Measurement of the Domestic Money Stock*

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Under certain circumstances, the current definition of money does not reflect international capital flows that change the money holdings of U.S. residents. This article analyzes those circumstances in which this can occur and presents a domestic money stock series that captures these influences. It may be that total spending responds not only to changes in the growth of money, but also to changes in the proportion held by U.S. residents. Therefore, it is hoped that the data provided will generate studies which compare the relationship between total spending and changes in the domestic money stock, as well as the relative efficiency with which domestic money can be controlled by the monetary authorities.

MASSIVE dollar outflows in 1969, 1970 and 1971 have focused renewed attention on the impact of international financial transactions on the money stock, and therefore on total spending in the United States. For example, in a review of financial developments in the third quarter of 1971, the Federal Reserve stated:

> It seems likely that the sharp slowing of M_1 growth in August [1971] was in large part attributable to the heavy outflow of dollars into foreign exchange markets.[1]

An airplane being loaded with U.S. dollars and flying off to foreign lands is a common interpretation of dollar outflows. This is an incorrect view since, given the current inconvertibility of the U.S. dollar into gold or other reserve assets and the use of the U.S. dollar as an international reserve currency, an outflow of dollars simply means that demand deposits of U.S. residents are declining and deposits of foreign residents at U.S. banks are increasing. It will be shown that in certain important cases these transactions have no effect on the money stock as it is currently defined.

It is reasonable to expect that foreign owners of deposits at U.S. banks are subject to different variables affecting their portfolio adjustments than are domestic depositors. This is particularly true when one considers that the dollar is used as an international reserve currency. Therefore, for purposes of predicting economic activity and controlling such activity, it becomes important to measure not only the changes in the money stock but also its composition.

This article first shows how international transactions affect both the current measure of the money stock and an alternative measure, which we will call the domestic money stock. Secondly, a brief history and explanation of the derivation of the current measure of the money stock is presented. Third, series on foreign demand and time deposits are constructed and are then used to derive a domestic money stock series. These series are presented in the appendix.

Impact of International Transactions on Current Money Stock

The money stock (M_1), as currently defined, includes (in addition to domestic demand deposits): U.S. commercial bank demand deposits due to foreign individuals, partnerships, corporations, commercial banks, central banks, and international institutions; deposits of U.S. branches of foreign banks, U.S. agencies of foreign banks, and Edge Act subsidiaries of domestic banks; and foreign deposits at the Federal Reserve. The more broadly defined money stock (M_2) includes, in addition, domestic and foreign time deposits except for negotiable time certificates of deposit of $100,000 or more.

In order to examine how foreign transactions affect the U.S. money stock (M_1 and M_2), as currently defined, this section discusses and presents the balance sheet effects of these transactions in simple T-account form. Exhibit I gives a general view of the various transactions and their effects on the money stock, as currently defined, and on a domestic money stock series. The examples represent transactions associated with an outflow of dollars from the United States. By reversing signs, the impact of inflows can be analyzed. It is assumed that there is no convertibility into gold and other reserve assets and that exchange stabilization agreements have produced a situation where dollars are used as a source of international liquidity and as an intervention currency.

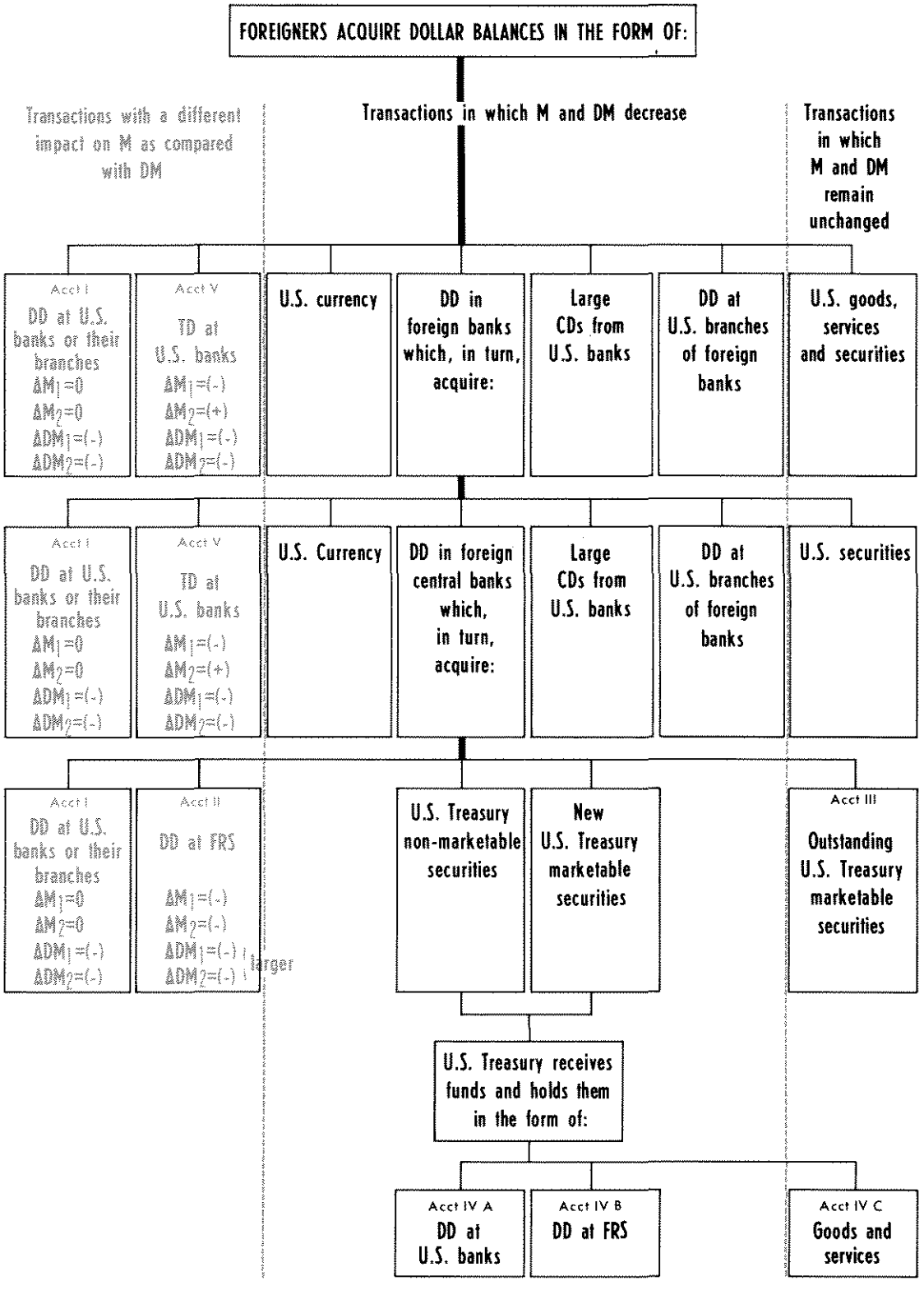
Suppose that U.S. imports increase relative to exports or that U.S. residents increase their purchases

*In the early stages of preparation for this article, Mr. Clark Warburton made available to the authors his work on constructing a private domestic money stock series. Also, the authors benefited from comments by Professor Michele Fratianni. The authors assume sole responsibility for the analysis and conclusion of the article.

[1]"Financial Developments in the Third Quarter of 1971," Federal Reserve *Bulletin* (November 1971), p. 872.

Exhibit I

Impact of Dollar Outflows on U.S. Monetary Accounts



of foreign assets, securities, or foreign deposits. In either case, foreign sellers find themselves holding more U.S. dollars than before. To determine the effect on the U.S. money stock we must answer the question: *What do foreigners do with the increased dollar balances?*

Foreigners have several alternatives. They can: (1) increase purchases of U.S. goods and services and securities; (2) increase their deposits at U.S. banks, or at foreign branches of U.S. banks; (3) increase their deposits at banks in their own country; (4) increase their deposits at branches of foreign banks in the United States; and (5) increase their holdings of U.S. currency. In the following discussion we will consider only the first four alternatives.

