## PROBLEMS ASSOCIITED WITH FEDERAL DEBT MANAGEMENT

HEARINGS<br>before the<br>SUBC0MMITTEE 0N D0MESTIC MONETARY POLICY<br>OF THE<br>COMMITTEE 0N<br>BANKING, FINANCE AND URBAN AFFAIRS H0USE 0F REPRESENTATIVES<br>NINETY-SEVEN'TH CONGRESS<br>second session<br>MARCH 23 AND 24, 1982<br>\section*{Serial No. 97-68}<br>Printed for the use of the Committee on Banking, Finance and Urban Affairs



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# PROBLEMS ASSOCIATED WITH FEDERAL DEBT MANAGEMENT 

TUESDAY, MARCH 23, 1982

> House of Representatives,
> Committee on Banking, Finance and Urban Affairs, Subcommittee on Domestic Monetary Policy, Washington, D.C.

The subcommittee met, pursuant to notice, at 10:20 a.m., in room 2222, Rayburn House Office Building; Hon. Walter E. Fauntroy (chairman of the subcommittee) presiding.

Present: Representatives Barnard, Patman, Hansen, and James K. Coyne.

Chairman Fauntroy. The subcommittee will come to order.
Today, we begin 2 days of hearings on the management of the national debt by the Treasury of the United States. As each of us is aware, the outstanding national debt of the United States stood at $\$ 1.046$ trillion on March 9, 1982. By the end of the year, it is expected to increase by at least an additional $\$ 120$ billion and by 1985 , the debt may easily increase by an additional $\$ 554$ billion. That potential growth is more than the total accumulated debt of the United States in 1975. At that time, the national debt stood at $\$ 534.53$ billion. From then until 1981, the national debt grew an additional $\$ 442.40$ billion for the total of $\$ 976$ billion in 1981.

Aside from the obvious impact that such an addition to the national debt may have on various credit-sensitive industries and interest rates, there is the added impact that can arise from the daily management of the sale of new and the refinancing of old debt. The maturities offered, the interest rates contemplated, the size of the offerings, and the parties to whom the debt may be sold can have as profound an impact on interest rates as anything which the Federal Reserve may do to influence the money supply. Yet, this is a subject to which we have given little consideration and thought.

These hearings are intended to focus attention on the mechanisms which are used to finance the debt, the objectives which the Treasury considers when financing the debt, how these objectives are viewed by the Federal Reserve and the marketplace, the weaknesses and strengths of the Government securities market, and the impact of these factors on the costs to the Government of the debt.

The U.S. Government securities market is the focus of the most powerful money decisions in this country and possibly throughout the world. Large market participants are relatively few in number. Yet, they affect an item of the national budget which exceeds $\$ 100$
billion for interest payments and which composed 2.34 percent of the GNP in fiscal year 1981 and is increasing. The size of the dollars about which we are speaking are so large that they defy conceptualization. Yet, they are very real and have a very real impact on everything that any of us buy or sell. They have a very real impact on the safety and soundness of our financial institutions and on our national security. While these hearings do not encompass the inflationary impact of the debt, per se, we must recognize that the debt of the Government has an enormous potential to drive inflation to very high levels. I will not dwell on the debate that can ensue from this comment, but I did not want it to go completely unnoticed.

Neither do I want to permit to go unnoticed the impact on Treasury financing of new and innovative forms of financial instruments which have been a concern for so many of us recently. I am speaking particularly of Government guaranteed tax-exempt instruments issued by hospital authorities, some industrial development authorities, and most recently, by financial institutions in the form of all saver certificates. All of these instruments, of course, have a desirable public purpose. They do, however, have a public cost of which we ought to be knowledgeable. Those costs are ultimately reflected in the yields on Treasury securities and later in the costs of money that you and I must pay for the mortgage on our house, the loan on our car, and the credit card in our pocket.

I think it is fair to note that the Treasury, with the help of the Federal Reserve, has made a conscious effort to limit shocks inflicted upon the capital markets. Whether the impact of Treasury borrowings can be further limited and how the impact will be minimized with the potential forthcoming deficits and refinancings is another matter. As a part of these hearings, we will explore how the Treasury proposes to finance this substantial addition to our national debt, how the markets are likely to react to the debt increases, and the estimates of the administration of future debt, the impact on interest rates, and the role which various advisory groups and dealers have on the decisions of the Treasury.

These first 2 days of hearings are just the beginning of the inquiry by this subcommittee into one of the most important components which influence the price of credit, the supply of money, and the operations of the Federal Reserve System. Today, we will first hear from the Honorable Mark E. Stalnecker, Deputy Assistant Secretary for Federal Finance of the Treasury. Next we will hear from Stephen Axilrod, Staff Director of the Office of Monetary and Financial Policy of the Board of Governors of the Federal Reserve, and Peter Sternlight, Managing Director of the Federal Open Market Committee and senior vice president of the New York Federal Reserve Bank.

Before we hear from Secretary Stalnecker I would like to yield to my friend and distinguished ranking member of the subcommittee at today's hearing, Mr. James Coyne.

Mr. Coyne. Thank you, Mr. Chairman.
Of course I am not a ranking member of the subcommittee except for the moment, but I am very happy to fill in for some of my colleagues.

I want to thank you for your introductory remarks. They focus on the need to consider very closely the policies that the Treasury and the Federal Government are pursuing with regard to the management of the Federal debt. Perhaps now more than any time in our country's history we should focus on these questions because obviously we have a very broad spectrum or difference of opinion on the causes of the high interest rates afflicting our country today.

The high interest rates paid by our Government to finance the Federal debt, and what under President Reagan, has become a much lower rate of inflation, has produced a spread between interest rates and inflation rates which is perhaps broader now than at almost any time in our country's history.

The burden of financing that debt is, in real terms, greater than at any time in our history. We seek alternatives to make that burden less significant on the American taxpayer and also to see what administrative tasks can be undertaken to encourage our economy to bring interest rates down in step with the falling inflation rates.

Perhaps the greatest achievement of the Reagan Presidency has been the success we have had in fighting inflation. In case you have not heard, this morning at 9 o'clock the Labor Department released figures showing the Consumer Price Index rose last month by an annual rate of only 2.4 percent. Yet we are financing our debt at rates of five, six and seven times as high.

We hope that our witnesses today can give us some insight into what can be done to bring the debt cost down.

I have spoken with Assistant Secretaries Mehle, Sprinkel and Secretary Regan on these issues and have proposed for their consideration a new innovative approach, the constant dollar debt instruments or purchasing power bonds, similar to those proposed by Milton Friedman. Similar, also to those that have been introduced in Great Britain in recent years. These bonds shift the risk of inflation off the shoulder of the American purchaser of debt instruments and deposit it fairly on the shoulders of the Federal Government.

If the Federal Government is serious about licking inflation, if we are serious about assuring the American public that inflation is going to stay down at 2 or 3 percent, then isn't it foolish for us to be selling once-a-year, long-term bonds that are noncallable at a constant interest rate of 14 percent or higher?

Does that not seem to be saying to the American public that inflation may be down now, but we are not sure it is going to stay down? I hope we can persuade the powers that be in the Treasury to consider the option of putting the burden of inflation on the shoulders of the Government so that the Government keeps the risk of losses from inflation. As long as the Government is a winner from inflation in its debt management policy I am not sure the Government will take the steps needed to insure that inflation stays low.

Thank you, Mr. Chairman, for the opportunity to make some remarks. I look forward to the testimony we are about to hear.

Chairman Fauntroy. As do we all. Thank you, Mr. Coyne.

Mr. Stalnecker, we are very pleased to have you before our subcommittee. We have your prepared testimony. You may proceed in whatever manner you choose.

## STATEMENT OF HON. MARK E. STALNECKER, DEPUTY ASSISTANT SECRETARY OF THE TREASURY FOR FEDERAL FINANCE

Mr. Stalnecker. Thank you, Mr. Chairman. It is a pleasure to be here this morning to discuss the objectives of public debt management and the financing techniques employed by the Treasury. I also want to discuss our concerns regarding certain limitations imposed by the Second Liberty Bond Act, the governing statute for Treasury debt management.

The public debt includes both marketable and nonmarketable securities issued by the Treasury. The tables attached to my statement present data on public debt securities and ownership over the last decade. The Treasury issues these securities to finance both budget deficits and off-budget deficits, including the borrowing needs of the Federal Financing Bank, and to refund maturing debt.

My statement will deal primarily with Treasury marketable issues, but I will also comment on the savings bond program and I will be happy to answer any questions you may have regarding other nonmarketable Treasury debt issues.

Treasury marketable securities include: First, Treasury bills, which are sold at a discount and have maturities of less than 1 year; second, Treasury notes, which have semiannual interest coupons and maturities from 2 to 10 years; and third, Treasury bonds, which have semiannual coupons and maturities in excess of 10 years.

The Treasury currently sells all of its marketable bills and coupon securities in competitive auctions.

Announcements and sales of regular 13-, 26-, and 52 -week bills are on a well-known schedule that varies only on holidays or when interrupted by congressional inaction on debt limit legislation. With regard to coupon securities (notes and bonds), market participants are generally cognizant of the schedule of Treasury issues, because of the regularity of the new issue and maturity cycles. When the Treasury announces a sale of marketable securities, it makes its announcement of the amount and other terms of the sale available to the financial press and news wire services simultaneously, so that no news organization or market participant has the advantage of advance information. The Treasury announces its offerings far enough ahead of the sale dates to permit information to be disseminated to all interested parties.

The Treasury does not purchase advertising for its marketable securities, nor does it pay commissions to dealers who make markets in Treasury securities. Dealers and investors submit subscriptions to Treasury offerings directly to the Treasury or to Federal Reserve banks and branches which act as the Treasury's fiscal agency.

Dealers in U.S. Government securities often are awarded the major share of issues in competitive auctions, and dealers subsequently distribute the securities to their customers. Dealer profits or losses on the transactions are determined by the difference be-
tween the price the dealer pays to the Treasury and the price the dealer receives from the customer. The dealer's capital is at risk in each transaction, since the dealership is in effect trading for its own account.

The Treasury accepts noncompetitive tenders in Treasury bill and coupon auctions up to preannounced limits for each investor at the average price of accepted competitive tenders. Allotments on noncompetitive tenders are made prior to awards on competitive bids. The purpose of accepting tenders on a noncompetitive basis is to achieve a wider distribution of the securities by attracting tenders from small banks and other investors who are generally thought to have limited access to up-to-date information on market conditions and would therefore be unwilling to bid on a competitive basis for the securities.

## regularization of issues

Treasury debt management operations are directed to meeting the U.S. Government's daily cash needs in order to assure that sufficient funds are available to pay obligations when and as due, while providing a prudent cash balance. Our operations in the market are conducted so as to minimize disruption and thereby reduce the cost of our debt operations. Disruptive financing operations increase market uncertainty and hence the risk of purchasing securities, raising the rates paid on Treasury obligations. Treasury feels that the most important element in reducing market uncertainty about debt financing is the maintenance of a regular, predictable cycle of security issuance. Regularity of debt management removes a major source of market uncertainty, and assures that Treasury debt can be sold at the lowest possible interest rate consistent with market conditions at the time of the sale.

Predictabiity of debt management is important for another reason, as well. Because Treasury securities are the benchmark for the Nation's fixed income market, Treasury mismanagement of the debt can destabilize the entire financial system.

Treasury has raised large amounts in the market over the past few years. In fiscal year 1979, net market borrowing amounted to $\$ 27.4$ billion. This total rose to $\$ 83.6$ billion in fiscal year 1980 , and to $\$ 90.5$ billion last year. Although market interest rates were historically high during this period, Treasury financing operations, per se, did not disrupt the market. Leaving aside the issue of whether a given level of deficit financing raises interest rates, the conduct of debt management during this period prevented major market dislocations. If these massive borrowing requirements had been met in a haphazard manner, significant damage to the financial markets would have occurred. Unpredictable shifts of Treasury financing out of one sector of the market to another based on interest rate forecasts or other "opportunistic" rationales could have seriously damaged market confidence and driven rates significantly higher. This potential for damage to the market is yet another reason to pursue prudent, predictable debt management operations.

The current regular issue cycles for Treasury financing through sales of bills, notes, and bonds began in the early 1970's and are still evolving. Treasury sells securities in all maturity ranges to
meet the needs of the broadest possible array of investors. Establishment of this regular pattern has contributed to a positive market climate in several ways:
First, by creating a schedule of Treasury security auctions, different investors, as well as dealers, can plan portfolio strategies in advance.

Second, by establishing the potential Treasury new issue calendar in advance, other issuers, including federally sponsored agencies and private borrowers, can plan their financing operations with more certainty.

Third, by spreading Treasury maturities evenly over time, market disruptions are lessened and future refunding and borrowing operations can be facilitated.

Not all Treasury borrowing can be done on this regular schedule, because there are seasonal flows in U. S. Government budget receipts and outlays. Receipts, for instance, tend to be concentrated in the April-June quarter while outlays are generally constant throughout the year. Seasonal borrowing to adjust for this mismatch in cash flows has been accomplished by selling cash management bills in the deficit period to mature in the cash surplus period. These bills are also used to bridge cash shortfalls resulting from an unanticipated drop in receipts or bulge in outlays. Nevertheless, regularity is a keystone of Treasury debt operations.

## LONG-TERM BONDS

I would especially like to address the role of long bond issuance in the overall scheme of Treasury debt management and regularization. Long bond issuance is an integral part of Treasury's regularization of debt operations. Two bond sales are normally conducted each quarter, with a 20 -year bond auction in the last month of the quarter and a 30 -year bond sale as part of the mid-quarter refunding operation. The Treasury bond market is deep and liquid, with cash market trading aided by a well-developed futures market.

I would like to digress and talk about the futures market because we do believe that the financial futures market does on balance facilitate the management of the public debt by shifting risk to those able to bear it, by price discovery and dissemination, and by increasing the liquidity of the underlying cash market. This increase in the underlying liquidity of the cash market for Treasury securities is in the Treasury's and Government's interest because it increases the attractiveness of its offerings, thus reducing the cost of servicing the public debt.

In addition to meeting the investment needs of long-term portfolio managers, sale of long-term obligations extends the average life of Treasury debt, which reduces the disruptive effects of frequent Treasury operations to refund maturing issues. Almost one-half of outstanding marketable debt matures within one year-I have included several charts which depict some of these points. This refunding need must be added to Treasury's new cash borrowing requirement to determine gross Treasury issuance in the market. Because of the short average maturity of outstanding Treasury debt-
see chart 2-long bond issuance must remain an integral part of Treasury's debt management policy.

Some observers have suggested that Treasury should avoid the sale of long-term securities when interest rates are high-and I would like to put quotations around this high-in order to avoid locking in high interest costs. However, any definition of high interest rates is extremely subjective and carries with it an implicit forecast of future interest rates. If Treasury temporarily withdrew from the bond market because it felt rates were high, market reaction to reentry in the long market could well be that rates were low. Thus, reentry could be interpreted as a Government forecast of higher rates in the future. Management of the debt based on interest rate forecasts would create tremendous uncertainty as to Treasury's financing schedule and, over the long run, would result in higher costs to the Government by reducing the market's willingness to bid in auctions. Therefore, a consistent policy of debt issuance across the maturity spectrum must be maintained without regard to expected interest rate developments.

I would also note that, because of the large volume of maturing obligations refinanced each year, interest expense on the public debt is extremely sensitive to interest rate movements. This adds volatility to the interest expense component of Federal outlays. As interest rates move up and down, Treasury's interest expense also rises or falls. As long as the debt outstanding retains this shortterm character, debt extension must be a part of our debt operations.

As interest rates decline in the next few years, as we expect they will, because of the refinancing of our outstanding debt obligations the Treasury will see a significant decline in interest expense due to the interest rate declines in the marketplace. That raises a question as to how many of Treasury's eggs should be placed in the one basket of declining interest rates- which would be the case if we avoided the sale of long-term obligations at this time.

At this point I would like to mention that market uncertainty has recently arisen because of congressional inaction on Treasury's request to repeal the $41 / 4$-percent ceiling on long bonds. The face amount of Treasury bonds held by the public with interest rates in excess of $41 / 4$ percent may not exceed $\$ 70$ billion. Treasury has exhausted this authority-see chart 3. Unless Congress repeals the $41 / 4$-percent ceiling, or grants additional issuing authority, no more bonds may be sold. In fact, Treasury would normally announce its regular auction of 20 -year bonds today. It cannot do so because of congressional inaction. Unless authority is granted in the next few weeks the usual sale of 30 -year bonds as part of our May refunding is also in jeopardy. Inability to sell these securities has created dislocations in the market and raised questions about the Treasury's ability to carry out predictable, prudent debt management policies. I urge Congress to expedite the long bond authority legislation so that this uncertainty can be resolved.

## U.S. SAVINGS BONDS

I would like to turn now to our current proposal for the savings bond program. The Treasury has sent a request for expedited
action on new savings bond legislation to the chairman of the House Ways and Means Committee. Savings bond legislation is urgently needed to give savings bond investors a fair rate of return and to stem the cash outflow from savings bonds that the Treasury has sustained since late 1978-chart 4.

Under existing law the Treasury is not permitted to offer an interest rate in savings bonds that will keep up with the interest rates available from other investments. The legislation Treasury submitted to Congress in January will remove the statutory interest rate ceiling on savings bonds and thus will enable Treasury to guarantee the small, long-term savings bond investor that the interest rate will always be reasonably in line with current market rates available to larger investors. This is the only way that we can revitalize the savings bond program.
A healthy savings bond program is not only good for small savers, it is good for the Treasury too. Even at the higher marketrelated rates we propose to pay to savings bond holders the costs to the Treasury will be somewhat less than the alternative cost of financing this debt in the open market. Thus, the longer we delay the introduction of the new variable rate savings bond, the greater the cost of financing the debt.

## SUMMARY

A capsule summary of Treasury debt management policy is that it is most effective when it is least obtrusive. Debt extension, regularization of new issues and maturities, the use of auctions to sell new Treasury securities at prevailing market yields, the communication of Treasury financing needs to the public, and the maintenance of a viable savings bond program all help to minimize the potential disruptive effects of the Treasury's large refunding and new financing tasks, and to minimize the cost of financing the public debt.
Mr. Chairman, that concludes my testimony on debt management matters of primary concern to the Treasury, but I will be happy to answer any questions at this time.
[The charts to accompany Mr. Stalnecker's testimony follow:]

Tabie 1
Changes in Interest-Bearing Public Debt Securities Held by Private Investors (Calendar years, in hillions of dollars)

|  | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Debt Held by Public* | \$246.0 | \$260.5 | \$259.7 | \$269.9 | \$348.4 | \$408.4 | \$459.2 | \$502.8 | \$539.4 | \$615.1 | \$693.1 |
| Marketable | 173.4 | 180.2 | 170.7 | 181.0 | 255.8 | 307.8 | 344.3 | 365.2 | 402.2 | 492.3 | 580.7 |
| Bills | 65.9 | 73.4 | 70.4 | 82.2 | 119.3 | 122.3 | 119.0 | 119.3 | 127.3 | 172.1 | 195.3 |
| Coupons | 107.5 | 106.8 | 100.5 | 98.8 | 136.7 | 185.6 | 225.3 | 245.9 | 274.9 | 320.2 | 385.4 |
| Maturing in: under 1 year | 15.9 | 17.6 | 22.9 | 18.1 | 30.8 | 35.2 | 53.0 | 54.9 | 63.1 | 67.5 | 80.0 |
| 1-5 years | 60.7 | 57.6 | 50.9 | 54.2 | 74.7 | 103.8 | 119.5 | 128.3 | 133.2 | 159.6 | 188.4 |
| 5-10 years | 16.9 | 17.5 | 13.2 | 13.5 | 16.7 | 31.0 | 32.8 | 33.6 | 36.6 | 41.2 | 50.9 |
| 10-20 years | 6.6 | 9.6 | 9.1 | 8.7 | 8.5 | 7.4 | 8.3 | 13.8 | 19.8 | 27.3 | 34.1 |
| 20 years and over | 7.3 | 4.4 | 4.3 | 4.3 | 5.9 | 8.2 | 11.7 | 15.3 | 22.3 | 24.6 | 32.0 |
| Nonmarketable | 72.7 | 80.2 | 88.9 | 88.8 | 92.5 | 100.6 | 114.9 | 137.5 | 137.1 | 122.8 | 112.4 |
| Savings bonds \& notes | 54.9 | 58.1 | 60.9 | 63.8 | 67.9 | 72.3 | 77.0 | 80.9 | 79.9 | 72.5 | 68.1 |
| Foreign series | 16.8 | 20.6 | 26.0 | 22.8 | 21.6 | 22.3 | 22.0 | 29.6 | 28.8 | 24.0 | 19.0 |
| State and local | -- | - | 0.4 | 0.6 | 1.2 | 4.5 | 13.9 | 24.3 | 24.6 | 23.8 | 23.0 |
| Other | 1.1 | 1.1 | 1.6 | 1.6 | 1.8 | 1.5 | 1.8 | 2.7 | 3.8 | 2.5 | 2.3 |
| Memo: |  |  |  |  |  |  |  |  |  |  |  |
| Holdings Federal Reserve Banks | 62.1 | 70.2 | 69.9 | 78.5 | 80.5 | 97.0 | 101.2 | 109.6 | 117.5 | 121.3 | 130.9 |
| office of the Secretary of the Treasury |  |  |  |  |  |  |  |  |  | March 17, 1982 |  |

*Excludes U.S. Goverment accounts and Ferleral Reserve Banks' holdings of public debt securities.

