkina Faso, Cameroon, the Central African Republic, Chad, Comoros, the Congo, Cote d'Ivoire, Djibouti, Equatorial Guinea, Gabon, Madagascar, Mali, Morocco, Niger, Senegal, Togo--as well as in France and Seychelles.

5/ Demand deposits are issued by the post office savings institutions, for example, in Belgium, Benin, Burkina Faso, Burundi, Cameroon, the Central African Republic, Chad, the Congo, Cote d'Ivoire, Denmark, Equatorial Guinea, France, Gabon, Germany, Ireland, Italy, Luxembourg, Madagascar, Mali, Mauritania, Morocco, the Netherlands, New Zealand, Niger, Norway, Senegal, and Togo (Appendix Tables 3 and 4).

post offices as deposit-taking institutions in many countries appears to be on the decline.

The survey also reveals some similarities and differences among countries as regards the holders of instruments included in money aggregates. All countries include private sector holdings of monetary instruments in money aggregates. Over 90 percent of the countries include the holdings of nonfinancial public enterprises in money measures. Close to two-thirds of the countries include the holdings of both nonbank financial institutions and other general government (state, local, and other semi-autonomous governmental entities) in money measures. A few countries include central government deposits in money measures. 1/ The list of countries is likely to be much higher than this information would indicate. This is especially likely in countries in which certain units of the central government hold monetary instruments with the banking system which, for various reasons, are not classified as central government deposits or are not separately identified in the money aggregates.

Various combinations of instruments, holders, and issuers of instruments have resulted in the numerous levels of consolidation recorded across countries. For many countries, frequent revisions of the consolidation level and of the selection of targets for monetary policy have been undertaken with the intention of regrouping financial instruments in new or old categories in order to appropriately reflect changing monetary conditions. For example, a major redefinition occurred in the United States in 1980, in the United Kingdom and in Canada in the early 1980s, in Italy in 1985, and in France in 1986. Also, monetary policy targets were altered or suspended in the late 1970s and the early 1980s in a number of countries. 2/ While it is difficult to find a mix of factors capable of describing succinctly the consolidation level for every country, a few generalizations can be made.

In virtually all countries the money measure M1--generally designated as narrow money--is based on the narrowest level of consolidation, usually comprising currency and demand deposits held primarily by the private, public enterprise, and general government sectors with the banking system. The measure M2--the broadest level of money for the majority of countries--generally includes instruments included in M1, as well as time, savings, fixed, and foreign currency deposits held by the private, public, and nonbank financial institutions sectors with the banking system. However, there are substantial cross-

1/ Examples include Algeria, Austria, Bahrain, Fiji, Germany, Paraguay, Seychelles, Solomon Islands, and the United Arab Emirates.

2/ This occurred, for example, in Australia, Canada, France, Germany, Ireland, Japan, Sweden, Switzerland, the United Kingdom, and the United States.

country differences in the grouping of some of these instruments that reflect the specific holders or issuers of the instruments. For example, some countries include some time and savings deposits only in the still broader aggregate M3 because of the special characteristics of the institutional issuer of the instrument or the holder. 1/ Also, for reasons that are not obvious, some countries include time and savings deposits in M3 or some higher-numbered measures. 2/ Other countries have reserved the M3 measure for the consolidation of certain types of deposits. 3/

The line separating M2 from other higher-numbered aggregates such as M3 is often tenuous. In many countries, money market instruments such as certificates of deposit, repurchase agreements, bills, and bonds are increasingly consolidated at the M3 level or at a higher level. 4/ In a few countries, however, these instruments are consolidated at the M2 level. 5/ In addition, some countries have constructed perhaps the broadest aggregates, which essentially attempt to group the total liquid assets of the public composed of instruments issued by banks as well as by the nonbank sectors. Such aggregates are often represented by L (liquidity) or by variants of this measure. 6/

1/ Examples include, Australia, Canada, France, Hong Kong, Israel, New Zealand, Singapore, Sweden, Switzerland, the United Kingdom, and the United States.

2/ Examples include, Argentina, Botswana, Chile, Iceland, India, Israel, Mexico, and Papua New Guinea.

3/ For example, in Argentina, Fiji, Israel, Saudi Arabia, Sweden, Turkey, and Vanuatu, foreign currency deposits are consolidated at the M3 or other still higher level, while in Bahrain and the United Arab Emirates, only government deposits are consolidated at the M3 level.

4/ Examples are, Argentina, Canada, Chile, France, Germany, Guatemala, Israel, Italy, Japan, Korea, Mexico, the Philippines, Portugal, Switzerland, the United Kingdom, the United States, and Venezuela.

5/ Examples are, Australia, Colombia, Costa Rica, Jamaica, Kuwait, Malaysia, and Uruguay.

6/ This occurs, for example, in Bhutan, Brazil, Colombia, France, Hungary, Mexico, the Philippines, Portugal, Romania, Spain, Sweden, Trinidad and Tobago, the United Kingdom, and the United States.

V. Money in the SNA

The SNA provides a framework for recording flows and stocks in an economy on production, income and outlay, capital finance, and external transactions. The central concepts of these accounts are gross domestic product, disposable income, savings, and net international lending which provide aggregates often used as performance indicators. The SNA can be integrated with flow of funds analysis. However, there is no specific money measure defined in the SNA, although the SNA has a narrow money concept implied in the "other monetary institutions" subsector.

In the SNA, the concept of money comprises currency and transferable demand deposits issued by the central bank (inclusive of treasury banking functions) and the "other monetary institutions" subsector. The latter refers to all banks except the central bank that have liabilities in the form of deposits payable on demand and transferable by check or otherwise usable in making payments. While the institutional coverage required for the compilation of monetary aggregates is defined in the SNA, the same cannot be said for instruments. Monetary concepts have thus been subject to different national interpretations.

Financial market developments, particularly since the last revision of the SNA, call into question the appropriateness of the SNA's implied focus on narrow money. As was discussed in Section II of this paper, a combination of factors including the macroeconomic uncertainties of the late 1970s and the 1980s, financial innovation, deregulation in financial markets, and technological progress have led to a proliferation of instruments with some "moneyness" or partial medium-of-exchange properties. Most obvious among these are other deposits with banks which can be easily converted into demand deposits, as well as certificates of deposit and similar monetary instruments (such as repurchase agreements) issued by banks and nonbanks. This fact partly explains why many countries have increasingly relied on a broader range of money measures than that outlined in the SNA as targets for policy.

The issue of a suitable money concept in the SNA is closely related to whether such a concept should be explicitly defined in the SNA. There are merits on both sides of this issue. On one hand, money measures have long been compiled by countries because they facilitate the assessment of macroeconomic conditions and can serve as intermediate targets for ultimate goals of policy. Also, because monetary policy instruments are designed to correct macroeconomic problems, consistency requires the construction of aggregate monetary concepts. Most international and national statistical systems explicitly recognize monetary aggregates as essential for macroeconomic policy, and the need for their specific definition in the SNA appears to be important.

It could be argued, on the other hand, that the identification of a standard money concept would not be desirable in the SNA framework because this framework should be designed to permit national compilers and analysts to construct whatever aggregates are deemed appropriate for the user's purpose. Moreover, a common standard may be difficult to implement given the observed dissimilarities across countries resulting from varied institutional settings and practices. These complications may have led the present SNA to adopt a simple cross-classification of financial items by type of transactor and financial instrument. Nevertheless, the revised SNA could play an important role in facilitating the compilation of monetary aggregates that are increasingly relevant for many countries via the inclusion of a wide spectrum of instruments other than currency and transferable demand deposits.

In this respect, three important considerations relating to issuers, instruments, and holders appear to require some rethinking if the SNA is to remain abreast of observed trends in the compilation of money measures. The first concerns the present narrow focus of the SNA in defining monetary institutions. The distinction between "monetary institutions" (as defined above) and other banking (nonmonetary) institutions (presently part of other financial institutions in the SNA) may no longer be justified in the light of the many near-monies and money substitutes being issued by nonmonetary institutions. The most notable of these are broader monetary instruments such as other deposits at banks that are substitutable for demand deposits. Others include securities and arrangements such as interest-bearing checking deposits offered by money market mutual funds and credit unions, certificates of deposit, and credit cards. Indeed, the recent growth of deposit-taking institutions other than deposit money banks has given rise to the practice common in many countries of consolidating monetary accounts at the level of the entire banking system. Other countries have gone beyond this level to include all financial institutions that provide deposit facilities for the public.

The second issue concerns the identification of the kinds of instruments to be included in money measures. The trend toward a broader range of instruments in many countries suggests that some of the other deposits in the present list of instruments in the SNA (Table 24) are de facto monetary instruments. In addition, there are many instruments--some of which are the product of market innovations, such as certificates of deposit, Eurocurrency deposits, and repurchase agreements--that are not explicitly covered by the present SNA. Decisions need to be made as to whether to include these financial instruments in Table 24 of the SNA. These decisions may be complicated by the fact that while some of these instruments may be similar to those included in the present SNA they possess liquidity, negotiability, and transferability characteristics that differ from those in the present SNA. So far, their inclusion in one or more aggregates has been decided

by national compilers on a country-by-country basis. Cross-country differences in instruments and institutions are likely to introduce additional complications into any harmonization efforts. Another aspect of this issue is the treatment to be accorded to short-term as opposed to long-term instruments in money measures in view of the many available schemes for negotiating and transforming the original maturity of instruments.

The third issue concerns the holders of financial instruments. The survey of national monetary practices reveals the holders of monetary instruments to be the private sector, nonfinancial public enterprises, the central government, other general government, nonresidents, and nonbank financial institutions. There seems to be little doubt about the rightful place in monetary aggregates of the deposits held by the private sector and nonbank financial intermediaries. However, there is less unanimity about the deposits held by nonresidents, the central government, other general government, and nonfinancial public enterprises. Country practices are not uniform because many of these cases are "borderline" ones requiring the judgment of national compilers, bearing in mind the country-specific institutional arrangements. For example, while the residency criterion should exclude nonresident deposits from monetary aggregates, this criterion is itself subject to interpretation, thereby resulting in departures from the norm. Furthermore, the Fund's money and banking statistics (MBS), for example, exclude central government deposits from money because, in principle, the central government has ultimate access to credit from the monetary authorities. However, there is evidence to suggest that not all central governments have this ultimate access to credit and that, in some countries, some other levels of government have almost the same freedom of access to credit as the central government. The SNA review provides an opportunity to discuss these issues with a view to providing some compilation guidelines.

