

Treasury Cash Balances

By Peggy Brockschmidt

On May 23, 1975, the Secretary of the Treasury formally requested Congress to provide the Treasury with authorization to invest its idle tax and loan account balances in short-term earning assets. These balances traditionally have been interest-free deposits at commercial banks and thus have provided no explicit return to the Treasury.

This article examines the rationale underlying the recent Treasury proposal. The first section of the article briefly discusses the Treasury's cash management system, with particular emphasis on the tax and loan account system. The next section reviews the major findings and recommendations of the Treasury's 1974 report dealing with tax and loan accounts.¹ The final section of the article examines the extent to which Treasury cash balances have changed in recent years and the implications of these changes for the conduct of monetary policy.

TREASURY CASH MANAGEMENT SYSTEM

The Federal government must maintain a cash operating balance just like individuals and businesses. The purpose of such a balance is to provide a cushion for meeting current obligations because receipts never precisely match disbursements in timing and amount.

^{1/} Report on a Study of Tax and Loan Accounts. Department of the Treasury, June 1974.

The government holds its cash balance in two types of accounts, in demand deposit balances at Federal Reserve Banks and in tax and loan accounts at commercial banks. Payments are made from balances at the Federal Reserve, while most receipts are deposited in tax and loan accounts and then transferred as needed to the account at the Federal Reserve.

Treasury balances at Federal Reserve Banks would probably be sufficient to handle the flow of government funds if these flows were not very large and subject to wide swings. The average balance of Treasury funds at commercial banks and Federal Reserve Banks in fiscal year (FY) 1975 was \$4.6 billion and weekly averages ranged from a high of \$13.5 billion to a low of \$0.5 billion. Given these large magnitudes, it is clear that fluctuations in the Treasury's operating balance could cause marked disturbances in the orderly flow of funds through the nation's financial markets. In recognition of this potential problem, the system of tax and loan accounts was developed.

Tax and Loan Accounts

The principal purpose of tax and loan accounts is to promote the smooth functioning of the economy by reducing the impact of the government's financial operations on the nation's money market. Flows of funds between

the public and the Federal government could affect commercial bank reserves and cause undesirable fluctuations in money market interest rates. The payment of taxes to the Treasury could drain reserves from the banking system and place upward pressure on interest rates, while Treasury disbursements could augment bank reserves and tend to depress interest rates. Tax and loan accounts help prevent these flows of funds from affecting bank reserves and interest rates. When taxes are paid into tax and loan accounts, bank reserves are not affected because the funds are transferred on the bank's books from the taxpayer's account to the Treasury's tax and loan account. In this manner, funds are left in the banking system until they are required for **outpayments**. At that time, the Treasury can draw down its tax and loan balances as it needs to cover disbursements, thereby matching the flow of receipts from the public to the flow of disbursements to the public. In the absence of the tax and loan account system, the impact of these flows of funds on bank reserves and financial markets could be offset by the Federal Reserve through its open market operations. However, the required frequency and size of these offsetting operations would unduly complicate the Federal Reserve's conduct of monetary policy.

Another function of the system of tax and loan accounts is to facilitate the disbursement of Treasury securities by providing an incentive for banks to serve as "underwriters" and distributors of new Treasury securities. The incentive consists of allowing banks that subscribe to certain new issues of the Treasury to pay for them by crediting the Treasury's tax and loan account. After a few days, the Treasury transfers the payment to its account at a Federal Reserve Bank, thereby allowing banks to earn a yield on the funds during the interim. This incentive has served to build an underwriting network that has enabled the Treasury to market securities without commissions or

spreads of any kind. With the market for Treasury securities now more highly developed, the need for this method of distribution has diminished. It nevertheless continues to be a significant function of the tax and loan account system.