## Table II

Changes in Interest-Bearing Public Debt Securities Held by Private Investors (Calendar years, in billions of dollars)

|  | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Debt Held by Public* | \$14.5 | \$-0.8 | \$ 10.2 | \$78.5 | \$60.0 | \$50.8 | \$43.6 | \$ 36.6 | \$75.7 | \$78.0 |
| Marketable | 6.9 | -9.5 | 10.3 | 74.9 | 52.0 | 36.5 | 20.9 | 37.0 | 90.1 | 88.4 |
| Bills | 7.6 | -3.2 | 11.9 | 37.1 | 3.0 | -3.2 | 0.3 | 8.0 | 44.8 | 23.2 |
| Coupons | -0.7 | -6.3 | -1.7 | 37.8 | 49.0 | 39.7 | 20.6 | 29.0 | 45.3 | 65.2 |
| Maturing in: under 1 year | 1.8 | 5.3 | -4.8 | 12.7 | 4.4 | 17.8 | 1.8 | 8.2 | 4.4 | 12.5 |
| 1-5 years | -3.1 | -6.7 | 3.3 | 20.5 | 29.5 | 15.7 | 8.8 | 4.9 | 26.4 | 28.8 |
| 5-10 years | 0.6 | -4.3 | 0.3 | 3.2 | 14.3 | 1.8 | 0.8 | 3.0 | 4.5 | 9.7 |
| 10-20 years | 2.9 | -0.5 | -0.4 | -0.2 | -1.1 | 0.9 | 5.5 | 6.0 | 7.5 | 6.8 |
| 20 years and over | -2.9 | --- | --- | 1.6 | 2.3 | 3.5 | 3.6 | 7.0 | 2.3 | 7.4 |
| Nonmarketable | 7.6 | 8.7 | --- | 3.7 | 8.0 | 14.3 | 22.6 | -0.4 | -14.3 | $-10.4$ |
| Savings bonds \& notes | 3.3 | 2.7 | 3.0 | 4.1 | 4.4 | 4.7 | 3.9 | -1.1 | -7.4 | -4.4 |
| Foreign series | 3.9 | 5.4 | -3.2 | -1.2 | 0.7 | -0.1 | 7.4 | -0.7 | -4.8 | -5.0 |
| State and local | --- | 0.4 | 0.2 | 0.6 | 3.2 | 9.4 | 10.4 | 0.3 | -0.8 | -0.8 |
| other | 0.4 | 0.2 | --- | 0.2 | -0.3 | 0.2 | 0.9 | 1.1 | -1.3 | -0.2 |
| Memo: |  |  |  |  |  |  |  |  |  |  |
| Holdings Federal Reserve Banks | -0.3 | 8.6 | 2.0 | 7.4 | 9.0 | 4.2 | 8.4 | 7.8 | 3.8 | 9.6 |
| Office of the secretary of the Treasury |  |  |  |  |  |  |  |  | March 17, 1982 |  |

Table III
Ownership of Public nebt Securities by Private Investors*

| End of Calendar year | Total <br> Privately <br> Held | Connercial Banks | Individuals |  | Insurance Companies | Mutual Savings Banks | Cotporations | $\begin{aligned} & \text { state and } \\ & \text { Local } \\ & \text { Goverments } \end{aligned}$ | Foreign and International | Other Investors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Savings Bonds | Dther Securities |  |  |  |  |  |  |
| 1970 | \$229.1 | \$62.7 | \$52.1 | \$29.1 | \$7.4 | \$3.1 | \$7.3 | \$27.8 | \$19.8 | \$19.9 |
| 1971 | 247.1 | 65.3 | 54.4 | 18.8 | 7.0 | 3.1 | 11.4 | 25.4 | 45.1 | 15.6 |
| 1972 | 261.7 | 67.7 | 57.7 | 16.2 | 5.6 | 3.4 | 9.8 | 28.9 | 54.5 | 17.0 |
| 1973 | 260.9 | 60.3 | 60.3 | 15.9 | 5.4 | 2.9 | 10.9 | 29.2 | 54.7 | 19.3 |
| 1974 | 271.0 | 55.6 | 63.4 | 20.8 | 6.2 | 2.5 | 12.4 | 29.2 | 58.8 | 22.1 |
| 1975 | 349.4 | 85.1 | 67.3 | 21.3 | 9.5 | 4.5 | 21.3 | 34.2 | 65.5 | 37.4 |
| 1976 | 409.5 | 103.8 | 72.10 | 29.6 | 12.7 | 5.9 | 26.1 | 41.6 | 78.1 | 39.7 |
| 1977 | 451.3 | 101.4 | 76.7 | 31.1 | 15.5 | 5.9 | 20.5 | 50.8 | 109.6 | 49.7 |
| 1978 | 508.6 | 93.2 | 80.7 | 33.3 | 15.7 | 5.0 | 19.6 | 64.4 | 137.8 | 58.9 |
| 1979 | 540.5 | 96.4 | 79.9 | 35.2 | 15.7 | 4.7 | 22.9 | 69.9 | 123.7 | 90.1 |
| 1980 | 616.4 | 116.0 | 72.5 | 56.7 | 20.1 | 5.4 | 25.7 | 78.8 | 134.3 | 106.9 |
| 1981 | 694.5 | 109.4 | 68.1 | 75.6 | 19.1 | 5.2 | 37.8 | 85.6 | 141.5 | 152.2 |

Percentage Distribution

| End of Calendar Year | Total <br> Privately Held | Commercial Banks | Individuals |  | Insurance Companies | Mutual Savings Banks | Corporations | State and Local Goverments | Foreign and International | Other Investors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Savings | Other |  |  |  |  |  |  |
|  |  |  | Bonds | Securities |  |  |  |  |  |  |
| 1970 | 100\% | 27.4 \% | 22.7\% | 12.7\% | 3.2\% | 1.48 | 3.2\% | 12.18 | $8.6 \%$ | 8.78 |
| 1971 | 100 | 26.4 | 22.0 | 7.6 | 2.8 | 1.3 | 4.6 | 10.3 | 18.7 | 6.3 |
| 1972 | 100 | 25.9 | 22.0 | 5.2 | 2.5 | 1.3 | 3.7 | 11.0 | 20.8 | 6.5 |
| 1973 | 100 | 23.1 | 23.1 | 6.5 | 2.5 | 1.1 | 4.2 | 11.2 | 21.0 | 7.4 |
| 1974 | 100 | 20.5 | 23.4 | 7.7 | 2.3 | 0.9 | 4.5 | 10.8 | 21.7 | 8.2 |
| 1975 | 100 | 24.4 | 19.3 | 6.1 | 2.7 | 1.3 | 6.1 | 9.8 | 19.0 | 10.7 |
| 1976 | 100 | 25.3 | 17.6 | 7.2 | 3.1 | 1.4 | 6.4 | 10.2 | 19.1 | 9.7 |
| 1977 | 100 | 22.0 | 16.6 | 6.7 | 3.4 | 1.3 | 4.4 | 11.0 | $23 . \varepsilon$ | 10.8 |
| 1978 | 100 | 18.3 | 15.9 | 5.5 | 3.1 | 1.0 | 3.9 | 12.7 | 27.1 | 11.6 |
| 1979 | 100 | 17.8 | 14.8 | 6.7 | 3.1 | 0.9 | 4.2 | 12.9 | 22.9 | 16.7 |
| 1980 | 100 | 18.9 | 11.8 | 9.2 | 3.2 | 0.9 | 4.2 | 12.7 | 21.8 | 17.3 |
| 1981 | 100 | 15.8 | 9.8 | 10.9 | 2.8 | 0.7 | 5.4 | 12.3 | 20.4 | 21.9 |
| Dffice of the Secretary March 17, 1982of the Treasury |  |  |  |  |  |  |  |  |  |  |



## AVERAGE LENGTH OF THE MARKETABLE DEBT




CUMULATIVE NET CASH FLOW IN SAVINGS BONDS ${ }^{1 /}$


Chairman Fauntroy. We thank you, Mr. Stalnecker.
Can you tell the subcommittee the extent to which the United States relies on non-Americans to finance its debt? To what extent do foreign nations, foreign governments, foreign central banks or foreign financing institutions hold U.S. debt? Additionally, could you tell the subcommittee the extent to which this has increased or decreased in recent years, say over the past decade. Finally, can you tell us the extent to which you expect to rely on foreign purchasers to finance the new debt and any refinancing.

Mr. Stalnecker. As of the end of calendar year 1981, private investors held about $\$ 695$ billion in outstanding debt. Foreign and international investors-this is, by the way, table 3 of my prepared testimony which includes these figures-foreign and international investors held a little over $\$ 141$ billion of that amount which represented 20.4 percent of the debt held by private investors. While the amount held by foreigners is the highest that it has been in recent years, as a percentage of the total privately owned debt outstanding, the amount held by foreign and international investors has declined from 27.1 percent in 1978 to the recent level of 20.4 percent.

The amount of foreign participation in the Treasury market is dependent on several factors. Attractiveness of the U.S. dollar as a currency is one aspect. Intervention by foreign governments in the currency markets to support their currencies or to support the dollar is another factor. Normally the foreign dollar holdings used for intervention are placed in short Treasury obligations, so when dollars are sold on the foreign exchange markets, foreign Treasury holdings also decline. Of course, the large exporting nations that have a balance of trade surplus, for example, oil exporting nations, often invest their dollar holdings in Treasury securities. So, the amount of investment in Treasury securities by these foreign and international investors is a complex matter and there is really no way ahead of time that we can judge how much in a given fiscal year the foreign sector will take of our securities.

Our view is that as long as the dollar retains its character as a strong currency, which it has for the last several years, there will be continued investor interest, not just on the part of foreign official governments, but also private investors in Treasury securities.

Also I note to the extent foreign investors purchase Treasury securities there is less Treasury supply that has to be purchased by domestic investors. Therefore, our belief is that by having no barriers to foreign capital we can facilitate not just the financing of Treasury obligations, but also the financing of corporate and other obligations in this country. We feel it has been a positive development in financing the debt in the past few years.

Chairman Fauntroy. Is there any way of tracking the extent to which proceeds from the sale of Government securities get reinvested in new plant and equipment in this country?

Mr. Stalnecker. The proceeds of U.S. Government securities sales are basically used to finance the operations of the Federal Government. Certain of the budget programs which involve guaranteed loans or foreign military sales are also financed through the sale of Federal Treasury obligations. Most of the proceeds of U.S. Government sales are used for building of infrastructure of the
U.S. Government, whether buildings, highways, or general operations.

Chairman Fauntroy. Let me correct myself, what I really meant was the interest payments.

Mr. Stalnecker. You are asking whether the proceeds of U.S. Government interest payments are used to make plant and equipment expenditures by the private sector?

Chairman Fauntroy. Yes. Is there any way of tracking that?
Mr. Stalnecker. I don't believe there is. I think as a rough approximation of who receives interest payments we can use this same ownership table and assume to the same extent foreign ownership has 20 percent of the debt, they receive 20 percent of the interest.

To the extent corporations have 5 percent of the debt, they receive 5 percent of the interest. Commercial banks also own large amounts. Once these interest payments are made to the holders of the debt they can obviously do whatever they want to with them. Some of the proceeds are presumably reinvested in Treasury securities or corporate assets to maintain the investment portfolios of the holders. Commercial banks can use the interest income they receive from their holdings of Treasury securities to make loans to corporations. I presume that could be used for plants and equipment. I don't believe there is any way to quantify how much of the interest payments on the Government debt is used to invest in plant and equipment.

Chairman Fauntroy. I raise that question because, as one who in the past was not as concerned about the Federal deficit, I have found that my lack of concern was in the assurance that those who received the interest were reinvesting in American plant and equipment and productivity. I have become increasingly concerned in recent years that rather than going to Chrysler and Ford and GM and RCA, that this money may be going to Toyota, Panasonic, and many other foreign corporations or individuals. We are thus looking at a window of vulnerability.

Even if the deficit is reduced by the final quarter of, say, 1983, much of the short-term debt issued now will be maturing. Thus while the net cash needs then may be only slightly above what is necessary this quarter, the volume of outstanding debt will jump substantially. What action can you take now to lessen the impact that will surely be felt by the end of 1983 and beyond to accommodate the increased refinancing?

Mr. Stalnecker. The single most effective way of reducing the refinancing burden of Treasury debt is to pursue a policy of debt extension. I refer you to the chart in my testimony, chart No. 2, which shows what has happened to the average length of Treasury marketable debt over the broad scope of years since the end of World War II.

The average length of the debt is really a proxy for the Treasury's refunding task. In other words, if the average maturity of the debt is long, and at the end of World War II it exceeded 10 years, that means a greater proportion of Treasury debt is going to mature in future years than it is tomorrow or the next year.

Since late 1976 when the average maturity was less than $21 / 2$ years, Treasury has tried to extend the average maturity by sale of
long-term instruments and thereby reduce this refunding operation you just alluded to.
At the end of 1981 the average maturity was still 4 years which was an improvement from the low point of December 1975, but still is not up to the levels that Treasury debt attained at the end of World War II or even in the fifties or sixties.
The single most important element to reducing this refunding and churning effect that results in short-term markets when Treasury has to roll over the debt is to maintain a policy of extension of long-term debt.
As of the end of February over $\$ 290$ billion of our privately held marketable securities will mature within a year. That represented nearly one-half of total privately held marketable Treasury debt outstanding. Again, this is yet another reason to continue to rely on longer term security issues as well as short-term securities.
Chairman Fauntroy. It has been suggested that I ask you whether or not the most recent financing is going to come within this year?

Mr. Stalnecker. You are talking about the quarterly refunding that is coming up?
Chairman Fauntroy. I am asking about the huge deficit about which we are all concerned.
Mr. Stalnecker. The new deficit will be financed in a combination of bills, notes, and bonds. Over the past year we have tried to raise as much new cash as we possibly could in the longer term market, the note and bond market. But within the last year, even with our emphasis on coupons, we have had to resort to a lot of bill financing.
The amount of privately held marketable debt maturing within a year has risen from the end of 1980 to the end of 1981 from $\$ 240$ to $\$ 275$ billion. So that shows that the amount of debt maturing within 1 year rose last year despite our efforts to extend the debt.
In the refundings that come up in the next few months we would normally try to maintain a balance between intermediate and short-term maturities. The actual amounts, of course, are dependent on what our cash needs are at that time.
Chairman Fauntroy. Let me ask one more question before yielding to my colleagues. As you know, there has developed in the private market substantial numbers of new and different kinds of instruments which are variously pegged to Treasury instruments. Some of these are even tax exempt and others are tax exempt and guaranteed by the United States. Additionally, some are backed by real property while others are merely guaranteed. I would like to know the impact that these instruments have on the ability of the Treasury to sell its debt.
I further would like to know the effectiveness of these kinds of instruments in furthering public policy. For example, how effective is the use of tax-exempt federally guaranteed hospital bonds as opposed to the use of direct appropriations, and what are the revenue and cash consequences of such a development?

Mr. Stalnecker. The Treasury as a general policy matter feels that tax-xempt financing is an inefficient means of providing funds for projects. Studies have shown that the interest saving to the borrowers who use tax-exempt financing is less than the loss of
revenues to the Treasury through the inability to collect taxes on the interest income. Therefore, the Treasury is very strongly opposed to the use of guaranteed tax-exempt financing.
Certainly the tax-exempt market has a place and to the extent State and local governments need to issue securities for operating funds and capital investments, the Treasury wouldn't want to infringe upon that right or close the market to them. But the issue of industrial development bonds and other uses of tax-exempt financing for what do not appear to be public investment projects is of great concern to the Treasury. We have been working with Congress to come up with some new proposals to decrease the amount of tax-exempt securities that are used to finance private-purpose projects. In terms of the competing nature of these securities with Treasury securities, I would like to say that first of all the Treasury represents the triple A or quadruple A credit risk in the country. Therefore, even the use of asset financing, whether it is real property or some kind of variable rate innovation, does not remove the underlying credit risk involved in investing in a non-Treasury obligation.
In addition to credit risk there is also liquidity risk. The Treasury has more liquidity in terms of the holder being able to sell a position if he wants to.
Generally speaking, these innovations have not impacted the ability of the Treasury to raise credit because we are first in line. However, the use of Government-guaranteed tax-exempt financing is a different matter. In addition to having the full faith and credit obligation of the U. S. Government it also carries tax-exemption privileges which U. S. Treasury obligations do not. That represents a direct competition with Treasury financing and for the reasons I mentioned before, that is, the Treasury loses more in tax revenues than the borrower gains in terms of lower interest cost as well as the impact on Treasury's interest expense, the Treasury is against the issuance of Government-guaranteed tax-exempt financing. We try to limit it as much as we can.
Chairman Fauntroy. You indicated that there is a loss when the Government goes the tax-exempt route. What is the loss per dollar of benefit in your view?

Mr. Stalnecker. I haven't seen a recent study, but my memory tells me that for every $\$ 3$ of borrowing benefit or interest expense benefit that the borrower receives, approximately $\$ 4$ are lost in tax revenues. I can check on that to see if we have any up-to-date numbers. I think the $\$ 3$ versus $\$ 4$ tradeoff is approximately what it costs the Government.

Chairman Fauntroy. I would like to have an updated figure on that.
[At the request of Chairman Fauntroy, the following additional information was submitted by Mr. Stalnecker for inclusion in the record:]

[^0]Budget. This relationship is based on a 40 percent marginal tax bracket for bond purchasers and tax exempt interest rates of 70 percent of taxable rates. As tax exempt bond rates move closer to taxable rates as they have recently, the benefit to the bond issuer is even less.

Chairman Fauntroy. Mr. Coyne.
Mr. Coyne. Thank you very much, Mr. Chairman.
I want to congratulate Mr. Stalnecker for his testimony. Let the record show while I was professor at the Wharton School of Finance at the University of Pennsylvania he was a student, although not of mine which is obvious by the caliber of testimony he presented which is better than any student of mine.

His testimony raises several questions. He focused clearly on the question of making the debt policy regular and reliable so that the market will not be disrupted. I am reminded of a general who instructs all of his soldiers to make sure everybody is marching in step in a nice regular cadence ordered by the drummer as they are marching the wrong way off a cliff.

In some cases the testimony seems to focus on the cadence or the regulation or the regularity of our current policy which covers up the fundamental need for that policy to change in time.

In the last year and a half we have had a dramatic change in the inflation rate in this country. So, too, I would hope we have had changes in the public's expectations about future inflation. This brings us down to the question of what is the proper philosophy to explain the high interest rates our country is paying now, not just the interest rates that the Treasury is paying, but, more importantly, the business rates that every businessman in this country is paying.

There are two popular theories. One is the competitive theory which focuses on the fact that different people are competing for a limited amount of funds. I like to call this the "animals coming up to the feed trough" theory. Under it you have a limited amount of capital going to the feed trough because we have fiscal and monetary policies that discourage savings and capital formation.

You have limited animals coming up there. You have the home buyer who wants to get funds for a mortgage, the businessman who wants to get working funds for capital investment, and then you have Uncle Sam who needs funds to refinance the trillion dollar debt.

It is like two chickens and a hog trying to eat from the same Federal trough.

Although your testimony would have sounded very reasonable to a corporate treasurer, to be discussing philosophy, we as borrowers for the U.S. Government have two very, very different elements in our position in the credit market.

No. 1, we go into that credit market as a hog, as somebody who holds an auction saying "I will pay whatever I have to pay to get our funds." There is literally no other participant in the credit market who goes into the credit market with that attitude of being able to pay whatever the marketplace demands.

The homeowner has been faced with 17 -percent mortgage rates. He says "I am not going to buy that house." The businessman is faced ,with a 16 -percent prime rate. He says "I am not going to grow."

Of course you and the Treasury see what the market demands and the Government pays it. In addition, the Federal Government has the unique position of being largely responsible for one of the major elements of risk that you were discussing that leads to the determination of interest rates.

You mentioned, of course, credit risk as an important element in determining interest. Of course, the Federal Government is not a credit risk. You mentioned liquidity risk. Of course the Federal Government is not a liquidity risk. Then there is the inflation risk. What will the dollars be worth that are used to repay the debt? That is U.S. Government's responsibility. That is their job to determine what the dollar is worth. We therefore have the unique situation of the borrower being the same person who determines what the unit of measure of that debt is worth.

Of course, we have seen Congress over the past 20 years being unwilling to make the policies that are required to make sure the dollar maintains its value. This leads, in my view, to the question of why must we continue to pay these high interest rates, which are largely caused by a perception of high inflation risk at a time when we are trying to bring that inflation down to zero.
Correct me if I am wrong, Mr. Stalnecker. I am trying to look at this very carefully. Interest rates are the sum of real interest rates plus inflation premium plus uncertainty. That is basically true?
Mr. Stalnecker. I think as a general characterization that is true.
Mr. Coyne. And the real interest cost to the Federal Government in real dollars should be about 2 percent, 2 to 3 percent, looking on historical evidence that showed what we were paying when there was no inflation?

