

# BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM WASHINGTON, D. C. 20551

March 16, 1973

## CONFIDENTIAL (FR)

To: Federal Open Market Committee

From: Arthur L. Broida

Enclosed is a copy of a memorandum dated today and entitled "Foreign Official Holdings of United States Treasury Debt--Issues and Problems." This preliminary report was prepared by staff at the New York Reserve Bank in response to a request made at the Committee meeting of February 13, 1973.

A brief note on certain aspects of the problem is being prepared by the Board staff for distribution shortly.

Enclosure

March 16, 1973

# CONFIDENTIAL (FR)

TO: Federal Open Market Committee SUBJECT: Foreign Official Holdings

of United States Treasury Debt--

FROM: Staff, Federal Reserve Bank Issues and Problems

of New York

Holdings of United States Treasury securities by foreign official institutions have grown explosively during the past three years. The rapid buildup of these holdings has posed a number of problems for open market operations, debt management, and the credit markets. Moreover, the high current level of such holdings suggests a need to consider the types of difficulties that may be encountered in the future. This present paper represents a preliminary attempt to identify the problems and issues involved in these holdings, preparatory to a more thorough analysis yet to be undertaken. The important question of whether foreign holdings are likely to increase or decrease in the future lies outside the present terms of reference.

The paper is divided into three main parts. The first section reviews the buildup of foreign official holdings of United States Treasury securities and the composition of these holdings. The second section deals with some of the difficulties that this buildup has posed for open market operations, debt management, and the securities markets. The third section points out some effects of the continued concentration of this debt in the hands of foreign official institutions.

# I. Profile of foreign official holdings.

As of March 7, 1973, foreign official holdings of United States Treasury securities 1/ totaled \$61 billion, or 13.4 per cent of the gross Federal debt outstanding. As recently as the end of 1969, these holdings totaled only \$7 billion, or 1.9 per cent of the gross Federal debt (see Table 1). The growth since then has reflected the massive basic balance of payments deficits that the nation has sustained during the past three years and the shift of dollars from private to foreign official hands. During the entire period from the end of 1969 through March 7, 1973, foreign official accounts absorbed \$54 billion of Treasury securities, or 61.9 per cent of the increase in the Federal debt (see Table 2).

During the past three years, foreign official accounts have more than absorbed the entire increase in Federal debt held outside Federal Government accounts and the Federal Reserve System. Other holders of Treasury securities have reduced their holdings from \$215 billion at the end of 1969 to an estimated \$208.5 on March 7, 1973 (see Table 3). The share of the publicly held Treasury debt in the hands of foreign official accounts has risen from 3.2 per cent at the end of 1969 to an estimated 22.6 per cent as of March 7, 1973.

<sup>1/</sup> Because of limitations on the availability of recent information, the data reported in this section cover only holdings in the custody of the Federal Reserve Bank of New York. Excluded are securities held by foreign official accounts elsewhere, which totaled \$1.9 billion at the end of 1972. Also excluded are holdings of international institutions, which totaled \$0.5 billion at Federal Reserve Bank of New York at the end of 1972. Also excluded are holdings of Federal agency securities which, at the end of 1972, totaled \$0.3 billion for official foreign accounts and \$1.3 billion for international institutions.

The ownership of these holdings has become increasingly concentrated during the past few years. The combined share of foreign official holdings of United States Treasury debt in the hands of the two principal holders—the Germans and the Japanese—has risen from 34.1 per cent at the end of 1969 to 61.8 per cent on March 7, 1973 (see Table 4). The German share rose from 18.2 per cent at the end of 1969 to 39.6 per cent on March 7, 1973. The Japanese share rose from 15.9 per cent of the foreign official holdings at the end of 1969 to 22.2 per cent by March 7, 1973.

At the end of 1969, the \$7 billion of foreign official holdings of United States Treasury debt was about evenly split between marketable issues and special nonmarketable securities issued specifically for the foreign holders (see Table 5). Both types of securities have multiplied since then. By March 7, 1973, nearly \$32.2 billion of marketable and \$28.9 billion of nonmarketable issues were held by foreign official accounts. At the end of 1969, foreign official holdings of Treasury securities (marketable and nonmarketable) were also about evenly split between short-term issues (those maturing in less than one year) and longer term issues (see Table 6). By March 7, 1973, holdings of short-term issues had increased to \$38.6 billion, while holdings of long-term issues had risen to \$22.4 billion.

Among the marketable issues held by foreign official accounts, long-term issues have grown at a proportionately more rapid rate since the end of 1969, although short-term issues have increased considerably more in absolute terms (see Table 7). Holdings of long-term marketable issues have increased from \$0.3 billion at the end of 1969 to \$6.5 billion by March 7, 1973. During the same interval, holdings of short-term issues increased

from \$3.3 billion to \$25.6 billion. The proportion of marketable holdings maturing within one year dropped from 91.6 per cent at the end of 1969 to 79.7 per cent on March 7, 1973.