The system also provides an efficient mechanism for the collection of Treasury revenues, as most Treasury receipts flow through the tax and loan accounts. A business concern, for example, makes its tax payments through its own bank. The company's check for the taxes does not flow beyond that bank. The bank charges its customer's account and simultaneously credits the Treasury's tax and loan account. This facilitates check clearings and avoids the expense to the Treasury of handling large volumes of remittances, which entail not only detailed internal processing and depositing in banks but also burdens incident to returned **uncollectible** checks.

The Treasury maintains tax and loan accounts at almost all commercial banks. Any incorporated bank may be designated as a special depository for the Treasury. A bank makes application for qualification through the Federal Reserve Bank in its district and arranges for posting collateral to cover the balance of the tax and loan account. The bank then creates a balance in the account by persuading its customers to pay taxes through the account or to buy government securities, or by subscribing itself to government securities. Most deposits into tax and loan accounts arise from taxes due the Federal government. These taxes include withheld income taxes, FICA taxes, and corporate income taxes.

The Treasury makes use of tax and loan balances by transferring them to its account with a Federal Reserve Bank, from which all Treasury disbursements are made. In transferring funds from tax and loan accounts to Federal Reserve Banks, the Treasury has established a system whereby commercial banks are divided into three classes—A, B, and C banks.

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As of the latest classification, A banks are those with credits of less than \$7.5 million during calendar year 1974. B banks had credits between \$7.5 million and \$80 million, or had credits over \$80 million but total bank deposits less than \$50 million. C banks had credits exceeding \$80 million and total bank deposits exceeding \$50 million. As of March 1975, there were 11,166 A banks, 2,226 B banks, and 330 C banks.

Withdrawals from tax and loan accounts are made in an identical manner for every bank within a class. An equal percentage of the balance as of a stated date is withdrawn, or "called," from each bank. Calls on A banks are generally issued twice a month with payment 7 days later, B bank calls twice a week with payment 3 days later, and C bank calls daily. The flow of funds through the accounts can be speeded in several ways. Calls can be issued more frequently, the number of days between the time of call and time of withdrawal can be shortened, and the percentage withdrawn can be increased.

Funds in tax and loan accounts are available for investment by commercial banks. The banks can thereby realize revenue from these deposits but pay no interest on them to the Treasury. However, banks do not necessarily realize a net profit on the tax and loan accounts because they perform services for the Treasury for which they are not directly compensated.

Among the services performed by banks for the Treasury, the most obvious is the actual maintenance of the tax and loan account itself, including handling debits and credits and processing Federal Tax Deposit forms. In addition, banks participate in the sale and redemption of savings bonds. They operate as issuing agents in over the counter sales and as managers of their own payroll savings plans. Banks also assist other businesses in setting up and maintaining savings plans. Furthermore, almost all redemptions of savings bonds

are made through commercial banks. Another service is the support of subscriptions to government securities. When banks purchase new Treasury issues, they serve as underwriters of the issue without cost to the Treasury. Other functions performed for the Treasury include the handling of large volumes of maturing public debt and the cashing of large numbers of government checks. Banks also report large or unusual currency transactions to the Treasury. In performing these services for the Treasury, banks experience costs for which they are not directly compensated. In assessing the net profitability to the banks of tax and loan accounts, bank costs must be compared with the revenues from the accounts.

THE TREASURY'S 1974 REPORT ON TAX AND LOAN ACCOUNTS

To analyze the net profitability of tax and loan accounts to commercial banks, the Treasury has conducted three studies within the past 20 years. One study was published in 1960 and covered the year 1958; the second appeared in 1964 and was based on 1963 data; and the most recent study—based on 1972 data—was published in 1974.² The two earlier studies concluded that the tax and loan accounts were not a source of profit to the banking system. It was found that the costs to the banks of specific services performed for the Treasury exceeded the earning value of the tax and loan accounts. The 1974 report, however, found that the earning value of the accounts to banks was far in excess of the value of related services the banks provided the Treasury.