Mr. Stalnecker. I think one has to make a distinction here between pre- and after-tax real rates.
Mr. Coyne. That is true. We have an important problem as well with the bias that our fiscal and tax policy makes before interest reductions.
Mr. Stalnecker. I would say 3 percent would be as good a number as any.
Mr. Coyne. Then we should add to that the expectation of future inflation. Of course 4 years ago, 3 years ago, a prudent man might have had a 10 -year bond with an expectation of an 8 -percent inflation rate, let us say. Then in addition to that we have the uncertainty premium.
What is the Government going to have to resolve if the inflation is going to come down? The marketplace looks to the Government, the Congress, the Fed, to everybody, for some inkling of information to give them a handle. During the fifties and sixties that uncertainty risk was very low. We weren't paying much extra because there was not much inflation.
I think it is safe to say that the 14 -percent interest rate we are paying now is largely because of the high uncertainty that we have today, whether the Reagonometrics programing survives, whether we will continue to have monetary policy that is positive, whether Congress will learn to bite the bullet, these are the uncertainty questions that are so troublesome to all the investors out there.

When the investors look to the Federal Government paying 14 percent on long-term money, aren't they saying to themselves, well, that is just one more indication that the Federal Government really is not serious, that even the brightest minds in the Treasury have no faith in our ability to control inflation? And aren't we destroying our efforts to bring expectation under control? Aren't we sending the wrong signal?

Should we not be trying to develop a Treasury plan which is the key to telling the marketplace, psychologically perhaps, that really inflation has been beaten and we are going to get interest rates down?

Mr. Stalnecker. There are several points I would like to comment on.

First, I would disagree with your characterization of business and homeowners not being forced to borrow, the Treasury is the only borrower in the market that pays the rates because business and homeowners won't be willing to pay these rates.

Mr. Coyne. There was a huge drop in housing starts last year, a 70 percent increase in bankruptcies, manufacturing firms and wholesale. I am not making up the statistics.

Mr. Stalnecker. If business ran the kind of deficit that the Federal Government is running they would also be forced to borrow whatever the market charged them. Part of the problem here is not that the Treasury likes paying 13 or 14 percent for its money, but to finance the operations of the Government we have to pay what the market charges.

Mr. Coyne. I was a small businessman before coming to Congress, and 8 months ago I used my $\$ 300,000$ line of credit at that bank. I know that my company has decided not to borrow any more and has made a very tough decision not to expand.

There are thousands of small businessmen who are doing exactly the same thing. They are not expanding their inventories, they are postponing decisions to buy new plants or warehouses.

To say these people are not being squeezed out in the face of the Federal Government's insatiable appetite is ludicrous. Two weeks ago $\$ 160$ billion capital was lent out and $\$ 100$ billion of that went to the Federal Government.

Mr. Stalnecker. I was not trying to make that point. What I was trying to say was that if the Government ran its operations the way a business did, it would look at its balance sheet and look at the borrowing required based on taxing and spending decisions and say "Are we willing to borrow this much money at that rate?"

The analogy to the business firm that decides not to spend because costs are too high, is that the Government adopts a different fiscal policy to reduce its borrowing needs. I am trying to separate the broader issue of fiscal policy and an appropriate level of deficit from the question of debt management.

Mr. Coyne. On the debt management, let us say you are the treasurer for U.S., Inc. You perceive inflation rates to be coming down and you go to your board of directors and say we have $\$ 1$ trillion to finance. We see interest rates are coming down and we are undertaking every step we can to reduce inflation-Ronald Reagan is talking to everybody, there is a new majority in the Senate-and inflation is down to 2.4 percent in February and we are optimistic.

Then you would create confidence by floating 30 -year bonds, uncallable, at a fixed rate, bonds which are tied in some way to purchasing power index of the U.S. dollar. This is the thing Friedman is proposing, to put our money where our mouth is if we are serious about fighting inflation.

Mr. Stalnecker. I would like to expand the picture of the corporate treasurer because he is not just selling $\$ 1$ trillion in debt. He has a half trillion dollars maturing next year. His chairman could also say to him "If rates come down as you expect, you are going to realize substantial interest rates savings," because you are going to be refinancing half of our outstanding liabilities already. Maybe it is prudent not to put our eggs in one basket.

Mr. Coyne. It seems we have allowed one of those baskets to collapse.

Traditionally there was a lot of long-term savings and long-term investment in this country. Increasingly we have seen that more and more of the capital market has moved to the short-term market because only in the short-term market do we have real certainty that your inflation expectations are going to be somehow reliable.

If we are going to build up the long-term savings market in this country, if we are going to get the pension fund, the trust fund that your bank and others used to manage, if we have to get those institutions which have legitimate long-term investment goals and objectives back into the sound investment of our Nation's securities, doesn't it seem that we have to show them that we are going to give them some sort of realistic assurance that they are not going to be whipsawed again by Federal policies of inflation and irrational monetary policy?

Isn't it better to give them this debt instrument, as the British have done, which relieves them of the concern about inflation? Say to the pension fund management "You don't have to worry about inflation risk because we are going to accept that in the Federal Government. We are going to index our bonds to some form of purchasing power index," as the British Government is doing and thereby rebuild that long-term investment marketplace and once again have pension funds and others buying 20 -year securities. Not out of bribery by paying these rates, but out of logic on their part they are going to be protected against the vagaries of Federal Government policy?

Mr. Stalnecker. I would say that the market charges-this is almost going to sound too trite-the market charges what the market charges.

If the real interest rate that is required right now on financial instruments is 4 or 5 percent rather than the 3 percent that was historically the pattern, I would say if the Treasury attempted to sell an indexed type security, the real interest rate it would be forced to pay on such an obligation could exceed the 2 or 3 percent that would be indicated through historic experience.

Even if it weren't, it is possible that inflation could be more rapid over the next few years than we hope it will be and the Treasury's ultimate obligation indexed to inflation could get out of control relative to the cost of the fixed instrument.

Mr. Coyne. Is not our debt fully indexed now? When you say 50 percent of it rolls over every year, virtually we have 100 percent indexed debt now with short-term securities instead of indexing long term. It makes more sense to have long-term securities reflect the same risk of inflation as the short term.

Mr. Stalnecker. That is a good point. We feel we are offering in the marketplace at least a proxy for indexing by the fact that we sell 3 -month bills that are rolled over every 3 months or 6 -month bills that are rolled over every 6 months. We try to offer as many investors, different investor classes, as possible the securities to meet their investment needs.

To those investors who are looking for variable rate or adjustable rate instruments we feel the bill market is the appropriate position. Also we feel to those investors who want to buy longer term fixed rate assets, we want to offer longer term bonds.

Mr. Coyne. Those people who want long-term assets you have nothing to give them?

Mr. Stalnecker. At this point you are correct.
Mr. Coyne. There are many people who argue you should use a Dutch auction. Will you comment on why you are not doing it?

Mr. Stalnecker. We did some Dutch auctions. We held six long bond auctions.

Mr. Coyne. Will you explain what a Dutch auction is?
Mr. Stalnecker. The Dutch auction technique allocates all the securities at one price which is the lowest price of all accepted bids. To explain our normal auction procedure, let us say we offer $\$ 2$ billion in securities. We would subtract the amounts of noncompetitive bids we would receive from that amount, and sell the rest to all those competitive bidders who submit tenders. Then we would allocate the billion dollars, the $\$ 2$ billion minus the noncompetitive amount, to the highest bidder first and then accept subsequently lower bids until we sold the full amount. All the bidders would receive their securities at whatever price they bid.

In the Dutch auction the same mechanism would be followed, but all the securities would be awarded at the lowest price accepted by the Treasury. So it would appear that on average the Treasury would receive a lower price.

Now the theory is that by allocating all the securities at one price, the lowest price received, that it would increase the willingness of investors and dealers to bid in the auction because they would not be at a disadvantage if they happened to bid too much relative to others in the marketplace.

We analyzed or we tried to do some studies on the six Dutch auctions that we held back in the mid-seventies and the results were inconclusive. It did not appear that there were significant cost savings and frankly our view is that we receive enough bids under our current auction mechanism, and it is well received by both investors and market professonals, so that after selling six securities by the Dutch auction mechanisms with mixed results we ended that experiment.

Mr. Coyne. You have no plans to reexperiment?
Mr. Stalnecker. No.
Mr. Coyne. Thank you, Mr. Chairman.
Chairman Fauntroy. The gentleman from Texas, Mr. Patman.

Mr. Patman. Thank you, Mr. Chairman.
Mr. Stalnecker, what was your bank before you came to the Treasury?

Mr. Stalnecker. I was an investment portfolio manager at the Philadelphia National Bank in Philadelphia.

Mr. Patman. Tell me how do market rates get established. You said the market charges what the market charges. What does a person do if he decides the rate of interest is too low? Does he go out and buy stocks and get in on the economic recovery program or become a home builder? What does he do with his money?

Mr. Stalnecker. You mean if you would like to purchase an investment and you felt the interest rate you could earn on your funds is too low?

Mr. Patman. What is the alternative of people who decide they don't want to invest in Government securities?

Mr. Stalnecker. They could invest in corporate securities or stocks or real property. They could purchase a house or other real estate. There are other collectibles that have been popular investment items from time to time including precious metals.

Mr. Patman. To what extent does the Fed set the interest rate?
Mr. Stalnecker. The Federal Reserve System, since it implemented a new policy change in 1979, has been focusing more on the control of monetary aggregates and less on fixing the interest rates. I would say that the ultimate determinant of interest rates is the underlying supply and demand for credit. One could say to the extent there is large demand for credit in the marketplace and the Federal Reserve supplies only a limited amount of credit to finance those demands by the banks, the Fed would have some control over interest rates, but ultimately, assuming a relatively constant growth in money supply and reserves, the marketplace determines the level of interest rates.

Mr. Patman. You don't feel that the Fed's operation in the open market community really sets the interest rate structure?

Mr. Stalnecker. There is no doubt that the Fed's operation in the marketplace has a short run effect on interest rate levels. To the extent that over the long run the money supply grows at a moderate and predictable pace the marketplace would be the ultimate determinant of interest rates.

Mr. Patman. What is your explanation for the fact that the real interest rate is at an historic high, the highest rate it has been in 50 years?

Mr. Stalnecker. My own personal view is that the excesses of the past have come home to roost.

Mr. Patman. How do those come home? You are talking about investors deciding they want to to into the stock market instead of investing in given bonds?

Mr. Stalnecker. I think there was an overexpansion of credit over the past 10 or 15 years. Many of the institutions, whether banks, pension funds or any long-term investor, have many assets on their books that are significantly below water, so to speak in the jargon of the marketplace. They booked a lot of assets when interest rates were significantly lower than they are now and they are now locked into the asset. If they sold them they would have losses. Therefore they do not have the capacity to expand their asset base
by purchasing new assets. That is one explanation for the current high level of interest rates. There is no money to invest in them right now, given past mistakes.

Mr. Patman. You are not talking about mistakes in the last year?

Mr. Stalnecker. I am talking about longer term mistakes over the last 10 or 15 years.

Mr. Patman. You are not talking about the $\$ 1$ trillion in additional debt we are going to incur in the next 5 years because of the imbalance between revenues and disbursements?

Mr. Stalnecker. Our prospective budgetary outlook has an impact on current expectations, but past inflations and past budgetary actions also have impacts as well.

Mr. Patman. The debt we expect to incur this year is the highest in the history of this Nation, is that true?

Mr. Stalnecker. That is correct.
Mr. Patman. Can you give us some supplement to your table No. 3 that shows the average weighted interest rate paid over these years in 1973? Do you have any idea the way that has gone?

Mr. Stalnecker. The interest expense component?
Mr. Patman. That is right, expressed as a percentage of debt outstanding?

Mr. Stalnecker. Yes.
Mr. Patman. Could you submit that for the record?
Mr. Stalnecker. Yes.
Mr. Patman. What does it show the average rate to be in 1970 ?
Mr. Stalnecker. The last number I have is 1973. At that time the computed annual interest rate on the total interest bearing public debt was 5.872 percent.

Mr. Patman. What is it today?
Mr. Stalnecker. As of the end of January it was 11.345 percent.
Mr. Patman. It has gone up over 100 percent?
Mr. Stalnecker. Nearly 100 percent. Not quite.
Mr. Patman. Who are these other investors?
Mr. Stalnecker. The other investors represent pension funds, mutual funds, money market mutual funds in particular as well as other longer term mutual funds that might invest in Treasury securities and various other investors that are not covered in our ownership survey.

Mr. Patman. Such as?
Mr. Stalnecker. The reason that we call them other investors is because we don't really know who all of them are, but they would also include thrift institutions, savings and loans.

Mr. Patman. You ought to be able to get a pretty good handle on thrift institutions and savings and loans.

Mr. Stalnecker. Our ownership survey is a voluntary survey. Many Treasury securities are not registered, they are bearer securities. We try to get as good an indication of the ownership as we can, but in some instances we can't categorize the owners.

Mr. Patman. Would you say they would be foreign or international and you just don't know about them?

Mr. Stalnecker. There could be some foreign or international investors included in that. The best guess is that the bulk of those
investors are money market funds, pension funds and thrift institutions.

Mr. Patman. You mentioned short-term maturity of the U.S. debt and rolling over half of it every year. How does that compare with the debt of, say, the major corporations of this Nation?

Mr. Stalnecker. Unfortunately it compares, I wouldn't say favorably, but it looks almost exactly the same as the problems some of the major corporations have.

I don't have any indication of what the average debt of corporate America is. Surveys indicate preponderant financing has occurred in the short-term market. So the corporate treasurer faces the same problem that the Federal Treasurer does in that he has a lot of short-term obligations he must refinance in the marketplace every year. That is part of the problem right now. There is a lot of short-term debt out there and it should be funded out long. Until expectations change and inflation expectations are reduced that will be a very difficult task.

Mr. Patman. Are some of those expectations contingent on whether or not the Fed employs the tight money policy?

Mr. Stalnecker. Certainly the prospective growth in the money supply is a determinant of longer term expectations. I don't know how you determine whether monetary policy is tight or not.

Mr. Patman. You don't really understand that?
Mr. Stalnecker. Some theoreticians say tight money is represented by 5 -percent growth in the money supply and others say 10 percent.

Mr. Patman. The lender regards 14 percent as a pretty good rate of interest whereas the borrower regards that as an outrageous rate of interest in some cases.

Mr. Stalnecker. When I used to work in the private sector and I was asked for a prime rate forecast I always used to say "I can't say what it is going to be. All I know is that it is going to be too low for me and too high for you."

Mr. Patman. The point I am making about the private sector, if there were a big open field out there for people to get money in the long term market don't you think they would be doing that right now?

Mr. Stalnecker. ('orporate treasurers do make interest rate forecasts. Many corporate treasurers do not want to lock their corporation into paying high interest rates at this time. Preponderance of longer term corporate financing has occurred in the 5 - to 10 -year maturity range in recent years.

Mr. Patman. And those big corporations have a corps of economists and people like that, perhaps like yourself, telling them whether or not interest rates are too high in the long term.

Mr. Stalnecker. That is one factor in their financing decisions, yes.

Mr. Patman. Why do you think it is more advisable for us to go out in the long term than the Fed?

Mr. Stalnecker. I would say many of the same corporate treasurers who think interest rates are going to come down now also felt that way 2 or 3 years ago. One of the reasons corporate debt is so short is that over the last few years when interest rates
were high many corporations did not want to lock in high rates at that time. That was when interest rates were 10 and 11 percent.

Now they find themselves in a very tenuous situation where interest rates haven't performed according to their expectations and, in addition to financing capital expenditures that have been incurred, now they also have to roll over debt issued 2 or 3 years ago.

I would say interest rate forecasting is hazardous and that many prudent corporate treasurers also do not base their financing decisions on forecasts of interest rates.

Mr. Patman. Could you submit for us a chart to which you referred there, the table that shows the average interest rate paid?

Mr. Stalnecker. Yes.
[At the request of Congressman Patman, the following response was submitted by Mr. Stalnecker for inclusion in the record:]

Computed annual interest rate on interest-bearing public debt

| End of fiscal year: | Percent |
| :---: | :---: |
| 1970 | 5.557 |
| 1971 | 5.141 |
| 1972 | 5.093 |
| 1973 | 5.872 |
| 1974 | 6.560 |
| 1975 | 6.352 |
| 1976 | 6.436 |
| 1977 | 6.424 |
| 1978 | 7.126 |
| 1979 | 8.057 |
| 1980 | 9.032 |
| 1981 | 11.486 |

Mr. Patman. Do you find that the projected annual deficits that economists are seeing for the Nation would tend to increase interest rates in the future?

Mr. Stalnecker. I think that there are several elements that determine interest rates and certainly the level of deficit is one of them. I think there is some academic evidence that deficits cause a slight increase in the real rate of interest.

You have to determine what causes the deficit, and to the extent the deficit arises through lower tax rates rather than through higher spending levels, presumably additional savings are generated through the tax cuts which help finance the deficit that they create.

I would not want to quantify what a given level of deficit financing does to interest rates.

Mr. Patman. Most of the interest we pay on the national debt goes into the national debt ultimately; does it not?

Mr. Stalnecker. Because interest is an outlay, yes, it contributes to the deficit which in turn has to be finanaced.

Mr. Patman. Do the higher interest rates we are paying now enter into inflation?

Mr. Stalnecker. I believe that the underlying determinant of inflation is monetary growth and therefore I think to the extent that monetary growth is controlled, moderated, the interest expense item in the Federal deficit has a negligible impact on inflation rates.

Mr. Patman. Thank you.
Chairman Fauntroy. Mr. Barnard.

Mr. Barnard. Mr. Stalnecker, you commented that Treasury had asked that the ceiling be increased for long-term bonds paying in excess of $41 / 4$ percent. On chart 3 if I read it correctly, we have about $\$ 70$ billion in long-term bonds that pay a higher rate than $41 / 4$ percent.

Mr. Stalnecker. That is correct, $\$ 70$ billion held by private investors.

Mr. Barnard. You have approximately $\$ 20$ billion of still outstanding at $41 / 4$ percent?

Mr. Stalnecker. Are you referring to the difference between the dotted line and the solid line?

Mr. Barnard. Right.
Mr. Stalnecker. The solid line is the total amount outstanding and includes those held by the Federal Reserve System and various Government accounts which are not counted against the ceiling. That full amount is $\$ 90$ billion-plus in excess of $41 / 4$ percent.

Mr. Barnard. You are saying that if that ceiling is increasing the Federal Reserve System would buy the additional bonds?

Mr. Stalnecker. No. The Federal Reserve holdings of long-term bonds are not included in the ceiling so that the Fed could increase its holdings of long-term bonds without regard to the statutory limit.

What we would like is an increase in the ceiling so that we can sell additional securities to the private sector, the general public as it were.

Mr. Barnard. On table 1, holdings by the Federal Reserve System are $\$ 139.9$ billion. You don't have that broken down, do you? Is that all long-term bonds?

Mr. Stalnecker. We don't have it broken down. We can get it broken down. Maybe the Federal Reserve people can supply that. There is a breakdown of that.

Mr. Barnard. What is the average rate of interest? Do you know what is the average rate of interest that the Fed is receiving on its holdings?

Mr. Stalnecker. No, I don't. The Federal Reserve System does have those numbers though.

Mr. Barnard. What indication do you have that the Congress is going to act at all in repealing this ceiling?

Mr. Stalnecker. Well, the indication thus far is that the Congress is hesitant to do so. The general thrust of this administration is to remove any kind of artificial price ceilings, whether they be interest rate ceilings or any other kind of price ceiling that is determined by Federal Government edict. That is why we have requested repeal of the $41 / 4$-percent ceiling on long-term bonds and also complete freedom to set the savings bond interest rate according to market forces.

Our view is that in the case of the $4 \frac{1}{4}$-percent ceiling there is no reasonable prospect of interest rates declining to that level over the foreseeable future. Therefore to reduce uncertainty about our debt management policies, a repeal of that ceiling would be helpful.

Frankly, that decision is one that Congress would have to make. We would just like to impress upon you that it has entered our
debt management operations recently. If it is not resolved soon, it will create additional uncertainty in the marketplace.

Mr. Barnard. With reference to savings bonds, you know when savings bonds were created-I think they were called war bonds or something of that kind- people bought them for patriotic reasons regardless of the interest rate. The funds that are collected by the Treasury on current savings bonds do not go to any particular fund or particular account do they? They just go into the Treasury to finance the debt like everything else?

Mr. Stalnecker. That is correct.
Mr. Barnard. Therefore, the thing that concerns me about your request to permit market rates as far as savings bonds are concerned is what effect that is going to have on the very desperate condition of the savings and loans and the banks?

We have such disintermediation already from those institutions that we are having wholesale interstate, mergers, violating every intent of the law as far as interstate banking is concerned.

We are having to go to the newspapers and press trying to convince people that their holdings in savings and loans and in banks are safe, and that the Government will stand behind them with their full faith and credit.

What effect do you think raising the interest rates on savings bonds is going to have on the savings institutions?

Mr. Stalnecker. The proposal, as the administration envisions it, for savings bonds would not adversely impact thrift institutions. Let me explain what our proposal is.

Mr. Barnard. Would you mind repeating that?
Mr. Stalnecker. The proposal that the administration envisions at this time would minimize the impact of the new savings bond program on the thrift institutions. The reason we feel it would is that the market based rate that we envision paying would only be payable to those who held the savings bonds for at least 5 years so that it would be an enticement to the longer-term holders of savings bonds rather than the short-term purchaser. Most thrift institutions as well as banks get their consumer deposits in the shortterm area of the market.

We feel this longer-term instrument will not compete as directly for the small saver dollars as short-term instruments might.

