Monetary Concepts and Definitions

EMMANUEL O. KUMAH

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. This paper examines monetary concepts and definitions in the context of examining financial flows and balances for possible revision of the United Nations' A System of National Accounts (SNA). 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.

Section I of this paper examines the relationship between money and other main macroeconomic accounts (the balance of payments and the government finance statistics). It concludes that the transaction motive was the prime factor behind the earlier importance attached to narrow money. As noted in Section I, however, recent developments in financial markets have necessitated finding broader measures of money as intermediate targets or indicators of monetary policy. Section II 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. Section III surveys national practices in selecting and grouping instruments in monetary measures. Observations are made on the prevalence of broader monetary measures across countries. Section IV examines the SNA's current treatment of money and observes that its concept is based solely on an institutional designation, "monetary institutions." Section IV concludes that the trends

1 Statistical tables and references are contained in the more complete version of this paper, issued under the same title as IMF Working Paper WP/89/92 (Washington: International Monetary Fund, 1989).
toward broader concepts imply the need for some rethinking in the SNA about issues pertaining to issuers, holders, and instruments of money.

I. 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 gross national product (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 the money stock, which became the centerpiece of economic strategies in many countries in the 1970s. 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 IMF's financial programming framework, and it has been applied in the Fund's operational work in many countries. 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—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-

2 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, New Jersey: Princeton University Press, 1963).

3 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 55 (Washington, 1987), p. 12.
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; and (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 non-banking 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 in relation to the banking system).

In a simplified model, the demand for money is the only behavioral relationship. The assumption of a stable money demand function is needed to ensure that an increase in domestic credit will cause the public initially to 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 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; this notion has had a long history.4

Three theories can be distinguished that provide some guidelines on the characteristics of money. The theory based on the transaction 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.

4 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, since 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, for an elaboration of these ideas. For a discussion of early issues from Irving Fisher onward, see E.W. Laidler, The Demand for Money: Theories and Evidence, 2d ed. (New York: Harper & Row, 1977).
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, which caused 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 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 non-monetary targets such as credit targets, interest rates, and exchange rates.

Broader monetary aggregates encompass a wider set of financial instruments than M1 that are 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 subsets 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, and so forth). 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 forgone on these assets as weights. An example is the Divisia quantity index constructed by Barnett of the Federal Reserve Board in the
late 1970s. 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 paths 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 a simplified model is largely an empirical issue, depending on factors such as the exchange rate regime, the openness of the economy, and the ability of the authorities to monitor and control all potential sources of credit to an economy.

II. 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.

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

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6 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 Guitián, "Credit Versus Money as an Instrument of Control," Staff Papers, International Monetary Fund, Vol. 20 (November 1973), pp. 785-800.

7 See Bank for International Settlements, "Financial Innovation and Monetary Policy" (Basle, March 1986), for a discussion of these issues.
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, money market certificates, and fixed-term repurchase agreements (known as RPs or "repos"). Moreover, new financial products have been introduced to limit or shift interest rate or market risk through interest rate 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 automated teller machines (ATMs), telephone transfers, cash dispensers, and bank credit cards.

Markets for traditional financial instruments have expanded (for example, those for short-term instruments); at the same time, new financial markets for unconventional bonds (for example, floating-rate bonds and zero-coupon bonds), financial futures, options, and stock index futures have also become commonplace in industrial 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. Before the late 1970s, financial markets were characterized by many regulations, and innovations were spurred on in part

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8 Deregulation has not always been a deliberate policy; in some cases it has been a reaction to innovation.
by the need to circumvent the effects of regulation. In the 1980s trends toward deregulation in some countries enabled commercial banks to offer interest-bearing assets that were previously 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. In addition, the removal of restrictions on capital movements in the United States in 1974, in the United Kingdom in 1979, and in 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 transfers of funds, and information retrieval systems. All these new facilities have enabled customers to economize on their transaction balances.

The combination of all these developments has resulted in considerable difficulty in distinguishing among 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.

III. 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 or describe monetary instruments. These measures are taken from national statistical publications. 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 suffix such as 1, 2, or 3 (for example, M1, M2, M3), with the higher number 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. One also cannot fail to notice the broadening over time of national money measures. It would be misleading, however, to draw conclusions about the narrowness (or otherwise) of monetary measures on the basis of 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 savings deposit schemes. For the majority of cases the holders of these instruments are residents of the country for which the measures are compiled, but there are more than 17 countries in which instruments held by nonresidents are included in monetary aggregates. No single explanation can be offered for this practice, but 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 aggregates in the statistical publication. In some countries, the formulation of monetary aggregates and their measurement has preceded their regular publication in statistical publications.

10 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.
measures. 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. Finally, foreign-currency deposits are often, although not always, separately identified and included in money measures. In about half of the countries surveyed, foreign-currency deposits of the 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 or treasury, and post office savings banks. Although 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, notes, or both. The central bank’s role in the issuance of monetary instruments is not limited to the issuance of currency. Other instruments issued by the central bank include time, savings, and foreign-currency deposits as well as bonds.