Table 1 . National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
AFGHANISTAN	Currency in circula- tion	Demand deposits of all sectors excl the central govt. and banks with commercial and central banks		Time and savings depts. with the commercial and central banks	Foreign currency deposits with the commercial and central banks			
Consolidation*	M1	M1		M2	M2			
ALGERIA	Currency outside banks	Demand deposits at banks at Treas- ury and at the Postal savings M1		Time and savings deposits at banks. and at the Postal savings				Savings deposits at CNEP
Consolidation*	M1	M1		M2				M3
ANTIGUA AND BARBUDA	Currency	Demand deposits with commercial banks		Time and savings deposits with banks		Residents deposits in foreign currency		
Consolidation*	M1	M1		M2		M2		
ARGENTINA	Currency in circula- tion	Sight deposits excl. certain Treasury deposits with the National Bank		Time and indexed deposits	Foreign currency deposits	Bankers accept- ances and swaps (opera- tions with the collateral of govt. bonds denom. in US\$(BONEX)	private holdings of central bank paper	
Consolidation*	M1	M1		M5	M5	M5	M5	
AUSTRALIA	Notes and coin held by public	Current non-govt deposits at trading banks plus public depts. at Reserve Bank		Fixed deposits held with trading banks (M2); plus deposits at call with savings banks (M3)		Certificates of deposit (CDs) with trading banks		
Consolidation*	M1	M1		M2/M3		M2		
AUSTRIA	Notes and coin in circula- tion	Sight depts. with banks excluding interbank deposits	Liabilities of the Austrian National Bank					
Consolidation*	M1	M1	M1					
BAHAMAS	Currency in active circulat- ion	Demand deposits with the commercial banks and central bank		Savings and and fixed time deposits with the com- mercial banks				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Items
BAHRAIN	Currency outside banks	Private sector demand deposits		Private sec- tor time and savings depts (M2), plus government deposits (M3); M2/M3	Foreign currency deposits			
Consolidation*	M1	M1			M2			
BANGLADESH	Currency outside banks	Demand deposits with sche- duled banks plus depts of nonsche- duled and cooperative banks with central bank		Time depts. (incl call, chequable, savings, non- chequable sav- ings and fixed term deposits				
Consolidation*	M1	M1		M2				
BARBADOS	Currency outside banks and treasury	Demand depts. of public plus nonresident depts. at the commercial banks excl. govt. and savings banks dep		Time and savings depts. of the public plus non- resident depts at comm. & savings banks excl govt and savings banks depts M2	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
BELGIUM	Currency in circu- lation	Demand depts net of public sector depts in the banking system and with other public institutions		passbook savings accounts, savings certi- ficates and cash voucher accounts		Certificate of deposits		
Consolidation*	M1	M1		M2		M2		
BELIZE	Currency in circu- lation	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
BENIN	Currency in circulation	Demand depts at banks incl. (BCEAO), and at Post office savings		Time and savings deposits				
Consolidation*	M1	M1		M2				
BHUTAN	Currency outside banks excl. foreign currency Rupees held by nonbanks	Demand deposits		Term depts (M2); plus savings deposits (M1);			Deposits with Unit Trust of Bhutan	
Consolidation*	M1	M1		M1/M2			TL(total liquidity)	

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
BOLIVIA	Currency in cir- culation	Demand deposits		Savings and time deposits	Foreign currency deposits		Mortgage bonds plus other deposits with banks	
Consolidation*	M1	M1		M2	M2		M2	
BOTSWANA	Currency outside banks	Demand depts. include cur- rent and call depts., less nonresident deposits; and 50% of interbranch balances at end of period		Savings, notice and time depts. with comm- ercial banks				
Consolidation*	M1	M1		M3				
BRAZIL	Currency outside banks held by the public	Demand depts. of private sector in commercial banks and in Bank of Brazil		Time and saving depts. at commercial banks and at Bank of Brazil			Other depts of private sector in commercial banks, incl. letters of credit, bills of exchange and depts of foreign exchange	State and municipal bonds and treasury bills
Consolidation*	M1	M1		M2			PSFA ^{1/}	PSFA ^{1/}
BURKINA FASO	Currency in circ- ulation	Demand deposits at banks (incl. BCEAO), at post office savings and at CNE		Savings and time deposits				
Consolidation*	M1	M1		M2				
BURMA	Currency outside banks	Demand deposits		Time and saving deposits				
Consolidation*	M1	M1		M2				
BURUNDI	Currency outside banks	Demand deposits with banks and other monetary institutions		Time and savings depts. with commer- cial banks and other mone- tary insts.	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
CAMEROON	Currency in circ- lation	Demand depts. with the banks incl. BEAC and the post office savings		Time and savings deposits with the banks incl. the post office savings				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance.

Higher numbered aggregates are more inclusive aggregates.

^{1/}Private sector financial assets.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
CANADA	Currency held by the public	Demand deposits	Daily-interest chequables (M1A); plus transferable personal deposits at OFIs (M2+) plus transferable depts. at OFIs (M3+)	Nonpersonal notice deposits (M1A); plus personal term & other notice depts. at banks (M2); plus non-transferable personal depts. at OFIs (M2+); plus nonpersonal fixed term depts. (M3); plus nontransferable depts. and notice at OFIs (M3+);	Foreign currency deposits			
Consolidation*	M1	M1	M1A/M2/M3+	M1A/M2/M2+/M3+	M3			
CAPE VERDE	Notes and coin in circulation	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M1				
CENTRAL AFRICAN REPUBLIC	Currency in circulation	Demand depts. with the banks incl. BEAC and the post office savings		Time and savings deposits with the banks incl. the post office savings				
Consolidation*	M1	M1		M2				
CHAD	Currency in circulation	Demand depts. with the banks incl. BEAC and the post office savings		Time and savings deposits with the banks and post office savings				
Consolidation*	M1	M1		M2				
CHILE	Currency in circulation	Private sector current accounts		Time and saving deposits	Private sector deposits in foreign currency		Mortgage bonds, central bank bonds and treasury promissory notes	
Consolidation*	M1	M1		M7 ^{1/}	M7 ^{1/}		M7 ^{1/}	
CHINA	Currency in circulation	Household demand depts. plus entre-prise depts. plus depts. of official institutions and organizations		Household term depts. and capital construction deposits				
Consolidation*	M1	M1		M2				
COLOMBIA	Currency in circulation	Demand deposits		Saving and term depts. incl. indexed UPAC deposits	Deposits in foreign currency	Certificates of exchanges, and central bank bonds	Other depts. of the private and public sector such as CAV and CFCs	Bonds with nonbanking sector
Consolidation*	M1	M1		M2	M2	M2	M2	LPS ^{2/}

^{1/}Equivalent to liabilities of the financial system to the private sector.^{2/}Liabilities to the private sector.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
COMOROS	Currency in circula- tion	Demand deposits		Time and savings deposits at commercial banks and post office savings				
Consolidation*	M1	M1		M2				
CONGO	Currency in circula- tion	Demand deposits with banks incl BEAC and post office savings		Time and savings depts. with the banks and the post office savings				
Consolidation*	M1	M1		M2				
COSTA RICA	Currency in circula- tion	Demand deposits		Time and savings deposits in domestic currency	Demand, time and savings depts. in US\$		Stabilization funds and other assets of the private sector with banks	Government bonds
Consolidation*	M1	M1		M2	M2		M2	M2
COTE D'IVOIRE	Currency in circula- tion	Demand deposits at banks, incl. BCEAO and at post office savings		Time and savings deposits at banks incl BCEAO, and at post office savings				
Consolidation*	M1	M1		M2				
CYPRUS	Currency held by the public	Demand depts. excl. govt. and govt. administered funds and nonresident deposits		Time and savings deposits, incl time depts of OFI's with the central bank, excl govt. and nonresidents deposits				
Consolidation*	M1	M1		M2				
DENMARK	Notes and coin held by busi- nesses, households, etc.	Chequable demand depts with commer- cial and savings banks	Giro accounts held by businesses, house- holds, etc. Non- chequable demand depts at commercial and savings banks	Time deposits exclu- ding tax privileged deposits			Nonbank holdings of Treasury bills	
Consolidation*	M1	M1	M1	M2			M2	
DJIBOUTI	Currency outside banks	Demand deposits with banks and treasury in domestic or foreign currency		Time depts. with banks and treasury				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
DOMINICA	Currency	Demand deposits with commercial banks		Time and savings deposits with banks	Foreign currency deposits by residents			
Consolidation*	M1	M1		M2	M2			
DOMINICAN REPUBLIC	Currency in circulation	Demand depts. by private and public sects. incl. govt., other agencies and municipalities, payable by cheque		Time and savings depts. held with banks and nonbanks by private sector and other official entities			Bonds held with nonbank financial intermediaries	
Consolidation*	M1	M1		M2 ^{1/}			M2 ^{1/}	
ECUADOR	Currency in circulation	Demand depts. of private sector with banks		Saving depts. with the banks and other financial intermediaries	Foreign currency deposits		Bankers acceptances plus other sugar liabilities plus import depts. and stabilization bonds	
Consolidation*	M1	M1		M2	M2		M2	
EGYPT	Currency outside banks	Local currency current deposits, excl. those of public enterprises		Local currency time deposits at banks, incl. post office savings but excl. those of public enterprises	Current and time deposits in foreign currency			
Consolidation*	M1	M1		M2	M2			
EL SALVADOR	Currency	Demand deposits of both private and official sectors		Time and savings deposits of private sector	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
EQUATORIAL GUINEA	Currency outside banks	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
ETHIOPIA	Currency in circulation	Demand depts. with the banks		Time and savings deposits with the banks				
Consolidation*	M1	M1		M2				
FIJI	Currency in circulation	Demand deposits, incl. local bills payable		Time and savings deposits	Foreign currency deposits			
Consolidation*	M1	M1		M3	M3			

* Means the monetary aggregate in which they appear at the first instance.