Mr. Barnard. You can still buy a $\$ 25$ savings bond?
Mr. Stalnecker. Yes.
Mr. Barnard. The DIDC says if you want to achieve a market rate, on your savings you have to invest $\$ 7,500$.

Mr. Stalnecker. The DIDC is moving as quickly as it feels it can to deregulate the financial environment and allow the thrifts and banks to compete. We do not feel that the savings bond rate because of the long-term proposal we envision, will be a direct competitor for many of these consumer deposits.

Mr. Barnard. Does the administration support a faster deregulation of regulation $\mathbf{Q}$ ?

Mr. Stalnecker. I am really not prepared to comment on that. As a debt manager I am not really in a position to comment on that on specific issue. I would say, generally speaking, the administration is against any kind of artificial interest rate ceiling and regulation Q would certainly be one of those.

Mr. Barnard. Thank you.
Mr. Stalnecker. I would also point out, Mr. Barnard, that the minimum denominations that the DIDC has set for some longer term deposits are significantly smaller than the $\$ 7,500$ on the 3 month instrument or the $\$ 10,000$ for 6 months.

The longer term instruments that someone might want to purchase from a thrift institution would be available in a smaller denomination.

Chairman Fauntroy. Thank you. As you can see, Mr. Stalnecker, you have stimulated a number of questions on the part of the subcommittee.
I am going to resist the temptation to continue questioning you now, but I hope that you will respond to a number of other questions which we would like to submit to you in writing.
Mr. Stalnecker. I will be happy to.
Chairman Fauntroy. We want to thank you, sir, very much for your testimony and for the kind way you have responded to my questions.
Mr. Stalnecker. Thank you.
Chairman Fauntroy. Next is Stephen H. Axilrod, Staff Director of the Office for Monetary and Financial Policy, Board of Governors of the Federal Reserve System, and Mr. Peter Sternlight, managing director of the Federal Open Market Committee and senior vice president of the New York Federal Reserve Bank. Would you both come forward so that we can receive both your testimonies and then have you respond to questions.
STATEMENT OF STEPHEN H. AXILROD, STAFF DIRECTOR FOR MONETARY AND FINANCIAL POLICY, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
Mr. Axilrod. Mr. Chairman and distinguished members of this subcommittee, it is a pleasure to appear before you today to participate in your hearings on debt management. Management of the public debt is of course the Treasury Department's responsibility, not that of the Federal Reserve, although Federal Reserve banks do serve as fiscal agents for the Treasury in its financings. The division of responsibility whereby the Treasury concentrates on debt management and the Federal Reserve on monetary policy helps insure that monetary policy can be implemented without the complications, not to say possible temptations, that would be involved in an intermingling of debt management and monetary responsibilities.
Debt management operations are not unimportant to the Federal Reserve, however, in the sense that an effectively functioning U.S. Goverment securities market is needed if we are to be assured that our open market operations-carried out mainly in U.S. Government securities-can be efficiently employed to meet basic reserve and money supply objectives. We do have such a Government securities market now, and indeed have had for a very large number of years. Thus, the division of responsibilities between the Fed and the Treasury has worked well. There have been no pressures on us to in effect monetize debt by acquiring debt at the initiative of sell-
ers, and we have been able to confine the size of our open market operations to those needed to meet reserve and money objectives.

The value of this wall between debt management and monetary policy becomes even clearer in the perspective of an earlier period when the wall had in practice been breached. In the years during and immediately following the Second World War, the Federal Reserve had agreed with the Treasury that it would peg the level and structure of interest rates on Treasury securities to the end of keeping the interest cost on the Federal debt down. This meant that the Federal Reserve in effect could not avoid monetizing debt if interest rates reached the support level. At that point the Federal Reserve would be forced to purchase securities offered to it on the initiative of market participants, whether banks or the nonbank public, thereby adding to reserves and money. The problems with such a less than arms-length relationship between the debt managers and the monetary authority became especially evident around the time of the Korean war. At that point, it became impossible for the Federal Reserve to restrain growth of money and credit in face of growing inflationary pressures unless the peg were removed and the public prevented from turning securities into money at will.
Freedom for the Federal Reserve to manage bank reserves and money was restored in 1951 when the Federal Reserve and the Treasury reached an accord. Under the accord, the Federal Reserve withdrew its wartime commitment to support Treasury financings by pegging interest rates. Henceforth, the Treasury would have to meet the test of the market and pay whatever interest rate was consistent with the underlying balance between credit demand and the public's propensity to save.

For a number of years thereafter the Federal Reserve did have a so-called even keel policy in relation to Treasury financings. This meant that for around a week before and after major refundings the Federal Reserve would refrain from making significant changes in money market conditions, which were used at that time as short-run operating guides, so as to avoid unsettling markets while the Treasury was in process of selling and the market was in process of distributing new securities. The impact of even keel on monetary policy operations should not be exaggerated, however. It served at most only to delay for a very short while, or to accelerate, action that was in train in any event.

The even keel approach seemed desirable in part because the Treasury was offering notes and bonds by subscription, rather than by auctions, in a -Treasury market that, it was still feared, was relatively thin. The subscription technique involved setting a fixed interest rate and price on a Treasury offering at the time when the security offering was announced, which was some days before subscriptions for the issue were submitted by the public. The Treasury of course priced the security to sell at the going market rate, but even keel provided some protection against failure of an issue in this sensitive market area. Moreover, once the dealers obtained the issue at the price set by the Treasury, they could be generally assured of a few days of relatively stable financing costs to facilitate the process of redistributing securities to ultimate investors.

As I mentioned, the practice of even keeling by the Federal Reserve was not an impediment to attainment of longer run monetary policy objectives. Nonetheless, it was an operational complication and its limited role and purposes were often misunderstood. As a result, the Federal Reserve increasingly sought to move away from even so indirect and temporary a connection between its monetary operations and debt management.

The growing depth and resiliency of the U.S. Government securities market, and in the early 1970's adoption by the Treasury of an auction technique as the general rule for coupon issue financings, facilitated the withdrawal of even keel. Under the auction technique, there is no timelag between the setting of the interest return and submission of bids. Moreover, the auction itself provides the mechanism through which an underwriting spread would competitively emerge to the degree needed to balance the risks to dealers in distributing new securities to ultimate investors.

Thus, arrangements between the Treasury and the Federal Reserve entail a clear and logical division of responsibilities. The Treasury manages debt; the Federal Reserve manages reserves and money.

Federal Reserve open market purchases and sales of securities are, therefore, determined solely by the Federal Reserve's target growth rates for the monetary aggregates and by the relation between those growth rates and the System's securities portfolio. That relation in turn depends on the mix of money supply that emerges as between currency and bank deposits, on the mix of deposits as between those that require relatively more reserves and those that require relatively little or none, and on the extent to which reserves are provided otherwise through discount window borrowing and certain other sources. The Federal Reserve, of course, has to acquire Government securities on a one-for-one basis to support expansion in currency and on a fractional basis to support expansion in deposits, with the fraction depending on the prevailing reserve requirement structure. When reserve requirements are lowered-as they have and will be during the 1980's as the Monetary Control Act of 1980 is phased in-the supply of reserves must be lowered to prevent an undesired increase in the stock of money. Such a reduction in reserves would be accomplished by the sale of securities from the Federal Reserve System's portfolio.

Because of changes in the variety of factors that influence our securities portfolio-including as noted above borrowing at the discount window, reserve requirements, and the currency and deposit mix-growth in our holdings is rather variable from one year to the next.

In 1981, these various influences led to a net increase in Federal Reserve holdings of securities, largely U.S. Government securities but to a small extent Federal agency obligations, of about $\$ 9$ billion. Of course, the total volume of Federal Reserve transactions in securities is many times the net increase in holdings over a year, since transactions are necessarily undertaken in the course of a year to offset changes in highly volatile exogenous factors that provide or absorb reserves in the short-run, such as the Treasury balance at Federal Reserve banks.

With Federal Reserve purchases of securities determined solely by monetary policy objectives, the Treasury must manage its debt so as to make its offerings attractive enough in terms of yield and other characteristics to induce private sectors of the economy to acquire them. Last year, for instance, net issuance of U.S. Government debt amounted to $\$ 981 / 2$ billion. To market this net new debt, not to mention refunding a much, much greater volume of maturing debt, securities were offered in all maturity areas-short, intermediate, and long-to fit the varying portfolio needs of banks, other financial institutions, nonfinancial businesses, trust funds, and individuals. The debt management task was accomplished with skill, and the securities were marketed in an orderly fashion at prevailing interest rates.

The availability of a large and diverse body of potential investors in U.S. Government securities provides the basis for the continuing ability of Treasury debt managers to design and sell attractive, marketable instruments. The existence of this market-because it eliminates dependence of the Treasury on the central bank as a buyer of its securities-also represents a continuing safeguard against any temptation to erode the clear and beneficial separation of responsibilities between debt management and monetary policy.
Thank you, Mr. Chairman.
Chairman Fauntroy. Thank you, Mr. Axilrod. We will proceed now with Mr. Sternlight's testimony and then if you will remain we would like to query both of you.

## STATEMENT OF PETER D. STERNLIGHT, SENIOR VICE PRESIDENT, FEDERAL RESERVE BANK OF NEW YORK

Mr. Sternlight. Thank you, Mr. Chairman, and members of the subcommittee. I am pleased to have this opportunity to participate in your hearings on U.S. debt management policy. I am a senior vice president of the Federal Reserve Bank of New York and manager of the Federal Reserve System Account for Domestic Operations. My responsibilities include direction of the Federal Reserve's open market operations in the Government securities market, in order to carry out monetary policy under instructions from the Federal Open Market Committee. In addition to being involved for a number of years with the Federal Reserve's open market operations, I also served for 2 years as Deputy Under Secretary of the Treasury for Monetary Affairs, where debt management was one of my chief responsibilities.

In carrying out Federal Reserve monetary policy, the New York Fed's trading desk is a substantial participant in the market for Treasury Securities. Last year, the Federal Reserve System's trading activity included about $\$ 23$ billion of outright purchase and sale transactions, as well as a much larger volume of repurchase agreements or matched sale purchase transactions to effect temporary additions or reductions in reserves. The Federal Reserve System's holdings of Treasury securities at the end of last year were about $\$ 128$ billion. Our trading desk also arranges a large volume of transactions in Government securities on behalf of foreign central banks. Indeed, some of the Federal Reserve System's own
transactions are arranged directly with foreign official accounts, at current market prices.
In addition to actual trading activity, the New York Fed's trading desk also serves as a channel of information for the Federal Reserve and the Treasury, in respect to developments in the Government securities market and related markets. Such information is particularly relevant in the formulation and implementation of monetary and debt management policies, with implications for other aspects of national economic policy as well. We gather, analyze, and report on information pertaining to the activities, attitudes and expectations of dealers, investors, and other market participants. Our gathering of information includes data on prices and interest rates, and on volume of activity, positions, and financial soundness of some 3 dozen primary dealers in U.S. Government securities. Beyond the collection of statistics, we exercise an informal surveillance role over the Government securities market, seeking information on new developments and potential proilems.
The Federal Reserve serves as fiscal agent for the Treasury in the placement and redemption of its debt. These functions are performed at every Federal Reserve Bank and branch, with the New York Fed playing a particularly significant role since the Government securities market is centered there. Typically, 70 to 90 percent of Treasury issues are awarded in the New York district. New York's share of the total bidding for Treasury issues sold at auction is even greater, as there is usually a sizable margin of underwriting bids from major financial market participants that are below the accepted range of prices but are there just in case. Some underwriting bids are of course also submitted in other financial centers.
There is a long history of close consultation on debt management questions between Treasury debt management officials and officers at the Federal Reserve's trading desk. Some of the consultation is of a relatively routine nature, having to do with the particular timing or other technical details of Treasury securities sales. There is also discussion, at times, of the type and size of issues to be sold, and of the techniques to be used in those sales. Usually, one or two representatives from the Fed's trading desk sit in with the Treasury's debt management staff when the Treasury is developing its plans for quarterly coupon refunding operations.
The Federal Reserve's role in such discussions is strictly advisory. The debt management decisions are of course those of the Treasury. At the same time, it is worth underscoring that while we at the trading desk have a concern with the orderly management and marketing of the Treasury's debt, our overriding concern is with the implementation of monetary policy, as determined by the Federal Open Market Committee. Our role as fiscal agent and adviser to the Treasury is subordinate to, but in my view not inconsistent with, our primary mission of carrying out monetary policy. Most particularly, I would emphasize that Treasury debt issues, in the Fed's view, must stand on their own in the market.
Against this background, I would like to make a few general comments about Treasury debt management. Obviously, the management of a trillion dollar, and rapidly growing, debt is no simple task. A trillion dollar debt is substantial, even in a $\$ 3$ trillion economy. Given the magnitude, growth, and wide dispersion of the

Treasury debt throughout the national economy-and indeed the world economy-the Treasury's debt management policies are of no small importance. On the whole, I believe the job has been handled well. An enormous volume of debt has been marketed through what appears to be a highly efficient mechanism. Primary reliance on an auction technique, open to a variety of different types and sizes of participants, provides good assurance, in today's competitive markets, that the Treasury-and ultimately the public-are well served. This is not to say that there could not be a useful place, in suitable circumstances, for other selling techniques such as the large subscription issues undertaken several years ago.

Under the auction technique used most heavily in recent years, primary dealers play a highly important role. Bidding at prices or rates based on their market judgments, the primary dealers take down, for subsequent distribution to investors or other holders, a sizable part of the Treasury's offerings. Typically, the dealers might account for 35 to 75 percent of the issues on initial sale to the public. Also of considerable significance, primary dealers typically feel a sense of responsibility to provide "underwriting bids" again at prices and rates of their own choosing, even at times when current market prices and rates are not particularly attractive to them. The practice tends to assure the Treasury of getting its auctions covered, at some price, even in periods of difficult markets.
The Treasury has also done well, I believe, to continue seeking the restoration of a better maturity balance in its debt structure. It has done this in recent years by steadily lengthening the average maturity from the low point reached in 1975-after several years of not being able to issue longer term debt because of the interest rate ceiling. A very short-term debt structure is somewhat akin to an overabundant money supply in leaving the economy with too much liquidity readily at hand. Moreover, it leaves the Treasury more vulnerable to the willingness and ability of the market to roll over its debt, the greater the portion that must be refunded each year. It would be desirable, I think, for the debt managers to continue to be able to make progress in extending the average maturity of the debt, through continued access to the longer term market.
Another desirable feature of debt management practices in recent years has been the establishment of regular patterns of debt issuance-such as the cycles of $2,4,5$, and other note maturities, and the fairly regular offerings of coupon issues in quarterly refundings. When the market is able to anticipate approximately what the Treasury is likely to offer, and to some extent prepare for it, market participants are likely to have a better appetite for the Treasury's offerings. This need not freeze the Treasury immutably into a pattern of debt offerings dictated by market expectations, but it does strongly suggest that variations be carefully evaluated, and sounded out ahead of time, if possible, with market participants.

In the overall scheme of national economic policy, debt management probably has a more circumscribed role to play compared with general fiscal or monetary policy. For example, rather than seeking to be contracyclical, debt management policy is probably better directed, in the long run, to achieving and maintaining an orderly structure of the debt-as I think it has been in recent
years. It does not follow, though, that debt management makes little difference-since mismanagement of the debt most assuredly could impact adversely on the financial markets and the econo-my-making it much more difficult for fiscal and monetary policies to achieve desired objectives. For this reason, I would be quite wary of making wholesale changes in a debt management approach that I believe has been serving the Nation reasonably well.

That concludes my statement, Mr. Chairman.
Chairman Fauntroy. I thank you, gentlemen.
In the February 1982 issue of Money, Banking, and Credit, Milton Friedman accuses the Fed of what he calls churning. He says that the open market desk in 1980 made $\$ 184$ worth of purchases in order to add $\$ 1$ to its portfolio. He further suggests that the Fed's open market operations could be drastically reduced with no ill effects. Would you comment on his article?
Mr. Sternlight. I have glanced at that article, Mr. Chairman. The figures that Professor Friedman cited there I think overstate what the trading desk typically does in the market. It included a large volume of transactions that we undertake pretty much on a routine daily basis with foreign official accounts more or less for the purpose of giving those foreign accounts a day-to-day outlet for their very short-term holdings of funds.
Nevertheless, his point, even if restated in terms of what the desk did in the market, would come out to a large number. The volume of transactions, including our short-term operations through repurchase agreements or matched sale purchase transactions last year, for example, were on the order of $\$ 300$ billion while, if you want to measure that against the annual change which was about $\$ 8^{1 / 2}$ or 9 billion, yes, indeed that is a sizeable amount of short-term activity.
What we are doing there is responding in a defensive or counteracting way to a number of short-term influences that affect the availability of reserves from one week to the next or one month to the next. Sometimes even within a week there can be seasonal patterns, although those would be of much less concern to us. But you do have seasonal flows of funds in the economy. For example, there is a need for currency supplies in the Christmas season or Easter season or vacation times.
For us to fail to offset those needs for currency and the reserve impact that those currency flows generate would impose very drastic changes on the availability of reserves in the economy, and I think would be rather inconsistent with the Fed's basic mission from the Congress of maintaining an elastic currency, if I recall the words in the Federal Reserve Act.
So, I would regard that sizable volume of short-term activity as a kind of housekeeping response to keep a reasonably smooth functioning of the Nation's financial markets.

Chairman Fauntroy. Gentlemen, I have a number of concerns about the interest rate futures market. Its volume had exploded in the last 2 years when compared with other futures or contracts. How has this interest affected the Treasury's ability to borrow and how has it influenced the open market operation? Should the futures market be more regulated than it is presently? Should it be
regulated by the Fed and the Treasury instead of the Commodities Futures Trading Commission?

Mr. Sternlight. If I might comment on that one, Mr. Chairman, the futures market, as you noted correctly, has grown very substantially. It is clearly having an impact on the Treasury securities market. I must say that I have not made up my own mind in a definitive way on every aspect of what that impact is. I think it has in some respects broadened the liquidity of the market by providing a place that market participants can hedge positions and to some extent speculate, if that is their business judgment.
I cannot escape some feeling that at times the futures market also adds to the volatility of rates in the cash market. I am not sure I could prove this to the staff of this committee or the academic community or perhaps even some of my own associates at the Federal Reserve or Treasury, but I have a feeling that there is some impact of that nature.
It might be said that the futures market diverts capital and breadth of participation from the cash market, but I think it also, as I noted, provides another outlet for cash market participants. Probably some of the capital that flows to the futures markets would most likely not have come to the cash market in any event even if there were no futures market.
The futures market is very much welcomed by the dealer community, after a kind of mixed and skeptical response at first. I think the dealers now regard the futures market as a very welcome development, as a place where they can hedge positions or take positions, and it helps them to cope with rates that are rather volatile in the market these days although, as I say, at the same time I have some suspicions the futures market may add some to that degree of volatility.
Another thing I think the futures market does, and this gets a little technical, is that it provides a strong linkage between shortterm financing cost and long-term bond prices as many participants in the futures market are there for a fairly short-term participation in the market. They are not genuine long-term investors.
The viability of their short-term position in the futures in longterm securities can be very substantially affected by short-term borrowing costs. I think this may be one of the avenues through which volatility can be increased by the existence of the futures market.
I am not prepared to conclude that the futures market is an undesirable thing. I think probably on balance it is a desirable and fairly inevitable thing. But it is one that has to be watched closely. It is important to monitor the performance of that market and be aware of possible problems with deliverable supplies, sizes of positions and adequacy of margins.

You raised a question about where any regulatory authority should reside. One could alternatively imagine its being several different places. I think what is more important is that there are reasonable cooperation and exchange of information and views among all the entities that have some supervisory or regulatory authority in the area, whether it is the Federal Reserve, the CFTC or the SEC.

I think we are moving in the direction of having that kind of good exchange of information, Mr. Chairman.

Chairman Fauntroy. The bells having rung, I am going to yield to the gentleman from Texas.

Mr. Patman. Thank you, Mr. Chairman.
If you could make your answers fairly short I would appreciate that.

Possibly to both of you, how much danger is there today of this country going through national bankruptcy?

Mr. Axilrod. I would say very little.
Mr. Patman. Do you concur in that, Mr. Sternlight?
Mr. Sternlight. I would agree with that.
Mr. Patman. How much danger is there of this country's sustaining destruction of the monetary system? I think you would say there is little?

Mr. Sternlight. Yes.
Mr. Patman. Are we heading toward a period in which the monetary debt is unmanageable?

Mr. Axilrod. I don't think we are heading toward a period when the debt is unmanageable.

Mr. Patman. At what level does the debt become unmanageable in your opinion?

Mr. Axilrod. One way a debt would become unmanageable is if the Treasury had offered, for example, $\$ 5$ billion on the market and there were no takers or there were very few takers. That would be something like an unmanageable debt. But we are not faced with that situation nor would I anticipate it.

Mr. Patman. Would you consider the direction in which we are going as possibly reaching the point where the debt would become unmanageable?

Mr. Axilrod. No, sir, I would not think we are moving in that direction at all.

Mr. Patman. You are aware of the projections of $\$ 1$ trillion added to our $\$ 1$ trillion debt in the next 5 years, are you not?

Mr. Axilrod. Yes.
Mr. Patman. What if that were $\$ 2$ trillion being added to it?
Mr. Axilrod. That would put substantial upward pressures on interest rates and the Treasury would begin to have to pay very high rates to market that debt.