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.

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 or treasury issues treasury bills, bonds, or both that are included in broader money aggregates in a number of countries.\(^{16}\) Perhaps more striking are the treasury holdings of deposit liabilities in many francophone African countries.\(^{17}\)

The post office institutions are important issuers of monetary instruments—demand, time, savings, and foreign-currency deposits—in many countries, especially the francophone countries.\(^{18}\) 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). Compared with other institutions, however, the importance of 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 in money measures the holdings of nonfinancial public enterprises. Close to two-thirds of the countries include in money measures the holdings of both nonbank financial institutions and other general government (state, local, and other semiautonomous governmental entities). A few countries include central government deposits in money measures.\(^{19}\) The list of countries is likely to be much higher than this information would indicate. This is especially likely in coun-

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\(^{16}\) For instance, Brazil, Chile, Denmark, France, Honduras, Italy, Malawi, Mexico, the Netherlands, the Philippines, the United Kingdom, and the United States.

\(^{17}\) For instance, Algeria, Benin, Burkina Faso, Cameroon, the Central African Republic, Chad, Comoros, the Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Gabon, Madagascar, Mali, Morocco, Niger, Senegal, Togo—as well as in France and Seychelles.

\(^{18}\) 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, Côte d'Ivoire, Denmark, Equatorial Guinea, France, Gabon, Germany, Ireland, Italy, Luxembourg, Madagascar, Mali, Mauritania, Morocco, the Netherlands, New Zealand, Niger, Norway, Senegal, and Togo.

\(^{19}\) Examples include Algeria, Austria, Bahrain, Fiji, Germany, Paraguay, Seychelles, Solomon Islands, and the United Arab Emirates.
tries in which certain units of the central government hold monetary instruments with the banking system that, 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 appropriately regrouping financial instruments in new or old categories in light of 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. Although it is difficult to find a mix of factors capable of succinctly describing 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 with the banking system primarily by the private, public enterprise, and general government sectors. 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 with the banking system by the private, public, and nonbank financial institutions sectors. However, there are substantial cross-country differences in the grouping of some of these instruments that reflect the specific holders or issuers of the instruments. For example, some territories 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. Also, for reasons that are not obvious, some countries include time and savings deposits in M3 or some higher-numbered measures.

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

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

22 Examples include Argentina, Botswana, Chile, Iceland, India, Israel, Mexico, and Papua New Guinea.
Other countries have reserved the M3 measure for the consolidation of certain types of deposits.\textsuperscript{23}

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.\textsuperscript{24} In a few countries, however, these instruments are consolidated at the M2 level.\textsuperscript{25} In addition, some countries have constructed perhaps the broadest aggregates, which essentially attempt to group the total liquid assets of the public that are 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.\textsuperscript{26}

IV. 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 (GDP), disposable income, savings, and net international lending, which provide aggregates often used as indicators of economic performance. The SNA can be integrated with flow-of-funds (FOF) 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.

\textsuperscript{23} 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.

\textsuperscript{24} Examples are Argentina, Canada, Chile, France, Germany, Guatemala, Israel, Italy, Japan, the Republic of Korea, Mexico, the Philippines, Portugal, Switzerland, the United Kingdom, the United States, and Venezuela.

\textsuperscript{25} Examples are Australia, Colombia, Costa Rica, Jamaica, Kuwait, Malaysia, and Uruguay.

\textsuperscript{26} 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.
by check or otherwise usable in making payments. Although the
institutional coverage required for the compilation of monetary aggre­
gates 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 uncer­
tainties of the late 1970s and the 1980s, financial innovation, deregula­
tion in financial markets, and technological progress—has led to a
proliferation of instruments with some “moneyness” or partial
medium-of-exchange properties. Most obvious among these are other
deposits with banks that 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 in part 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 to both sides of this issue. On the one hand, money
measures have long been compiled by countries because they facili­
tate the assessment of macroeconomic conditions and can serve as
intermediate targets for ultimate goals of policy. Moreover, because
monetary policy instruments are designed to correct macroeconomic
problems, consistency requires the construction of aggregate mone­
tary concepts. Most international and national statistical systems
explicitly recognize monetary aggregates as essential for macro­
economic policy, and the need for their specific definition in the SNA
appears to be important.

On the other hand, it can be argued that the identification of a
standard money concept would not be desirable in the SNA frame­
work 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 that are the result of 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 trans­
actor 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 by
including 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 (non-monetary) institutions (currently part of "other financial institutions" in the SNA) may no longer be justified in the light of the many near-moneys 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 about whether to include these financial instruments in Table 24 of the SNA. These decisions may be complicated by the fact that, although 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

27 See Chapter 22 in this volume for a detailed discussion of these issues.
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, who must consider the country-specific institutional arrangements. For example, although 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. Evidence suggests, however, 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.