The maturity distribution of holdings of nonmarketable issues, on the other hand, has followed an opposite trend. Holdings of short-term nonmarketable issues increased from \$0.2 billion at the end of 1969 to \$4.8 billion at the end of 1972. They then shot up to \$13 billion by March 7, 1973. Holdings of long-term issues have risen from \$3.2 billion at the end of 1969 to \$15.9 billion on March 7, 1973 (see Table 8). Thus, the proportion of nonmarketable issues maturing within one year increased from 6 per cent at the end of 1969 to 45 per cent on March 7, 1973. The maturity distribution of the long-term holdings is summarized in Table 9. Maturities of marketable issues held by foreign official accounts are most heavily concentrated in the two- to five-year maturity range, while maturities of nonmarketable issues are spread out more evenly from one to seven years.

The vast bulk of the short-term nonmarketable issues is denominated in dollars. A significant--though steadily dwindling--share of the longer term nonmarketable issues is denominated in foreign currencies, chiefly Swiss francs. While dollar-denominated long-term issues (Foreign Series) have increased from \$1.4 billion at the end of 1969 to \$14.5 billion on March 7, 1973, Foreign Currency Series outstanding have declined from \$1.7 billion equivalent to \$1.4 billion equivalent (see Table 10)<sup>2/</sup>. Hence, the

<sup>2/</sup> One outstanding Foreign Series issue of \$20 million due to Belgium also carries an exchange guarantee.

share of long-term special certificates that are denominated in foreign currencies has declined from 54.9 per cent at the end of 1969 to 8.8 per cent on March 7, 1973.

The interest payments on United States Treasury securities held by foreign official and international institutions more than tripled from an estimated \$777 million in 1969 to \$2,684 million in 1972. It is estimated that such payments will total about \$3.6 billion in 1973, given the debt outstanding on March 7 and assuming currently prevailing interest rates. In relation to current-dollar gross national product, such payments would have increased from about 0.08 per cent in 1969 to a projected 0.28 per cent in 1973 (see Table 11). Because of our sharply deteriorating balance of payments, these interest payments amounted to about the same proportion of the basic deficit in 1972 as in 1969 (approximately 26 per cent, as shown in Table 12).

<sup>3/</sup> The deficit on current account and long-term capital account.

# II. Consequences of the rapid buildup of foreign official holdings of U. S. Treasury debt.

To some extent, the buildup of dollars in the hands of foreign central banks has reflected the deficits in this nation's basic balance of payments. Since the end of 1969, however, the accumulation of some \$54 billion by these foreign institutions has been perhaps double the deficit on the current and long-term capital accounts. Much of this latter dollar outflow has resulted from massive speculation against the prevailing exchange rate parities. Indeed, some of our "basic" balance of payments deficit has stemmed directly from such speculation in the form of over-importing and distortions of U. S. and foreign investment, both direct and portfolio, induced by expectations of changes in currency parities. A significant part of the short-term capital outflows moreover has undoubtedly been in the form of changes in the payment "leads and lags" associated with regular trade and service transactions, that is, delays in payments by foreigners to Americans and prepayments by U. S. companies to foreigners. But the amounts that international corporations and others have been able to mobilize have far exceeded the scale for any prior experience. Thus, the Germans found themselves inundated with nearly \$6 billion in the first seven trading days of February and a further \$2.7 billion on March 1 alone.

# A. Monetary policy issues.

The mobilization of funds on such a scale involves a complex of asset and liability adjustments by muli -national corporations and banks.

One policy question is the significance of the sizable bulge in bank credit and bank liabilities that has typically occurred during periods of speculative attack on the dollar. In such periods, U. S.-based corporations have drawn

among other things on their credit lines with domestic banks and their overseas branches. The banks, in serving their multi-national customers, have financed a sizable portion of the outflow, chiefly by responding passively to the credit demands of their customers. Their loans to business have risen, both at home and through their foreign branches (resulting in the latter case in a drop in their head-office Euro-dollar liabilities). Loans to foreign commercial banks, too, have risen sharply.

The dollars accruing to foreign central banks through their exchange support operations have typically been invested primarily in Treasury bills, and special certificates issued by the Treasury. The scale of foreign bank demand has, on occasion, quickly exhausted the floating supply of Treasury issues in the hands of dealers and trading-oriented accounts, producing a rapid decline in bill rates relative to other short-term rates. Under such circumstances, the Treasury has issued special certificates, redepositing a substantial portion of the proceeds in tax and loan accounts to avoid imposing extraordinary reserve drains on the banking system. Thus, in a short time bank loans have risen on one side of bank balance sheets, while Treasury balances and CD's have risen considerably more than private demand deposits and Euro-dollar liabilities have declined.

From a monetary policy standpoint, the surge in bank credit is potentially expansionary since it has enabled the Treasury to meet its financing needs through mid-May. As the Treasury pays down its swollen balances, private demand deposits and the narrowly-defined money supply, M<sub>1</sub>, could well tend to grow more rapidly unless interest rates are permitted

to rise. As in the case of rapid bank credit growth more directly related to Federal deficits or business loan demand, the extent of any expansionary economic stimulus that might result from this process requires careful analysis of the individual situation.