Mr. Patman. There would be a point where the debt would become unmanageable if we paid a 50 -percent interest rate?

Mr. Axilrod. I don't think that would be a very fortunate situation, but the Treasury would be able to market the debt and sell it, having to pay those high interest rates. However, there would be repercussions on other people who may not be able to pay that high a rate.

Mr Patman. How does the Fed implement a tight monetary policy?

Mr. Sternlight. What the open market desk does is to implement the policies of the Federal Open Market Committee and those come to us in the form of monetary growth objectives that are translated into objectives for growth in reserves of the banking system. In recent years there has been an effort to have monetary
growth slow down, and accordingly we have objectives for growth of reserves that are on a moderating pace.

When we follow that moderate pace of reserve growth and there are demands for credit expansion or monetary aggregate expansion that run ahead of that moderate pace, then you have upward interest rate pressures and what the financial community, and everyone else I suppose, observes as tight money.

Mr. Patman. I mentioned 50-percent interest. Of course that is not intended to be any sort of prediction. What is your prediction as to the highest rates by which our Government debt could be financed?

Mr. Axilrod. I don't think I should be predicting interest rates, given my position at this time.

Mr. Patman. Conceivably could you estimate any high rate at all, any outer limit of the high rates?

Mr. Axilrod. I don't really think, Mr. Patman, I want to make any kind of prediction of interest rates.

Mr. Patman. You don't predict any limitation on them? You don't predict any limits?

Mr. Axilrod. I wouldn't want to be indicating that they are going up or down.

Mr. Patman. Would you tell us how we can lower them?
Mr. Axilrod. I will be very happy to do that. I think that as the public becomes more and more convinced and evidence accumulates over time, not just over a brief period of a few months, that the rate of inflation will indeed be lower when we get on the up side of this cycle if that trend continues, then the interest rate will be lower over time than it has been in previous years when the inflation rate has been accelerating.

As the public becomes convinced that the inflation rate will decelerate and continue to decelerate over time, you will get a gradual reduction in interest rates consistent with this development. A smaller prospective budget deficit is important in that regard because it will buttress the public in their view that the rate of inflation will be coming down.

Mr. Patman. Thank you.
Chairman Fauntroy. Gentlemen, we speak on the optimistic side and leave little or no room for error. In reality actual results seldom come close to projections in the budget document. Is this a correct assumption about this year's budget policy, or is the deficit for the next 2 years closer to the CBO estimate, say, $\$ 109$ billion this year and $\$ 157$ billion next year?

I think the next marketable Treasury financing will be approximately $\$ 90$ billion in the second half of this year. A task of this magnitude will probably require that the weekly bill auctions expand to nearly $\$ 12$ billion, that 1 - and 2 -year note auctions rise to $\$ 6$ billion, and the quarterly refunding be increased to about $\$ 11$ billion, and that 4 -year, 5 -year, and 7 -year issues expand to nearly $\$ 4$ billion, and that the long-term issues increase about $\$ 3$ billion.

The dealers who must underwrite such massive new issues and investors who are thinking of buying these securities will derive little comfort from the knowledge that these budget deficits are only 4 percent of the GNP.

What impact do you expect this to have on these rates? How do you expect the market to react to this level of financing?

Mr. Sternlight. While I can't vouch for the particular pattern that you lay out, Mr. Chairman, I am sure in financing these large deficits that the Treasury will have to look at a variety of areas and they may well head toward the figures that you cite. The market has coped with enlargements of the different types of issues that the Treasury has brought to market and I think that in a growing economy the market will be able to handle increased amounts.
As Mr. Axilrod and others have said, the larger the deficit, the greater will be one of the factors putting upward pressure on rates. At the same time hopefully there are things that will be bringing rate pressures down. I wouldn't conclude that just because there will be continuing large deficits to finance, we necessarily face rising rates over the next year or two.
Chairman Fauntroy. We are joined by the distinguished ranking minority member of the subcommittee for a few moments. I will yield to him.

Mr. Hansen. Thank you, Mr. Chairman. I appreciate the opportunity to be here. I am sorry there are so many conflicting interests, which is why I was late.
I understand you are about to conclude the proceedings. I am not sure my comments would make a difference. I will let you proceed.
Chairman Fauntroy. Thank you for joining us. We have had an unusually productive hearing on this fascinating but usually unnoticed segment of the capital markets.

Mr. Hansen. I am sure they appreciate this opportunity to have a forum for their views on these important matters.

Chairman Fauntroy. Mr. Axilrod, the Federal budget messages, no matter who delivers them or what their philosophical views, have certain characteristics in common. First, rather than being objective guessers, they skew toward the results that the administration in power hopes to achieve. Indeed, one might say the administration first decides what kind of result they would like to show and then set about working their way back to the assumptions necessary to achieve those results. Additionally projected trends rarely call for anything but declining deficits. Does the use of longer term Treasury securities reflect that kind of analysis? Does it make financing the debt with longer term securities more costly in terms of reducing the deficit?

Mr. Axilrod. Mr. Chairman, in my view the deficits have been so large that there has been a great need to tap every sector of the market you could tap in order to get this debt out in what could be called an orderly fashion.
So, while in the abstract you could say that maybe you should put it all in short-term debt in the hope that long-term rates will decline later, I think that in practice, just looking at debt from a housekeeping point of view, when we need to get, like last year, $\$ 100$ billion of debt out in the public, there is a practical necessity of tapping every available investor to whom you can sell this debt and to do so you must meet his needs. Some of them have need for short-term investment. Some of them, such as pension funds, feel they are more comfortable with long-term obligations.

So, I think it is desirable to structure your debt to meet the needs of your customers. It is probably not practical to hold yourself to some sort of projections of interest rates which may or may not come true or to some more abstract theoretical concept as to when you should be short and when you should be long in the very practical situation you are faced with.

Chairman Fauntroy. The 3 -month T-bill rate averaged 10 percent in 1979, 11.5 percent in 1980, 14.1 percent in 1981. The administration forecasts the rate receding to 11.7 percent in 1982 and 9.5 percent in 1983 and 7.5 percent in 1984.

The CBO forecast is less optimistic. They see them going higher and not steadily declining. I believe that one of the main reasons for the difference in these rates is budget deficit projections. The administration projects, as you have indicated, $\$ 98.6$ billion this year, and $\$ 91.5$ in 1983, $\$ 82$ billion in 1984 . However, as I indicated, the CBO estimates a $\$ 109$ billion deficit this year, $\$ 157$ billion the next year, and even larger in 1984. My question is: Would debt management be different if the CBO figures at some point in the near future were to become a reality?

Mr. Axilrod. I think they would have obviously a lot more debt to put out. I think in that kind of situation where they would be competing with private credit demand as we come out of the current recession, they would find it complicated and difficult to place the amount of debt that they have to finance. They will have to continue the policy that I mentioned earlier of tapping every conceivable market source and paying whatever market interest rates are required to make these investors willing to buy the Treasury debt as well as helping to finance recovering economic activity by acquiring more consumer and corporate debt relative to what you have now.

Chairman Fauntroy. I wanted to make the case that the Treasury should be allowed a substantial flexibility in setting maturities, given the persistent debt levels and the short maturities of outstanding public debt. However, I am not sure that selling close to $\$ 5$ billion of bonds every quarter, market conditions notwithstanding, is necessarily desirable. Suppose we were to limit the Treasury to, say, one marketable bond financing per quarter rather than limiting the total amount outstanding, would this be desirable in your view?

Mr. Axilrod. Mr. Sternlight may wish to comment on this as well, of course, but my view would be to give the Treasury as much flexibility as the Congress prudently feels it can give and not to hold it to something which is eminently predictable-where the market can see the Treasury can't do any more, and it is in a straightjacket.

I think you can minimize the burden of the debt within the existing market structure and minimize its cost by maximizing the Treasury's flexibility in the maturity areas it can go to.

When you don't have that flexibility in the market, it is difficult for the Treasury to meet the emerging market needs. In case, where there is a desire and need for some reason to invest in longterm securities, so that you can put the securities out at a very reasonable rate, the Treasury wouldn't have the capacity to meet the demand.

One other point I would like to make, Mr. Chairman, and Mr. Sternlight mentioned it earlier. There are various concepts of money. One of the concepts we publish is something we call " L " which is liquid assets. That includes the definition of money, M1, M2, and M3, plus other assets that are substitutes for money and among them are short-term Treasury securities.
The more the Treasury is forced to put debt in the short-term security areas the more they are putting out something that is more readily convertible into spendable type money with minimal capi-tal-loss risk.
I wouldn't want to overstate this, but in a sense you are thereby feeding demand for money by forcing the Treasury into that shortterm area rather than permitting them to go into a longer term area.
Chairman Fauntroy. The Treasury's testimony, as you may have heard, mentioned that the $41 / 4$ percent bond ceiling does not apply to Federal holdings. Can either of you explain that?
Mr. Sternlight. As I understand it, there is a cap of $\$ 70$ billion on the amount apart from official holdings, whether it is by the Federal Reserve or Government investment account. They are within a few hundred million dollars of that $\$ 70$ billion limit, so they are unable now to issue any marketable-size offerings of bonds.
Chairman Fauntroy. Your view is that the Federal Reserve's holdings are included within the cap?
Mr. Sternlight. No, sir. To the extent that the Federal Reserve would purchase securities in the market, that in a sense opens up room for the Treasury to sell more, although I think it would be defeating the whole purpose of having the Treasury have that access to the long-term market if the Federal Reserve were to pursue that course of buying.
You would be kind of spinning your wheels, I think, for the Federal Reserve to go out and buy long-term securities in order that the Treasury could sell long-term securities. You would not be changing the structure of the debt that is out in private hands, which 1 think is the more legitimate objective of the Treasury debt management.
Chairman Fauntroy. In the next few years, because of large refundings of Treasury securities, as you have noted several times during the course of the hearings, the Treasury will be constantly coming into the market for new funds in relatively large amounts, as well as to refinance the existing deficit. Will this create stiff competition for funds and thus increase the volatility in interest rates? In addition I have noticed recently that the primary dealers have overpriced issues and have had to discount them to sell them. Why did this happen?
Mr. Sternlight. We do have volatile interest rates. The uncertainties about national economic policies is probably one contributing factor in that volatility.
As to whether the Treasury's offerings of debt provide stiff competition in the marketplace, yes, they certainly are competition in the marketplace. It is perhaps less of a problem while we are in a recession period than it might be as we move into a recovery phase and still have very large deficits.

Chairman Fauntroy. Gentlemen, thank you very much for the long time spent with us this morning. I know you have been here throughout the entire course of the hearings and we have benefited both from the testimony of the Treasury and your own and the questions we have tendered you.

Mr. Axilrod. Thank you, Mr. Chairman. It is a pleasure to be here.

Mr. Sternlight. I have the same sentiment.
Chairman Fauntroy. We will now recess the hearings until tomorrow morning at 10 o'clock.
[Whereupon, at 12:25 p.m., the hearing of the subcommittee was adjourned, to reconvene at 10 a.m., Wednesday, March 24, 1982.].

# PROBLEMS ASSOCIATED WITH FEDERAL DEBT MANAGEMENT 

WEDNESDAY, MARCH 24, 1982.<br>House of Representatives<br>Committee on Banking, Finance and Urban Affairs, Subcommittee on Domestic Monetary Policy, Washington, D.C.

The subcommittee met, pursuant to notice, at 10:10 a.m., in room 2222, Rayburn House Office Building; Hon. Walter E. Fauntroy (chairman of the subcommittee) presiding.
Present: Representatives Patman, McCollum, Weber, and James Coyne.

Chairman Fauntroy. The subcommittee will come to order.
On this, our second day of hearings on the management of the national debt, we will hear from individuals who are responsible for the placement of that debt as primary dealers in the private sector.
Yesterday, we heard from the officials representing the Department of the Treasury and the Federal Reserve System. Their views represent the perspective of the seller and the fiscal agent of the debt. These views are not necessarily compatable with those who are the buyers of the debt. Yet, there can be no seller unless there is a buyer. So, today we would hear from the other most important side of the transaction.
Among the issues with which we are concerned is the impact that continued high deficits will have on the ability of the Nation to absorb the debt while providing resources to increase productivity and employment as we come out of the most severe recessions since the Korean War. A corollary of that concern is the impact that these deficits have on the price which the Government must pay for the new money and to refinance its existing debt.
The increased interest rates themselves, of course, also contribute to the increased deficit. Today, we devote about 2.34 percent of our gross national product to the payment of interest on the national debt. This translates into over $\$ 114$ billion. Ten years ago, we spent 1.42 percent of our GNP for that same purpose. Quite clearly the growing use of our national resources for the payment of interest must be a matter of great concern to all of us.
So, it is with a great deal of pleasure that I welcome to this subcommittee those are a part of the private sector who work to enable the Government to command the resources to fund its shortfall of revenues. Your perspective of the market on actions by the Government, your own roles in advising in advising and assist-
ing the Government to sell its debt, and your advice to this subcommittee on how to better understand the relationships between Government finance, the private markets need and the price which all of us will pay for credit undoubtedly be heard by all of us as we seek to fashion a money and credit policy which enhances our Nation's resources and puts to work the people and productive capability of our Nation.

Before we hear from our witnesses I want to yield to the distinguished gentleman from Ohio, member of the committee, Mr. Weber.

Mr. Weber. Thank you Mr. Chairman, I don't have any statement to make other than to express our appreciation to the witnesses for being with us today on this important subject. Thank you.

Chairman Fauntroy. And I thank you. We are pleased to have our first witness Mr. David G. Taylor from Continental Illinois National Bank and Trust Co. of Chicago. We will then hear from a panel of Mr. Bunting and Mr. Napoli.

At this time, Mr. Taylor, we would be pleased for you to proceed with your testimony. We have your written statement and you may proceed in any fashion that you choose.

Mr. Taylor. Thank you, sir. I must say that I'm interested in your economic forecast. I note that you use the term "coming out of one of the most severe recessions since the Korean War'. I hope that's a correct forecast.

Chairman Fauntroy. Oh, my goodness.
Mr. Taylor. We are coming out of the recession now. Most economists feel that, and I hope that it is true.

I would like to read our printed statement.
Chairman Fauntroy. Surely.
STATEMENT OF DAVID TAYLOR, CHAIRMAN, GOVERNMENT AND FEDERAL AGENCIES SECURITIES COMMITTEE, PUBLIC SECURITIES ASSOCIATION, ACCOMPANIED BY FRANK SMEAL, GOLDMAN SACHS \& CO.

Mr. Taylor. Mr. Chairman, and Mr. Weber, my name is David Taylor, and I am associated with the Continental Illinois National Bank and Continental Illinois Corp. I am also chairman of the Government and Federal Agencies Securities Committee of the Public Securities Association, which in this testimony is referred to to as the committee. With me today is Mr. Frank Smeal who is a partner of Goldman Sachs \& Co., and immediate past chairman of the above committee.

We are pleased to be with you today to respond to your questions. We ask that you understand that our responses represent a blend of views of our own as individuals, our firms in some instances and the committee's in other instances. I believe that Mr. Smeal and I can offer responses that are generally representative of our various constituencies that I have just named. At the outset, however, I should spend a minute or two in bringing you some perspective on the committee's role as an advisor to the Treasury on debt management matters.

The committee acts as an investment banker or financial advisor to the Treasury. This role is somewhat analogous to that of an investment banking firm and a corporate client that asks the firm for financial advice as to the size, structure, and timing of its debt financing. The committee's role is rather narrow in the sense that it does not officially offer advice on monetary or fiscal policy or other broad economic matters but confines itself to judging current economic and financial trends and offering debt management advice to the Treasury within the context of these judgments. Thus, much of our testimony on broader matters cannot be officially attributed to the committee. The committee has advised the Treasury for over 30 years in a useful and responsible matter. Committee members and Treasury officials are well aware of potential conflict-of-interest problems, and both parties have initiated rules and/or procedures to guard against even a semblance of impropriety. And I'm comfortable in assuring you that the highest standards of conduct permeate every facet of our role as advisors to the U.S. Treasury.

In my remarks this morning, I will attempt to answer the questions which you posed in your letter of March 2, inviting me to appear before the subcommittee. But before I turn to each of the questions, I will discuss some of the general principles of debt management that bear on many of your questions.

The Treasury securities market is the cornerstone of the financial markets. It provides the basis upon which corporate and municipal debt is priced. Without the continuity provided by the Treasury market, financial markets would generally be less fluid and less efficient. In managing its debt, the Treasury must seek to be generally neutral in its economic effects and not aggravate the uncertainty that normally affects markets and market participants.

It has been a number of years since the Treasury's stewardship of the Federal debt has been a topic of national concern. Over the last 20 years, the major policy shift in debt management was probably the decision in 1976 to begin a gradual lengthening of the average maturity of the Federal debt. The goal of lengthening maturity has become a guiding principle in debt management, and I believe, a good one. Two other characteristics of debt management that evolved during the seventies are regularization of the schedule of offerings and use of the competitive auction technique to sell marketable debt. The Treasury has financed a vast volume of new debt in recent years. The three principles guiding debt management have apparently been successful. Through years of economic and financial turmoil, the Treasury's ability to borrow vast sums in financial markets remains unimpaired. In particular, the Treasury's almost exclusive reliance on the competitive auction technique has enabled the Treasury's offerings to be distributed smoothly to final investors even within the context of unprecedented volatility of interest rates.

With this as background, I will turn to the first question in your letter regarding the Treasury's use of long-term financing. You asked for my assessment of the reasons why the Treasury has appeared willing to sell long-term debt at record high rates. Up to this point, the Treasury's past decisions to sell long-term securities
can readily be justified by the secular rise in both short- and longterm interest rates in the United States. For illustration, consider a 25 -year bond with 20 years of call protection that was sold by the Treasury 6 years ago. In 1976, such a security was auctioned at the now-remarkable yield of 8 percent. If the financing had been done by Treasury bills the interest rate to date would have been considerably higher. For the years from 1977 through 1981, the 3 -month Treasury bill rate has averaged 10 percent and currently the 3 month bill rate is around $13^{1 / 2}$ percent. Taxpayers thus far have benefited heavily from the strategy of offering long-term debt.

It's long been a position of our committee that the Treasury's financing needs are so great that debt structure precludes a focus on market timing. In order to raise needed funds, the Treasury must tap all segments of the market in an orderly and predictable manner and cannot wait for periods of low rates or forego financing in the intermediate or long markets. Because the vast majority of its debts is still relatively short term-any decline in rates will be quickly reflected in lower borrowing costs. Should the Federal Government at some time in the future move to a surplus position in its budget, questions of market timing could then be considered.

It is a widely held view and a correct one that Treasury demands for funds in the markets put upward pressure on interest rates. We believe that the term or maturity of Treasury borrowings also exerts an influence on the term structure of interest rates. We believe that in general it is desirable for debt management purposes that a substantial proportion of Treasury borrowings take place beyond the bill area. A yield curve in which the investor is rewarded for extending his lending commitment is most beneficial to orderly debt management.

Our committee periodically reviews features and changes that might make the sale of Treasury debt easier or cheaper. These reviews have included call features, sinking funds, indexing, and a variety of other options. Our consistent viewpoint has been that these alternatives offer little advantage, if any to the Treasury's ability to raise funds and would probably result in greater cost over time.

The financial futures market has generally made it easier and cheaper to finance Treasury debt. Without the ability to hedge their underwriting risk, other market participants would be forced to make certain that interest rates were high enough to insure a high probability of gain. The financial futures market in a sense provides an opportunity for dealers to take more risk when bidding on new issues. It also is increased the liquidity of the market which helps produce a lower interest cost that might otherwise prevail.

The advent of other market innovations that have occurred in the last few years, such as money market mutual funds, market priced deposits at banks and thrifts, All Savers and I.R.A. accounts have all had an impact on direct individual ownership of the Federal debt. This is not to say that individual ownership of Treasury debt is declined, but unquestionably direct interest has waned. It must be noted that money market funds are heavy investors in Treasury and Federal agency securities.

Federal Reserve policy exerts a strong influence upon interest rates and market trends. There was a time when Federal Reserve
policy was maintained at a stable level or "even keel" through Treasury financing operations. While I am sure Federal Reserve officials are cognizant of Treasury debt operations and attempt to avoid disruptive events during these operations, there is certainly nothing now that resembles "even keel." It is probably fair to say that expectations as to future-or present-Federal Reserve intentions are the prime movers of markets either in the secondary or new issue sectors.

It is also important to note that the reality of supply versus demand is very important in influencing market trend. Thus, we have seen over the last few months that markets react adversely to potential sustained high levels of deficit financing and also react to short term oversupply situations represented by an abundance of securities in dealer inventories.

Turning now to the Federal Reserve in its relationships with the Treasury, we must begin with the change in the Federal Reserve's operating strategy in 1979. This change from pegging the Federal funds rate to controlling the growth of nonborrowed reserves has had a profound effect on financial markets here in the United States and abroad. All debt markets have felt its effects. Interest rates have moved to historic highs and experienced great volatility than any time in our history. These effects represent some of the cost of the Central Bank's determined and commendable fight against inflation as well as the uncertainties and concerns surrounding record budgetary deficits and resultant Treasury borrowings.