^{1/} Higher numbered aggregates are more inclusive aggregates.

^{1/} Defined as quasi-money of the financial system

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
FINLAND	Finnish notes and coin in circula- tion	Demand deposits held by the public incl. those at the Bank of Finland		Time deposits held by the public incl. those at the Bank of Finland	Domestic deposits in foreign currency			
Consolidation*	M1 1/	M1		M2	M1			
FRANCE	Notes and coin	Sight depts. in FF at creditor institutions and Treasury		Savings and pass- book accounts (M2); plus term deposits (M3)	Foreign currency deposits	Certificates of deposits (CDs) and Repurchase Agreements (RP)	Negotiable Treasury-bills, Commercial paper and contractual savings scheme	Short-term bonds
Consolidation*	M1	M1		M2/M3	M3	M3	L	M3
GABON	Currency in circula- tion	Demand deposits with the banks incl BEAC and the post office		Time and savings depts. with the banks incl the post office savings of the private sector and enterprises				
Consolidation*	M1	M1		M2				
GAMBIA, The	Currency in circula- tion	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
W. GERMANY	Notes and coin in circula- tion	Sight depts. held by domestic non- banks, postal giro accounts		Time deposits of less than 4 years and savings depts. at statutory notice held by domestic nonbanks	Deposits held by residents of Germany excluding Euromarket deposits			
Consolidation*	M1	M1		M2	M3			
GHANA	Currency held out- side the banking sector	Demand depts held with with commer- cial and sec- ondary banks, plus private sector depts. with the central bank		Time and savings depts. with commercial and secondary banks, plus private sector deposits with the central bank			Certificates of deposit with commer- cial banks	
Consolidation*	M1	M1		M2			M2	
GREECE	Currency in circula- tion	Private sight deposits with credit insts		Time and savings depts. with credit insts.				
Consolidation*	M1	M1		M2				
GRENADA	Currency	Demand deposits with com- mercial banks		Time and savings deposits with banks	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates
1/Excluding those held by autonomous government agencies and special credit institutions since 1985.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
GUATEMALA	Currency in circula- tion	Sight deposits with the banking system		Time and savings deposits excl those of public enterprises	Foreign exchange deposits	Securities issued by nonbanks		
Consolidation*	M1	M1		M2	M2	M3		
GUINEA	Currency in circula- tion	Demand deposits			Foreign currency deposits			
Consolidation*	M1	M1			M2			
GUINEA BISSAU	Currency in circula- tion			private sector deposits				
Consolidation*	MS ¹ /			MS ¹ /				
GUYANA	Notes and coins	Demand deposits		Time and savings deposits, plus manager's cheques out- standing				
Consolidation*	M1	M1		M2				
HAITI	Currency held by the public	Sight deposits held with banks		Time and savings deposits held with banks				
Consolidation*	M1	M1		M2				
HONDURAS	Notes and coin in circula- tion	Demand deposits		Time, savings and other deposits of private sect. excl deposits of nonbank private financial interme- diaries	Deposits in foreign currency		Bonds issued by the central government	
Consolidation*	M1	M1		M2	M2		M2	
HONG KONG	Notes and coin with the public	Public's demand depts with licensed banks		Public's savings and time deposits with licensed banks plus NDCs issued by banks and held outside the monetary sector		Public's deposits with licensed deposit-taking institutions and held outside the monetary sector		
Consolidation*	M1	M1		M2		M3		
HUNGARY	Currency circu- lation	Demand depts of households plus current accounts of enterprises plus unfinished settlements.		Local govt., house- holds and enter- prises fixed, time and savings deposits			Savings notes and bonds	
Consolidation*	M1	M1		M2			H M A. 2/	

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

¹/Monetary survey.

²/Households' monetary assets.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
ICELAND	notes and coin in circulation	Demand depts of the banking system		General savings deposits(M2), plus time depts with the banking system(M3),				
Consolidation*	M1	M1		M2/M3				
INDIA	Currency with the public	Demand deposits with banks		Time deposits with banks plus other deposits				
Consolidation*	M1	M1		M3				
INDONESIA	Currency in circulation	Demand depts at deposit money banks excl govt and non- residents' deposits		Time and savings deposits in domestic currency	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
IRAN	Currency in circulation	Sight depts. of the private sector		Savings and time deposits of the private sector incl insurance premiums and personal retirement funds of banks				
Consolidation*	M1	M1		M2				
IRAQ	Currency in circulation	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
IRELAND	Currency held by the public	Current accounts held at within state offices of licensed banks by residents in Irish pounds	Transferable depts in Irish pound of private sector resi- dents in banks (M3), plus transferable depts of private sector at Post off, savings, trustee, building societies, etc (Money + OLA)	Nontransferable depts in Irish Pound of residents in banks (M3), plus nontrans- ferable deposits of private sector at post office, savings, trustee, building societies (Money + OLA)	Current accts held at within state offices of banks by residents (M1), Deposit accounts incl accrued interest of residents at banks (M3)			
Consolidation*	M1	M1	M3/MONEY+OLA $\frac{1}{2}$	M3/MONEY+OLA	M1/M3			
ISRAEL	Currency in circulation	Demand deposits in domestic currency		Time deposits	Resident current and time depts in foreign currency	Negotiable certificates of deposit	Tradable bonds held by the public	
Consolidation*	M1	M1		M2	M3	M2	M4	

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates.

$\frac{1}{2}$ /Money plus other liquid assets of the public.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
ITALY	Notes and coin		Non-compulsory depts. with the Bank of Italy; current acct with the Treasury, Post Office and banks by residents	Bank and Post Office savings deposits	Current accounts with banks in foreign currency held by residents or agencies	Banks RP fund raising (M2A), plus certificates of deposit (CDs) (M2); plus accept- ances (M3)	Treasury bills	
Consolidation*	M1		M1	M2A	M1	M2A/M2/M3	M3	
JAMAICA	Currency with the public	Demand depts. of private institutions and indivi- duals, plus bankers draft outstanding		Time savings and other depts. of private setor, central government and and public enterprises			Holdings of Bank of Jamaica certificates of deposits	
Consolidation*	M1	M1		M2			M2	
JAPAN	Currency	Demand deposits		Time deposits incl. govt bond time depts. accounts (M2 + CDs); plus money in trust, loan trusts and postal savings etc (M3 + CDs)	Foreign currency deposits	Certificates of deposit		
Consolidation*	M1	M1		M2+CDs/M3+CDs	M2+CDs	M2+CDs		
JORDAN	Currency in circula- tion	Demand depts of both private and public entre- prises with commercial banks		Time and savings depts of both private and public entre- prises with commercial banks	Foreign currency deposits of residents			
Consolidation*	M1	M1		M2	M2			
KENYA	Currency outside banks	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
KIRIBATI	Currency in circula- tion (the Austtalian dollar)	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M1				
SOUTH KOREA	Currency in circula- tion	Deposit Money		Time and Savings deposits		Certificates of Deposit (CD)	Commercial bills and receipts of nonbank financial financial interme- diaries	Stabilization Bonds
Consolidation*	M1	M1		M2		M2+CDs	M3	M3
KUWAIT	Currency in circula- tion	Sight deposits with commercial banks		Time and savings depts. with commercial banks	Foreign currency deposits		Certificates of deposit with the commercial banks by the private sector	
Consolidation*	M1	M1		M2	M2		M2	

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
LAO, PEOPLES DEM.REP	Currency in circu- lation			Time and savings depts. of private and cooperative sectors,house- holds and public entre- prises	Foreign currency deposits held by households			
Consolidation*	TL 1/			TL 1/	TL 1/			
LEBANON	Currency outside banks	Demand depts. in Lebanese pounds held by residents		Nondemand depts. with the banking system incl. the Bank of Lebanon held by the private sector	Demand plus other depts. in foreign currency held by residents			
Consolidation*	M1	M1		M2	M2			
LESOTHO	Currency with the public	Demand depts. excl. govt. but incl. deferred pay fund deposits with the commercial banks		Call(M1); plus savings and fixed time depts.; excl.govt. but incl. deferred pay fund deposits(M2);				
Consolidation*	M1	M1		M1/M2				
LIBERIA	Liberian coins in circula- tion	Demand depts. of the priv- ate sector, public ent- erprises, plus nonbank OFI's deposits with the central and commercial banks		Time and savings depts. of the private sector				
Consolidation*	M1	M1		M2				
LIBYA	Currency in circu- lation	Demand depts. with banks		Time and savings depts. with banks	Foreign currency deposits with banks		Commercial prepayments with banks	
Consolidation*	M1	M1		M2	M2		M2	
LUXEMBOURG	Currency outside banks	Current accounts in francs at banks and post office savings		Cash vouchers, deposit accounts plus savings accounts				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates

1/Total liabilities.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
MADAGASCAR	Currency outside banks	Demand depts. with the banks, post office savings and treasury		Time and savings deposits with banks and with National Savings fund				
Consolidation*	M1	M1		M2				
MALAWI	Notes and coin with the public	private sector domestic demand deposits		Private sector holdings of time and savings depts.				
Consolidation*	M1	M1		M2				
MALAYSIA	Currency in circu- lation	Demand deposits of private sector		Private sector fixed and savings deposits with the banking system		NCDs and Central Bank Certificates	Fixed and Savings deposits with merchant banks, finance companies and discount houses	
Consolidation*	M1	M1		M2		M2	M3	
MALDIVES	Currency in circu- lation	Demand depts with the banking system incl. current, call and other sight deposits		Time and savings deposits	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
MALI	Currency in circu- lation	Demand deposits of banks, incl. BCEAO and at the post office savings		Time and savings depts. incl. certi- ficates of deposit at the banks				
Consolidation*	M1	M1		M2				
MALTA	Currency in circu- lation	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
MAURITANIA	Currency outside banks and treasury	Demand depts. at banks and at post office savings		Time depts. and savings certificates incl those of public entreprises with banks			Import deposit funds	
Consolidation*	M1	M1		M2			M2	