In the first case, there is no net change in the U.S. money stock because dollar balances are reinjected directly back into the hands of U.S. residents. In the second case, demand deposits of U.S. residents decrease, but demand deposits of foreigners at U.S. banks (also part of the money stock) increase, as shown in Account I (also see Exhibit I).

Account I

Foreigners Increase Demand Deposits at U.S. Banks

U.S. Banks	
(unchanged) Reserves	(—) Demand Deposits (U.S.)
	(+) Demand Deposits (Foreign)

In the case where foreigners deposit dollars in foreign banks, a further question must be asked: *What do the foreign commercial banks do with the dollar deposits?* The foreign banks may increase their dollar deposits at their correspondent banks in the United States, or they may sell these dollars to their central bank. In the first situation, demand deposits of U.S. residents at U.S. banks decrease and demand deposits of foreign banks at U.S. banks (which are included in the U.S. money stock) increase. There is no net change in the money stock. The final T-account results would be the same as illustrated in Account I. If foreigners or foreign banks increase their demand deposits at U.S. branches of foreign banks, money stock, as currently defined, will decrease.

If foreign banks sell dollars to their central bank, then the question arises: *What does the central bank do with the dollars?* The foreign central bank may: (1) increase its dollar deposits at U.S. commercial banks; (2) increase its dollar balances at the Federal Reserve; (3) increase its dollar balances at the Federal Reserve and instruct the Federal Reserve to buy U.S. government securities for its account; or (4) buy special nonmarketable securities directly from the U.S. Treasury. Since deposits of foreign central banks at U.S. commercial banks are included in the money stock, then (1) would result in no net change in the money stock, and the final T-account effect would be the same as illustrated in Account I.

If foreign central banks hold increased deposits at the Federal Reserve, *the initial effect is no change in the money stock* (since deposits of foreigners at the Federal Reserve are part of the current definition of M_1 and M_2). The initial effect of this transaction is illustrated in Account II. *Such a transaction, however, decreases the reserve base of U.S. banks,* and as a result, the money stock decreases over time, if not offset by other actions.

Account II

Increase in Deposits of Foreign Central Banks at the Federal Reserve

U.S. Banks	
(—) Reserves	(—) Demand Deposits (U.S.)
Federal Reserve	
	(+) Deposits of Foreign Central Banks
	(—) Reserves

If, instead of holding increased dollar balances at the Federal Reserve, the foreign central bank instructs the Federal Reserve Bank of New York to buy securities for the foreign central bank's account, then there is no net change in the money stock or the reserve base. Account III illustrates this result, where the items above the dotted line show the first stage of the transaction, comparable to Account II, and the items below the dotted line show the effect of the Federal Reserve purchase of securities for foreign account.

Account III

Increase in Deposits of Foreign Central Banks at the Federal Reserve and the Federal Reserve Purchases Securities for Foreign Account

U.S. Banks	
(—) Reserves	(—) Demand Deposits (U.S.)
(+) Reserves	(+) Demand Deposits (U.S.)
Federal Reserve	
	(+) Deposits of Foreign Central Banks
	(—) Reserves
	(—) Deposits of Foreign Central Banks
	(+) Reserves

Another alternative use of dollar balances that has become available to foreign central banks in recent

years is the purchase of nonmarketable securities directly from the U.S. Treasury. To analyze the effect of this action on the money stock one additional question must be answered: *What does the Treasury do with the proceeds from the sale of these securities?* The Treasury has three options: (1) increase Treasury deposits at commercial banks; (2) increase Treasury deposits at the Federal Reserve; or (3) spend the proceeds. If the Treasury uses either options (1) or (2) the money stock decreases (since Treasury deposits are not included in the current money stock). The result for the case where the Treasury increases its deposits at U.S. commercial banks is illustrated in Account IV-A, and the case where Treasury deposits at the Federal Reserve are increased is shown in Account IV-B. *When Treasury deposits at the Federal Reserve are increased, this also results in a decrease in the reserve base.* Hence, option (2) has a potentially greater contractionary influence on the money stock than option (1). If the Treasury spends the proceeds, the money stock is unchanged, as illustrated in Account IV-C. The same results occur when foreign official agencies buy *newly issued marketable* securities from the Treasury.

Account IV

FOREIGN CENTRAL BANK BUYS NONMARKETABLE OR NEWLY ISSUED MARKETABLE SECURITIES FROM THE TREASURY

A. Treasury Increases Its Deposits at Commercial Banks

U.S. Banks

(unchanged) Reserves	(−) Demand Deposits (U.S.)
	(+) Demand Deposits (Treasury)

Treasury

(+) Demand Deposits	(+) Securities

B. Treasury Increases Its Deposits at the Federal Reserve

U.S. Banks

(−) Reserves	(−) Demand Deposits (U.S.)

Federal Reserve

	(+) Demand Deposits (Treasury)
	(−) Reserves

Treasury

(+) Deposits at Federal Reserve	(+) Securities

C. Treasury Spends the Proceeds

U.S. Banks

(unchanged) Reserves	(−) Demand Deposits (U.S.)
	(+) Demand Deposits (U.S.)

Treasury

(+) Demand Deposits	(+) Securities
(−) Demand Deposits	
(+) Goods and Services	

If foreign holdings of dollars increase there is one additional use of these dollars that has not yet been discussed. Foreigners may increase their holdings of time deposits in U.S. banks. For example, a decrease in demand deposits of U.S. residents may reappear as an increase in time deposits of foreign individuals or commercial banks. Since M_2 excludes large negotiable time certificates of deposits (CDs), the effect on M_2 depends upon whether foreigners increase their holdings of large CDs or their holdings of other time deposits.

First, assume as in the previous cases, there is an outflow of dollar deposits that appears on the balance sheets of U.S. banks as a decrease in demand deposits of U.S. residents. Now let us suppose foreigners increase their holdings of other time deposits (net time deposits rise). In this case, initially required reserves are decreased and in the ensuing adjustment process, M_1 decreases but M_2 rises (total demand plus net time deposits rise, but demand deposits alone decrease). This result is illustrated in Account V. However, if foreigners use these dollar claims to increase their holdings of large CDs newly issued by U.S. banks, the result of these transactions would be a decrease in M_1 and M_2 (because large CDs are not included in either measure).

Account V

Foreigners Increase Holdings of Other Time Deposits

U.S. Banks

(unchanged) Reserves	(−) Demand Deposits (U.S.)
	(+) Net Time Deposits (Foreign)

As illustrated by the above examples, the current definition of the money stock (M_1) does not reflect dollar outflows when foreigners (either private or official) increase their demand deposits at U.S. commercial banks. These transactions must be viewed as neutral in terms of their impact on the U.S. economy through money stock, as currently defined. The current definition of M_1 does not reflect the full effect of an increase in foreign deposits at the Federal Reserve on money balances of U.S. residents. Also, an outflow of dollars from demand deposits that reappears as an increase in foreign holdings of other time deposits results in an increase in M_2, as currently defined; this reflects both the increase in foreign time deposits and

the expansionary effect of the reduction in required reserves caused by the switch from demand to time deposits.

Impact of International Transactions on the Domestic Money Stock

A domestic money stock (DM_1) should reflect the effect of dollar outflows on money holdings of U.S. residents. Excluding foreign deposits that offset changes in holdings of money balances by U.S. residents from the money stock results in substantial differences in the effects of some foreign transactions on the money stock.[2] For example, in the case illustrated in Account I, where there was an outflow of dollars that appeared as a decrease in demand deposits of U.S. residents and an increase in foreign demand deposits of U.S. banks, the domestic money stock (DM_1 and DM_2) would decrease, whereas the money stock, as currently defined, would remain unchanged. If foreign deposits at the Federal Reserve rise, then the domestic money stock would decrease by more than the current money stock. DM_1 would decrease by the amount of the increase in foreign deposits at the Federal Reserve as well as by the effect of the decrease in the reserve base. When foreign time deposits rise DM_2 would decrease, in contrast to the current definition of M_2 which would increase. Exhibit I presents alternative forms of dollar holdings by foreigners and the effects of a dollar outflow on the current definition of money as compared to its proposed alternative.