Naturally this enhanced rate volatility has had a broad impact on the operations of Government securities dealers. The large unhedged positions that the dealer community might have accepted 5 or 10 years ago are too risky today. When the Federal Reserve directly influenced the Federal funds rate, there was a predictable pattern of movements in interest rates over the business cycle. Dealers and other investors honed their research skills to predict where business conditions and Federal Reserve policies were likely to take interest rates. Over the last $21 / 2$ years of the Federal Reserve's new operating strategy, interest rates have not moved regularly with the business cycle. Rather, interest rates have moved erratically and widely as the Federal Reserve has worked to stabilize the rate of growth of money.

The problems of operating in a fundamentally new environment were difficult for the dealer community as well as other market participants. The adjustment process continues. For the Treasury's part, even before the advent of the new operating strategy the Treasury recognized that the Federal Reserve had largely abandoned its direct efforts to assist the Treasury in its financing. The period of "even keeling" whereby Fed acted to keep market conditions stable during periods of heavy Treasury financings were over well before October 1979. The Treasury's borrowing had become so persistent and so large, that the Federal Reserve would have had little flexibility in conducting monetary policy if it limited policy moves to periods when the Treasury was not in the market with new offerings. In addition, Federal Reserve support of treasury financing could at times be highly inflationary.

With even keeling over, the Treasury already adapted its techniques of marketing its debt to an environment where the Federal Reserve provided little or no support. Key among the changes have been the two I mentioned at the outset of my remarks: The use of competitive auction technique and regularization of offerings. Competitive auctions can be contrasted with the subscription technique where the Treasury sets the yield on the security before it accepts tenders. In an auction, dealers and others submit tenders specifying the amount of securities willing to be purchased at specific yields. This relieves the Treasury of making an independent determination of market conditions. The regularization of offerings permits dealers and others to anticipate coming Treasury issues.

The financing of multibillion dollar deficits is never easy. The United States is fortunate that it has an economy and a financial infrasturcture that is capable of accommodating the huge demands of its Governments as well as its private borrowers. It is vital to the ongoing health of our economy that the needs for funds of all of our borrowers be met as inexpensively and efficiently as possible. As the largest borrower, the U.S. Treasury must continue to observe the principles of debt management that have enabled it to fund our Government while minimizing the effect on the economy and other borrowers. Concurrently, the Federal Reserve must continue with its policies designed to provide an appropriate supply of money and slow the rate of inflation. It must be recognized that our long range goals cannot be achieved without some shortrun costs. High interest rates and substantial volatility of rates are but two of these.

Frank Smeal and I wiłl be happy to respond to your questions.
Chairman Fauntroy. Thank you, Mr. Taylor, for your very clear testimony. I have several questions I'd like to tend to you. And the first is how much support should the Federal Reserve provide the Treasury in the sale of its debt? I'm not suggesting that the Federal Reserve should seek to monetize any of the debt, but I am interested in knowing whether the Feds should buy the long-term bonds from the Treasury to avoid the problems associated with the 70 billion dollar limit on long-term bonds at $41 / 4$ percent; or whether the Feds should seek to provide some "even keel," as it's called. Or, whether some additional regulation of other financial instruments, such as the money market funds, sweep accounts, cash management accounts should be considered.

Mr. Taylor. Well, we could spend a good part of the day on that question, sir.

Chairman Fauntroy. That's why I asked you first.
Mr. Taylor. Frank, would you like to answer and give my voice a little rest.

Mr. Smeal. First I'd like to associate with Mr. Taylor's testimony. I think you've already heard from the people at the Central Bank-the Fed-that the monetary and debt management policy should be conducted independently as much as possible.

Even keeling was abandoned because the Treasury is constantly in the market, it would be necessary for the Fed to be constantly in the market to support Treasury financing. The market had been doing quite well on its own without Fed support. If the Fed were to conduct monetary policy with the intent of supporting Treasury
financings it would be inevitable that they would artificially manage the level at which financings were done, and monetize the debt in spite of a wish not to do that. We think the market can do really quite well without Federal support. If the Fed should buy long-term bonds in support of Treasury financing this too would create artificial markets. We are quite pleased to have the Fed use Treasury vehicles for the purpose of managing money, not for the purpose of managing the price or the availability of money to the Treasury.

Mr. Taylor. I think we feel that the Fed must certainly be cognizant of Treasury financing operations and avoid disruption to the rnarkets immediately preceding or after Treasury auctions, periods of heavy Treasury financing. I think it's fair to say the Fed is very cognizant of the Treasury's financing schedule, and in general, suprises to the market are avoided during the times of Treasury finance. I think we think the relationship is very good, and works very well.

Chairman Fauntroy. If we were to attribute the historic highs in interest rates to, at least partially the change in the Fed operating strategy, I'm referring to the October 1979 decision to which you make reference, to target monetary aggregates instead of interest rates. I'd like to know whether or not one would then support a return to the targeting of interest rates should the Fed reserve its decision and now target interest rates instead of the ends?

Mr. Taylor. A very difficult question, and I think that my answer would be no, they should not return to the old methods of targeting interest rates. If the focus of the battle is truly going to be inflation, and if you associate inflation with monetary growth rates, and I guess I believe there is a correlation. Then the Fed probably really has to be focused on growth in the money supply, and if that's the case we're going to continue to have fluctuatingbroadly fluctuating interest rates. So I guess I would say we pretty much have to live as we are, although I would think that over a period of time as inflation wains that the rates-the rate pattern should smooth out somewhat. I think I view the last couple of vears as an aberration in a longer term trend.

Mr. Smeal. I like the change in procedures from focusing on rates to focusing on money. The objective was to get better control of the money supply, and thereby reduce inflation. And there is, of course, ample evidence that they have succeeded in the larger prospective in this objective. Surely inflation has dropped dramatically from 14 percent to the figures reported yesterday. Whether or not this way of managing the money supply has introduced an element of volatility in markets; whether or not interest rates are higher because of this, is quite another question. Rates are certainly more colatile. The ups and downs are far greater, perhaps because they reflected the volatility of money itself. Whether this is the best process is subject to much discussion at this stage of the game. But if there is a better way, certainly it is not to go back to the old system of trying to manage the money supply, control inflation, and have some impact on the economic conditions by focusing on interest rates alone which was really not effective.

Chairman Fauntroy. Mr. Taylor, in your statement you mentioned that committee members and its Treasury officials are well
aware for the conflict in interest problems, and both parties have initiated rules or procedures to guard against even semblance, as you say of impropriety. Can you tell us precisely what rules and procedures you have, and how they are enforced? If you could make them available to the subcommittee in such written materials as you may have it may be helpful.

Mr. Taylor. We might be able to find the material or prepare them for you.

First of all, the committee is an advisory committee so that our activities are governed by the Federal laws and regulations that govern advisory committees. Notice of our meetings and an agenda is published in the Federal Register. An official from the Treasury is present whenever we meet. I believe that that part of it is governed by Federal regulations. We do meet four times a year. We come to Washington, D.C. each quarter. We arrive Monday evening, or we try to. The first official meeting is generally Tuesday morning at which time we meet with the Treasury and we receive a briefing on current conditions, the anticipated cash needs, and other items pertaining directly to the debt. We then adjourn to another meeting where we receive an economic briefing by Treasury officials. The Under Secretary for Monetary Affairs usually attends that session and gives the committee its charge, which is a series of questions Treasury officials would like to have our responses to. We then adjourn, have lunch, meet that afternoon and the committee chairman gets to spend the night writing the report which is presented on Wednesday morning to the Under Secretary and frequently the Secretary himself.

During that period of time, the 48 hours from Tuesday morning until the public announcement of the Treasury's refunding intentions on Wednesday afternoon, we are basically not permitted to contact our offices. That has been a longstanding rule of the group, one that I believe is followed to the letter. If there is some type of an emergency or something like that or an individual needs to contact his office, we generally sit down with him and monitor his conversation with the home office. I should also add that the information which we receive is included in the Treasury's press conference on Wednesday afternoon when they announce the refunding intention. Thus, we are insiders only for a short period of time. After the Treasury's press conference on Wednesday we lose that insider relationship, because the information we've received has basically been made public. Would you add to that?

Mr. Smeal. Yes. In the 30 active years of this committee, there has been no instance of what might be regarded as a leak from the committee. That is to say, no information moving from the committee during discussion with the Treasury on the financing to the markets has been prematurely divulged.

The second thing, Mr. Chairman, and Dave, I might suggest that we provide the subcommittee with two documents; one, this committee is reconstitued annually and all members are charged with the things that Dave spoke about. I think it might be of interest to the subcommittee to have a copy of the document that imposes on our committee members the rules he talked about. The second is, a copy of the letter we furnished the Treasury Secretary just about a year ago when the charter of this committee was up for renewal.

In that letter, which is of course proprietary, but the substance of it can be printed to the committee, the question was asked: What is the role of this committee in advising the Treasury? I was then chairman of the committee, and our response to the Treasury Secretary might be useful.

Chairman Fauntroy. Yes, may I request that you provide us with that and we'll insert it at this point in the record. You do anticipate some of the questions that I had had on the committee. [The material referred to follows:]

The Honorable Walter E. Fauntroy
Chairman, U.S. House of Representatives
Subcommittee on Domestic Monetary Policy
of the Commitree on Banking, Finance
and Urban Affairs
Suite H2-179, House office Bldg. Aunex No. 2
Second and D Streets, S.W.
Washington, D.C. 20515
Dear Mr. Fauntroy:
Frank Smeal and I enjoyed testifying before your Subcoumittee on March 24. It is gratifying when called upon for this type of testimuny to find a high level of interest among the Congressmen.

You will recall that you asked me to submit some information on rules of the Public Securities Association Government and Federal Agencies Securities Committee that $I$ feel prevent conflicts of interest or other problems. I am enclosing a copy of my letter of invitation to Committee members for the current year which will give you some idea of our rules. Further edification may be gained from a letter that Mr. Smeal sent to Bery1 Sprinkel in early 1981. Because this letter was addressed to Mr. Sprinkel, it would be inappropriate for me to provide a copy to you. It is my understanding, however, that Mr. Sprinkel has agreed to share it with the Subcommittee and that Mark Stalnecker will produce it for you.

In addition, you requested some samples of our Committee reports to the Treasury. Again, these reports are directed to the Secretary of the Treasury and the decision to release them would be his. It is my further understanding that Mark Stalnecker will furnish some of these reports to you.

Again, it was a pleasure to appear before your Subcommittee.

DGT: EMH


Copy to Mr. Frank P. Smeal
Mr. Mark Stalnecker
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## CONTINENTAL BANK



January 4, 1982

[^1]As Chairman of the Govermment and Federal Agencies Securitiea Committee of the Public Securities Association, serving with Jack Runnion as Vice Chairman, I am pleased to ask you to continue to serve on this Comittee during 1982.

The principel, if not the sole, objective of this commitee is to contribute your professional experience and personal judgment to assisting the Treasury in financing and refinancing US Governent debt.

Service on the Comittee is everywhere regarded as a privilege carying the responsibility to adhere scrupulously to the highly confidential relationahip that must exist with the Secretary-of the Treasury and his associates. It is our custom to begin each year by restating the conditions under which the Committee functions in order to avoid even the slightest hint of impropriety or indiscretion.

First, Commitree members should avoid all contact, including telephone calls, with their offices or other financial market participants from the start of our meetings with Treasury officials until after the Treasury discloses its financing decisions on Hednesday afternoon at about 4 PM. In the event that some overriding emergency requires communication uith a member's office, he should clear this with the committee Chairman.

Second, we make it a rule not to discuss the Comittee's decisions on a financing recommendation uith anyone, not even Treasury staff, prior to the Chaiman's report to the Secretary on Wednesday morning. Finally, we should all continue to observe the prohibition on disclosing Comittee
recommendations, points of view within the Comittee, or whether or not the Treasury followed our recommendations, at any time with non-Committee members, even with respect to past financings.

This is a very stiff code of conduct designed to protect the Treasury and our Committee from unwarranted suspicion and criticism.

The initial 1982 meetings are scheduled for Monday, January 25, to Wednesday, January 27. A detailed agenda will be sent to you shortly.

A list of members invited to join the Comittee for 1982 is enclosed.
One additional matter concerns the fact that it has been customary that a portion of the Committee's meeting expenses be covered by its membership. Accordingly, would you signify acceptance of your Committee appointment by forwarding to my office as soon as possible a check in the amount of $\$ 150$ payable to me. At any time, of course, you may request an accounting of these funds.

Kind regards,

David G. Taylot
Chairmen
Government \& Federal Agencies
Securities Comittee
Public Securities Association
Enclosure

THE UNDER SECRETARY OF THE TREASURY FOR MONETARY AFFAIRS

WASHINGTON, D.C. 20220
Apini1 15, 1981

## Dear Frank:

As part of an analysis of treasury operating policies and procedures, Secretary Regan has requested a review of all Treasury Advisory Committees. The purpose of the review is to consider a more efficient utilization of some committees and the possible consolidation or elimination of others. Since the charter for the Government and Federal Agencies Securities Committee expires in May, and to assist us in this review effort, we would appreciate your input regarding the contributions made to Treasury debt management and related areas by your Committee and any changes in the Committee's functions that you might wish to suggest. In addition, we would appreciate your thoughts on the relative merits of the current structure of the Comittee, the timing of its meetings, or any other procedural matters.

While I do not envision this subject being formally discussed during the Committee meetings in late April, $I$ ask that input from your Committee be provided no later than May 8 to enable us to review the information prior to the expiration of the charter.

I appreciate your assistance in this review and $I$ look forward to seeing you in Hashington at the end of the month.

Best wishes,


Mr. Frank P. Smeal, Partner
Goldman, Sachs \& Co.
55 Broad street
New York, NY 10004

Goddman, Sachs \& Co. 155 Broad Streel I New York, New York 10004 Tel: 212-676-8688

Frank P. Smeal
Partuer

## April 20, 1981

Mr. Beryl Sprinkel
Under Secretary for
Monetary Affairs
Department of the Treasury Washington, DC 20220

Dear Mr. Secretary:
This is in response to your request that we review the role of the U.S. Government and Federal Agencies Securities Committee as advisors to the Treasury on debt management.

This Committee, as you know, is a committee of the Public Securities Association. The only substantive requirement for membership is demonstrated and articulate ability, consistently maintained, to contribute in a significant way to advising the Treasury on financing and refinancing the Federal debt. This condition can only be met by those actively involved in a senior position in debt markets as investor, investment advisor, banker or as a dealer, bank or non-bank, in debt securities. All members, past and present, have had direct and daily involvement in the market for the securities of the U.S. Government and its agencies. All but 9 members are dealers who are recognized by the Federal Reserve Board for purposes of conducting open market operations and all such members are also members of the Association of Primary Dealers. Membership, new and continued, is determined in periodic meetings of the Chairman, Vice Chairman and all of the active former Chairmen of the Committee with the approval of the Treasury. Subject to the condition that all members must be highly competent, experienced and actively involved in financial markets, some effort is made to get regional representation so that Comittee views are a reasonable proxy for nationwide views. As far as possible, too, some balance between banks and non-bank dealers is sought. The presence of a larger number of banks than non-bank dealers on the Committee reflects the relatively larger number of banks who deal or invest in the securities of the U.S. Government and its agencies. From time to time, members are added or deleted to reflect changing responsibilities and to

Mr. Beryl Sprinkel
Pag.e 2
April 20, 1981
provide for a rotation of membership in areas where more than one qualified candidate may be available. Although membership is based primarily on personal qualifications, an association with a significant financial institution is also a consideration. No institution is presumed to have a "seat" on the Committee.

The Committee's image as a technical advisory committee-: . trained, experienced, and actively involved in debt markets-is appropriate. Although membership on this Committee has been a mark of great personal prestige in the financial community, members have been proud of the opportunity to apply their skills and experience to the efficient and economical management of the Federal debt in the public interest.

The Committee's traditional role has been performed by meetings with the Treasury during the time of quarterly refundings. Questions addressed in the form of a "Charge" by the Treasury include:

1. Size of the quarterly financing.
2. Amount of cash to be raised.
3. Appropriate cash balances.
4. Size of issues.
5. Maturity of issues.
6. Appropriate sales techniques, such as yield or price auction, fixed price subscription issues, reopening of outstanding issues or sale of new issues.
7. Scheduling of sales.
8. Appropriate relationship between bills and coupons.


#### Abstract

9. Size and frequency of cycles. 10. Call provisions.

In addition to these specific technical questions, the Committee advises the Treasury on the nature of the demand for Treasury issues, the market impact of the size of the financing or the size of any particular issue. The diverse institutional and geographical make-up of the group enables it to reflect the market expectations and reactions fairly accurately. In a wider sense, too, the Committee is a reasonable proxy for how the financial community views and might react to Administration, fiscal and monetary policies.


In addition to its periodic role in advising the Treasury on a formal basis during quarterly refundings, the Committee from time to time, at the request of the Treasury, has undertaken special studies of debt management problems. Most recently, on September 22,1980 , the Committee held a special session at the New York Federal Reserve Bank to consider "recommendations for meeting the anticipated heavy financing requirements in the October-December quarter and in 1981." (Exhibit A.) In the past, too, the Committee has made detailed studies of specific "innovative" financing techniques that the Treasury might utilize to broaden its market.

The Committee has also been the bridge that enables the Treasury to absorb staff changes when an Administration is in transition so that debt management can be conducted in an objective, consistent and non-political way.

Our most critical role, however, is to focus the Treasury and the market on debt management policies, principles and techniques on a regular, predictable basis in relation to real market events. This assures that at least four times a year all areas of the Government involved with management of the Federal debt--the Fed, the Treasury and other agencies of the Federal Government--concentrate with representatives of the market on specific problems of managing the debt. The Committee

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New York ! Boston ' Chigą̧u ! Dallas ! Dettot I Houstori I Los angetes I Memphis ! Phisacelphia I St Lous ! San Francisco

Mr. Beryl Sprinkel
Page 4
April 20, 1981
feels that a great deal would be lost if its deliberations were conducted at times unrelated to major financings so that the dynamics of the market would be lost.

Committee members do not call their offices during the period of their deliberations until after the public announcement of refunding terms, usually after the 4 PM press conference on Wednesday. Emergency calls on unrelated matters may only be made with the advice and permission of the Committee Chairman. There have been no known violations of this rule.

Although "regularization" has reduced decision-making somewhat for the time being, it is reasonable to assume that debt management problems will be different in the future, as they have in the past, and that these new decisions will probably be made or evolve from major quarterly financing decisions. The winding down of large deficits and the emergence of balanced budgets will shift the problem from raising cash to rolling over or perhaps even paying down debt. It may be that old techniques. involving exchanges and rights offerings may need to be reconsidered. The Treasury will have to be able to respond to changes in the ownership of the debt and the impact of financial institutions' unwillingness to hold longer term, fixed-rate debt and may require a review of the entire structure of the debt, including the frequency and size of cycles.

In summary response to your request, therefore, we feel that inasmuch as the membership of the Committee was revised early this year with the retirement of two senior members, the "rotation-off" of three members and the addition of four members, the present membership is appropriate. Further changes are anticipated during the next year or so, but membership in the range of $20-22$ is regarded as optimal for working-discussion purposes.

The Committee's procedures for responding to charges and for transmitting recommendations to the Treasury has been effective, and we have no present recommendation for change.

## Mr. Beryl Sprinkel

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Page 5
April 20, 1981
The scheduling of meetings at times of quarterly refundings is regarded as a major factor in the Committee's effectiveness.
The U.S. Government and Federal Agencies Securities Committee of the Public Securities Association should be viewed as investment bankers to the U.S. Treasury. As the largest issuer of debt securities in the world with an itinerant staff of debt managers on both a policy and technical level, if this relationship between the Committee and the Treasury did not exist, it would have to be created. The alternative, at best, would be higher cost Federal debt.
I, together with David Taylor, Vice Chairman of the Committee, Bob Bethke, retiring Chairman of Discount Corporation, Bob Stone, Executive Vice President of Irving Trust Company, and Dan Ahearn, Senior Vice President of Wellington Management, all former Chairmen of the Committee, would value an opportunity to discuss the role of the Committee with you in greater detail at your convenience.
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Colman Suctis

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Enclosure

## DEPARTMENT OF THE TREASURY

WASHINGTON. D.C 20220
June 23, 1981

Dear Mr. Chairman:

On behalf of the Secretary of the Treasury, I am transmitting for filing with the Committee on Ways and Means the current charter for the Government and Federal Agencies Securities Committee of the Public Securities Association. This committee is utilized by Treasury, upon request. for management of the public debt.

This charter is filed in accordance with the requirements of the Federal Advisory Committee Act
(P.L. 92-463). A copy of the charter is also being filed with the Committee on Finance of the United States Senate.

Sincerely,


The Honorable
Dan Rostenkowski
Chairman, Ways and Means Committee
House of Representatives
Washington, D.C. 20515


Assistant Secretary

## DEPARTMENT OF THE TREASURY WASHINGTON. D.C. 20220

June 23. 1981

Dear Mr. Chairman:

On behalf of the Secretary of the Treasury, I am transmitting for filing with the Committee on Finance the current charter for the Government and Federal Agencies Securities Committee of the Public Securities Association. This committee is utilized by Treasury, upon request, for management of the public debt.

This charter is filed in accordance with the requirements of the Federal Advisory Committee Act (P.L. 92-463). A copy of the charter is also being filed with the Committee on Ways and Means of the House of Representatives.