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
MAURITIUS	Currency with the public	Demand depts. with the banks and financial corporations, incl. private sector deposit at the central bank		Time and savings depts. with the banks and financial corporations				
Consolidation*	M1	M1		M2				
MEXICO	Currency in circu- lation	Demand depts. of the pri- vate sector		Time deposits			Holdings of govt. securi- ties by the private sector- incl. treasury bills and petrobonds	Holdings of other nonbank financial assets incl bankers acceptances and commercial paper
Consolidation*	M1	M1		M3			M4	M5
MOROCCO	Currency outside banks	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
MOZAMBIQUE	Currency outside banks	Demand and savings deposits		Time deposits	Foreign currency deposits at the central bank(demand)			
Consolidation*	M1	M1		M2	M1			
NEPAL	Currency in circu- lation	Demand deposits		Savings, fixed and margin depts.	Foreign currency demand, savings and fixed deposits			
Consolidation*	M1	M1		M2	M2			
NETHERLANDS	Notes and coin incl. those held by non- residents	Demand deposits with banks and giro institutions		Money at call and short-term time deposits and liquid savings deposits	Foreign currency deposits		Claims on central and local govern- ment (eg Treasury bills, notes, advances, etc.)	
Consolidation*	M1	M1		M2	M2		M2	
NEW ZEALAND	Notes and coin with the public	Trading banks depts. (excl. govt (M1); plus demand depts. of POSB, trustee and savings banks, finance corps.. etc. (M2)		Call deposits (M2); plus fixed deposits at trading banks; all other time and special depts. of POBS, private and trustee savings banks, stock agents and finance companies (M3)				
Consolidation*	M1	M1/M2		M2/M3				

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

Table 1 (cont'd), National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand ¹ Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds	Reserves
NICARAGUA	Currency in circula- tion	Demand depts. with the banks		Time and savings depts. with the banks	Foreign currency deposits with banks				
Consolidation*	M1	M1		M2	M2				
NIGER	Currency in circula- tion	Demand depts. at the banks incl. BCEAO, and at the post office		Time and savings deposits at the banks					
Consolidation*	M1	M1		M2					
NIGERIA	Currency outside banks	Private sector demand deposits		Time and savings depts. excl. savings at the Federal savings bank					
Consolidation*	M1	M1		M2					
NORWAY	Notes and coin	Sight depts. excluding tax accounts of municipal Treasurers		Time deposits excluding bank savings with tax reduction			Unutilized over- drafts and build- ing loans		
Consolidation*	M1	M1		M2			M1		
OMAN	Currency with the public	Demand depts. of private and public sector ent- prises in local cur- rency		Rial Omani savings and time deposits	Foreign currency deposits				
Consolidation*	M1	M1		M2	M2				
PAKISTAN	Currency outside banks	Scheduled banks demand deposits excl. interbank, Fed- eral and prov- incial govt. and foreign constituents deposits		Scheduled banks time deposits excl. interbank, Federal and provincial govt. and foreign constituents deposits			Other depts. with the State Bank of Pakistan		
Consolidation*	MA 1/ ₁	MA 1/ ₁		MA 1/ ₁			MA 1/ ₁		
PANAMA		Demand depts. of the pri- vate sector held with the banking system		Time and savings depts. of the private sector with the banking system			Other deposits with the banking system		
Consolidation *		ML 2/ ₁		ML 2/ ₁			ML 2/ ₁		
PAPUA NEW GUINEA	Notes and coins in circulation	Cheque accounts deposits		Savings and term deposits	Foreign currency deposits		Marketing boards ² and ³ stabilization funds deposits		
Consolidation *	M1	M1		M2	MS 3/ ₁		MS 3/ ₁		

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

- 1 Monetary assets.
- 2 Monetary liabilities.
- 3 Monetary survey.

Table 1 (cont'd) National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
PARAGUAY	Currency in circula- tion	Demand depts. of the private sector, official entities and government enterprises		Time and savings deposits of the private sector, official entities and others eg. agricultural programs				
Consolidation*	M1	M1		M2				
PERU	Notes and coins in circulation	Demand deposits in national currency		Time and savings deposits held as certificates of deposits	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
PHILIPPINES	Currency in circula- tion	Demand deposits		Savings and Time deposits		Deposit substi- tutes in banks, eg. RPs, Commer- cial Paper, etc.	Short-term bills issued by the Treasury and Central Bank plus marginal deposits T.L. ^{1/}	
Consolidation*	M1	M1		M2		M3		
POLAND	Currency outside banks	Demand depts. of socialized sector (incl. depts. of investment accounts and financial institutions), and nonsocialized sector		Time and savings depts. of both socia- lized and non- socialized sectors	Foreign currency deposits of socia- lized and nonsociali- zed sectors		PKO certificates held outside the banking system	
Consolidation*	M1	M1		M2	M2		M2	
PORTUGAL	Currency in circula- tion	Demand deposits		Time depts. of resident nonbank public (M2); plus non- monetary finan- cial institutions deposits (L);	Emigrants deposits		Short-term treasury bills in the hands of the nonbank public	
Consolidation*	M1	M1		M2/L	L		L-	
QATAR	Currency in circula- tion	Demand deposits		Savings and time deposits	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
ROMANIA	Currency outside banks	Entreprise deposits incl. those freely usable		Savings deposits	Foreign currency deposits		Savings under supplementary pension scheme	
Consolidation*	M1	M1		M2	M2		LL ^{2/}	

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

^{1/} Total liquidity.

^{2/} Liquid liabilities.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
RWANDA	Currency in circula- tion	Sight depts plus depts. of nonbank OFI's and official entities' deposits		Term deposits plus other private sector deposits in DMB's plus term deposits and other depts. at the central bank				
Consolidation*	M1	M1		M2				
ST. KITTS AND NEVIS	Currency	Demand depts with commercial banks		Time and savings depts. with banks	Foreign currency deposits by residents			
Consolidation*	M1	M1		M2	M2			
ST. LUCIA	Currency	Demand depts. with commercial banks		Time and savings depts. with banks	Foreign currency deposits by residents			
Consolidation*	M1	M1		M2	M2			
ST. VINCENT	Currency	Demand depts with commer- cial banks		Time and savings depts with banks	Foreign currency deposits by residents			
Consolidation*	M1	M1		M2	M2			
SAO TOME AND PRINCIPE	Currency in circula- tion	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
SAUDI ARABIA	Currency outside banks	Demand deposits		Time and savings deposits	Foreign currency deposits in commercial banks		Deposits for letters of credit plus guarantee deposits	
Consolidation*	M1	M1		M2	M3		M3	
SENEGAL	Currency in circula- tion	Demand depts. at banks incl. BCEAO and at the post office savings		Savings and time deposits incl. certificates of deposits				
Consolidation*	M1	M1		M2				
SEYCHELLES	Currency with the public	Demand depts. incl. those of parastatals		Time and savings depts. incl. those of parastatals				Government deposits
Consolidation*	M1	M1		M2				M3
SIERRA LEONE	Currency in circula- tion	Private sector demand deposits incl. those of official entities		Savings and time deposits				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance
Higher numbered aggregates are more inclusive aggregates.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
SINGAPORE	Currency in active circulation	Demand deposits		Fixed deposits plus NCDs plus issues by banks and held outside the monetary sector		Net deposits with finance companies and post office savings banks		
Consolidation*	M1	M1		M2		M3		
SOLOMON ISLANDS	Currency outside banks	Demand depos. incl. depos. of official entities such as the central government and provinces		Savings and time deposits of private sect. plus time depts. of official entities incl. the central govt. and provinces				
Consolidation*	M1	M1		M3				
SOMALIA	Currency outside banks	Private and public sector demand deposits at both central and com- mercial banks		Time and savings deposits at both central and com- mercial banks	Foreign currency deposits by residents		Counterpart funds deposits	
Consolidation*	M1	M1		M2	M2		M2	
SOUTH AFRICA	Notes and coin in circu- lation	Cheques and transmission deposits of domestic, private sector with banks, POSBs and Building societies	Other demand deposits held by private sector	Short- and medium- term deposits (incl. savings) held with banks, POSB and building societies			Long-term deposits held with banks, building societies, and post office savings banks	
Consolidation*	M1(A)	M1(A)	M1	M2			M3	
SPAIN	Currency in circula- tion	Sight deposits		Savings and time deposits		Treasury bills held under repur- chase agree- ments	Treasury bills held by the nonfinancial sector plus banks non- monetary liabilities	
Consolidation*	M1	M1		M3		TLP 1/	TLP 1/	
SRI LANKA	Currency held by the public	Demand deposits held by the public		Time and savings depts. held by the private sect incl. govt. corporations with the commercial banks				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

1/ Total liquidity of nonfinancial sector.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other-Liquid Assets of the Public	Bonds
SUDAN	Currency with the public	Demand deposits		Time and savings deposits				
Consolidation*	M1	M1		M2				
SURINAME	Currency in circula- tion incl govt. issue of currency	Demand deposits		Time and savings deposits incl. savings certificates	Foreign currency deposits		Import deposits	
Consolidation*	M1	M1		M2	M2		M2	
SWAZILAND	Currency in circula- tion	Demand depos. of private sector excl. interbank and govt. deposits		Time and savings depts. of private sector excl. interbank and govt. deposits				
Consolidation*	M1	M1		M2				
SWEDEN	Currency in circula- tion			Deposits and certificates held at commer- cial, savings and cooperative banks plus post office savings	Foreign currency deposits by residents		Holdings of treasury discount notes by the non- financial sector plus households national savings accounts ^{1/}	
Consolidation*	M1 ^{1/}			M3	M3		M1/L2	
SWITZERLAND	Bank notes	Sight depts. in SF held by domestic nonbanks, postal giro accounts ^{2/}		Time deposits held by nonbanks (M2); plus savings deposits held by nonbanks (including salary accounts (M3))				
Consolidation*	M1	M1		M2/M3				
SYRIA	Currency outside banks and treasury	Demand deposits		Time and savings deposits	Foreign currency deposits		Restricted deposits excl. import deposits	
Consolidation*	M1	M1		M2	M2		M2	
TANZANIA	Currency outside banks	Demand depts. incl. minor nonresident deposits but excl govt. and foreign currency deposits		Time and savings depts incl. minor nonre- sident depts. but excl. govt. and foreign currency deposits				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance. Higher numbered aggregates are more inclusive aggregates.