Thus, variations in foreign holdings, rather than their size, would seem to be of chief significance for analysis. The international monetary system that has existed throughout most of the postwar era requires conscious policy responses to rapid international currency flows. When additions to dollar reserves are accepted by foreign governments, a large dollar outflow both stimulates U. S. bank credit expansion and provides the base for credit expansion abroad. In effect, the credit demands of international business lead to international money creation and are likely to spur international price inflation unless the central banks of both the United States and foreign countries take countervailing action.

#### B. Operational problems.

The size and rapidity of the exchange flows have caused a series of related operating problems for Treasury debt management, for the Trading Desk, and for the credit markets. The recent experience illustrates these problems.

In the two weeks ended February 14, for example, foreign monetary authorities channeled \$8.1 billion of newly acquired dollars to the Federal Reserve Bank of New York for investment. The Trading Desk bought \$2.5 billion net of Treasury issues in the open market, in the process pushing the three-month Treasury bill rate from around 5.75 per cent to 5.40 per cent. The remaining \$5.6 billion was placed with the Treasury's agreement

in special Treasury certificates of indebtedness bearing interest at about the three-month bill rate. Since foreign central bank demands for dollar investments were typically concentrated in large blocks on given days, it was technically impossible for the Desk to accommodate more than a small part of these demands in the open market. The special Treasury issues were the only alternative available to assure immediate investment.

From a debt management standpoint, the sales of special issues to Germany, Japan, and the Netherlands -- together with further such sales in the wake of the dollar hemorrhage at the beginning of March--met most of the Treasury's net cash needs for the remainder of the fiscal year. However, they provided the Treasury with funds far in advance of its actual needs. The Treasury, in effect, is paying interest on funds it does not now need. Its tax and loan account balances at commercial banks rose to a record \$13.9 billion on Wednesday, February 14, and still totaled nearly \$10 billion at the end of the month. The Treasury finds this situation very troublesome since it has been pressured by Congress, and to some extent, by the General Accounting Office to curtail, or even try to eliminate, the deposits it makes with commercial banks. Accordingly, the Treasury has been anxious to increase its balances at the Reserve Banks, and to reduce its deposits at commercial banks, insofar as open market operations can compensate for the reserve effects of such transfers. To the extent that this transfer can be made. System earnings will increase and there will be an offset to the Treasury's additional interest expense.

It would have been impossible for the Desk to deal with the sudden proceeds of sharp squeeze on bank reserves that would have resulted if the /large one-day

sales of special certificates to foreign central banks had been kept entirely in the Treasury balance at the Federal Reserve. For this reason, the Treasury made temporary redeposits to tax and loan accounts at Class C bank depositaries.

Over the somewhat longer-run, the Trading Desk has sought to provide reserves through its entire range of operating techniques so the Treasury could more quickly reduce its swollen tax and loan accounts at commercial banks. The Desk bought Treasury bills in the market on days when foreign account orders did not take up the available market supply. The Desk made repurchase agreements for one week after giving the nonbank dealers advance notice so that they could round up customer collateral. The Desk also bought Treasury coupon issues for its own account. In effect, these operational devices broaden the Desk's market entry relative to the investment options of most foreign central banks.

The chuming of funds associated with the massive flows of dollars across the exchanges tends to have different impacts on various sectors of the credit markets. The bidding of speculators for funds to convert into strong currencies puts upward pressure on Euro-dollar rates. The investment of foreign official dollar holdings in Treasury securities, on the other hand, tends to depress yields in that sector relative to those in other sectors. Of course, the differential impact on market yields of all this activity should foster adjustments in the portfolios of banks and the public,

which will restore more normal yield relationships over time. The sharp decline in Treasury bill yields has already led to selling of bills by banks and domestic corporations. Gradually, one would expect state and local government holders also to sell bills, reinvesting the proceeds in CD's and commercial paper to the extent institutional rigidities permit. Insofar as the System purchases the supply of bills, Federal agencies, and coupon issues that become available and the Treasury lowers its tax and loan account balances, the banks will be under further pressure to issue additional CD's. However, the yield distortions generated by foreign exchanges cries frequently last for some time. Any sudden reflux of dollars could precipitate a set of market distortions and operating problems just the reverse of those discussed.

# III. Implications of the continuation of foreign official holdings of U.S. Treasury debt at a high level.

The maintenance of foreign official holdings of Treasury debt near current levels for an extended period would have some continuing effects on the balance of payments, Treasury debt management and U. S. financial markets. Beyond this, foreign countries with the larger holdings seem likely to continue shifting a portion of their portfolios toward higher yielding issues, and could diversify in time into private debt on a sizable scale--commercial paper, CD's, corporate bonds, and perhaps even corporate stock. Such a shift might create some complications for monetary policy. Finally, the size of foreign holdings, and the concentration of them in a few hands, might offer some leverage for foreign pressure on U. S. policies.