Except in those cases where foreigners reinject money into the U.S. economy either through direct purchases of securities or indirectly through Treasury spending, dollar outflows are associated with decreases in the domestic money stock.

Federal Reserve Measurement of the Money Stock

Since the domestic money stock data are derived from the current Federal Reserve Board estimates of the money stock, it is necessary to present a description of how various components are currently derived and entered into the final concept of the money stock series.[3]

On June 8, 1959, the Federal Reserve System appointed the *Ad Hoc* Committee on Money Supply Statistics.[4] This committee issued a report on October 8, 1959, entitled *Recommendations for Statistics of Money Supply and Member Bank Reserves* that formed the basis for the present money stock series published by the Federal Reserve System.[5]

The definition of money chosen by the Federal Reserve was based on a "means-of-payment" or "medium-of-exchange" concept.[6] This concept of money did not deny the possible importance of other "liquid assets." However, the System argued that:

> Even the most liquid of these other types of assets, however, must generally be converted into money, as defined here, before being used in economic transactions. The amount of nonmonetary financial instruments outstanding is not limited by the supply of reserve funds as is the volume of bank deposits. It is true that reserves are needed to support time deposits in member banks but the amount absorbed in this way is relatively small and is allowed for in the reserve projections before assessing the reserve actions needed for monetary purposes.[7]

The Federal Reserve System decided that, for the purposes of monetary policy, "the most useful definition of the money supply covers the total of the

[2]In the construction of the domestic money stock series, we were unable to estimate foreign holdings of U.S. currency because of limitations of the data. Therefore, domestic money stock excludes foreign deposits only.

[3]The Federal Reserve System did not publish comprehensive estimates of the components of the money stock until the early 1940s. In 1941, the Federal Reserve published *Banking Studies* in which estimates appeared for bank deposits and currency, 1890-1940. In 1943, *Banking and Monetary Statistics* was published, and included were series on currency outside banks and demand deposits adjusted. Until October 1960, there was no item in the Federal Reserve statistics labeled "money stock," although the components of the money stock appeared in the table "Consolidated Condition Statement for Banks and the Monetary System."

[4]The *Ad Hoc* Committee was appointed by the Chairman of the Research Advisory Committee at the request of the Federal Open Market Committee. Roland Robinson, who at that time was an Adviser for the Division of Research and Statistics at the Board of Governors, was chosen as Chairman of the *Ad Hoc* Committee. Other members of the committee included William J. Abbott, Harry Brandt, Robert S. Einzig and Clarence W. Tow.

[5]In Federal Reserve publications and elsewhere, the term money supply instead of money stock often appears. The data are collected as an average of amounts at points in time, hence a stock concept. Therefore, except in direct quotations, the term money stock rather than money supply will be used.

[6]There are several major theoretical or "a priori" approaches to the concept of money. One of these is the "medium-of-exchange" or "means-of-payment" concept of money. The other is the "liquidity" concept of money. An important distinction between these two approaches is the emphasis each places on supply and demand conditions for "money." The liquidity concept stresses demand conditions. Money is only one of many assets that economic units may choose to hold in their wealth portfolios. One factor influencing wealth-holders' portfolio decisions is the relative liquidity of various assets. The means-of-payment concept emphasizes the supply conditions for the asset called money. See Milton Friedman and Anna J. Schwartz, *Monetary Statistics in the United States: Estimates, Sources, Methods* (New York: Columbia University Press, 1970), Chapter 3, especially pp. 136-137.

[7]"A New Measure of the Money Supply," Federal Reserve *Bulletin* (October 1960), p. 1103.

public's holdings of coin, currency, and demand deposits in banks."[8] Included in the nonbank public were individuals, business firms, nonbank financial institutions (such as savings and loan companies), mutual savings banks and life insurance companies, state and local governments, foreign official and private institutions, and after mid-1962, foreign demand balances at Federal Reserve Banks.[9]

The Federal Reserve System first began publication of a separate and distinct money stock series in the October 1960 Federal Reserve *Bulletin*. In the write-up accompanying this section, it was stated:

> The amount of money in existence and changes in this amount influence the course of economic developments. For this reason accurate measurement of the money supply and of changes in the supply is of great importance. . . .
>
> The Federal Reserve System has primary responsibility for regulating the total volume of money available to meet the public's demands.[10]

Due to the institutional structure of commercial banking and the availability of reported data, several measurement problems remained. The major one of these, that relates to the construction of the domestic money stock series, was an adjustment for cash items in process of collection.

The number assigned to the money stock at any point in time should represent the amount of money that money holders *assume* they have available to use, not necessarily the amount that bank records show they hold.[11] The difference between bank records and holder records arises because of bank float, which develops when banks give depositors credits for checks deposited with them before the banks on which the checks were written have debited the accounts of persons who wrote the checks. The method used by the Federal Reserve to correct for this double counting is to subtract cash items in process of collection (CIPC) from gross demand deposits.[12]

Inclusion of Foreign Deposits in the Money Stock

Prior to 1960, demand deposits adjusted, which were reported in the table "Consolidated Condition Statement for Banks and the Monetary System" in the Federal Reserve *Bulletin*, included demand deposits due to foreign individuals, partnerships, corporations, governments and government agencies, but excluded demand deposits due to foreign banks and foreign deposits at the Federal Reserve Banks.[13]

In the development of the money stock series in 1960, demand balances of foreign banks at U.S. commercial banks were included in the money stock. This decision was made jointly with the decision to include demand balances of mutual savings banks at commercial banks. These foreign deposits, which were initially excluded from the money stock by the subtraction of "Interbank Deposits," were added back into the money stock figures in the item "Interbank Demand Deposits of Foreign and Mutual Savings Banks" (see Table I).[14]

The following justification was given for including foreign bank deposits:

> Amounts due to these institutions represent cash available for investment in much the same way as balances of other financial institutions and involve no duplication of funds held by others.[15]

Foreign demand deposits held at Federal Reserve Banks were added to the money stock in August 1962, and included demand balances at Federal Reserve Banks due to foreign governments, central banks and international institutions. The addition of these foreign deposits to the money stock was justified on the same basis as the inclusion of deposits due to foreign banks.

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[8] *Ibid.*

[9] Demand deposits that banks in U.S. territories and possessions held at U.S. commercial banks were also added to the money stock data.

[10] "A New Measure," p. 1102.

[11] To be in exact conformity with the money stock concept chosen by the Federal Reserve, the measurement of money should be based on records of money holders. Ideally, by checking the actual records of each economic unit, one could determine at any point in time the amount of currency, coin and demand deposits that the nonbank public assumes it holds. Because of the great practical difficulties involved in such a measurement procedure, an indirect method was chosen. Rather than directly examining the records of each money holder, an approximation was used based on bank records.

[12] Another source of double counting, called Federal Reserve float, arises due to delays in clearing and collecting checks through the Federal Reserve System. The misstatement of the money stock arising from this source is not removed by deducting cash items from gross demand deposits. To avoid this bias in the money stock, Federal Reserve float is also deducted from demand deposits to arrive at the demand deposit component of the money stock.

[13] Demand deposits adjusted were computed by deducting demand balances due to banks, which included foreign banks.

[14] Estimates of demand balances due to foreign banks were prepared separately for member and nonmember banks. In 1960, it was estimated that for the period 1947 to date foreign demand balances were in the range of $1.3-$1.8 billion. Beginning April 26, 1961, weekly reporting member banks were required to report separate figures for demand balances due to foreign banks. This change permitted more accurate estimation of demand balances due to foreign banks, which had previously been available only from call reports for, at most, four dates a year.

[15] "A New Measure," p. 1103.

> [They] may be used for investments or other expenditures in much the same way as foreign demand balances with commercial banks. . . . With their addition the daily average series includes all demand deposit and currency liabilities to foreigners.[16]

At that time the Federal Reserve was confident that adding foreign deposits at Federal Reserve Banks had almost no effect on the past money stock data.