^{1/} Base money.

^{2/} Foreign currency sight and time deposits excluded from M₂ since 1985.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
THAILAND	Notes and coin in circula- tion out- side the Bank of Thailand, plus those held by OFI's	Demand depts. held by business, households, and other financial institutions		Time and savings depts. of the private sector in the banking system	Foreign currency deposits		Promissory notes, margi- nal deposits plus other deposit liabilities of finance and security companies	
Consolidation*	M1	M1		M2	M2		M3	
TOGO	Currency in circula- tion	Demand depts. of banks incl. BCEAO, and at the post office savings		Time and savings deposits				
Consolidation*	M1	M1		M2				
TONGA	Currency	Demand deposits	Bills payable	Savings and time deposits				
Consolidation*	M1	M1	M1	M2				
TRINIDAD AND TOBAGO	Currency in active circulation	Demand deposits		Savings and time deposits (M2); plus time, saving and other deposits with nonbank finan- intermediaries (LPS);				
Consolidation*	M1	M1		M2/LPS <u>1/</u>				
TUNISIA	Notes and coins in circulation excl. depts. in treasury	Demand depts at central bank and at deposit money banks plus those at post office savings		Time and savings deposits at banks			Provisions for docu- mentary credits and IFDCE deposits	
Consolidation*	M1	M1		M2			M2	
TURKEY	Currency outside banks	Sight depts. with deposit money banks incl. comm- ercial, savings and others		Time and certificates of deposits with deposit money banks incl. both savings and commercial	Foreign exchange deposits with deposit money banks by both residents and nonresidents		Deposits with central bank (M1); plus public sight and time depts with (M3);	
Consolidation*	M1	M1		M2	M2X		M1/M3	
UGANDA	Currency in circula- tion	Demand depts. with banks		Time and savings depts. with banks				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

1/ Monetary liquid liabilities to the private sector.

Table 1 (cont'd). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
UNITED ARAB EMIRATES	Currency outside banks	Monetary deposits i.e. pri- vate de- mand depts of residents in local currency and bankers drafts		Time, savings and certificates of deposits in local and foreign currency	Foreign currency demand depts. of residents		Commercial prepayments of residents in domestic and foreign currency (M2); plus govt. deposits in both domestic and foreign currency (M3);	
Consolidation*	M1	M1		M2	M2		M2/M3	
UNITED KINGDOM	Currency with the public	Private sector sterling sight depts. with U.K. banks (incl. call money)	Chequable interest- bearing small retail deposits with U.K. banks.	Other retail depts. by private sector with U.K. monetary insts., building, savings, etc (M2); plus U.K. private sector sterling time deposits (M3)	Private sect. residents non- sterling hold- ings at U.K. banks	Sterling Certifi- cates of deposit (CD)	Private sector holdings of other instruments, eg bank bills, Trea- sury bills, etc.	
Consolidation*	M1	M1	M2	M2/M3	M3	M3	PSL1/PSL2	
U.S.A.	Currency outside banks and Treasury	Commercial banks demand depts. plus other chequables such as ATS and NOW accounts at OFIs ^{1/}	Nonbank issues of travellers cheques	Savings and small denom. time deposits at depository insts. incl. MMMFs, MMDAs (M2); plus large denom. time deposits at all at all deposit insti- tutions (M3)		Overnight RPs issued by comm. banks (M2); plus CDs issued by comm banks and thrift institutions (M3); plus bankers' acceptances (L)	Overnight Euro- dollars issued to US residents (M2); plus term Eurodollars issued to US residents (M3); plus commercial paper, T-bills, savings bonds, etc. (L)	Commercial paper issued by financial corporations
Consolidation*	M1	M1	M1	M2/M3		M2/M3/L	M2/M3/L	L
URUGUAY	Currency in circu- lation of domestic origin	Private sector demand deposits in domes- tic curr- ency; plus those of public enterprises		Time and savings depts of private and public sectors in domestic currency	Demand and time depts. of private and public sectors in foreign curr- ency; plus bonds and bills in foreign currency	Bankers acceptances in domestic currency	Savings depts at BHU and treasury bills in domestic currency	
Consolidation*	M1	M1		M2	M3	M2*	M2*	
VANUATU	Currency with the public	Demand depts. of residents excl. govt. ^{1/}		Savings and fixed depts. of residents	Foreign currency demand deposits of residents (M2); plus savings and fixed depts. of residents in foreign currency (M4);			
Consolidation*	M1	M1		M3	M2/M4			

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates.

^{1/} Excluding demand deposits held by foreign commercial banks.

Table 1 (concluded). National Monetary Measures and Aggregates

Instrument/ Country	Currency	Demand Deposits	Other Transferable Deposits	Call, Time and Savings Deposits	Foreign Currency Deposits	Money Market Instruments	Other Liquid Assets of the Public	Bonds
VENEZUELA	Notes and coin in circulation	Demand deposits		Time and savings depts. held with the banking system		Savings certificates	Finance and mortgage bonds	
Consolidation*	M1	M1		M2		M3	M3	
VIET NAM	Cash in circulation	Demand deposits of state enterprises and cooperatives		Savings deposits	Foreign currency deposits of state enterprises			
Consolidation*	TL 1/	TL 1/		TL 1/	TL 1/			
WESTERN SAMOA	Currency with the public	Demand deposits		Savings and time deposits with banks				
Consolidation*	M1	M1		M2				
YEMEN ARAB REPUBLIC	Currency outside banks	Demand deposits		Time and savings deposits	Foreign currency deposits		Earmarked deposits on imports	
Consolidation*	M1	M1		M2	M2		M2	
YEMEN P.D. REP.	Currency outside banks	Demand deposits		Time and savings deposits			Deposits against letters of credit	
Consolidation*	M1	M1		M2			M2	
YUGOSLAVIA	Currency in circulation	Deposit money and and other sight deposits		Labour orgs., households and public sector short- term and long- term deposits	Foreign currency deposits			
Consolidation*	M1	M1		M2	M2			
ZAIRE	Currency in circulation	Demand depts. at commercial and central banks and at the post office savings		Time depts. at central bank and at other banks	Residents's deposits in foreign currency			
Consolidation*	M1	M1		M2	M2			
ZAMBIA	Currency in circulation	Demand depts. at banks excl. govt. and non- resident deposits		Savings and time deposits by residents incl. those at the central bank excl. those of the govt. and nonresident deposits				
Consolidation*	M1	M1		M2				
ZIMBABWE	Notes and coin in circulation	Demand depts. excl govt. deposits and foreign currency deposits		Fixed deposits incl. savings deposits with commercial banks with a maturity of less than thirty days				
Consolidation*	M1	M1		M2				

* Means the monetary aggregate in which they appear at the first instance.
Higher numbered aggregates are more inclusive aggregates
1/ Total liquidity.

Table 2. National Monetary Aggregates by Holder 1/

	Private Sector	NFPE <u>2/</u>	Other Gen. Government	Central Government	Financial Institutions <u>3/</u>	Non- Residents
Afghanistan	X	X	X		X	
Algeria	X	X	X	X	X	X
Antigua & Barbuda	X	X	X		X	
Argentina	X	X	X		X	
Australia	X	X	X		X	
Austria	X	X	X	X		X
Bahamas, The	X	X	X		X	
Bahrain	X	X	X	X		
Bangladesh	X					
Barbados	X	X	X		X	
Belgium	X	X			X	
Belize	X	X	X			
Benin	X	X	X		X	
Bhutan	X					
Bolivia	X		X			
Botswana	X	X	X			X
Brazil	X	X	X		X	
Burkina Faso	X	X	X		X	
Burma	X				X	
Burundi	X	X	X		X	
Cameroon	X	X	X		X	
Canada	X	X	X		X	
Cape Verde	X	X	X		X	X
Central African Rep.	X	X	X		X	
Chad	X	X	X		X	
Chile	X	X	X		X	
China	X	X	X			
Colombia	X	X	X		X	
Comoros	X	X	X		X	X
Congo	X	X	X		X	
Costa Rica	X	X	X		X	
Cote d'Ivoire	X	X	X		X	
Cyprus	X	X	X		X	
Denmark	X	X	X		X	
Djibouti	X	X	X		X	X
Dominica	X	X	X		X	
Dominican Republic	X	X	X		X	
Ecuador	X	X	X		X	
Egypt	X	X				
El Salvador	X	X	X		X	
Equatorial Guinea	X	X	X			
Ethiopia	X	X	X			

Table 2 (cont'd). National Monetary Aggregates by Holder 1/

	Private Sector	NFPE <u>2/</u>	Other Gen. Government	Central Government	Financial Institutions	Non- Residents
Fiji	X	X	X	X	X	X
Finland	X	X				
France	X	X	X		X	
Gabon	X	X	X		X	
Gambia, The	X	X	X		X	
Germany	X	X	X	X	X	
Ghana	X	X	X		X	
Guatemala	X	X	X		X	
Guinea	X	X				
Guinea-Bissau	X	X	X			
Guyana	X	X	X		X	X
Haiti	X	X	X		X	
Honduras	X	X	X		X	
Hungary	X	X	X		X	
Iceland	X	X	X		X	
India	X	X	X		X	X
Indonesia	X	X	X		X	
Iran	X	X	X			
Iraq	X	X	X			
Ireland	X	X			X	
Israel	X	X			X	
Italy	X	X	X		X	
Jamaica	X	X	X	X		
Japan	X	X	X			X
Jordan	X	X	X			
Kenya	X	X	X		X	
Kiribati	X	X	X			
Korea	X	X	X		X	
Kuwait	X	X	X		X	
Laos	X					
Lebanon	X		X		X	X
Lesotho	X	X	X			X
Liberia	X	X	X		X	
Libya	X				X	
Luxembourg	X					X
Madagascar	X	X	X			
Malawi	X	X	X			X
Malaysia	X	X	X			
Maldives	X	X	X			
Mali	X	X	X		X	
Malta	X	X	X		X	
Mauritius	X	X	X		X	