#### A. The Balance of Payments.

The steep rise in foreign holdings of Government securities since the end of 1969 was the counterpart of a \$52 billion cumulative U. S. deficit on an official reserve transactions basis over the 1970-72 period. (Table 12) This deficit, in turn, resulted from both the basic deficits in the United States balance of payments and the transfer of U. S. and foreign private short-term capital abroad. The cumulative U. S. deficit on current and long-term capital account for the three years amounted to an estimated \$23 billion. The net recorded outflow of short-term private capital amounted to \$12 billion over the three years, and the unrecorded outflow--the errors and ommissions item--to an additional \$15 billion.

The external debt service of the United States may have increased somewhat as a result of the country's continuing basic deficits, but the increase has been far less than the rise in the Treasury's interest payments

to foreign countries. At current annual interest rates these payments are estimated to rise to \$3.6 billion in 1973, up almost \$3 billion from 1969. However, the decline in liabilities to private foreigners--most notably the drop in Euro-dollar liabilities in 1970 and 1971--has reduced interest payments to them. Also, the rise in U. S. short-term claims--in the form of trade credits, loans or deposits--has led to increased receipts of interest from abroad. Making allowance for these as well as the earnings that may be associated with unrecorded short-term flows, the net increase in external debt service for the economy as a whole may not be very large. Finally, any repatriated devaluation profits of U. S. residents could serve as a partial offset to the Treasury's increased interest costs in the overall balance of payments.

#### B. Treasury debt management and the financial markets.

Foreign monetary authorities with holdings of Treasury debt that exceed their needs for international liquidity seem likely to continue diversifying their portfolios away from Treasury bills and into higher yielding issues. As of March 7, 1973, Germany already had 48 per cent of its dollar holdings at the Federal Reserve Bank of New York in U. S. Government securities maturing in over one year at the time of acquisition—conventionally termed "long-term securities." Japan had 41 per cent, Canada 79 per cent, and Switzerland 45 per cent of their respective portfolios in such issues. Japan has also invested in Federal agency securities and to some extent in U. S. corporate bonds. As of the end of 1972, 83 per cent of the investment holdings of international institutions at the New York Reserve Bank were in longer-term U. S. Government securities and Federal agency issues.

The potential for a further shift of holdings toward Government issues maturing in over one year is impressive. Germany, Japan, Canada and France held \$25.7 billion of short-term issues at the New York Bank on March 7, 1973, and other countries held an additional \$12.9 billion. The short-term holdings of all foreign countries--\$38.6 billion--compare with a total of \$3.5 billion at the end of 1969.

The extent to which foreign authorities are likely to want to shift their short-term Treasury holdings into other investments depends on their assessment of liquidity needs and on the investment alternatives available. Presumably, they will want to provide sufficient liquidity to deal with any speculative reflow that might emerge when general confidence in the international monetary system is restored. Central banks would presumably invest in marketable long-term Treasury securities only as permanent type investments since appreciable losses can be incurred on such issues if they must be pressed in volume on an unreceptive market. Even so, foreign countries might well acquire several billion dollars worth of longterm Treasury issues in addition to the \$6.5 billion in marketable issues that they currently hold. In the event that a rapid large-scale liquidation of such issues should become necessary, the Federal Reserve might have to intervene to avoid undue pressure in the market for Treasury coupon issues. The System could, if needed, buy such issues directly from foreign accounts, at the same time selling Treasury bills in the market to avoid an unwanted reserve impact.

Foreign central banks might also have an interest in acquiring long-term nonmarketables issued directly by the Treasury, provided there

were redemption features that made them available for meeting extraordinarily heavy reserve drains.

The Treasury has to weigh the funding of foreign holdings from several points of view. First, replacing short-term securities in foreign hands with longer ones could be taken as a constructive step by the foreign exchange markets. Secondly, funding would tend to retain foreign accounts as investors in Treasury securities.

As an issuer of \$81 billion in debt over the past three calendar years, the Treasury has benefitted substantially from having foreign monetary authorities as, more or less, captive buyers of its securities. These authorities and other Governmental accounts—the Federal Reserve, Federal agencies, and the trust funds—absorbed \$84.7 billion of securities over the interval. The Treasury's net interest costs were substantially less than they would have been had buyers with other investment outlets been required to take up a major part of the securities issued. Any significant shift of the foreign monetary authorities toward private debt—e.g. CD's or commercial paper at the short end or corporate bonds or stocks at the longer end—would raise Treasury interest rates both absolutely and relative to rates on com—parable maturities of private debt. Accordingly, the Treasury has a sizable stake in inducing foreign reserve holders to keep their dollar assets in U. S. Government debt.