> sincerely,
> Urial Foul
> Cora P. Beebe Assistant Secretary (Administration)

## The Honorable

Robert Dole
Chairman, Finance Committee
United States Senate
Washington, D.C. 20510

CHARTER FOR THE
government and federal agencies
SECURITIES COMMITTEE OF THE
PUBLIC SECURITIES ASSOCIATION


#### Abstract

This charter is prepared and filed in accordance with the provisions of the Federal Advisory Committee Act, Public Law 92-463, enacted October 6, 1972. A. Official Title. The official title of the Committee is the Government and Federal Agencies Securities Committee of the Public Securities Association. B. Objectives and Scope. The objectives of the committee are to provide informed advice as representatives of the financial community to the Secretary of the Treasury and his staff, upon his request, in carrying out Federal financing and in the management of the public debt. The scope of activity of the Committee is to consider commercial and financial information relevant to its objectives and to consult with and advise the Secretary of the Treasury and his staff with respect to debt management operations, and to make reports and recommendations in connection therewith. C. Time period. The period of time necessary for the Committee to carry out these purposes is generally a two-day period.


D. Recipient of reports. The Committee reports to the Secretary of the Treasury or to his delegate having immediate responsibility for debt management operations.
E. Support. The Department of the Treasury is responsible for providing the necessary support for the meetings of the Committee at the Treasury Department and for maintenance of records and reports required under the Act. The expenses incurred by members of the Committee in attending Committee meetings are borne by the Public Securities Association and the individual members of the Committee.
F. Duties. The duties of the Government and Federal Agencies Securities Committee are to meet with the Secretary of the Treasury and Treasury officials, consider proposed debt management operations and develop reports and recommendations in connection with these operations. The duties of the Committee are solely advisory and no determination of acts or policy to be expressed will be made by the Committee.
G. Costs. The estimated annual dollar and staff year cost to the Department of the Treasury for the support of the Government and Federal Agencies Securities Committee is \$36,000 and l staff year.
H. Number of meetings. The Committee is expected to meet at least four times a year, at the invitation of the Secretary of the Treasury.
I. Termination date. Authority to utilize this Committee expires two years from the date this charter is approved.
J. Filing date. The charter of the Committee is filed with the Secretary of the Treasury as of June 23, 1981 and is filed with the Finance Committee of the Senate, and the Ways and Means Committee of the House of Representatives as of the date of receipt by those Committees of the transmission of the charter by the Secretary of the Treasury.

Submitted By:

Approved By:

> ghat hewer


Chairman Fauntroy. In your testimony, you indicated that the committee's role toward the Treasury is analogous to that of an investment banker or financial advisor. What precisely do you tell the Treasury? Do you make many suggestions as to the actual size of sales, timing, composition of the sales, and so forth? Does your committee keep detailed minutes, for example?

Mr. Taylor. The committee does have a secretary and does keep minutes. The minutes, I must say, are very brief. The essence of our recommendations are contained in a written report which is presented to the Secretary at the Wednesday morning session. I think it is fair to say our recommendations are very specific. We recommend the size of the issues to be offered, the way they should be offered. As I've said in my testimony, and I don't ever like to be thought of as being narrow, but we do act in a rather narrow fashion. We respond very specifically to the questions that are asked of us, so they are very specific recommendations.

Chairman Fauntroy. You say you meet four times a year?
Mr. Taylor. We meet four times a year on a regular basis. We usually have a special meeting or two. If the Treasury's secretary has specific questions that may not be specifically related to a particular refunding. We also have a strategy meeting once a year in which we look at the longer term picture and where we attempt to both strategize and improvise and do some inventive thinking about what the Treasury might do. We had such a meeting 2 weeks ago.

Chairman Fauntroy. The four meetings, are they always with the Treasury during that 2-day period?

Mr. Taylor. Always. The pattern I describe to you is followed without exception.

Chairman Fauntroy. I see. And I take the strategy means a caucus of the committee members?

Mr. Taylor. Yes. Again with the same notification in the Federal Register. A Treasury official present and the same kind of a setting.

Chairman Fauntroy. How many people are generally present at your meetings, the four?

Mr. Taylor. The committee has 26 members and it's rare that we have someone not attend.

Chairman Fauntroy. I'd be interested in whether we have-they have any contact or decision authority on security sales in your firm or before the final action and the Treasury debt sales, or at least its announcement?

Mr. Taylor. I'm not sure I understand the question.
Chairman Fauntroy. I think I heard Mr. Smeal indicate-no, it was you who indicated that none of this is available to you before the public announcement.

Mr. Taylor. We make our recommendations to the Treasury in the morning, and at around 4 o'clock in the afternoon the Treasury announces what it is going to do. We have no way of knowing whether they are going to follow our recommendations or not.

Mr. Smeal. We know the questions which could be important, and we know what our answers are. We do not know whether or not this will be accepted by the Treasury, and frequently these recommendations are not followed.

Chairman Fauntroy. I see. Where do you meet, generally?
Mr. Taylor. We meet at the Treasury and at a hotel.
Chairman Fauntroy. At the Treasury. Would you make available to us those minutes, that you reference, that you have from time to time?

Mr. Taylor. Yes; I don't think there would be any problem.
Mr. Smeal. I think they're all published as part of the record after a delay, I think it's about 3 months.

Chairman Fauntroy. Sure. After the appropriate delays. I'd just like to have a look at them for the record. All right. I want to yield now to the distinguished gentleman from Florida, Mr. McCollum.

Mr. McCollum. I'm just curious about how long your committee has been in existence to follow up on the chairman's questions?

Mr. Smeal. We believe about 30 years.
Mr. Taylor. Since the development of Treasury financing in the postwar period, I believe.

Mr. Smeal. We say 30 years partially because prior to 1952 , which was 30 years ago, debt management was conducted under conditions in which the Fed agreed to maintain the long-term price of securities. There was no real substantive role for an investment banker to give input to the Treasury then.

Mr. McCollum. I want to change the topic somewhat. At the weekly auctions that Treasury has what would be the consequences of imposing a ceiling on interest rates paid by the Treasury or on some or all of its obligations if that interest rate ceiling were to float some measure of inflation? Mr. Taylor, have you got any thoughts about that?

Mr. Taylor. The markets are so big that you can't push them around. If that ceiling imposed a limit that was too low, the Treasury simply would not be able to sell its debt because nobody would bid for it. There are numerous examples of this in the municipal securities market because in most States there are interest rates ceilings imposed by the legislature. Thus, frequently over the last 2 years, municipalities have been unable to finance simply because they could not get anybody to bid for their issues at below market level rates.

Mr. McCollum. Suppose a ceiling was reached gradually over a period of time to establish relationship between inflation and some fixed place, you know historically. I'm trying at history. We've had a relationship between inflation and interest rates in our country. In our distorted marketplace of money today, interest rates seem to be abnormally above that area. And, the curiosity question of the day of the psychological forces, people will be talking about the psychology of the marketplace. Possibly the Government debt is a major factor in that, both real and psychologically.

What I'm really driving at and wondering about if we were to take a basic point at which interest rates are today, derive some measurable design on where we would like them to be, the Treasury pays out and where we would like them to be in terms of historical inflation. Could we not start at some point of the ceiling so there's not an effect, even over a period of weeks branch it down to fractional percentage point and reach that points and have a psychological impact on the marketplace?

Mr. Taylor. I'm afraid not. I think that the markets are simply too vast. They are really worldwide. And, as you are aware, there is a market in offshore dollars-Eurodollars-which, I think, is currently around 1 trillion dollars.
Mr. Smeal. A very large number.
Mr. Taylor. It is a mammoth market. Thus, I'm afraid that you simply cannot dictate to markets the price of money.
Mr. Smeal. Could I add to that? If you're talking about floating rate U.S. Government securities, which is a device that corporate America has attempted to use from time to time to raise money in the capital markets; this is a device that works under specific circumstances. We have found, and we were finding it out right now, that you can sell floating rate securities when investors believe that rates are going to rise and they want to take advantage of that rise and float up. However, they don't want to float down. If you have a market in which investors feel rates are going to go down, you cannot do it. It is a kind of index. And free market people have a violent reaction to indexes. They feel that indexes institutionalize inflation and removes any discipline to get inflation under control. So, you'll find those who are relatively free market people-believe the market is efficient and best sets interest rates and, it should not be done by artificial means. That would pose grave difficulty with financing, especially in raising massive amounts of the Federal money if it were indexed to some rate of inflation.
Mr. McCollum. Don't you find it to be abnormal in the circumstances the disparity of interest rates are not normal?
Mr. Smeal. In the past, the real rate was thought to be 2 or 3 percent plus a rate of inflation. Now we are finding real rates of 5 or 6 percent. We suspect that the market generally is expressing low expectations about our ability to curb inflation. I would not call the rates abnormal, however, given current conditions.

Mr. McCollum. How about a national usury ceiling for all the interest rates in the United States indexed to the rate of inflation?

Mr. Smeal. I have problems philosophically with such a system. I suspect it would be unmanageable. I don't think it would produce any money more cheaply.

Mr. McCollum. You're still talking about Eurodollar that have its money overseas. I can't buy that. I think America where everybody wants to invest today. Isn't it a natural thing the Saudis want to come here, surreptitiously or otherwise, to put their money?
Mr. Smeal. The Saudis are more interested in the value of the dollar than the rate at which they invest their money. They have no place else to go.

Mr. McCollum. If we close down this market so to speak, are all American investors going overseas? Wouldn't that market come down? Aren't we that powerful if we close down the market with a limited ceiling?
Mr. Smeal. I have no idea what would happen if we closed the market. There is no other market that could absorb the massive global needs for capital.

Mr. McCollum. What I'm getting at that's true and we wouldn't close it down if we put a national index ceiling. Would we? We
really wouldn't close it down. People would live within that ceiling. You wouldn't like it but you would live within it?
Mr. Taylor. You're trying to pin down a couple of bond traders on a huge economic question here that really has no easy and simple answer. What we really ought to do is ask some of the economists in the audience to respond.
Mr. McCollum. I'll yield back my time. I find the issue intriguing and related to my problems of Treasury and interest rates. I yield back.

Chairman Fauntroy. The gentleman from Texas, Mr. Patman.
Mr. Patman. Thank you, Mr. Chairman. Do you represent other plans and private business on their debt management problems?

Mr. Smeal. Yes.
Mr. Taylor. It's a big part of Frank's business.
Mr. Smeal As David said, we regard ourselves as investment bankers. Goldman Sachs represents private clients.
Mr. Patman. And, do you represent private corporations, primarily?

Mr. Smeal. We represent both, private and public corporations.
Mr. Patman. Foreign governments?
Mr. Smeal. Yes; in some instances.
Mr. Patman. In general, do you subscribe to the theory that large deficits and high national debts result in higher interest rates?

Mr. Smeal. Absolutely.
Mr. Patman. What seems to be the future if we continue this process of adding to the national debt? The Republican Senators went last December to the President and said, we have deficits aggregating over $\$ 1$ trillion if something isn't done in the next 5 years. That doubles our national debt at that point from what we have now.
Mr. Taylor. The interest burden becomes increasingly onerous.
Mr. Patman. I assume that is built into their projection in the last year where it is up to $\$ 299$ billion deficit.
Mr. Taylor. Certainly, as the deficit grows, interest payments become a substantial portion of it. If you take 100 billion dollars' worth of debt over a 10 -year period you probably will, in interest and principal, repay about $\$ 400$ billion.
Mr. Smeal. That is something called compound interest. And I'm glad the committee understands it.

Chairman Fauntroy. Oh, yes.
Mr. Patman. And then you add that to the debt.
Mr. Taylor. And thus the number becomes very, very onerous.
Mr. Patman. How does that impact on the economic system?
Mr. Smeal. Well, can I make a point? You know that some years ago, in 1975, we told the city of New York they could not run the city on borrowed money. I think the Federal Government ought to take judicial notice of that same point. In the case of the Federal Government, when they borrow huge amounts of money, they can simply print it. The city of New York cannot do that. This country will face some of the same problems as New York City if we spend an awful lot more than we take in. Thus when deficits reach the massive amounts they are now, the markets require a higher price to finance them-and that is the interest cost.

Chairman Fauntroy. Mr. Patman, if you would yield. I think we should call ABC, CBS, and NBC and ask them to broadcast this.

Mr. Patman. You're telling that to the Treasury as well as us.
Mr. Taylor. They're aware of that, surely.
Mr. Patman. Does it help to stretch it out over a long-term debt?
Mr. Taylor. We believe the needs are so massive that the Treasury has to use all maturities and all types of debt.

Mr. Patman. Why weren't the private corporations and so forth taking advantage of the open field that seems to be present in the long-term debt. Is it simply not there?

Mr. Taylor. There is quite a bit of long-term financing going on currently. Frank can speak to that better than I. I believe he has a record calendar of corporate issues.

Mr. Smeal. A corporation has to relate the cost of its financing to the price of its products. And at some level, that price is too high. Today for many private corporations the price of long-term money is simply unexceptionally too high in relation to business. In addition, investors generally are skeptical about our ability to control inflation and reduce the size of the deficits. Investors are spending their money in the maturities 10 years and shorter. They are not willing to make long-term commitments. And the private capital users are going to the market that exists, and that is the market of 10 years and shorter.

The Treasury's problem is somewhat different. The Treasury must play all the instruments in the band. They have to go from overnight to 30 years to raise all the money that is needed. The problem of the Treasury is not the long-term debt, because most of the debt is really quite short term. As as technical advisers to the Treasury our general philosophy is now: starve the short-term market to produce a positive yield curve so we can reduce the price of the short-term debt. Only 10 percent of the debt is over 10 years. I think the emphasis on the long-term versus short-term financing is misplaced. We have to be concerned about the cost of short-term financing as well.

Mr. Patman. We can't float securities on the long-term market. Is that the feeling of the Treasury?

Mr. Taylor. The Treasury has generally tapped the long-term market as well as the short-term market.

Mr. Patman. The basic philosophy now emphasizes the long-term market.

Mr. Taylor. No; I think the Treasury observes the action in the long-term market, and I believe that they have decided to continue with their program of issuing longer term securities. It so happens that they're up against the statutory limit on their ability to finance long term at the moment, and they will be coming to you, I'm quite sure, to have that limit expanded.

Mr. Patman. Now, are there Federal Reserve members on your committee, too?

Mr. Taylor. No, sir.
Mr. Patman. You have communication with the Fed? But they're not sitting with your committee at the time these decisions are made?

Mr. Taylor. Oh, no. However, this committee does regularly go over and visit with the Fed Governors when they are down here for their meetings.

Mr. Patman. What do they tell you about the prospects?
Mr. Taylor. They use us as a resource subject. They don't tell us very much. They generally are interested in market conditions as we see them. Of course they do ask us the questions. I don't remember their having giving us a lot of information.

Mr. Patman. Do they apprise you of their intention to employ a tight money situation?

Mr. Taylor. Not in any specific fashion, but certainly through their testimony before the Banking Committee through conversations with them I'm certainly aware of their objectives.

Mr. Patman. When you hear the tight money policy is in the immediate future do you anticipate a higher rate of interest?

Mr. Taylor. That would generally be the market's initial expectation for the immediate future, yes.

Mr. Patman. And interest rates have actually fallen in the last few months on the U.S. Government securities, have they not?

Mr. Taylor. Yes.
Mr. Patman. A quarter, a third, or roughly what?
Mr. Smeal. Long-term bond yields at their peak were around 15 percent. That yield is now about $131 / 2$ percent.

Mr. Patman. That's not as significant as I thought. How about the Treasury bills?

Mr. Smeal. Treasury bills yield at their peak were about 17 percent. They are now close to 15 percent.

Mr. Patman. Now, that's where half the debt is now as I understand it.

Mr. Smeal. No; about 75 percent of the debt is due within 3 years.

Mr. Patman. When they talk about short term on half the debt they're talking about just--

Mr. Taylor. Treasury bills.
Mr. Patman. Ninety-one day and hundred and eighty?
Mr. Smeal. Also 1 year bills.
Mr. Patman. One year, two. All right. Now, the prime rates fall in portion to Treasury issues?

Mr. Taylor. They move in the same direct direction but not necessarily the same proportion.

Mr. Patman. Do foreign governments have their interest they pay on U.S. rates?

Mr. Taylor. Foreign rates are strongly influenced by U.S. rates at this time.

Mr. Patman. Why do the Japanese get it at such a low rate?
Mr. Taylor. Japan is different. It's a smaller more maternalistic system-type of society. Rates of inflation are lower. I think the comparison of Japan to the United States and interest rates is not a good one to make.

Mr. Patman. You mentioned about the change in Fed policy of going from basing monetary policy on interest rates to basing it on monetary aggregates of the money problem. At the same time are they not considering interest rate results of others?

Mr. Taylor. I think undoubtedly that they are cognizant of the general impact their decisions are going to have on interest rates, but in a sense you can't have it both ways. If you're going to control one the other is going to be a variable. And I think that is their dilemma. I'm sure they don't like this volatility in rates.

Mr. Patman. I think I saw in the Wall Street Journal that we've got both the worst of both worlds with the new Fed policy-high rate of volatility and interest rates. Did you see that?

Mr. Taylor. No.
Mr. Patman. Do you find it current on the street?
Mr. Taylor. I think you must give this policy time. There is a cost to beating inflation, and we're going through some of those costs-high rates and high volatility in rates.

Mr. Patman. It's not just that I'm concerned about. But the permanent damage to the economy in our productivity.

Mr. Taylor. True.
Mr. Patman. I'm wondering if we really consider all the ramifications of all these policies. Just look at these nice little charts. We don't have charts on unemployment and housing and these other things.

Mr. Taylor. All those things are considered by the Fed. They are aware of these things.

Mr. Patman. You think they compute the rate in unemployment that's going to occur?

Mr. Taylor. I'm quite certain that they do.
Mr. Patman. And the lower housing starts?
Mr. Taylor. Yes, I'm certain all of those things come out of their great big computer model.

Mr. Patman. Mr. Chairman, let's get us one of those computers. Thank you very much gentlemen.

Chairman Fauntroy. Mr. Weber.
Mr. Weber. I'd just like to talk to these gentlemen as bond traders and not as economists. That's where their real expertise comes. Certainly every member on this panel, and the Members of the Congress as a whole are very, very interested in getting interest rates down, and one of the things we're hearing is that the Federal deficit, as you've stated, has direct influence on interest rates.

What are the people on the street telling each other as to the Federal deficit before we can see a decline in interest rates? Will it take a deficit of $\$ 90$ billion, $\$ 75, \$ 100$, or what? Is there a connection? What can you say to us about the level of deficit that we've got to come out with in this budget resolution for 1983 if we're to have interest rates come down? Is there a correlation?

Mr. Taylor. Certainly there is some correlation, but I couldn't quantify it for you, Mr. Weber.

Mr. Weber. Well, that's important. In other words, is there a magic figure that the street is looking for?

Mr. Taylor. No.
Mr. Smeal. However, it is significantly smaller than the present amount.

Mr. Taylor. I think that the street is probably willing to accept a $\$ 90$ billion deficit this year, and excuses it on the basis of the business cycle. But when economists are predicting recovery and better economic conditions, and the deficit grows instead of becom-
ing smaller that is when markets become concerned. So what Frank said is exactly right. A substantially smaller deficit will help, but be very hard for me to put a number on it.

Mr. Weber. Does the street want us to reduce that deficit by decreasing Government spending or increasing taxes?

Mr. Taylor. I'm sure the street would say reducing Government expenditures.

Mr. Smeal. Our second best choice would be to reduce the tax cut somehow, sometime.

Chairman Fauntroy. Somehow.
Mr. Taylor. Somehow.
Mr. Smeal. The best guess is if the Government has the money they will spend it. So I would focus on spending cuts.

Mr. Weber. If there were pressures to increase Government revenues would you do that by increasing income taxes or by putting some sort of excise tax on?

Mr. Taylor. Well, that becomes a personal choice, and I wouldn't profess to be able to give you the right answer. There may be some merit in excise taxes. Something you hear frequently is to decontrol natural gas and slap an excess profits tax on companies that benefit from that. There may be some reasonableness in that scheme. But now you're talking to us as economists and you said you weren't going to do that.

Mr. Smeal. If you want talk as philosophers we can do that.
Mr. Weber. I was wondering if there was a general psychology on the street waiting for us to take a particular action.

Mr. Taylor. The street is certainly sitting on tender hooks wondering how it will be resolved.

Mr. Weber. We've had a number of witnesses come before this committee, including Under Secretary of the Treasury Sprinkel a week or so ago, who said if you see periods of rapid expansion of the money supply interest rates increase, they don't fall. And Beryl Sprinkel said very positively he would stake his whole reputation on the statement that tight money reduces interest rates, rather than increases interest rates. Now, somebody is wrong and somebody is right on that.

Others have said that more expansive monetary policy growth is needed to lower interest rates.

Mr. Smeal. You both could be right.
Mr. Weber. The general impression of the public is that tight money means high interest rates.

Mr. Smeal. In the short run that very well might be true.
Chairman Fauntroy. Let him explain that.
Mr. Weber. Yes. Is it a question of difference between short run and long run?

Mr. Smeal. We change interest rates because there is a connection between the level of interest rates and the quantity of money though we don't completely understand it. That is why the Fed is focusing on the money side of this question now and not on the interest rate side. Since this connection is known, when the Fed has a tight money policy, it knows that, in the short run, interest rates will rise. This rise will help the Fed's policy by further reducing the money supply and thus produce economic conditions which reduce demand. In the longer run this will produce lower interest
rates as the demand for money decreases. Thus there is both a short-term and a different long-term connection between the rate of inflation and interest rates.