The Value of the Accounts to the Value of Services

The basic findings of the 1974 report pertaining to the aggregate cost and earning val-

^{2/} *Report on Treasury Tax and Loan Accounts and Related Matters.* Treasury Department. December 21, 1964; and *Report on Treasury Tax and Loan Accounts. Services Rendered by Banks for the Federal Government and Other Related Matters.* Treasury Department. June 15, 1960.

ue of tax and loan accounts to banks is shown in Table 1. The findings of the 1964 study also are shown for comparison. For both studies, the data were obtained by surveying 600 banks, including all C banks and a sampling of the A and B banks. The sampling was designed to be representative of the total system, thereby permitting extrapolation of the data for a reasonable estimate for the banking system as a whole.

In comparison with previous studies, the 1974 report found that the earnings value of the accounts exceeded the cost of providing related services due to three major factors: (1) higher tax and loan account balances, (2) higher interest rate levels, and (3) fewer allowable expenses. As shown in Table 1, average daily balances increased nearly 40 per cent between 1963 and 1972—from \$4.9 billion to \$6.8 billion.³ After deducting required reserves against these balances, the net balance was \$4.0 billion in 1963 and \$5.9 billion in 1972. To compute the earnings on these net balances, a Treasury bill rate was taken as a representative yield. For 1963, the rate used was 3.162 per cent, which was the average auction yield on 3-month Treasury bills during the year; and for 1972 the rate used was 5.50 per cent, which was the average auction rate on 3-month bills during the 5-year period ended December 1972. After applying these rates, the earning on net balance was \$126 million in 1963 and \$325 million in 1972.

Allowable bank expenses also differed in the two reports, although the costs of servicing the tax and loan account itself were deemed appropriate in both instances. Similarly, bank costs of issuing and redeeming savings bonds were considered an allowable expense. Be-

^{3/} A portion of this increase was due to a change in the concept used for daily balances. The 1964 study used balances per the books of the Federal Reserve—which would always be lower than balances on the books of commercial banks by the amount of credits in transit. Correcting for this difference, 1963 balances would have averaged \$5.3 billion rather than \$4.9 billion, reducing the increase to about 30 per cent.

Table 1
SUMMARY OF INCOME AND EXPENSES
ON TAX AND LOAN ACCOUNTS
(In millions of dollars)

Earnings		
	1963	1972
Average daily balance	\$4,864	\$6,845
Less reserves	828	934
Net balance	4,037	5,911
Treasury bill rate	<u>3.16%</u>	<u>5.50%</u>
Earning value on net balance	\$126	\$325
Expenses		
Servicing tax and loan accounts	\$16	\$18
Savings bonds: issuance and redemption	33	46
Handling of other U.S. securities	15	—
Handling of Treasury checks	40	—
Other	13	—
Mark-up of expenses (20 per cent)	<u>23</u>	<u>—</u>
Total expenses	\$139	\$64
Net earnings	-\$13	\$261

cause of altered banking practices, however, certain expenses allowed in the 1964 study were not deducted in the 1974 report. These were the costs of handling subscriptions for new issues of Treasury securities (other than savings bonds), handling matured Treasury securities, handling Treasury checks, and other miscellaneous bank services. These costs were disallowed on the basis that the service was not specifically related to maintaining the tax and loan account, but was primarily a customer service or marketing device for which the Treasury should not compensate the bank. Also, if the cost of a service was recovered in one way or another by the bank from its customers, it was disallowed in the 1974 report. An additional expense not explicitly allowed in the recent study was a profit mark-up over expenses of 20 per cent, although the study did recognize that a reasonable profit margin was necessary to make the system work efficiently.

In summary, total expenses were estimated at \$139 million in 1963 but only \$64 million in 1972.

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The aggregate net earnings on the tax and loan accounts was estimated to be \$261 million in 1972 compared with a loss of \$13 million in 1963. The 1974 report stated, therefore, that "the implicit costs to the Treasury of holding interest-free tax and loan accounts has risen substantially beyond the value to the Treasury of those services provided by the banks...."