One consequence of the heavy involvement of foreign accounts is that the Treasury market is more directly affected by international developments than other sectors of the financial markets. The accumulation of dollars by foreign countries in recent years brought downward pressure on

Treasury interest rates. A reverse flow would bring upward pressure on such rates. Neither the form in which foreign countries hold Treasury debt--marketable or nonmarketable--nor the maturity of these holdings--short or intermediate term--will affect very much the impact of a rise or fall in total foreign holdings on the market or on the Treasury's financing requirements. The net volume of securities that must be placed by the Treasury with other holders will continue to fall when foreign holdings rise, or increase when they fall.

Any large further funding of foreign holdings would probably involve both purchases in the market and purchases of special notes directly from the Treasury. Continuing market purchases would contribute to greater activity in the Treasury's market for 2-to-15 year maturities, encouraging underwriters to trade and position such issues. But the Treasury would have to issue a substantial volume of issues directly if any large scale funding of foreign debt were to be accomplished within a short period. (Such funding might be called for in an international monetary settlement -- either direct funding of individual country holdings or through the IMF, which might owe reserve liabilities to others and hold claims on the United States.) As it has done in the German case, the Treasury could issue a series of annually spaced maturities at current market rates with foreign countries allowed to redeem them on two or three months' notice at an effective yield to maturity established at the time of issuance. In this way the Treasury pays a rate related to the length of time the special nonmarketable issue is outstanding and has due notice of the cash drain. For the foreign account the special issue provides a considerable measure of liquidity without risk of market

loss for the longer-term portion of its portfolio. At the same time the account earns the higher rate commensurate with the longer maturity.

Properly handled, further funding of foreign official dollar holdings should not cause great problems for the Government securities market or other financial markets. Trading Desk purchases of coupon issues could continue to be executed in the market as conditions permit. Since such operations would involve the sale of Treasury bills for foreign accounts, they would tend to raise short-term rates on Treasury issues toward a more normal relation with short-term rates on private securities. They would also depress coupon yields until the Treasury added further to market supplies of coupon securities. Alternatively, the System Account could supply the Treasury coupon issues to foreign accounts directly in exchange for Treasury bills.

If a substantial funding operation were deemed to be in the best interests of the United States, it might be preferable for the Treasury to issue nonmarketable securities rather than fund through market or System swap operations. If the amount were large, the Treasury could avoid an increase in its cash balance by accepting Treasury bills from foreign accounts and retiring them, thus, in effect, reducing the amount of bills offered in the regular Treasury weekly auctions. Since, if this route were followed, it would be desirable to reduce the issue of weekly bills by equal amounts over the bill cycle, it might be necessary for the System to engage in some bill swaps with foreign accounts in order to supply the Treasury with the proper amounts of each maturity of outstanding bills.

# C. Possible shifts from Government to private debt.

The sheer size of foreign holdings of Government securities may well suggest to a number of foreign authorities the desirability of including higher yielding securities in their portfolios. Japan has already begun to diversify into Federal agency securities and corporate bonds. (It has also provided funds for various investment and lending activities of other Japanese institutions, some apparently involved in promoting Japanese exports.) Other foreign countries seem likely to become investors in Federal agency securities. Foreign monetary authorities might also turn to the purchase of CD's and commercial paper or the placement of funds in the Euro-dollar market in order to increase yields while maintaining liquidity. At present the 7 per cent rate available from major banks on 89-day maturity CD's offers a yield pickup of about 1 percentage point over 90-day Treasury bills. Foreign diversification into corporate bonds or stocks may also occur gradually over the longer-term.

The likelihood of a sizable shift to CD's or commercial paper is hard to assess, but it is probably greater now than at any time in the past. Commercial banks can be expected to sell CD's aggressively to foreign authorities, as the banks try to cover the cyclically heavy, loan takedowns now being projected. The banks often are willing to pay them premium rates, since CD's sold to foreign official institutions are exempt from Regulation Q ceilings. Whereas the banks were able to place only a moderate volume with such holders in 1969, a very large dollar volume could be involved this time since total foreign dollar holdings are so much larger. Some central banks might also shift funds into the Euro-dollar market.

A marked swing by foreign central banks into CD's or commercial paper within a short time period could have important market and debt management implications. The liquidation of Treasury securities would increase by a corresponding amount the Treasury's need to place its issues with other investors. Ceteris paribus, one would expect interest rates on Treasury debt to rise both absolutely and relative to the interest rates on CD's and commercial paper. The Government securities market reaction to such switching by foreign accounts might be fairly sharp, because market participants would immediately become apprehensive that foreign countries might shift very large amounts in this fashion. The Treasury could find its financing needs increased and its market disrupted at the same time.

Heavy central bank purchases of CD's might also tend to complicate monetary policy if they occurred in the restrictive phase of the monetary cycle. The continuing availability of this source of funds would encourage commercial banks to feel that they would be able to meet their outstanding loan commitments—at some price. This might make for less pressure on them, than would otherwise be the case, to begin to ration credits under outstanding loan commitments and to curtail new commitments. At the same time, the increase in the Treasury's financing requirements and the resulting increase of pressures in the Government securities market could make it more difficult to hold down the provision of nonborrowed reserves through open market operations if the Federal Reserve System were reluctant to allow interest rates to rise. In the past similar conditions have sometimes led to a somewhat more expansive monetary policy than the FOMC initially intended.