Table 2 (cont'd). National Monetary Aggregates by Holder 1/

	Private Sector	NFFE 2/	Other Gen. Government	Central Government	Financial Institutions	Non- Residents
Mexico	X	X	X		X	
Morocco	X	X	X		X	
Mozambique	X	X				
Nepal	X	X			X	
Netherlands	X	X			X	
New Zealand	X	X	X		X	
Nicaragua	X	X	X		X	
Niger	X	X	X		X	
Nigeria	X				X	
Norway	X	X	X		X	
Oman	X	X	X		X	
Pakistan	X	X	X		X	X
Panama	X	X	X		X	X
Papua New Guinea	X	X			X	X
Paraguay	X	X	X	X	X	X
Peru	X	X	X		X	
Philippines	X	X	X		X	X
Poland	X	X	X		X	
Portugal	X	X	X		X	X
Qatar	X	X	X		X	X
Romania	X	X	X			
Rwanda	X	X	X		X	
St. Kitts & Nevis	X	X	X		X	
St. Lucia	X	X	X		X	
St. Vincent	X	X	X		X	
Sao Tome & Principe	X	X	X		X	
Saudi Arabia	X	X	X		X	
Senegal	X	X	X		X	
Seychelles	X	X	X	X	X	
Sierra Leone	X	X	X			
Singapore	X	X				
Solomon Islands	X	X	X	X	X	
Somalia	X	X	X		X	
South Africa	X	X	X			
Spain	X	X	X		X	
Sri Lanka	X	X	X		X	
Sudan	X	X	X		X	X
Surinam	X	X	X			
Swaziland	X	X		X	X	X
Sweden	X	X		X	X	
Syria	X	X	X		X	X

Table 2 (concluded). National Monetary Aggregates by Holder 1/

	Private Sector	NFPE <u>2/</u>	Other Gen. Government	Central Government	Financial Institutions	Non- Residents
Tanzania	X	X	X		X	X
Thailand	X	X	X		X	
Togo	X	X	X		X	
Trinidad & Tobago	X	X	X			
Tunisia	X	X	X		X	
Turkey	X	X	X		X	X
Uganda	X	X	X		X	
United Arab Emirates	X	X	X	X		
United Kingdom	X	X	X		X	
United States	X	X	X		X	X
Uruguay	X	X	X		X	
Vanuatu	X	X	X		X	
Venezuela	X	X	X		X	
Viet Nam	X				X	
Western Samoa	X	X	X		X	
Yemen Arab Republic	X	X	X			
Yemen, People's Democratic	X	X	X			
Yugoslavia	X	X	X			
Zaire	X	X	X		X	
Zambia	X	X	X			
Zimbabwe	X	X	X		X	

1/ X indicates the presence of the holder, instrument, or issuer in monetary aggregates in the applicable country.

2/ Nonfinancial public enterprises.

3/ Nonbanking financial institutions.

Table 3 (cont'd). National Monetary Aggregates - M1 (Narrow Money) by Issuer and Instruments 1/

	Central Bank		Commercial Banks		Other Banks		Government		Post Office				
	Cy 2/	OD/NC 3/	OD/FC 4/	Cy 2/	OD/NC 3/	OD/FC 4/	Call	Cy 2/	OD/NC 3/	OD/FC 4/	Cy 2/	OD/NC 3/	OD/FC 4/
Djibouti	X			X									
Dominica	X			X									
Dominican Republic	X	X		X						X			
Ecuador	X	X		X									
Egypt	X									X			
El Salvador	X			X						X			
Equatorial Guinea	X			X									X
Ethiopia	X			X									
Fiji	X			X									
Finland	X			X									
France	X			X						X			X
Gabon	X			X						X			X
Gambia, The	X			X						X			X
Germany	X			X						X			X
Ghana	X			X						X			X
Greece	X			X						X			X
Grenada	X			X						X			X
Guatemala	X			X						X			X
Guinea	X			X						X			X
Guinea-Bissau	X			X						X			X
Guyana	X			X						X			X
Haiti	X			X						X			X
Hong Kong	X			X						X			X
Honduras	X			X						X			X
Hungary	X			X						X			X
Iceland	X			X						X			X
India	X			X						X			X
Indonesia	X			X						X			X
Iran	X			X						X			X
Iraq	X			X						X			X
Ireland	X			X						X			X
Israel	X			X						X			X
Italy	X			X						X			X
Jamaica	X			X						X			X
Japan	X			X						X			X

Table 3 (cont'd). National Monetary Aggregates - M1 (Narrow Money) by Issuer and Instruments 1/

	Central Bank				Commercial Banks					Other Banks					Government				Post Office				
	Cy 2/	OD/NC 3/	OD/FC 4/		CY 2/	OD/NC 3/	OD/FC 4/	Call		CY 2/	OD/NC 3/	OD/FC 4/	Call		CY 2/	OD/NC 3/	OD/FC 4/		Cy 2/	OD/NC 3/	OD/FC 4/		
Kenya	X	X			X			X															
Kiribati					X																		
Korea	X	X	X		X		X			X		X											
Kuwait	X				X																		
Laos					X																		
Lebanon	X	X			X		X			X													
Lesotho	X				X																		
Liberia	X	X	X		X		X																
Libya					X																		
Luxembourg					X		X																X
Madagascar	X				X												X						X
Malawi	X	X			X																		
Malaysia	X				X																		
Maldives					X		X																
Mali	X				X		X			X					X								X
Malta	X				X							X											
Mauritania	X																						X
Mauritius	X	X			X					X													
Mexico	X				X		X																
Morocco	X				X										X								X
Mozambique	X		X		X																		
Nepal	X	X			X					X			X										
Netherlands	X	X	X		X		X		X	X		X		X									X
New Zealand	X				X			X		X													X
Nicaragua	X				X					X													
Niger	X				X		X	X							X								X
Nigeria	X				X																		
Norway	X	X			X					X													X
Oman	X				X																		
Pakistan	X				X		X																
Panama		X	X		X		X								X								
Papua New Guinea	X				X		X																
Paraguay	X	X			X					X													
Peru	X	X			X																		
Philippines	X				X		X																

Table 3 (cont'd). National Monetary Aggregates - M1 (Narrow Money) by Issuer and Instruments 1/

	Central Bank				Commercial Banks				Other Banks				Government			Post Office			
	Cy 2/	OD/NC 3/	OD/FC 4/		CY 2/	OD/NC 3/	OD/FC 4/	Call	CY 2/	OD/NC 3/	OD/FC 4/	Call	CY 2/	OD/NC 3/	OD/FC 4/	Cy 2/	OD/NC 3/	OD/FC 4/	
Poland	X				X		X			X		X							
Portugal	X				X														
Qatar	X				X														
Romania	X	X			X		X			X		X							
Rwanda	X				X														
St. Kitts & Nevis	X				X		X												
St. Lucia	X				X		X												
St. Vincent	X				X		X												
Sao Tome & Principe	X				X														
Saudi Arabia	X				X														
Senegal	X				X			X		X				X				X	
Seychelles	X				X														
Sierra Leone	X	X			X														
Singapore	X				X					X									
Solomon Islands	X	X	X		X		X												
Somalia	X	X			X		X												
South Africa	X				X					X			X						
Spain	X				X								X						
Sri Lanka	X	X			X														
Sudan	X				X		X												
Surinam	X				X								X						
Swaziland	X	X			X														
Sweden	X																		
Switzerland	X				X					X			X					X	
Syria	X				X		X											X	
Tanzania	X	X			X														
Thailand	X				X		X			X									
Togo	X				X			X						X				X	
Tongo	X												X						
Trinidad & Tobago	X				X														
Tunisia	X	X			X					X								X	
Turkey	X	X			X					X			X						

Table 3 (concluded). National Monetary Aggregates - M1 (Narrow Money) by Issuer and Instruments 1/

	Central Bank				Commercial Banks					Other Banks					Government				Post Office			
	Cy 2/	OD/NC 3/	OD/FC 4/	Call	Cy 2/	OD/NC 3/	OD/FC 4/	Call	Cy 2/	OD/NC 3/	OD/FC 4/	Call	Cy 2/	OD/NC 3/	OD/FC 4/	Call	Cy 2/	OD/NC 3/	OD/FC 4/	Call		
Uganda	X	X			X																	
United Arab Emirates	X				X																	
United Kingdom	X				X			X				X										
United States	X				X							X										
Uruguay	X				X																	
Vanuatu	X				X		X															
Venezuela	X				X		X															
Viet Nam	X				X																	
Western Samoa	X				X								X									
Yemen Arab Republic	X				X																	
Yemen P.D.	X				X																	
Yugoslavia	X	X			X																	
Zaire	X	X			X		X										X					
Zambia	X				X																	
Zimbabwe	X	X			X																	

1/ X indicates the presence of the holder, instrument, or issuer in monetary aggregates in the applicable country.
 2/ Currency or notes and coin.
 3/ Demand deposits in domestic currency.
 4/ Demand deposits in foreign currency.