Ways the Treasury Could Increase Its Return

Three potential methods by which the Treasury could realize a greater return on its tax and loan balances were examined in the 1974 report. One method, and the most direct, would be for commercial banks to pay interest directly on tax and loan balances. This method was originally authorized by Congress in 1917 when legislation was passed establishing the tax and loan system. In 1933, however, interest payments on demand deposits were prohibited by Congress out of concern that large banks might compete unfairly with small banks and thereby cause a ratcheting up of interest costs. For the Treasury to seek new legislation to remove the prohibition solely for Government deposits, therefore, would be in conflict with the intent of the 1933 law and also place the government in a privileged position vis-a-vis other bank depositors.

A second method would be for the Treasury to place some of its balances in interest bearing time deposits at commercial banks. Current Federal Reserve regulations, however, allow interest to be paid on deposits only if the maturity of the deposit is 30 days or longer. This rules out the Treasury's use of time deposits as an effective means of capturing earnings because the average life of a tax and loan deposit is only about 10 days.

A third way for the Treasury to realize earnings on tax and loan balances would be to invest its unneeded balances in short-term money market instruments, preferably with banks holding tax and loan balances. For in-

stance, the Treasury might make loans on a secured basis to each bank having a tax and loan account. In practice, the Treasury would make a short-term investment with a bank by drawing down its tax and loan account held at that bank. By so doing, funds would not leave the banking system and would not disrupt money market rates, even though the magnitude of such investments might be large. A difficulty with this method, though, is that the Treasury does not have the authority at the present time to invest its idle funds in short-term earning assets.

Conclusions of the Report

The report concluded that tax and loan accounts should be retained because they are useful for money management purposes, but that a method should be developed to provide added returns to the Treasury on its idle balances. The preferred method was the direct investment technique because it is simple, direct, and consistent with cash management practices in industry and state and local governments. Accordingly, it was recommended the Treasury be given authorization to invest in money market instruments.

In recognition that Congressional action would be necessary to provide investment authority, the report indicated the Treasury would continue its recent efforts to decrease balances in tax and loan accounts. Conversely, the Treasury would intensify its efforts to increase balances at Federal Reserve Banks. This meant, in effect, the Treasury would manage its cash position in a way designed to capture greater earnings on its operating balances. Earnings would be increased because as the Treasury transferred funds to its Federal Reserve account, the Federal Reserve would tend to enlarge its portfolio of government securities to prevent a drop in bank reserves. In turn, the larger portfolio of the Federal Reserve would yield increased earnings, a major portion of which would be transferred back to

the Treasury under current practices. Another implication is that the Federal Reserve would have to compensate for greater swings in Treasury balances at Federal Reserve Banks through existing techniques such as open market operations.

CHANGES IN
TREASURY OPERATING BALANCES

In the past few years, there have been marked changes in the Treasury's operating balances. These changes have occurred primarily because the Treasury has set out to reduce the proportion of its total operating balances held in tax and loan accounts and increase the proportion held at Federal Reserve Banks. As seen in Chart I, during the fiscal years 1963 to 1971 the proportion of the total balance held in tax and loan accounts ranged from about 80 to 90 per cent. Beginning in FY 1972, the proportion began a steady decline, falling from 84 per cent in 1971 to 75 per cent in 1972 and to 40 per cent in 1975. Due to a larger total balance, the dollar amounts in tax and loan accounts in 1972 and 1973 were somewhat higher than in prior years. However, the dollar amounts declined thereafter—from \$5.6 billion in 1973 to \$3.9 billion in