> Over the 1950-57 period foreign balances at Federal Reserve Banks showed a fairly steady decline. However, estimates indicate that roughly offsetting increases occurred in foreign balances at commercial banks. Consequently, the estimated total of foreign demand balances was relatively stable and has not shared in the growth of the total money supply since 1947. The addition of foreign balances at Federal Reserve Banks to the demand deposit component has had no observable effect on seasonal factors for this series.[17]

In 1969 and 1970, certain types of international transactions produced additions to the deposits used to compute the money stock. The August 1969 revision of the money stock data resulted primarily from Eurodollar transactions by commercial banks. These transactions did not involve any double counting of demand deposits held by the public; yet they operated to reduce the demand deposit component of the money stock because the cash items generated by these transactions were deducted from it. Effective July 31, 1969, under a revision of Federal Reserve Regulation D, the issuing banks were required to include bills payable checks and London checks used in repayment and borrowing of Eurodollars in gross demand deposits as well as in cash items in process of collection.

The major part of the November 1970 money stock revision was precipitated by international transactions involving Edge Act corporations and U.S. agencies and branches of foreign banks. These transactions did not give rise to deposit liabilities at domestic commercial banks to offset the cash items generated.[18] To correct for this measurement error in the demand deposit component of the money stock, data were collected from U.S. agencies and branches of foreign banks and from Edge Act corporations, and added to gross member bank demand deposits.

[16]"Revision of Money Supply Series," Federal Reserve *Bulletin* (August 1962), p. 944.

[17]*Ibid.*

[18]A deposit of an Edge Act corporation or similar institution was treated as an interbank deposit by a U.S. bank, and, therefore, was not included in the demand deposit component of money. The cash items generated by these transactions were included in total cash items which are deducted from gross demand deposits (see Table I).

The August 1969 and November 1970 revisions did not generally result in a net addition of a new class of foreign deposits, as had the 1960 and 1962 revisions. In the 1969 and 1970 revisions, certain classes of foreign deposits were added to the data to compute the money stock only to offset the cash items in process of collection that these transactions generated. However, foreign agencies and Edge Act corporations are now treated as part of the commercial banking system for purposes of money stock measurement, and as a result, a small amount of deposits held more or less permanently by their customers were added to the money stock data.[19]

The Construction of the Current Money Stock Series

The procedure for measuring the money stock is summarized in Table I.[20] First, the currency component of the money stock is estimated by using Treasury data, Federal Reserve data on member bank vault cash and estimates of nonmember bank vault cash. Second, gross member bank demand deposits are computed, based on weekly reports of member banks. Gross demand deposits are then adjusted by deducting deposits that are not due to the nonbank public, such as deposits due to the U.S. Government and banks. Third, nonmember bank demand deposits adjusted are estimated using semi-annual benchmark data from call reports and country member bank data.[21] Data from the records of Federal Reserve Banks is used for foreign deposits at Federal Reserve Banks and Federal Reserve float. Subtracting Federal Reserve float from demand deposits adjusted and adding these foreign deposits yields the demand deposit component of the money stock. M_2 is constructed by adding to the money stock (M_1) commercial bank savings deposits, time deposits, and time certificates

[19]"Revision of the Money Stock," Federal Reserve *Bulletin* (December 1970), p. 892.

[20]One of the recommendations of the *Ad Hoc* Committee was that figures for the money stock be based on daily average data. Beginning in the October 1960 Federal Reserve *Bulletin*, the Federal Reserve began publishing a semi-monthly money stock series based on averages of daily figures extending back to January 1947. The series were presented on an unadjusted and seasonally adjusted basis. Also, a non-seasonally adjusted weekly series was published for 1960. To the extent that money stock data were used in making policy decisions, the daily average series replaced the last-Wednesday and call report data published regularly in the *Bulletin*. In June 1964, the System began publication of monthly average money stock data based on weighted averages of semi-monthly data. In July 1965, the System began publishing weekly and monthly seasonally adjusted data computed on a daily average basis and extending back to January 1959.

[21]About one-fourth of the demand deposit portion of the money stock is accounted for by nonmember banks.

Table I

Method of Computing Money Stock (M_1 and M_2)

A. **Currency Component**
- Currency in Circulation[1]
- Less:
  - Vault Cash of Commercial Banks[2,4]

B. **Demand Deposit Component of Member Banks**
- Gross Demand Deposits[2]
- Less:
  - Interbank Demand Deposits[2]
  - U.S. Government Demand Deposits[2]
  - Cash Items in Process of Collection[2]
- Plus:
  - Interbank Demand Deposits of Foreign Banks, International Institutions and Mutual Savings Banks[3]

C. **Demand Deposit Component of Nonmember Banks**
- Gross Demand Deposits[4]
- Less:
  - Interbank Demand Deposits[4]
  - U.S. Government Demand Deposits[4]
  - Cash Items in Process of Collection[4]

D. **Demand Deposit Component of Money Stock**
- (B) plus (C)
- Less:
  - Federal Reserve Float[5]
- Plus:
  - Foreign Deposits with Federal Reserve Banks[5]

E. **Money Stock M_1**
- (A) plus (D)

F. **Money Stock M_2**
- Money Stock M_1
- Plus:
  - Savings Deposits, Time Deposits Open Account and Time Certificates of Deposit Excluding Domestic Interbank and U.S. Government Time Deposits[2,6]
- Less:
  - Negotiable Time Certificates of Deposit Issued in Denominations of $100,000 or More[6]

[1]Currency in circulation, which includes all Treasury and Federal Reserve issues outside the Treasury and Federal Reserve Banks, is derived from daily U.S. Treasury statements and appears in the Federal Reserve *Bulletin* table "Member Bank Reserves, Federal Reserve Bank Credit, and Related Items."

[2]Total gross demand deposits of member banks, member bank vault cash, savings and other time deposits, interbank demand deposits, U.S. Government demand deposits and cash items in process of collection are derived from the "Report of Deposits, Vault Cash and Federal Funds Transactions" of member banks to their respective Federal Reserve Banks. These reports are made on a daily average basis for the week.

[3]Member bank interbank deposits of foreign and mutual savings banks are derived from the "Consolidated Report of Condition of Member Banks" to their respective Federal Reserve Banks. This report is made at mid-and end-of-year dates. Weekly data are estimated by using ratios of these deposits at member banks to such deposits at large commercial banks on the semi-yearly call dates and multiplying them by the weekly figures of large commercial banks, reported weekly in the "Weekly Condition Report of Large Commercial Banks."

[4]Total gross nonmember bank demand deposits, nonmember bank vault cash, savings and other time deposits, interbank deposits of domestic commercial banks, U.S. Government demand deposits and cash items in process of collection are estimated from semi-yearly "Consolidated Report of Condition of All Banks" to the Federal Deposit Insurance Corporation. The nonmember bank demand deposits adjusted weekly data are estimated by taking the ratio of these semi-yearly figures to similar figures of country member banks of the same date and multiplying them by corresponding numbers reported weekly in country member banks' "Report of Deposits, Vault Cash and Federal Funds Transactions."

[5]Federal Reserve float and Foreign and International demand deposits at Federal Reserve Banks are derived from daily Federal Reserve records.

[6]Negotiable time certificates of deposit issued in denominations of $100,000 or more are derived from the "Weekly Condition Report of Large Commercial Banks."

of deposit, exclusive of negotiable time certificates of deposit issued in denominations of $100,000 or more by large weekly reporting commercial banks.