In the international monetary reform negotiations the United States might thus find it desirable to raise the issue whether, as a matter of principle, monetary authorities should not be expected to avoid any holding of reserves in the form of claims on commercial banks, either in the Eurocurrency markets or in the country whose currency is held.

## D. Leverage for foreign pressure on U. S. policies.

The ability of foreign countries to change the composition of their portfolios between U. S. Government securities and private securities, notably CD's, provides them with some scope for affecting U. S. policies. As noted, a shift toward CD's in the present phase of the cycle could tend to make Treasury financing more difficult and monetary policy more expansive than would otherwise be the case. Thereafter, a shift from CD's to Treasury bills in periods of economic slack would tend to finance the Treasury with less recourse to bank credit creation.

One may doubt that foreign countries would find it in their interest to amplify expansionary pressures in the United States. Yet two forces could tend to work to produce that effect. First, interest rate incentives would promote such behavior if foreign central banks merely sought to be prudent, yield-conscious investors. The yield advantage of CD's issued to foreign authorities over Treasury bills would be quite procyclical--rising in boom periods when banks were trying to meet their loan commitments and falling in recessionary periods when loan demand is slack and the Federal Reserve typically presses nonborrowed reserves on the banks. Secondly, foreign central banks might pursue such an investment course under some circumstances in hopes of reducing the impact of United States monetary

and fiscal policies on their own economies. For example, had foreign portfolios been as large in 1969, European central banks might well have
reasoned that their purchases of CD's would reduce the restrictive impact
of U. S. policies on the Euro-dollar market and on their own economies.
Either Japan or the major European countries in concert would presently be
in a position to exert pressure on United States policies in this way, if
they so chose.

A program of funding foreign owned Treasury bills into intermediate- and longer-term United States Treasury obligations would be one response to the possibilities outlined above. The Treasury could offer special notes with yields and redemption features that should prove attractive to major foreign central banks. The System could also undertake swap transactions with market-oriented and yield conscious central banks like Japan, selling them intermediate securities against System purchases of Treasury bills without any net effect on bank reserves.

Holdings of United States Treasury Debt, by Selected Groups
(amounts in billions of dollars)

|                              | Gross                          |                                   | Held by                      | <b>7</b>                               |        |                                   | Percentage 1                 | held by                         |        |
|------------------------------|--------------------------------|-----------------------------------|------------------------------|----------------------------------------|--------|-----------------------------------|------------------------------|---------------------------------|--------|
| End of<br>Calendar<br>Period | Federal<br>Debt<br>Outstanding | Federal<br>Government<br>Accounts | Federal<br>Reserve<br>System | Foreign<br>Official<br><u>Accounts</u> | Others | Federal<br>Government<br>Accounts | Federal<br>Reserve<br>System | Foreign<br>Official<br>Accounts | Others |
| 1969                         | 368.2                          | 89.0                              | 57.2                         | 7,0                                    | 215.0  | 24.2                              | 15.5                         | 1.9                             | 58.4   |
| 1970                         | 389.2                          | 97.1                              | 62.1                         | 16.0                                   | 214.0  | 24.9                              | 16.0                         | 4.1                             | 55.0   |
| 1971                         | 424.1                          | 106.0                             | 70.2                         | 43.1                                   | 204.8  | 25.0                              | 16.6                         | 10.2                            | 48.3   |
| 1972p                        | 449.3                          | 116.9                             | 69.9                         | <b>5 Q</b> 9                           | 211.6  | 26.0                              | 15.6                         | 11.3                            | 47.1   |
| Mar. 7, 1973p                | 455.4                          | 114.0                             | 71.9                         | 61.0                                   | 208.5  | 25.0                              | 15.8                         | 13.4                            | 45.8   |

Held at Federal Reserve Bank of New York. Excludes securities held by these accounts elsewhere, which totaled \$1.9 billion at the end of 1972. Also excludes holdings of international institutions, which totaled \$0.5 billion at Federal Reserve Bank of New York at the end of 1972. Also excludes holdings of Federal agency securities which, at the end of 1972, cotaled \$0.3 billion for official foreign accounts and \$1.3 billion for international institutions.