Chart 1
TREASURY TAX AND LOAN ACCOUNT
BALANCE

Level and Per Cent of Total Treasury Balance

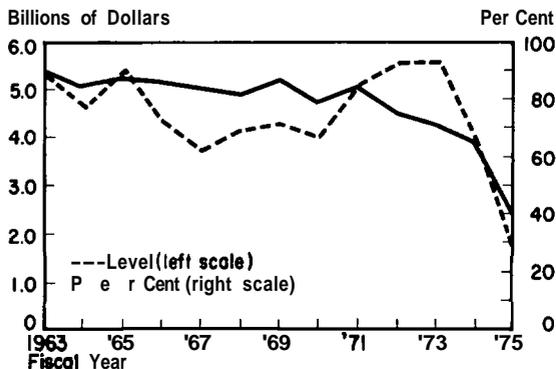
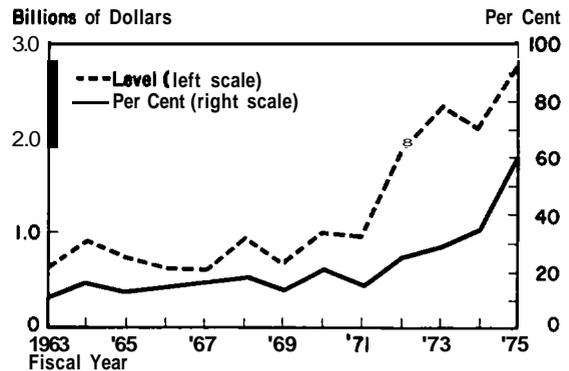


Chart 2
TREASURY BALANCE AT FEDERAL RESERVE
Level and Per Cent of Total Treasury Balance