The Measurement of Domestic Money Stock

The Construction of Foreign Demand and Time Deposit Series

Demand deposit liabilities of U.S. commercial banks to foreign individuals, partnerships and corporations (IPC deposits) are not reported separately in the weekly "Report of Deposits, Vault Cash and Federal Funds Transactions," but are lumped together with domestic IPC deposits. Therefore, to estimate these foreign deposits, data collected by the Treasury Department were used. These data appear in the Federal Reserve *Bulletin* table entitled "Short-Term Liabilities to Foreigners Reported by Banks in the United States, by Type," column headed "Demand Deposits to Other Foreigners."[22]

Table II

Construction of Foreign Demand and Time Deposit Series

Foreign Demand Deposits
- U.S. Commercial Banks' Demand Deposit Liabilities to Foreign Individuals, Partnerships and Corporations
- Plus:
- U.S. Commercial Banks' Demand Deposit Liabilities to Foreign Governments and Commercial Banks
- Plus:
- Foreign Deposits at Federal Reserve Banks

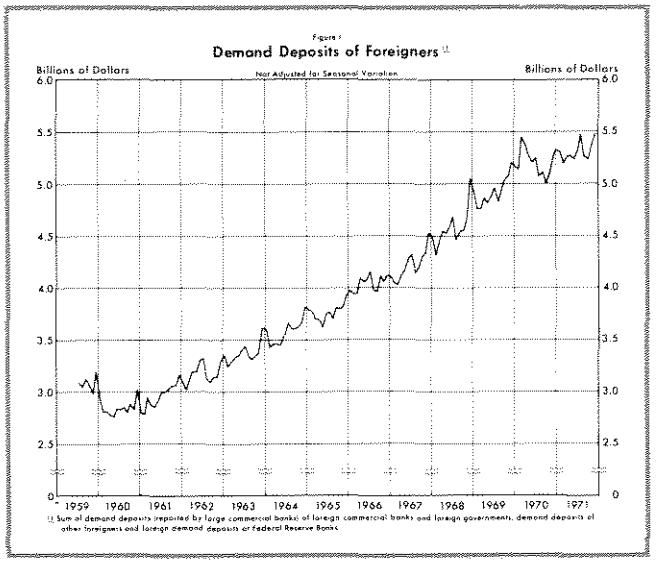
Foreign Deposits
- Foreign Demand Deposits
- Plus:
- Net Time Deposits of All Foreigners

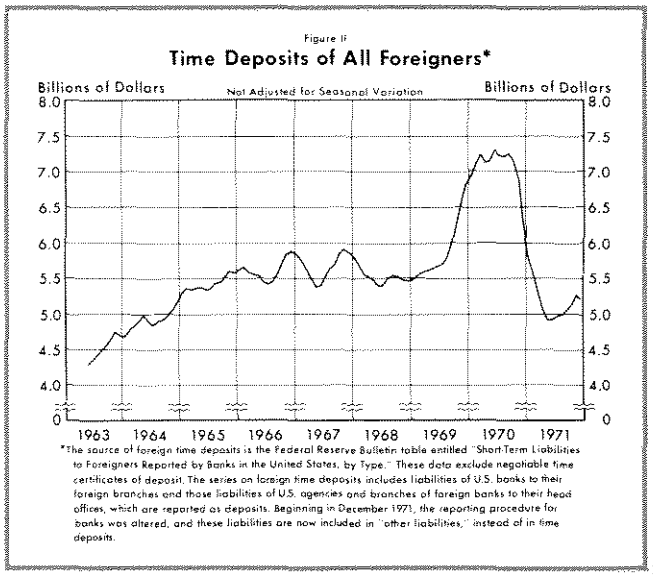
The demand deposit liabilities of U.S. commercial banks to foreign governments and commercial banks were taken from the Federal Reserve *Bulletin* table entitled "Assets and Liabilities of Large Commercial Banks," from the columns "Demand Deposits of Foreign Govts., etc." and "Commercial Banks."[23] This source was preferable to the data in "Short-Term Liabilities to Foreigners Reported by Banks in the United States, by Type" because the former excludes U.S. commercial bank liabilities to their foreign branches.

Foreign deposits at Federal Reserve Banks were taken from the Federal Reserve *Bulletin* table entitled

[22]These data were computed by averaging end-of-month data for the current and preceding month to make them roughly comparable with daily average data.

[23]These data were computed by averaging weekly data. For weeks that overlap months, only days that fall in the current month were used.





"Member Bank Reserves, Federal Reserve Bank Credit, and Related Items," the column entitled "Deposits, Other Than Member Bank Reserves, With F.R. Banks, Foreign." A small amount of foreign deposits of international institutions at the Federal Reserve reported separately were added to this total.[24]

The source of foreign time deposits is the Federal Reserve *Bulletin* table entitled "Short-Term Liabilities to Foreigners Reported by Banks in the United States, by Type," column entitled "To All Foreigners." These data exclude negotiable time certificates of deposit.[25] The series on foreign time deposits includes liabilities of U.S. banks to their foreign branches and those liabilities of U.S. agencies and branches of foreign banks to their head offices, which are reported as deposits. Hence, the level of foreign time deposits is biased upward by this amount. Beginning in December 1971, the reporting procedure for banks was altered, and these liabilities are now included in "Other Short-Term Liabilities," instead of in time deposits.

Foreign demand deposits at U.S. branches of foreign banks, U.S. agencies of foreign banks and Edge Act corporations are not included in the foreign deposit series. The current measure of demand deposits, which is one of the components used in construction of domestic money stock, reflects changes in domestic demand deposits resulting from transactions involving these foreign deposits.[26]

The construction of the monthly series on foreign demand deposits and foreign time deposits is illustrated in Table II and the data are presented in the Appendix. Figures I and II show the movements of the two series, and Figure III compares the growth of domestic demand deposits and foreign demand deposits.[27]

Construction of Domestic Money Stock Series

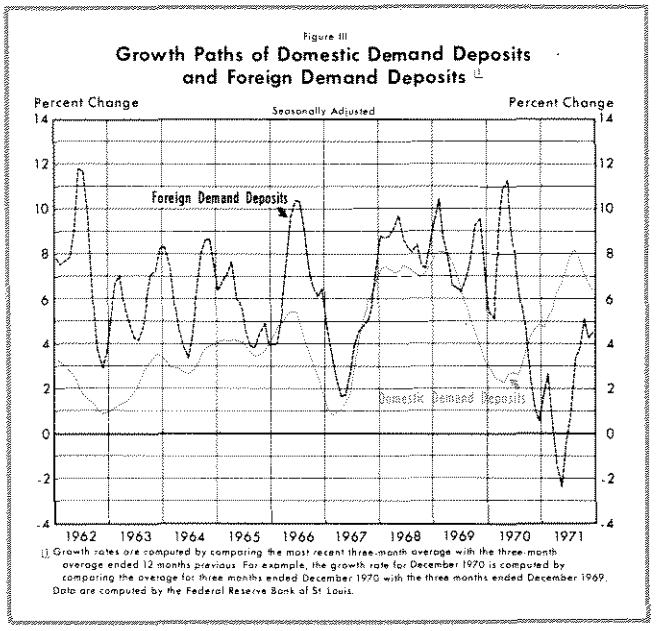
Transactions involving foreign deposit accounts generate cash items in process of collection in much the same way as do domestic deposit transactions. Therefore, if foreign deposits are removed from the money stock data, some estimate of the cash items arising from transactions in these accounts must be added back into the money stock data (CIPC, including foreign CIPC, are deducted from gross demand deposits). Unless this adjustment is made, changes in CIPC arising from foreign deposit transactions will

[24]These data are available on a daily average basis.

[25]These data were computed by averaging end-of-month data for the current and preceding month.

[26]An outflow of dollars decreases demand deposits of U.S. residents and increases demand deposits of foreigners at institutions mentioned above. However, cash items in process of collection associated with these transactions are deducted from gross demand deposits and therefore cause a decrease in the money stock. As long as these foreign demand deposits do not become permanent, thus producing an elimination of CIPC and reserve clearing among U.S. banks, these dollar outflows are accounted for in the current measure of the money stock. Since most of these deposits are of a temporary nature, and since data on deposits held permanently by foreigners at U.S. branches and agencies are not available, we assume that the level of these deposits is fairly constant and thus are not included in our series on foreign deposits.

[27]Growth rates are computed by comparing the most recent 3-month average with the 3-month average ended 12 months previously. For example, the growth rate for December 1970 is computed by comparing the average for the 3 months ended December 1970 with the 3 months ended December 1969.



result in biased estimates of the domestic money stock.

Unfortunately, only total CIPC data are reported; no separation is made between CIPC arising from foreign deposit transactions. Consequently, foreign CIPC were estimated as a ratio of total CIPC by the following procedure:[28]

$$\text{CIPCF} = \left(\frac{\text{DDF}}{\text{DD}_{\text{LCB}}}\right)\ (\text{CIPC}_{\text{LCB}})$$

The monthly estimates of cash items in process of collection generated by foreign deposits included in the money stock data are illustrated in Figure IV and given in the Appendix.