Preliminary

Table 2

Changes in Holdings of United States Treasury Debt, by Selected Groups (amounts in billions of dollars)

|                          | Increase<br>in Gross           | Change in holdings of             |                              |                                 |        | Percentage of increase taken by   |                              |                                 | у      |
|--------------------------|--------------------------------|-----------------------------------|------------------------------|---------------------------------|--------|-----------------------------------|------------------------------|---------------------------------|--------|
| Calendar<br>Period       | Federal<br>Debt<br>Outstanding | Federal<br>Government<br>Accounts | Federal<br>Reserve<br>System | Foreign<br>Official<br>Accounts | Others | Federal<br>Government<br>Accounts | Federal<br>Reserve<br>System | Foreign<br>Official<br>Accounts | Others |
| 1970                     | 21.0                           | 8.1                               | 4.9                          | 9.0                             | -1.0   | 38.6                              | 23.3                         | 42.9                            | - 4.8  |
| 1971                     | 34.9                           | 8.9                               | 8.1                          | 27.1                            | -9.2   | 25.6                              | 23.2                         | 77.7                            | -26.4  |
| 1972p                    | 25.2                           | 10.9                              | -0.3                         | 7.8                             | 6.8    | 43.3                              | - 1.2                        | 31.0                            | 27.0   |
| 1973 through<br>March 7p | 6.1                            | - 2.9                             | 2.0                          | 10.2                            | -3.2   | -47.5                             | 32.8                         | 167.2                           | -52.5  |

a/ See footnote to Table 1.

p Preliminary

Table 3

Holdings of United States Treasury Debt by the Public (amounts in billions of dollars)

|                              |                                           | Held by                           |               | Percentage held by              |        |
|------------------------------|-------------------------------------------|-----------------------------------|---------------|---------------------------------|--------|
| End of<br>Calendar<br>Period | Gross Federal  Debt Held  by the Publica/ | Foreign<br>Official<br>Accountsb/ | <u>Others</u> | Foreign<br>Official<br>Accounts | Others |
| 1969                         | 222.0                                     | 7.0                               | 215.0         | 3.2                             | 96.8   |
| 1970                         | 230.0                                     | 16.0                              | 214.0         | 7.0                             | 93.0   |
| 1971                         | 247.9                                     | 43.1                              | 204.8         | 17.4                            | 82.6   |
| 1972p                        | 262.5                                     | 50.9                              | 211.6         | 19.4                            | 80.6   |
| Mar. 7, 1973p                | 269.5                                     | 61.0                              | 208.5         | 22.6                            | 77.4   |

<sup>&</sup>lt;u>a</u>/ Excludes holdings of Federal Government Λccounts and Federal Reserve System

 $<sup>\</sup>underline{\mathbf{b}}$ / See foothote to Table 1.

p Preliminary

Table 4

Holdings of United States Treasury Debt by Foreign Official Accounts,

Classified by Major Holders

(amounts in millions of dollars)

| End of                    |         |        | Perce   | Percentage of total held by |      |               |
|---------------------------|---------|--------|---------|-----------------------------|------|---------------|
| Calendar<br><u>Period</u> | Germany | Japan  | Germany | Japan                       | Both | All<br>Others |
| 1969                      | 1,273   | 1,114  | 18.2    | 1.5.9                       | 34.2 | 65.8          |
| 1970                      | 7,480   | 852    | 46.7    | 5.3                         | 52.0 | 48.0          |
| 1971                      | 11,389  | 12,263 | 26.4    | 28.5                        | 54.9 | 45.1          |
| 1972                      | 16,356  | 13,440 | 32.2    | 26.4                        | 58.6 | 41.4          |
| March 7, 1973             | 24,133  | 13,552 | 39.6    | 22.2                        | 61.8 | 38.2          |

Table 5

Holdings of United States Treasury Debt by Foreign Official Accounts,

Classified by Marketability
(amounts in millions of dollars)

| End of             |            |                    | Percentage | distribution       |
|--------------------|------------|--------------------|------------|--------------------|
| Calendar<br>Period | Marketable | Non-<br>marketable | Marketable | Non-<br>marketable |
| 1969               | 3,611      | 3,378              | 51.7       | 48.3               |
| 1970               | 1.0,450    | 5,558              | 65.3       | 34.7               |
| 1971               | 26,330     | 16,730             | 61.1       | 38.9               |
| 1972               | 30,220     | 20,631             | 59.4       | 40.6               |
| March 7, 1973      | 32,157     | 28,856             | 52.7       | 47.3               |

Holdings of United States Treasury Debt by Foreign Official Accounts,
Classified by Maturity
(amounts in millions of dollars)

Table 6

| End of<br>Calendar |            |           | Percentage d | istribution |
|--------------------|------------|-----------|--------------|-------------|
| Period             | Short-term | Long-term | Short-term   | Long-term   |
| 1969               | 3,508      | 3,481     | 50.2         | 49.8        |
| 1970               | 12,185     | 3,823     | 76.1         | 23.9        |
| 1971               | 31,642     | 11,418    | 73.5         | 26.5        |
| 1972               | 29,765     | 21,086    | 58.5         | 41.5        |
| March 7, 1973      | 38,626     | 22,387    | 63.3         | 36.7        |