Table 4. National Monetary Aggregates - M2 or M3 (Broad Money) by Issuer and Instruments 1/

COUNTRY	Central Bank					Commercial Banks					Other Banks					Government				Post office					
	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Bills	Bonds	OD/NC 2/		
Afghanistan	X						X	X																	
Algeria							X	X		X										X					X
Antigua & Barbuda							X	X																	
Argentina						X	X	X			X														
Australia							X																		
Austria	X						X	X		X			X				X								
Bahamas, The							X	X					X		X										
Bahrain							X																		
Bangladesh							X																		
Barbados							X						X												
Belgium							X	X					X												
Belize							X						X												
Benin							X						X							X					
Bhutan							X																		
Bolivia							X						X												
Botswana							X																		
Brazil		X					X	X		X			X		X							X			
Burkina Faso							X						X												
Burma	X						X	X																	
Burundi							X																		X
Cameroon							X																		X
Canada							X						X		X										
Cape Verde	X						X																		
Central African Rep.							X																		X
Chad							X																		X
Chile	X	X				X	X	X		X	X											X			
China							X																		
Colombia	X	X					X						X		X										
Comoros	X						X																		
Congo							X																		X
Costa Rica	X	X					X	X					X		X										
Cote d'Ivoire							X						X												
Cyprus	X						X						X												
Denmark	X	X					X						X		X					X					X
Djibouti							X			X										X					
Dominica							X																		
Dominican Republic	X	X					X	X					X		X										
Ecuador		X					X						X												
Egypt	X						X						X												
El Salvador	X	X					X						X												
Equatorial Guinea							X																		X
Ethiopia	X						X	X																	
Guatemala	X						X						X												
Finland							X						X		X										X
France							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 4 (cont'd) National Monetary Aggregates - M2 or M3 (Broad Money) by Issuer and Instruments 1/

COUNTRY	Central Bank					Commercial Banks					Other Banks					Government				Post Office				
	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Bills	Bonds	OD/NC 2/	
Gabon							X												X				X	
Swabia the							X																	
Germany	X												X		X									
Ghana	X									X			X											
Greece							X		X								X							X
Guatemala							X																	
Guinea							X																	
Guinea Bissau	X																							
Guyana							X																	
Haiti	X		X				X		X															
Honduras	X		X				X		X				X		X									
Hungary	X		X				X		X															
India	X						X		X				X		X									X
Indonesia	X						X		X				X		X									X
Iran	X																							
Iraq																								
Ireland							X																	
Israel							X			X		X												
Italy	X		X			X	X		X	X	X				X		X					X		X
Jamaica	X						X						X											
Japan							X		X															X
Jordan	X						X		X			X												X
Kenya	X						X		X															
Kiribati																								
Korea							X						X											X
Kuwait						X							X											
Kosovo																								
Lebanon	X						X		X															X
Lesotho	X						X																	X
Liberia	X						X																	
Libya							X		X															
Luxembourg							X																	X
Madagascar																								
Malawi	X						X		X				X		X						X	X		X
Malaysia					X		X			X	X	X	X											
Maldives																								
Mali							X																	X
Malta																								X
Mauritius							X																	
Mexico	X						X		X															X
Moldova	X						X						X											X
Monrovia																								
Nepal							X																	
Netherlands							X																	
New Zealand																								X
Nicaragua							X																	
Niger							X																	
Nigeria																								
Norway																								

Table 1 (cont'd). National Monetary Aggregates - M2 or M3 (Broad Money) by Issuer and Instruments 1/

COUNTRY	Central Bank				Commercial Banks						Other banks				Government				Post Office	
	OD/MC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/MC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/MC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/MC 2/	
Japan																				
Pakistan	X																			
Falcom	X	X																		
Portugal N. Guinea																				
Paraguay																				
Peru	X	X																		
Philippines	X				X															X
Poland	X																			
Portugal	X		X	X	X															X
Qatar																				
Romania	X																			
Rwanda	X																			
St. Kitts & Nevis																				
St. Lucia																				
St. Vincent																				
Sao Tome & Prin.																				
Saudi Arabia																				
Senegal																				
Seychelles																				
Sierra Leone																				
Singapore	X																			
Solomon Isls.																				
Somalia	X																			
South Africa	X																			
Spain																				
Sri Lanka																				
Sudan																				
Surinam																				
Swaziland																				
Sweden																				
Switzerland																				
Syria																				
Tanzania																				
Thailand	X																			
Togo																				
Trip. ATobago																				
Tunisia																				
Turkey	X																			
Uganda																				
Unit. Arab Emirates																				
United Kingdom																				
United States																				
Uruguay	X	X																		

Table 1 (concluded) National Monetary Aggregates - M2 or M3 (Broad Money) by Issuer and Instruments 1/

COUNTRY	Central Bank					Commercial Banks					Other Banks					Government				Post Office				
	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Repo 4/	CDs 5/	Bills	Bonds	OD/NC 2/	OD/FC 3/	Bills	Bonds	OD/NC 2/	
Vanuatu							Y	Y																
Venezuela	X						Y	Y		Z		X	Y	Y										
Viet Nam							Y	Y																
Western Samoa							Y	Y																
Yemen ARAB Rep.							X	X																
Yemen, P.D.							Z	Z																
Yugoslavia	X						Z	Y																
Zaire	X						Y	Y		Y														
Zambia	Y						Y	Y																
Zimbabwe							Y	Y																

- 1/ Y indicates the presence of the holder, instrument, or issuer in monetary aggregates in the applicable country
 2/ other deposits in national currency (eg. time and savings depts.)
 3/ other deposits in foreign currency
 4/ Repurchase agreements
 5/ Certificates of Deposit

References

- Akhtar, M. A., "Financial Innovations and their Implications for Monetary Policy: An International Perspective," BIS Economic Papers, No. 9 (Basle: December 1983).
- Audun, Gron, "Towards Market-Oriented Monetary and Credit Policy in Norway," Norges Bank Economic Bulletin (1985/3).
- Bahrain Monetary Agency, Quarterly Statistical Bulletin, Vol. 12, No. 4 (Bahrain: December 1986).
- Banca d'Italia, "The Revision of Monetary Aggregates," Economic Bulletin No. 1 (October 1985).
- Banco Central de Bolivia, 56A Memoria Anual (La Paz: 1984).
- Banco Central de Costa Rica, Memoria Anual, Tomo 1 (San Jose: 1984).
- Banco Central de Chile, Annual Report (Santiago: 1985).
- Banco de Espana, Informe Anual 1986 (Madrid: Junio 1987).
- Banco Central del Paraguay, Boletin Estadistico, No. 349 (Asuncion: Agosto 1987).
- Banco de Portugal, Estatistica e Estudos Economicos, Ano 1, No. 4 (Lisbon: Agosto 1987).
- Banco Central de la Republica Argentina, Boletin Estadistico, Vol. XXIX, No.1-6 (Buenos Aires: Enero-Junio 1986).
- Banco Central de Reserva del Peru, Boletin (Lima: Junio 1987).
- Banco Central del Uruguay, Boletin Estadistico, No.82 (March 1987).
- Banco Central de Venezuela, Anuario de Estadisticas, Sector Financiero (Caracas: 1985).
- Bangladesh Bank, Economic Trends (Dhaka: November 1986).
- Bank El Maghrib (Morocco), Annual Report (1982).
- Bank Indonesia, Report for Financial Year 1986/87 (Jakarta: 1987).
- Bank Markazi Iran, Bulletin , No.101 (Teheran: Winter 1982).

- Bank Negara Malaysia, Annual Report 1986 (Kuala Lumpur).
- Bank for International Settlements "Financial Innovation and Monetary Policy" (Basle: March 1986).
- Bank of Botswana, Annual Report 1983 (Gaborone).
- Bank of Canada "Monetary Aggregates: Some Recent Developments," Bank of Canada Review (January 1985).
- Bank of England, "Changes to Monetary Aggregates and the Analysis of Lending," Quarterly Bulletin (March 1984).
- Bank of Ghana, Quarterly Economic Bulletin, Vol.17, No.1 (Accra: January-March 1976).
- Bank of Greece "Report of Governor D. Chalikias for the Year 1986" (Athens: 1986).
- Bank of Israel, Economic Review, No. 5 (Jerusalem: November 1983).
- Bank of Jamaica, Statistical Digest (Kingston: March 1986).
- Bank of Korea "35th Annual Report" (Seoul: March 1986).
- Bank of Mauritius, Quarterly Review, Vol.XIX, No. 1 (Port Louis: January-March 1987).
- Bank of Papua New Guinea, Report and Financial Statements (December 31, 1984).
- Bank of Sierra Leone, Economic Review, Vol. 9, Nos. 16 and 17 (Freetown: June 1983).
- Bank of Sudan, Economic and Financial Statistics Review (Khartoum: July-September 1983).
- Bank of Tanzania, Economic Bulletin, Vol.XII, No.1 (Dar es Salaam: March 1980).
- Bank of Thailand, Quarterly Bulletin, Vol. 27, No. 1 (Bangkok: March 1987).
- Bank of Zambia, Quarterly Financial and Statistical Review, Vol. 15, No. 1 (Lusaka: March 1985).
- Banque Centrale des Etats de l'Afrique de l'Ouest, BCEAO (Dakar: 1985).

- Banque des Etats de l'Afrique Central, Rapport d'Activité Exercise 1986/87 (Yaounde).
- Banque Centrale de Mauritanie, Rapport Annuel (Nouakchott: 1984).
- Banque Central de Tunisie, Statistiques Financières, No. 72 (Tunis: May 1985).
- Banque de la Republique du Burundi, Bulletin Trimestriel, No. 98 (Bujumbura: September 1986).
- Banque du Zaire, Rapport Annuel (Kinshasa: 1982).
- Banque Nationale d'Algerie, Bilan au 31 Décembre 1985 (Alger).
- Banque Nationale de Belgique, Bulletin, Tome II, No. 6 (Brussels: December 1987).
- Barnett W. A. and P. A. Spindt, "Divisia Monetary Aggregates: Compilation Data and Historical Behavior," Federal Reserve Board (Washington, D.C.: 1982).
- Bennett, Adam G.G., "France's Choice of New Money Measures Marks Completion of Vital Reform Phase", IMF Survey (Washington, D.C.: March 31, 1986).
- Berkmann, N. G., "Abandoning Monetary Aggregates" in Controlling Monetary Aggregates III. Proceedings of a Conference held at Melvin Village, New Hampshire, Sponsored by the Federal Reserve Bank of Boston (October 1980).
- Board of Governors of the Federal Reserve System (U.S.), "Improving the Monetary Aggregates" A Report of the Advisory Committee on Monetary Statistics (Washington, D. C.: June 1976).
- Bruneel, O., "La Redefinition des Agregats Monetaires," Bank de France Bulletin Trimestriel, No. 57 (December 1985).
- Cagan, Philip, "The Choice Among Monetary Aggregates as Targets and Guides for Monetary Policy," Journal of Money, Credit and Banking, Vol. 14, No. 4 (November 1982).
- Cargill, Thomas F., "Financial Reform in the 1980s" (Stanford: 1985).
- Central Bank of The Bahamas, Annual Report and Statement of Accounts for Year-Ended December 31, 1986 (Nassau).