Not seasonally adjusted deposit data and cash items in process of collection were used in constructing the DM_1 and DM_2 series. To develop the seasonally adjusted money stock series, domestic demand deposits and domestic time deposits were seasonally adjusted

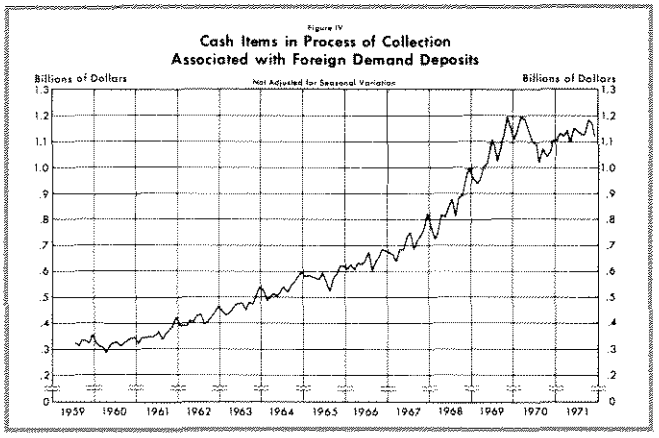
[28]Demand deposits and cash items in process of collection by large commercial banks are converted to a daily average basis by averaging weekly data. For weeks that overlap months, only days that fall in the current month were included.

CIPCF = Cash items in process of collection arising from transactions in demand deposits due to foreigners

DDF = Demand deposits due to foreigners at commercial banks; demand deposits due to foreigners at Federal Reserve Banks are excluded

DD_{LCB} = Total demand deposits reported by large commercial banks

CIPC_{LCB} = Total cash items in process of collection reported by large commercial banks



separately using the X-11 seasonal adjustment computer program.[29] The seasonally adjusted currency component of the money stock was then added to seasonally adjusted domestic demand deposits to compute seasonally adjusted domestic money stock. The seasonally adjusted DM_2 series was constructed by adding seasonally adjusted net domestic time deposits to seasonally adjusted domestic M_1. The construction of the domestic money stock series is illustrated in Table III, and monthly data for these series are presented in the Appendix to this article.

Table III

Construction of Domestic Money Stock Series

Domestic Money Stock (DM_1)
Demand Deposit Component of Money Stock (NSA)
Less:
Foreign Demand Deposits (NSA)
Plus:
Cash Items in Process of Collection Associated with Foreign Demand Deposits (NSA)
Equals:
Domestic Demand Deposits (NSA)
Plus:
Seasonal Adjustment by X-11 Program
Equals:
Domestic Demand Deposits (SA)
Plus:
Currency Component of Money Stock (SA)
Equals:
Seasonally Adjusted Domestic Money (DM_1)

Domestic Money Stock (DM_2)
Net Time Deposits (NSA)
Less:
Net Foreign Time Deposits (NSA)
Plus:
Seasonal Adjustment by X-11 Program
Equals:
Seasonally Adjusted Net Domestic Time Deposits
Plus:
Seasonally Adjusted DM_1
Equals:
Seasonally Adjusted Domestic Money (DM_2)

[29]This procedure closely approximates the Federal Reserve Board's method of seasonally adjusting the demand deposit component of money. However, in addition to the X-11 program, the Board sometimes uses "informed judgment" to compute seasonal factors.

Conclusions

Outflows of dollars do not result in a change in the money stock series as currently defined when foreigners increase their demand deposits at U.S. commercial banks. Although the *composition* of ownership of demand deposits is changed – U.S. residents hold less and foreigners hold more U.S. demand deposit balances – the money stock remains unchanged. Similarly, in the case where central banks increase their holdings of demand deposits at the Federal Reserve, the current money stock does not reflect the initial effect of this action on domestic demand deposits.

In both domestic money stock series developed in this article, outflows of dollars result in changes in the money stock series in all cases except where the dollars are reinjected directly back into deposits held by U.S. residents. A change in the composition of the ownership of demand deposits affects the growth of domestic money. For example, a decrease in demand deposits of U.S. residents and an increase in demand deposits owned by foreigners at U.S. commercial banks would appear as a decrease in the domestic money stock series.

Concern with the growth of money is twofold: (1) changes in the supply and demand for this asset result in predictable portfolio adjustments by economic units, and hence predictable effects on spending, which generates income for U.S. residents and influences prices and employment, and (2) the Federal Reserve can control the growth trend of money. When foreign deposits were included in the U.S. money stock data, the Federal Reserve asserted that these deposits were available for spending, the same as other deposits. However, it may be that foreigners react differently to changes in their holdings of dollars than do U.S. residents. In such a case, it is not only the size of the money stock that is important for stabilization policy, but also the composition of the money stock.

This article and the accompanying Appendix are available as Reprint No. 77

APPENDIX

In this section the basic data used in constructing the domestic money stock series are presented. The following projected seasonal factors for 1972 are presented for those readers interested in updating the seasonally adjusted domestic demand deposit series. These factors are to be applied to the not seasonally adjusted domestic demand deposit series. This series may be updated by using the data available in the Federal Reserve *Bulletin* in the tables cited in the text of this article.

January	103.5	July	99.3
February	99.0	August	98.3
March	98.9	September	99.2
April	100.8	October	99.8
May	98.0	November	100.6
June	99.2	December	103.0

Basic Data for Construction of Domestic Money Stock Series[1]

(Billions of Dollars)

Date	Unadjusted Domestic Demand Deposits: Demand Deposits[2] (NSA)	− Foreign Demand Deposits (NSA)	+ Foreign CIPC[3] (NSA)	= Domestic Demand Deposits (NSA)	Seasonally Adjusted Domestic Money Stock (DM_1): Domestic Demand Deposits (SA)	+ Currency[4] (SA)	= DM_1 (SA)	Seasonally Adjusted Domestic Money Stock (DM_2)[5]: Net Foreign Time Deposits[6] (NSA)	Net Domestic Time Deposits (SA)	+ DM_1 (SA)	= DM_2 (SA)
7/59	114.000	3.095	0.328	111.233	113.015	29.000	142.015				
8/59	113.600	3.047	0.312	110.865	112.769	29.100	141.869				
9/59	114.200	3.129	0.336	111.407	112.281	29.000	141.281				
10/59	114.500	3.062	0.333	111.771	111.784	29.000	140.784				
11/59	115.400	2.987	0.327	112.740	111.652	28.900	140.552				
12/59	116.800	3.193	0.355	113.962	110.700	28.900	139.600				
1/60	116.800	2.964	0.329	114.165	110.649	29.000	139.649				
2/60	113.300	2.816	0.315	110.799	110.353	29.000	139.353				
3/60	111.700	2.812	0.306	109.194	110.005	29.000	139.005				
4/60	112.600	2.773	0.286	110.113	109.566	29.000	138.566				
5/60	110.300	2.764	0.315	107.851	109.700	29.000	138.700				
6/60	110.400	2.840	0.327	107.887	109.745	29.000	138.745				
7/60	110.600	2.831	0.328	108.097	109.760	29.000	138.760				
8/60	111.200	2.852	0.312	108.660	110.516	29.000	139.516				
9/60	112.100	2.802	0.325	109.623	110.481	29.000	139.481				
10/60	112.900	2.881	0.335	110.354	110.315	29.000	139.315				
11/60	113.600	2.830	0.344	111.114	110.021	29.000	139.021				
12/60	115.900	3.022	0.346	113.224	109.960	28.900	138.860				
1/61	116.400	2.794	0.326	113.932	110.367	29.000	139.367				
2/61	113.800	2.791	0.344	111.353	110.918	28.900	139.818				
3/61	113.000	2.947	0.345	110.398	111.227	28.900	140.127				
4/61	114.600	2.871	0.351	112.080	111.509	29.000	140.509				
5/61	112.900	2.857	0.348	110.391	112.329	28.900	141.229				
6/61	113.200	2.911	0.355	110.644	112.544	28.900	141.444				
7/61	113.200	2.989	0.369	110.580	112.261	29.000	141.261				
8/61	113.200	2.993	0.339	110.546	112.511	29.100	141.611				
9/61	114.600	3.021	0.360	111.939	112.853	29.200	142.053				
10/61	115.800	3.052	0.374	113.122	113.029	29.300	142.329				
11/61	117.300	3.061	0.390	114.629	113.504	29.400	142.904				
12/61	120.000	3.164	0.423	117.259	113.845	29.600	143.445				
1/62	120.200	3.087	0.392	117.505	113.708	29.600	143.308				
2/62	117.100	3.014	0.390	114.476	114.067	29.700	143.767				
3/62	116.100	3.113	0.389	113.376	114.206	29.800	144.006				
4/62	117.800	3.190	0.410	115.020	114.314	30.000	144.314				
5/62	115.200	3.182	0.406	112.424	114.406	30.000	144.406				
6/62	115.200	3.295	0.430	112.335	114.149	30.100	144.249				
7/62	115.200	3.315	0.433	112.318	114.085	30.100	144.185				
8/62	114.500	3.137	0.397	111.760	113.947	30.200	144.147				
9/62	115.400	3.092	0.404	112.712	113.728	30.300	144.028				
10/62	116.900	3.146	0.424	114.178	114.054	30.300	144.354				
11/62	118.200	3.141	0.439	115.498	114.402	30.400	144.802				
12/62	121.100	3.286	0.461	118.275	114.780	30.600	145.380				
1/63	122.000	3.352	0.448	119.096	115.106	30.700	145.806				
2/63	118.600	3.248	0.432	115.784	115.524	30.900	146.424				
3/63	117.600	3.283	0.435	114.752	115.659	31.000	146.659				
4/63	119.600	3.330	0.454	116.724	115.969	31.100	147.069				
5/63	117.200	3.350	0.473	114.323	116.530	31.300	147.830	4.286	92.791	147.830	240.621
6/63	117.600	3.408	0.475	114.667	116.507	31.500	148.007	4.340	93.542	148.007	241.549
7/63	118.400	3.445	0.477	115.432	117.126	31.600	148.726	4.406	94.218	148.726	242.944
8/63	118.000	3.347	0.449	115.102	117.438	31.800	149.238	4.490	95.028	149.238	244.266
9/63	119.300	3.315	0.479	116.464	117.483	31.900	149.383	4.555	95.609	149.383	244.992