Table 7

Marketable United States Treasury Debt Held by Foreign Official Accounts,
Classified by Maturity
(amounts in millions of dollars)

| End of<br><b>C</b> alendar |            |           | Percentage d | listribution |
|----------------------------|------------|-----------|--------------|--------------|
| Period                     | Short-term | Long-term | Short-term   | Long-term    |
| 1969                       | 3,306      | 305       | 91.6         | 8.4          |
| <b>1</b> 970               | 10,186     | 264       | 97.5         | 2.5          |
| 1971                       | 24,397     | 1,933     | 92.7         | 7.3          |
| 1972                       | 25,006     | 5,214     | 82.7         | 17.3         |
| March 7, 1973              | 25,633     | 6,524     | 79.7         | 20.3         |

Table 8

Nonmarketable United States Treasury Debt Held by Foreign Official Accounts,

Classified by Maturity

(amounts in millions of dollars)

| End of<br>Calendar |            |               | Percentage d: | istribution |
|--------------------|------------|---------------|---------------|-------------|
| Period             | Short-term | Long-term     | Short-term    | Long-term   |
| 1969               | 202        | 3,176         | 6.0           | 94.0        |
| 1970               | 1,999      | <b>3,</b> 559 | 36.0          | 64.0        |
| 1971               | 7,245      | 9,485         | 43.3          | 56.7        |
| 1972               | 4,759      | 15,872        | 23.1          | 76.9        |
| March 7, 1973      | 12,993     | 15,863        | 45.0          | 55.0        |

Table 9

Maturity Distribution of Long-term United States Treasury Debt Held by Foreign Official Accounts, as of December 31, 1972

(amounts in millions of dollars)

|               | Mark   | etable  | Nonmarketable |           |
|---------------|--------|---------|---------------|-----------|
| <u>Due in</u> | Amount | Percent | Amount        | Percent   |
| l year        | 89     | 1.7     | 4,905         | 30.9      |
| 1-2 years     | 651    | 12.5    | 1,631         | 10.3      |
| 2-5 years     | 2,671  | 51.2    | 4,815         | 30.4      |
| 5-10 years    | 1,674  | 32.1    | 4,500         | 28.4      |
| Over 10 years | 130    | 2.5     | -<br>         | do to the |

Long-term Nonmarketable United States Treasury Debt Held by Foreign Official Accounts, Classified by Currency Denomination (amounts in millions of dollars)

|               |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Percentage distribu |          |  |
|---------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--|
| End of        |         | Foreign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     | Foreign  |  |
| Calendar      | Foreign | Currency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Foreign             | Currency |  |
| Period        | Series  | Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Series              | Series   |  |
|               |         | Qualification for the sales for the sales of | <del></del>         |          |  |
| 1969          | 1,431   | <b>1,7</b> 45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 45.1                | 54.9     |  |
| 1970          | 2,481   | 1,078                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 69.7                | 30.3     |  |
| 1971          | 7,829   | 1,656                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 82.5                | 17.5     |  |
| <b>1</b> 972  | 14,333  | 1,539                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 90.3                | 9.7      |  |
| March 7, 1973 | 14,474  | 1,389                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 91.2                | 8.8      |  |

Table 11

Estimated Interest Payments on United States Treasury Debt Held by Foreign Official and International Institutions, Compared with Gross National Product (amounts in billions of dollars)

| Period        | Interest<br>Payments | Gross<br>National<br>Product | Interest payments as a percentage of GNP |
|---------------|----------------------|------------------------------|------------------------------------------|
| 1969          | .777                 | 930.3                        | 0.084                                    |
| 1970          | 1.028                | 976.4                        | 0.105                                    |
| 1971          | 1.844                | 1,050.4                      | 0.176                                    |
| 1972          | 2.684                | 1,151.9                      | 0.233                                    |
| <b>197</b> 3p | 3.615                | 1,271.0                      | 0.284                                    |

p Projected.

Table 12

Estimated Interest Payments on United States Treasury Debt Held by Foreign Official and International Institutions, Compared with United States Balance of Payments (amounts in millions of dollars)

| Period | Interest | Basic<br>Balance       | Official Reserve<br>Transactions<br>Balance |         | st payments<br>ercentage of<br>Official Reserve |
|--------|----------|------------------------|---------------------------------------------|---------|-------------------------------------------------|
|        | Payments | Deficit <sup>a</sup> / | Deficit <sup>b/</sup>                       | Deficit | Deficit                                         |
| 1969   | 777      | 3,011                  | - 2,702 <sup>c/</sup>                       | 25.8    | -28.8                                           |
| 1970   | 1,028    | 3,059                  | 10,706                                      | 33.6    | 9.6                                             |
| 1971   | 1,844    | 9,304,                 | 30,482                                      | 19.8    | 6.1                                             |
| 1972   | 2,684    | $10,243^{d}$           | 10,985                                      | 26.2    | 24.4                                            |
| 1973p  | 3,615    | 13,000                 | 11,300                                      | 27.8    | 32.0                                            |

a/ Balance on current account and long-term capital account.

 $<sup>\</sup>underline{\mathbf{b}}$ / Excludes allocation of SDRs.

c/ Surplus.

 $<sup>\</sup>underline{d}$ / First three quarters, at annual rate.

P Projected.