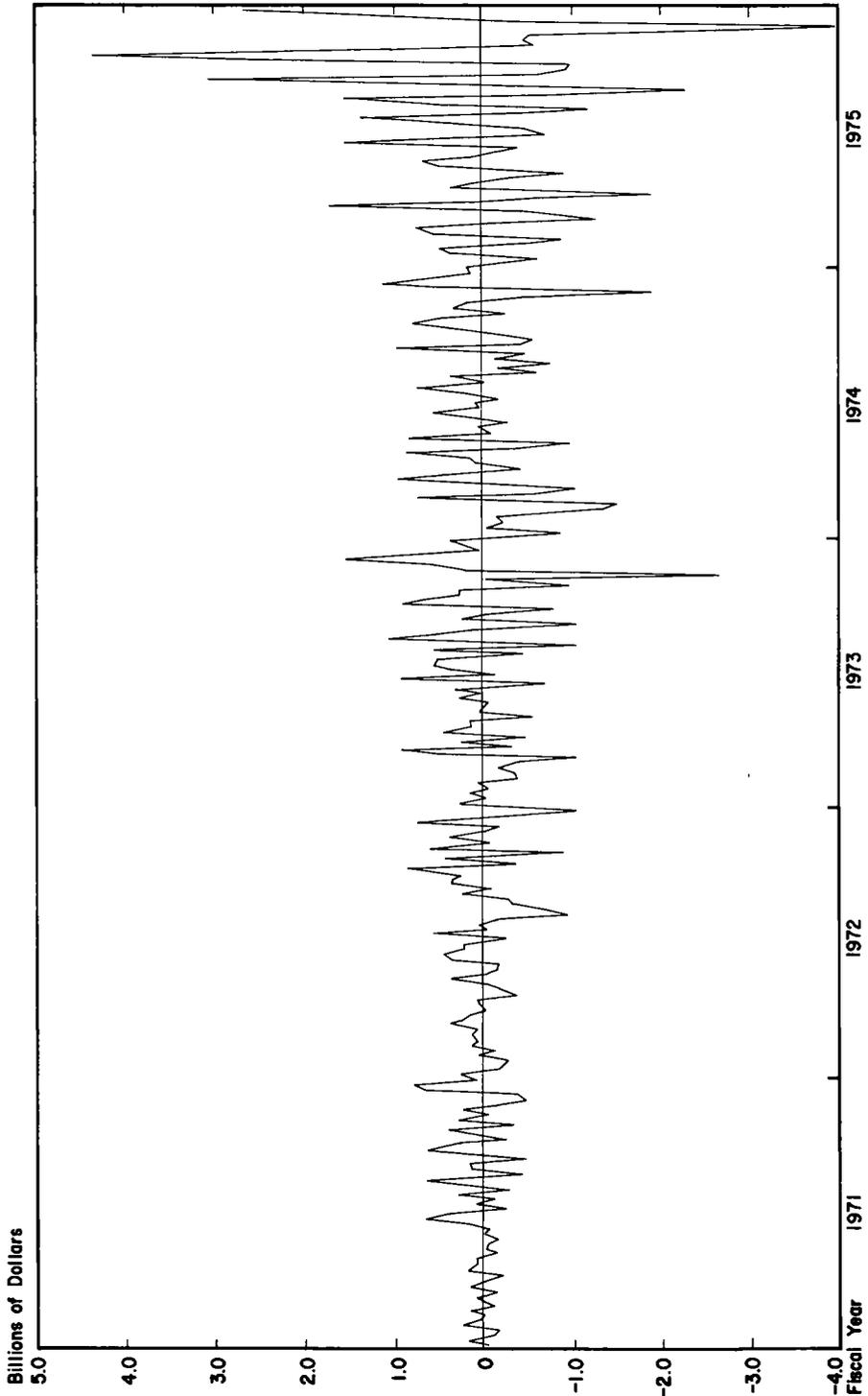


1974. A further sharp decline to \$1.9 billion occurred in FY 1975.

The decline in the proportion of the total balance held in tax and loan accounts has been accompanied by an increase in both the proportion and the dollar amounts held in balances at Federal Reserve Banks. (See Chart 2.) Prior to FY 1972, balances at Federal Reserve Banks averaged between \$700 million and \$1 billion. These balances rose in 1972 and 1973, fell somewhat in 1974, but jumped sharply to \$2.8 billion in 1975.

The Treasury has thus been successful in reducing the amounts held in tax and loan accounts and increasing the amounts held at Federal Reserve Banks. In this way, the Treasury has been able to realize a greater return on its idle balances and reduce the interest expense burden to the taxpayer. However, by keeping a lower level in the tax and loan accounts, the normally wide fluctuations in total operating balances have been reflected in greater volatility in balances at Federal Reserve Banks. The increased volatility in these balances, in turn, has created potential difficulties for the Federal Reserve System in its conduct of monetary policy. As seen in Chart 3, which shows weekly changes in Treasury balances at Federal Reserve Banks, the vola-

Chart 3
CHANGES IN AVERAGE WEEKLY BALANCES OF
TREASURY ACCOUNTS AT
FEDERAL RESERVE BANKS



tility of these balances has increased steadily since FY 1971. The trend toward increased volatility also is confirmed by other statistical measures. For example, for the two fiscal years 1971 and 1972, the absolute average weekly change in balances at Federal Reserve Banks was \$226 million. For 1973 and 1974, this figure increased to \$482 million and rose further to \$940 million during FY 1975.⁴

Volatility in Treasury balances at Federal Reserve Banks creates potential difficulties for the conduct of monetary policy because changes in these balances cause changes in the reserves of the banking system. In conducting monetary policy, the Federal Reserve attempts, among other things, to keep bank reserves within certain limits by providing or absorbing reserves mainly through buying and selling U. S. Government securities. Before deciding on the volume of reserves to provide or absorb, the Federal Reserve must first estimate the volume of reserves that will be provided or absorbed by factors other than Federal Reserve operations. These factors include float, flows of currency to and from the public, and changes in Treasury balances at Federal Reserve Banks.