Date	Unadjusted Domestic Demand Deposits: Demand Deposits[2] (NSA)	− Foreign Demand Deposits (NSA)	+ Foreign CIPC[3] (NSA)	= Domestic Demand Deposits (NSA)	Seasonally Adjusted Domestic Money Stock (DM_1): Domestic Demand Deposits (SA)	+ Currency[4] (SA)	= DM_1 (SA)	Seasonally Adjusted Domestic Money Stock (DM_2)[5]: Net Foreign Time Deposits[6] (NSA)	Net Domestic Time Deposits (SA)	+ DM_1 (SA)	= DM_2 (SA)
10/63	121.000	3.346	0.474	118.128	117.884	32.000	149.884	4.651	96.336	149.884	246.220
11/63	122.800	3.377	0.506	119.929	118.810	32.300	151.110	4.755	97.187	151.110	248.297
12/63	124.800	3.618	0.539	121.721	118.044	32.500	150.544	4.699	98.015	150.544	248.559
1/64	125.900	3.597	0.523	122.826	118.559	32.600	151.159	4.688	98.258	151.159	249.417
2/64	122.000	3.429	0.485	119.056	119.007	32.800	151.807	4.786	98.964	151.807	250.771
3/64	120.900	3.465	0.498	117.933	118.932	32.900	151.832	4.829	99.391	151.832	251.223
4/64	122.900	3.455	0.513	119.958	119.103	33.100	152.203	4.898	100.087	152.203	252.290
5/64	120.000	3.451	0.503	117.052	119.487	33.300	152.787	4.977	100.912	152.787	253.699
6/64	120.800	3.533	0.519	117.786	119.570	33.500	153.070	4.891	102.033	153.070	255.103
7/64	122.300	3.666	0.540	119.174	120.820	33.600	154.420	4.842	102.731	154.420	257.151
8/64	122.100	3.610	0.519	119.009	121.492	33.800	155.292	4.893	103.582	155.292	258.874
9/64	124.200	3.605	0.542	121.137	122.163	33.900	156.063	4.918	104.710	156.063	260.773
10/64	126.000	3.630	0.560	122.930	122.601	34.000	156.601	4.991	105.666	156.601	262.267
11/64	127.300	3.662	0.576	124.214	123.101	34.200	157.301	5.069	106.749	157.301	264.050
12/64	130.300	3.818	0.600	127.082	123.184	34.200	157.384	5.167	108.041	157.384	265.425
1/65	131.300	3.788	0.581	128.093	123.528	34.400	157.928	5.295	109.617	157.928	267.545
2/65	126.500	3.770	0.586	123.316	123.534	34.600	158.134	5.345	111.428	158.134	269.562
3/65	125.900	3.697	0.580	122.783	123.903	34.700	158.603	5.338	112.327	158.603	270.930
4/65	128.400	3.695	0.574	125.279	124.353	34.700	159.053	5.350	113.478	159.053	272.531
5/65	124.200	3.619	0.571	121.152	123.835	34.900	158.735	5.350	114.342	158.735	273.077
6/65	125.900	3.748	0.595	122.747	124.430	35.000	159.430	5.327	115.465	159.430	274.895
7/65	126.700	3.768	0.560	123.492	125.065	35.200	160.265	5.353	116.900	160.265	277.165
8/65	126.000	3.704	0.522	122.818	125.365	35.500	160.865	5.428	118.221	160.865	279.086
9/65	128.600	3.809	0.573	125.364	126.355	35.700	162.055	5.446	119.650	162.055	281.705
10/65	130.800	3.797	0.592	127.595	127.244	36.000	163.244	5.510	121.323	163.244	284.567
11/65	131.900	3.821	0.623	128.702	127.607	36.100	163.707	5.585	122.962	163.707	286.669
12/65	136.000	3.924	0.623	132.699	128.597	36.300	164.897	5.562	124.443	164.897	289.340
1/66	137.600	3.978	0.609	134.231	129.400	36.600	166.000	5.614	125.658	166.000	291.658
2/66	132.500	3.944	0.627	129.183	129.712	36.700	166.412	5.649	126.513	166.412	292.925
3/66	132.400	3.944	0.605	129.061	130.323	36.900	167.223	5.577	127.047	167.223	294.270
4/66	135.800	4.088	0.634	132.346	131.328	37.100	168.428	5.557	128.649	168.428	297.077
5/66	131.000	4.051	0.628	127.577	130.510	37.300	167.810	5.538	130.410	167.810	298.220
6/66	132.700	4.078	0.641	129.263	130.840	37.400	168.240	5.449	130.997	168.240	299.237
7/66	131.500	4.154	0.676	128.022	129.466	37.600	167.066	5.428	132.375	167.066	299.441
8/66	130.500	3.974	0.603	127.129	129.695	37.800	167.495	5.456	133.433	167.495	300.928
9/66	133.100	3.963	0.637	129.774	130.739	37.900	168.639	5.559	134.371	168.639	303.010
10/66	133.600	4.116	0.657	130.141	129.830	38.000	167.830	5.734	135.124	167.830	302.954
11/66	134.100	4.051	0.685	130.734	129.690	38.200	167.890	5.848	135.597	167.890	303.487
12/66	137.800	4.117	0.680	134.363	130.225	38.300	168.525	5.879	136.489	168.525	305.014
1/67	137.900	4.102	0.674	134.472	129.652	38.500	168.152	5.837	138.192	168.152	306.344
2/67	133.400	4.043	0.666	130.023	130.826	38.700	169.526	5.753	140.042	169.526	309.568
3/67	134.600	4.030	0.639	131.209	132.559	38.900	171.459	5.615	141.433	171.459	312.892
4/67	136.300	4.116	0.686	132.870	131.829	39.000	170.829	5.477	143.944	170.829	314.773
5/67	133.500	4.165	0.685	130.020	133.004	39.100	172.104	5.384	146.069	172.104	318.173
6/67	136.500	4.276	0.729	132.953	134.359	39.300	173.659	5.398	148.247	173.659	321.906
7/67	137.600	4.315	0.751	134.036	135.370	39.400	174.770	5.541	150.003	174.770	324.773
8/67	137.700	4.148	0.688	134.240	136.843	39.500	176.343	5.642	151.595	176.343	327.938
9/67	140.000	4.191	0.719	136.528	137.496	39.700	177.196	5.705	153.125	177.196	330.321
10/67	142.000	4.295	0.740	138.445	138.230	39.900	178.130	5.852	154.566	178.130	332.696
11/67	143.400	4.334	0.763	139.829	138.791	40.000	178.791	5.929	155.785	178.791	334.576
12/67	147.400	4.536	0.824	143.688	139.300	40.400	179.700	5.863	156.795	179.700	336.495
1/68	148.800	4.492	0.767	145.075	139.963	40.600	180.563	5.776	158.063	180.563	338.626
2/68	143.000	4.313	0.725	139.412	140.514	40.700	181.214	5.692	159.708	181.214	340.922
3/68	143.400	4.459	0.752	139.693	141.167	41.100	182.267	5.569	160.835	182.267	343.102