- Central Bank of Barbados, Economic and Financial Statistics (Bridgetown: July 1987).
- Central Bank of Brazil, Annual Report (Brasilia: 1985).
- Central Bank of The Gambia, Annual Report (Banjul: 1984).
- Central Bank of Egypt, Annual Report 1983/84 (Cairo).
- Central Bank of Iraq, Bulletin (April 1977).
- Central Bank of Kenya, Economic and Financial Review, Vol. XVII, No. 11 (October/December 1985).
- Central Bank of Kuwait, Quarterly Statistical Bulletin, Vol. 14, No. 1 (April-June 1987).
- Central Bank of Lesotho, Annual Report for 1983 (Maseru).
- Central Bank of Malta, Annual Report (Valleta: 1976).
- Central Bank of Nigeria, Economic and Financial Review, Vol. 23, No. 3 (Lagos: September 1985).
- Central Bank of Oman, Annual Report (Ruwi: 1985).
- Central Bank of the Philippines, "Economic and Financial Developments: Report to the President" (Manila: July 1983).
- Central Bank of Samoa, Bulletin, Vol. II, No.1 (Apia, Western Samoa: March 1987).
- Central Bank of Seychelles, Annual Report 1984 (Victoria).
- Central Bank of Solomon Islands, Annual Report (Honiara: 1982).
- Central Bank of Sri Lanka, Bulletin (July 1987).
- Central Bank of Swaziland, Quarterly Review (Mbabane: June 1987).
- Central Bank of Syria, Quarterly Bulletin, Vol. XXIII (Damascus: 1985).
- Central Bank of Trinidad and Tobago, Quarterly Economic Bulletin, Vol. XII, No. 1 (March 1987).
- Central Bank of the Republic of Turkey, Quarterly Bulletin (Ankara: January-March 1987).

- Central Bank of Vanuatu, Quarterly Economic Review, Vol. 11, No. 2 (Port Vila: June 1987).
- Central Bank of Yemen, Financial Statistics Bulletin, Vol. 12, No. 4 (October-December 1984).
- Committee on Banking, Finance and Urban Affairs, House of Representatives 99th Congress, "Assessing the Validity of M1 as a Target for Monetary Policy" (Washington, D.C.: U.S. Government Printing Office, 1985).
- Covula, Franco, "Financial Innovation and Monetary Control in Italy, Banca Nazionale del Lavoro Quarterly Review, No. 150 (Rome: September 1984).
- Davies, A. E., "Monetary Aggregates in the United Kingdom, Narrowing the Choice," Barclays Review (February 1984).
- De Nederlandsche Bank Quarterly Bulletin 1985/4 (March 1984).
- Denmarks Nationalbank, Monetary Review (August 1985).
- Department of Statistics and Reserve Bank of New Zealand, Report of the Review Committee on New Zealand Finance Statistics (Wellington: June 1983).
- Deutsche Bundesbank "Zur langerfristgen Entwicklund und Kontrolle des Gerdvolumens," Monatsberchte der Deutschen Bundesbank, 37 Jg., No. 1 (January 1985).
- Direccion General de Estadistica, Mexico, Revista de Estadistica, Vol. 1, No. 1 (1985).
- Eastern Caribbean Central Bank, Report and Statements of Accounts (Basseterre, St. Kitts: March 1987).
- Estadistica Panamena, Situacion Economica (Panama: 1983).
- Federal Reserve Bank of New York, "Monetary Aggregates and Monetary Policy," (New York: October 1974).
- Federal Reserve Bank of Richmond, "Bank Deposits and the Money Supply: Concepts, Measurement and Interpretation," Research Department, (Richmond: January 1980).

"Financial Innovation and Monetary Policy," Federal Reserve Bulletin, Vol. 68, No. 7 (Washington, D.C.: July 1982)

Financial Innovation and the Role of Monetary Policy in Finland: A discussion: Unpublished Paper by Members of the Staff mission of the International Monetary Fund (Washington, D.C.: April 1985).

Friedman, M., and A. J. Schwartz, A Monetary History of the United States (Princeton: Princeton University Press, 1963).

Germany, David, and John E. Morton, "Financial Innovation and Deregulation in Foreign Industrial Countries," Federal Reserve Bulletin, Vol. 71, No. 10 (Washington: October 1985).

Guitian, M., "Credit Versus Money as an Instrument of Control," Staff Papers, Vol. xx, No. 3 (Washington, D.C.: International Monetary Fund, November 1973).

Henrich, Heidi, "The Impact of Financial Innovations on the Definition of Monetary Aggregates" (mimeo), Bureau of Statistics (Washington, D.C.: International Monetary Fund, August 1986).

Hong Kong, First Quarter Economic Report 1987 (Hong Kong: Government Printer, May 1987).

Howard, David H., and Karen H. Johnson, "The Behavior of Monetary Aggregates in Major Industrialized Countries," Journal of Money, Credit and Banking, Volume 15, No. 4 (November 1983).

Institut d'Emission des Comores, Rapport Annuel (1978).

Institut Monetaire Luxembourgeois, Bulletin Trimestriel (September 1987).

International Institute for Economic Research, "Controlling Money: A Discussion," with Introduction by W. A. Allen (November 1980).

International Monetary Fund, The Monetary Approach to the Balance of Payments (Washington, D.C.: IMF, 1977).

_____, A Guide to Money and Banking Statistics in International Financial Statistics (Draft), (Washington D.C.: IMF, December 1984).

_____, "The Theoretical Aspects of the Design of Fund-Supported Adjustment Programs," Occasional Paper No. 55 (Washington, D.C.: IMF, September 1987).

_____, "Innovations and Institutional Change in the Financial Markets" (Washington, D.C.: IMF, October 1987).

- Laidler E. W., The Demand for Money: Theories and Evidence, Second Edition (New York: Harper and Row Publishers, 1977).
- Larkins D.J., "Monetary Aggregates: An Introduction to Definitional Issues", Survey of Current Business (U.S.) January 1983.
- Lucas F.L., "Financial Innovation and the Control of Monetary Aggregates: Some Evidence from Canada," National Bureau of Economic Research, Inc. (June 1983).
- Malawi National Statistical Office, Monthly Statistical Bulletin (Zomba: October 1986).
- Milbourne R., "Financial Innovation, Deregulation and the Redefinition of Monetary Aggregates," C.F.A.E.R., The University of New South Wales (September 1986).
- Ministry of Planning and Development, Statistical Yearbook of Maldives, (Male: 1985).
- Modigliani, F., and L. Papademos, "The Structure of Financial Markets and the Monetary Mechanism" in Controlling Monetary Aggregates III, Proceedings of a Conference held at Melvin Village, New Hampshire, Sponsored by the Federal Reserve Bank of Boston (October 1980).
- National Bank of Liberia, Statistical Bulletin, Third Quarter (Monrovia: 1984).
- Navodna Bank Jugoslavije, Annual Report (Belgrade: 1979).
- Nepal Rastra Bank, Main Economic Indicators, Monthly Report (Kathmandu: January/February 1986).
- Podolski, T. M., Financial Innovation and Money Supply (Oxford: Basil Blackwell, 1986).
- OECD, Economic Surveys - Australia (June 1985).
- OECD, Economic Surveys - Finland (May 1985).
- OECD, Economic Surveys - Germany (June 1985).
- OECD, Economic Surveys - Norway (January 1986).
- OECD, Economic Surveys - Switzerland (December 1985).
- Oesterreichische Nationalbank, "Austria's Monetary Situation" 1/1986.

Reserve Bank of Australia "Monetary Aggregates as Monetary Indicators,"
Reserve Bank of Australia Bulletin (May 1984).

Reserve Bank of Zimbabwe, Annual Report (Harare: September 1987).

Reserve Bank of India, Bulletin (August 1985).

Ritter L.S. and William Silber, Principles of Money, Banking and
Financial Markets, Fifth Edition (New York: Basic Books, Inc.,
1974).

Royal Monetary Authority of Bhutan, Selected Economic Indicators
(May 1987).

Ruggles, Nancy D., "Financial Accounts and Balance Sheets: Issues for the
Revision of SNA," 19th General Conference of International
Association for Research in Income and Wealth (Netherlands:
August 1985).

Saudi Arabian Monetary Agency, Money and Banking Statistics,
Quarterly Bulletin (Riyadh: First Quarter 1986).

Schweizerische Nationalbank, Bulletin Mensuel, n. 8 (aout 1987).

Simpson, Thomas D., "The Redefined Monetary Aggregates," Federal Reserve
Bulletin, Vol. 66, No. 2 (Washington, D.C.: February 1980).

Simpson Thomas D., and P. M. Parkinson, "Some Implications of
Financial Innovations in the United States," (Washington: Board of
Governors of the Federal Reserve System, September 1984).

South African Reserve Bank, Quarterly Bulletin, No. 162 (Pretoria:
December 1986).

State Bank of Pakistan, Bulletin (Karachi: March 1987).

Suzuki, Yoshio, "Monetary Policy in Japan: Transmission Mechanism and
Effectiveness," Bank of Japan, Monetary and Economic Studies, Vol. 2,
No. 2 (December 1984).

Sveriges Riksbank, Statistical Yearbook, 1985 (Stockholm: 1986).

United Arab Emirates, Central Bank Bulletin, Vol. 6, No. 2 (Abu Dhabi:
June 1986).

United Nations, A System of National Accounts (New York: 1968).

Other Sources include International Monetary Fund, Recent Economic
Developments and Staff Reports (various issues).