In each planning period, therefore, the manager of the Federal Reserve's open market operations must estimate the amount that Treasury balances will change. If the balances are expected to rise, the manager would plan to offset the resulting reserve drain by providing reserves. If Treasury balances are expected to decline, the manager would plan to absorb reserves. To the extent the estimate of changes in Treasury balances is inaccurate,

4/ The absolute average change is the average of changes when computed by ignoring the direction of the changes. For example, while the simple average of an increase of 100 and a decline of 100 is zero, the absolute average would be 100. A more sophisticated measure of volatility is the standard deviation, which is the square root of the average of the squared deviations from the mean. The standard deviation of weekly Treasury balances at the Federal Reserve Banks confirms the trend toward increased volatility. For the two fiscal years 1971 and 1972, the standard deviation of these balances was \$663 million. For 1973 and 1974, it rose to \$1,018 million, and increased further to \$2,068 million during FY 1975.

the manager will provide or absorb more or less reserves than he considers desirable. Consequently, when changes in Treasury balances are small, the amount by which the manager might potentially err in providing or absorbing reserves would be small. Similarly, when changes in Treasury balances are large, the amount of the potential error would be large. In this way, an increase in the volatility of Treasury balances at the Federal Reserve Banks can reduce the precision of the manager's control over bank reserves.

SUMMARY AND CONCLUSION

Several legislative proposals have been introduced recently in Congress to allow the Treasury to realize a return on its tax and loan balances. These proposals are based essentially on the principal finding of the Treasury's 1974 report that the earning value of tax and loan accounts to banks is in excess of the cost to banks of those services directly attributable to handling the accounts. At the present time, no formal legislative action has yet been taken on any of these proposals.

One of these proposals would require the payment of interest on Treasury funds held on demand deposit in commercial banks. Such interest would be paid at a rate not less than 1 percentage point below the Federal funds rate. In effect, this proposal would amend the 1933 law, which has prohibited the payment of interest on demand deposits. The proposal also would authorize the Treasury to reimburse commercial banks for services performed for the government.⁵

Another proposal, put forward by the Secretary of the Treasury, closely follows the recommendation of the Treasury's 1974 report. This proposal would authorize the Treasury to

5/ The above proposal was introduced in the House of Representatives as H.R. 3035. A Senate bill, S. 547, is similar but does not consider the question of compensation for services. Another House bill, H.R. 3353, would terminate the FDIC insurance of any bank which failed to pay interest at the Federal funds rate on tax and loan accounts. In the latter bill, compensation for banking services to the government would be authorized.

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invest tax and loan balances for periods up to 90 days in obligations of depositaries maintaining tax and loan accounts and in obligations of the U. S. Government and agencies thereof. Loans to depositaries would be secured by a pledge of collateral and would bear interest at rates related to the Treasury's short-term borrowing costs. By lending excess balances to banks maintaining tax and loan accounts, it is felt, the Treasury would not actually be entering the money market and the impact on short-term interest rates would be negligible. The proposal also would allow the Treasury to compensate banks for services rendered. For handling the tax and loan account and related tax deposits, banks would be compensated through the earnings value of the account itself. Compensation for other services, such as the issuance and redemption of savings bonds, would be accomplished by the payment of direct fees from appropriated funds.

Pending Congressional action on measures to allow the Treasury to realize earnings on tax and loan money, the Treasury has

sought to minimize the size of its idle tax and loan balances. By the same token, the Treasury has sought to increase its balances at Federal Reserve Banks. By reducing the level of tax and loan balances, however, the normally wide fluctuations in the flow of total government funds has led to greater swings in Treasury balances at the Federal Reserve.

The volatility of Treasury balances at Federal Reserve Banks has increased substantially in recent years, and particularly during the past 2 years. This, in turn, has created potential difficulties for the Federal Reserve in its conduct of monetary policy. In practice, the larger the volatility of these balances the more difficult it is for the Federal Reserve to exert precise control over the reserves available to the banking system. It is recommended, therefore, that while there may be adequate grounds for the Treasury to seek methods to capture earnings on its tax and loan balances, these methods should be consistent with the maintenance of money market stability and should not unduly complicate the conduct of monetary policy.