Date	Unadjusted Domestic Demand Deposits: Demand Deposits[2] (NSA)	— Foreign Demand Deposits (NSA)	+ Foreign CIPC[3] (NSA)	= Domestic Demand Deposits (NSA)	Seasonally Adjusted Domestic Money Stock (DM_1): Domestic Demand Deposits (SA)	+ Currency[4] (SA)	= DM_1 (SA)	Seasonally Adjusted Domestic Money Stock (DM_2)[5]: Net Foreign Time Deposits[6] (NSA)	Net Domestic Time Deposits (SA)	+ DM_1 (SA)	= DM_2 (SA)
4/68	146.600	4.548	0.819	142.871	141.726	41.300	183.026	5.514	161.880	183.026	344.906
5/68	143.700	4.526	0.811	139.985	143.100	41.600	184.700	5.485	162.752	184.700	347.452
6/68	146.600	4.595	0.844	142.849	144.181	41.900	186.081	5.394	163.880	186.081	349.961
7/68	147.800	4.686	0.882	143.996	145.249	42.000	187.249	5.414	165.003	187.249	352.252
8/68	147.300	4.462	0.812	143.650	146.316	42.300	188.616	5.495	167.077	188.616	355.693
9/68	149.600	4.546	0.887	145.941	147.007	42.700	189.707	5.536	169.134	189.707	358.841
10/68	151.500	4.555	0.893	147.838	147.819	42.800	190.619	5.523	171.287	190.619	361.906
11/68	154.100	4.650	0.966	150.416	149.423	43.200	192.623	5.478	173.429	192.623	366.052
12/68	159.100	5.058	1.002	155.044	150.440	43.400	193.840	5.472	175.394	193.840	369.234
1/69	160.700	4.930	0.958	156.728	151.234	43.600	194.834	5.487	176.583	194.834	371.417
2/69	154.400	4.760	0.940	150.580	151.873	43.900	195.773	5.529	177.180	195.773	372.953
3/69	154.600	4.764	0.954	150.790	152.342	44.100	196.442	5.583	177.629	196.442	374.071
4/69	158.200	4.866	1.004	154.338	153.079	44.200	197.279	5.604	178.122	197.279	375.401
5/69	153.500	4.820	1.017	149.697	152.854	44.500	197.354	5.616	178.371	197.354	375.725
6/69	155.800	4.877	1.080	152.003	153.275	44.700	197.975	5.664	179.528	197.975	377.503
7/69	156.400	4.963	1.111	152.548	153.731	44.900	198.631	5.693	178.298	198.631	376.929
8/69	154.300	4.830	1.026	150.496	153.132	45.200	198.332	5.767	177.193	198.332	375.525
9/69	156.100	4.949	1.081	152.232	153.285	45.300	198.585	5.972	177.145	198.585	375.730
10/69	157.600	5.038	1.119	153.681	153.760	45.600	199.360	6.233	176.742	199.360	376.102
11/69	158.900	5.073	1.196	155.023	153.928	45.900	199.828	6.525	176.702	199.828	376.530
12/69	162.900	5.207	1.153	158.846	154.024	46.000	200.024	6.785	176.323	200.024	376.347
1/70	165.400	5.159	1.110	161.351	155.927	46.200	202.127	6.937	176.181	202.127	378.308
2/70	156.800	5.141	1.142	152.801	154.335	46.400	200.735	7.111	175.631	200.735	376.366
3/70	158.400	5.450	1.196	154.146	155.806	46.700	202.506	7.242	176.394	202.506	378.900
4/70	162.600	5.379	1.191	158.412	157.164	47.100	204.264	7.135	178.140	204.264	382.404
5/70	158.000	5.267	1.156	153.889	157.051	47.600	204.651	7.159	179.491	204.651	384.142
6/70	160.100	5.203	1.107	156.004	157.255	47.700	204.955	7.283	181.492	204.955	386.447
7/70	160.700	5.251	1.097	156.546	157.650	48.000	205.650	7.233	184.027	205.650	389.677
8/70	160.400	5.070	1.021	156.351	159.034	48.100	207.134	7.218	186.997	207.134	394.131
9/70	163.200	5.110	1.073	159.163	160.295	48.300	208.595	7.249	189.509	208.595	398.104
10/70	164.600	5.004	1.041	160.637	160.859	48.500	209.359	7.154	191.983	209.359	401.342
11/70	166.300	5.100	1.063	162.263	161.151	48.700	209.851	6.882	193.980	209.851	403.831
12/70	171.300	5.291	1.103	167.112	162.060	49.000	211.060	6.324	196.992	211.060	408.052
1/71	172.300	5.328	1.103	168.075	162.455	49.300	211.755	5.808	202.266	211.755	414.021
2/71	166.500	5.304	1.133	162.329	163.997	49.700	213.697	5.574	207.161	213.697	420.858
3/71	168.000	5.190	1.120	163.930	165.680	50.000	215.680	5.317	211.971	215.680	427.651
4/71	172.300	5.257	1.145	168.188	166.837	50.500	217.337	5.056	214.806	217.337	432.143
5/71	169.400	5.271	1.099	165.228	168.556	50.800	219.356	4.927	217.025	219.356	436.381
6/71	172.700	5.241	1.153	168.612	169.931	51.100	221.031	4.935	219.948	221.031	440.979
7/71	174.100	5.312	1.138	169.926	171.093	51.600	222.693	4.963	220.742	222.693	443.435
8/71	173.000	5.472	1.127	168.655	171.589	51.700	223.289	4.992	221.865	223.289	445.154
9/71	174.300	5.254	1.126	170.172	171.438	51.900	223.338	5.050	223.474	223.338	446.812
10/71	175.300	5.235	1.183	171.248	171.594	52.200	223.794	5.136	225.924	223.794	449.718
11/71	176.900	5.373	1.172	172.699	171.616	52.200	223.816	5.265	228.252	223.816	452.068
12/71	181.500	5.473	1.118	177.145	171.819	52.500	224.319	5.202	231.151	224.319	455.470

[1]Data are based on revisions through the February 1972 Federal Reserve *Bulletin*.

[2]Demand deposit series published in the Federal Reserve *Bulletin* table entitled "Components of Money Stock Measures and Related Items."

[3]Cash items in process of collection associated with foreign demand deposits.

[4]Currency series published in the Federal Reserve *Bulletin* table entitled "Components of Money Stock Measures and Related Items."

[5]Prior to 1963 foreign demand and time deposits are not reported separately in the data source used to construct the time deposit series.

[6]The source of foreign time deposits is the Federal Reserve *Bulletin* table entitled "Short-Term Liabilities to Foreigners Reported by Banks in the United States, by Type." These data exclude negotiable time certificates of deposit. The series on foreign time deposits includes liabilities of U.S. banks to their foreign branches and those liabilities of U.S. agencies and branches of foreign banks to their head offices, which are reported as deposits. Beginning December 1971, the reporting procedure for banks was altered, and these liabilities are now included in "Other Liabilities," instead of in time deposits.