Mr. Weber. Thank you. I just wanted to make sure that I was understanding earlier testimony correctly.

Mr. Smeal. Can I make one point here. I think it is important for this committee to understand who we are and who we represent. We are not the market! We are nowhere big enough to be the market. But in many respects the market acts through the people you'll be hearing today including Dave and I. We do not manage or control interest rates, but reflect the view of people who do affect rates.

Chairman Fauntroy. We'll yield for a burning question from Mr. Patman.

Mr. Patman. I just have a question to you as bond dealers and observers of the market. What happens when people decide they're not satisfied with the bond market rate that's offered on the market? How do they boycott it or pressure it to give them a higher rate of interest?

Mr. Taylor. They just do not buy.
Mr. Patman. What do they buy.
Mr. Smeal. They go farther. They actually sell. First you stop buying and then, if you're really convinced, you sell something that you don't own because you think you can buy it back more cheaply.

Mr. Taylor. As temporary investment you could invest in a money market fund if you are an individual. Or you could go into the market and purchase Treasury bills which are a haven where investors wait for what they feel are better rates to come.

Mr. Patman. What's the last one you mentioned? Money market funds and what else?

Mr. Taylor. Treasury bills are a good haven.
Mr. Patman. What if they don't satisfy the Treasury bill rate?
Mr. Taylor. It's all relative.
Mr. Patman. Commercial paper, that sort of thing?
Mr. Taylor. There are a whole array of short-term investments.
Mr. Patman. That's one thing that bothers me about the whole situation. I wonder, we've built in the high interest rates throughout the economy how are we going to get them out? And there's so much debt coming on board, becoming more available. It's becoming more of a buyer's market and that's really what's going to drive the rates up, isn't it?

Mr. Taylor. It is supply and demand and it is real. It's what makes markets move.

Mr. Patman. I think, in general, it works extremely well. Especially in your area. That is as far as establishing the market rate. But I just wonder about these other extraneous forces, directly impacting forces like the Feds policies seem to be-seem to have been in recent years designed to produce high interest rates.

Mr. Taylor. No, they are designed to produce tighter credit, and again supply and demand would say that if money is less available in relation to demand the price for money will go up. And the Feds basic methods of operation have been designed to slow the growth in this economy-to take the heat out of it-and ultimately slow inflation. That is a long-term process.

Mr. Patman. Tell me this is one last question. What happens when the Fed monetizes the debt and how that impacts on the market?

Mr. Taylor. Basically it increases the supply of money.
Mr. Patman. What does that do to the market?
Mr. Smeal. It raises interest rates.
Mr. Patman. The supply of money--
Mr. Taylor. Increasing the supply of money increases the demand pull of inflation. More money in peoples' hands brings a greater demand for goods.

Mr. Patman. How does it monetize the debt? Would you like to get into that or prefer not to? We hear that--

Mr. Taylor. The Fed could monetize the debt by simply buying Treasury securities and paying in dollars that it uses to buy them. It thus increases the money supply.

Mr. Smeal. When you borrow in the Treasury bill market it is equivalent to printing dollars. Treasury securities are convertable into dollars at a very slight cost. Mr. Patman, I think if I were a member of the Fed I would object to some of the things you said. They are not really managing monetary policy by way of the interest rate. They are looking at the money supply, presumably, and the interest rate that falls out from that, not vice versa.

Mr. Patman. I appreciate you taking up for the Fed on that point, but actually it just looks like they're talking about money supply, but thinking about interest rates.

Mr. Smeal. We have to psychoanalyze.
Mr. Patman. I think we can see the results.
Chairman Fauntroy. Thank you, so very much, gentlemen. I certainly appreciate your testimony. Mr. Taylor, I would hope that you had the wisdom of clearing your time all morning and could therefore remain while we are hearing the next two witnesses just in case we'd like to raise questions with you as well that their testimony may stimulate.

Mr. Taylor. We want to see them get sync'd with some of those questions.
[The following letter from Deputy Assistant Secretary for Federal Finance Mark Stalnecker, of the Department of the Treasury, dated April 6, 1982, was submitted for inclusion:]

DEPARTMENT OF THE TREASURY
WASHINGTON, DC. 20220

April 6, 1982

Dear Mr. Chairman:
Mr. David Taylor, Chairman of the Government and Federal Agency Securities Committee of the Public Securities Association, advised me of your request to him for copies of the committee's recent reports to the Secretary of the Treasury.

The committee reports contain sensitive market information, and the committee provides copies of its reports only to the Treasury, although the Treasury does make them available to the public several months after the reports are submitted.

Accordingly, I advised Mr. Taylor that I would provide you with copies of the committee's reports, and I am enclosing copies of all reports submitted by the committee in 1981. I am also enclosing a copy of a letter of April 20, 1981 from the then chairman of the committee, Mr. Frank Smeal, which discusses the role of the committee in advising the Secretary of the Treasury on debt management matters.

Please let me know if $I$ can be of further assistance.
Sincerely,
Mack Stalmachen

Mark Stalnecker
Deputy Assistant Secretary
(Federal Finance)
The Honorable
Walter E. Fauntroy, Chairman
Subcommittee on Domestic
Monetary policy
House of Representatives
Washington, D.C. 20515
Enclosures

REPORT TO THE SECRETARY OF THE TREASURY<br>FRON THE GOVERNMENT AND FEDERAL ACENCY<br>SECURITIES COMMITTEE OF THE PUBLIC SECURITIES ASSOCIATION<br>October 29. 1980

## Mr. Secretary:

The Committee recommends a 3 -pronged refunding of $\$ 8 \frac{1}{6}$ billion to refund $\$ 4.9$ billion of privately held coupon issues maturing November 15 and to raise $\$ 3.350$ billion of new money, as follows:

1. $\$ 51_{2}$ billion of a $3!$-ycar note issue to mature on 5/15/84.
2. 52-3/4 billion of a lo-year note to mature 11/15/1990.
3. $\$ 2$ billion of a 30-year bond to mature 11/15/2010, redeemable at par in 2005.

Although a substantial majority of the Committee preferred an $\$ 84$ billion refunding, some felt a slightly smaller $\$ 8$ billion package would be more appropriate in view of recent market weakness.

## 3六-Year Note

The $5 \frac{1}{2}$-year anchor issue was chosen rather than a shorter 3-year issue in order to avoid adding excessively to the $\$ 6.2$ bilifon already maturing on 11/15/83.

## 10-Year Note

The Committee reaffirms the recommendation developed at its special meeting on September 22, 1980 that the 10 -year note be made a regular part of quarterly refundings. Consistent with that recommendation, we include $\$ 2-3 / 4$ billion of a lo-year note to mature 11/15/90 in this refunding.

## Long Bond

There was total agreement on the sale of $\$ 2$ billion 30 -year bonds, although the group is tending to seek to increase the size of these longer issues.

## 7-Year Note

The Committee has also recommended that the 7 -year note be cycled in on quarterly basis at some appropriate time. It wias suggested that this note be auctioned early in the last month of a quarter, to mature on the 15 th of the month 7 years later.

This would avoid conflict with the 4 -year note, auctioned later in the month. Although we do not see the need to inaugurate this as a regular quarterly cycle during the current quarter, we would expect to recommend the introduction of a 7 -year cycle note early in this fiscal year.

## 15-Year vs. 20-Year Bond

A substantial majority of the Committee would not (repeat, would not!) favor the substitution of a 20 -year bond for the regularly scheduled l5-year bond.

This recommendation is based principally on the belief that a 20-year issue would increase the cost of longer-term money without any collateral benefits. Although the l5-year bond has not had an auspicious history in the market, a bond 5 years longer would probably have done worse. The reduced volatility of the shorter 15 -year issue also accommodates the increasing preference of a diminishing group of longer-term investors for shorter maturities. We did not feel that the value of creating an issue deliverable against futures trading would overcome these objections. Furthermore, a reasonably vociferous minority was violently opposed to doing anything to support that market.

## Cash Management Bills

The Committee suggests the sale of $\$ 7 \frac{1}{2}$ billion of cash management bills, $\$ 3 \frac{1}{2}-4$ billion should be sold in early November and scheduled to mature on the last day of the year, 12/31/80. The maturity is selected to both accommodate the strong demand for a year-end maturity and to give the Treasury some flexibility against the debt ceiling.

These bills would be refinanced free of debt limit constraints to mature in the surplus second quarter in mid-April 1981. The additional amount of cash management bills should be sold in early December to mature in mid-April 1981.

## Summars

The Committee proposes total financing of $\$ 25.3$ billion for the quarter, as follows:

1. Done or announced
$\$ 5.2$ billion
2. November refunding 3.4 billion
3. Cash management 7.3 billion
4. Increase 7 series of weekly bills, \$11/13-12/26) to $\$ 7.8$.
3.0 billion
5. 1ncrease Nov.-Dec. 2-year notes to $\$ 4 \frac{1}{2}$ bjllion each
6. 5-year note (mid-Dcc.)
7. Increase Dec. d-year note to $\$ 5$ billion

TOTAL
$\$ 3.1$ billion
3.0 billion
0.3 billion
$\$ 25.3$ billion

## Cash Balance

This would produce the projected cash balance of $\$ 15$ billion which is thought to be adequate.

## Techniques - Timing

All issues should be sold at yield auctions, as follows:
The $\$ 5 \xi_{s}$ billion note issue on Wednesday, November 5; the $\$ 2-3 / 4$ billion $10-y e a r$ note on Thursday, November 6; and the $\$ 2$ billion 30 -year bond on Friday, November 7.

The Committee felt that markets were too volatile to risk reopening the 11-3/4's of 2/15/10 or any other issue.
lie also felt that a Friday auction was to be preferred to an auction with a short delivery in a holiday week.

## Rates

In view of the recent and prevailing volatility in the bond and money markets, we do not opine as to the level of rates at which this financing will be done.

The Committee's deliberations this time were significantly briefer than they have been in the past. This is due to two factors. First, because a large part of the strategic planning for financing the expected large deficit this year was accomplished at our special meeting in New York on September 22. This is an agenda we will suggest become a regular part of our service to the Treasury in advising on debt management issues. Secondly, adhering to the sound principle of "regularization" and the establishment of recurring cycles by which this is accomplished, sharply reduces the areas in which decision-making is necessary.

The uncertainties and random events to which the international economy and the markets will be exposed in the days and months ahead have become so inscrutable recently, that we are withholding our usual gratuitous preamble and comment.

We would be pleased to expand on these recommendations or to answer any questions you may have.

Frank P. Smeal
Chairman

REPORT TO THE SECRETARY OF THE TREASURY
FROM THE GOVERNMENT AND FEDERAL AGENCY SECURITIES COMMITTEE OF THE PUBLJC SECURITIES ASSOCIATION

January 28, 1981

Mr. Secretary:
Before responding to the "Committee Charge," it would doubtless be helpful if we announced briefly the basic principles that have guided this Committee in advising the Treasury on management of the Federal debt over the years. With the obvious principal objective of offering proposals designed to raise the required funds in the most efficienteconomical way, the Committee believes that the Treasury should continue to adhere to what is felt to be sound principles of debt management emphasizing debt extension and regularization.

## Regulatization

Debt extension can be achieved by raising as much as possible in maturity area of two years and longer, and confining bill financing to $15-20 \%$ of total financing needs.

Regularized offering cycles have provided the Treasury with access to substantial sums in all maturity sectors and alloved investors to plan on predictable offerings for their investment needs. lie feel that regularization has thus encouraged broaderdeeper investor participation in the Government securities market by reducing uncertainty concerning Treasury financing plans.

The Committee alsc believes that the auction technique, vield or price, is the most effective method of achieving the lonest arailable borrowirg costs.

We have not favored short or shorter call provisions for Treasury issues in the belief that this would be paying for an option not-likely to be exercised and would severely diminish this uniquely attractive feature of Treasury borrowing. The massive size and frequency of financing and refunding needs presents continuous opportunities to refund at prevailing, declining or lower interest rates.

February Refunding Proposal.
3-1/2 year Note due Aug. 15/84
9 year, 9 mo. Note-Reopen 130 of Nov. $15 / 1990$
29 year 9 mo. Bond - Reopen $12-3 / 4$ of Nov. $15 / 2010$
Total

The Committee recommends that the February financing be designed to produce $\$ 9$ billion, as follows: (See above). This would refund the $\$ 4.9$ billion privately-held coupons maturing on February 15 and raise $\$ 4.1$ billions in cash. The Committee expresses in this recommendation its deep conviction that quarterly financing totals should be and can be raised in tranches larger than usual, $\$ / 4$ billion, and that the coupon components of these financings also can and should be raised. Althoughthis produces slightly more than the "reasonable portion". defined as $\$ \mathbf{- 1 / 2}$ billion suggested in the charge, the Committee feels it is urgent to begin the projected heavy borrowing program now. If it is necessary to limit borrowing because of debt limit constraints, reductions should be in bill sales (as proposed). If the total financing were to be reduced, we feel that such reductions should be made first in the 3-1/2 year note.

The Group was unamimous in recommending a reopening of the $13 \%$ note due Nov. 15/90 and the $12-3 / 4 \%$ bond. It was not felt that the prevailing or prospective market premium would affect the bidding for these issues in a negative way and that the Treasury could use the extra cash arising from the probable premium bids.

The issues should be auctioned in the usual sequence on Tuesday, Hednesday and Thursday, February 3, 4, and 5; at a yield auction for the short note, anchor issue, and at a price auction for the reopened issues.

In view of the high volatility that continues to characterize the debt markets, we do not opine as to the price or yield at which these issues might be sold next week. In collnection with the high volatility that has prevailed in debt markets during the past year, the Committee associates with the observation of Milt Hudson at Morgan Guaranty ..."inescapably, a return to tranquility in credit markets wili prove elusive until inflation is subdued, a prespect that clearly is not imminent."

Financing Requirements
Jan - Mar 1981
(billions)
For the quarter as a whole, net market borrowing has been estimated at $\$ 36$ billion. $\$ 0-1 / 4$ billion of this has already been done. The cash balance is expected to drop $\$ 4-1 / 4$ billion from $\$ 12.3$ on Dec $31 / 80$ to $\$ 8.0$ on Mar $31 / 81$. This cash position is felt to be adequate. Ne suggest that the balance of the financing, approximately $\$ 25-3 / 4$ billion be raised as follows: (Exhibit A).

## (Exhibit A)

## First Quarter Borrowing Plan

## (Rillions)

Issue

| lssue | Already |  |
| :---: | :---: | :---: |
| Sjze | Done Be | Done |

Total

1. Kkly Bills:

| January | $6.4-8.6$ | 2.7 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Feb.-Mar. |  |  |  |  |
| 2 auctions $2 / 52 / 12$ | $8.3^{*}$ |  |  |  |
| 6 auctions $2 / 19-5 / 26$ | $8.6(68.2-64)$ |  | 4.2 | 6.9 |

2. 52 lieek Bills

| January (2) | 4.5 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Feb. | 4.5 |  |  |  |
| Mar. | 4.5 |  | .5 | 2.0 |

3. 2-Year Notes

| January | 4.5 | 2.0 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Feb. | 5.0 |  | 2.5 |  |
| Mar. | 5.0 | 2.2 | 6.7 |  |

4. Longer Coupons

| 7-Year | 2.5 | 2.7 |  | $2 . ?$ |
| :---: | :---: | :---: | :---: | :---: |
| 20-Year | 1.5 | 1.5 |  | 1.5 |
| $4-\mathrm{Year}$ | 4.0 |  | 1.4 | 1.4 |
| 5-Year | 4.0 |  | 4.0 | 4.0 |
| Refunding | 9.0 |  | 4.1 | 4.1 |
| (Adjust to Treas est.) |  | 9.90 | 19.40 | 29.50 |
| Add . 350 |  | . 35 |  | . 35 |
| Cash management bill |  |  | 6.25 | 6.25 |
|  |  | 10.25 | 25.65 | 35.90 |

*Feb 5 auction has been announced at $\$ 8.6$. If debt ceiling problem is not solved, do only 8.0 on Feb 12 . Announce this plan.
$\$ 4.2$ billion thru increases in the regular 3 - and 6 -month auctions to $\$ 8.6$ billion.
$\$ 1$ billion by increases in the 52 week bills.
$\$ 4.7$ billion by increases the monthly 2-year note sales to $\$ 5$ billion.
$\$ 5.4$ billion by the sale of $\$ 4$ billion each of the 4 - and 5 -year notes.
$\$ 4.1$ billion in neli cash in this financing.
The Committee is confident that these increases will not create unmanageable burdens for the market.

The balance of $\$ 6-1 / 4$ billion would come from the sale of cash management bills.

The proposed financing for the first quarter will thus include $\$ 55-1 / 2$ billion in coupon issues.

Increases in bill auctions ( $\$ 600$ million total on the Feb 5 and Feb 12 issues) plus the $\$ 4.1$ billion derived from this financing raises $\$ 4.7$ billion; leaving a cash balance of $\$ 3.7$ billion on or at the Feb 17 low point projected to be, Without borrowing, a deficit of $\$ 1$ billion at that time.

The proposed schedule - including the sale of $\$ 6-1 / 4$ billion cash management bills at the end of the month; for delivery in early March - will produce a cash balance of $\$ 2$ billion at the low point on the first of April.

## Seven-Year Note

The Committee reconsidered and reaffirmed its belief that the 7 -year note introduced in January should be cycled in on a regular quarterly basis.

## 20-Year Bond

The Group was impressed with the results in the auction of the 20 -year bond. At $11.84 \%$, the stop was about 5 basis points above the curve, a sharply lower discount than the 11 to 30 basis points that the Treasury paid in the earlier 4 auctions of 15-year bonds. Selling an issue deliverable against futures contracts thus may have saved the Treasury as much as 15 basis points in interest costs. However, in when-1ssued trading, the $20-y e a r$ issue appears to have performed as badly as previous 15 -year issues. Altho we include a $\$ 1-1 / 2$ billion 20-year issue on the 15-year schedule this quarter, we are not yet prepared to propose this as a regular replacement for the 15-year maturity.

Altho these recommendations represent the views of a substantial majority of the Committec, in some cases a unanimous view, a persistent, if not always persuasive, minority position existed on some issues. Those opinions can be expected to be expressed at this open meeting ... with or without a leading question from the Secretary of staff.

This is the end of our Report. We will be pleased to respond to questions.

Frank P. Smeal
Chairman

# REPORT TO THE SECRETARY OF THE TREASURY FROM THE GOVERNMENT AND FEDERAL AGENCY SECURITIES COMMITTEE OF THE <br> PUBLIC SECURITIES ASSOCIATION 

April 29, 1981

Mr. Secretary:
The deep emotion which greeted the president last night in his call for enactment of his spending and tax program (and simultaneous call for a stable-predictable monetary policy) probably altered the odds on passage of that program in a significant way.

The impact of this event on expectations is such that is would be foolhardy, at least in the short run, to predict what the ultimate impact on the real economy might be.

The Committee's response to the Treasury charge is presented in the framework of a financing plan for the calendar quarter April through June as follows:

We took the cash balance of $\$ 10.7$ billion at the beginning of the quarter, the projected surplus of $\$ 8.3$ billion at the end of the quarter, plus the $\$ 6.5$ billion in financing completed so far and reduced it by the attrition on savings bonds and other non-marketables of $\$ 2$ billion, and the redemption of $\$ 14$ billion of cash management bills and further by a proposed reduction of $\$ 3.9$ billion in the regular weekly bills (from $\$ 8.3$ plus billion to $\$ 8$ billion), together with the one-year bill at $\$ 4$ billion. This left a $\$ 5.6$ billion cash balance. To achieve a cash balance of $\$ 15$ billion on June 30 , it is necessary to raise the difference, $\$ 9.4$ billion, in this financing and by additions to cycle notes maturing during the next two months.

|  | Treasury Financing Rest of April-J Billions of Dollars |  |
| :---: | :---: | :---: |
| plus | Cash Balance March 30 | \$10.7 |
|  | Estimated Surplus | 8.3 |
|  |  | \$19.0 |
| minus | Attrition on Savings Bonds - |  |
|  | Non-Marketables | $\frac{(2.0)}{\$ 17.0}$ |
| minus | Redemption Cash Management Bilis | (14.0) |
|  |  | \$3.0 |
| minus | Reduction of Regular Bills to $\$ 8 \mathrm{bi}$ and One-Year Bill to $\$ 4$ billion |  |
|  |  | $\frac{(3.9)}{(\$ 0.9)}$ |
| plus <br> minus | Already Done | 6.5 |
|  | Estimated Cash Balance, June 30 | $\begin{array}{r} 5.6 \\ (15.0) \\ \hline \end{array}$ |
| Needed to be Raised in Refunding and Cycle Notes |  | (\$9.4) |
| We propose doing this by raising $\$ 7$ billion in this refunding as follows: Cycle notes maturing in the next two months would be |  |  |
|  |  |  |
| Financing |  | \$9.4 |
| Cycle Notes: |  |  |
| 2-year note due 5/31 from \$2.1 to \$4.25 |  | \$2.25 |
| 2-year | note settled 6/8 from \$0 to \$2.75 | 2.75 |
|  | note due 6/30 from $\$ 2.7$ to $\$ 4.2$ | 1.50 |
| 4-year | noted due 6/30 from \$2.4 to \$3.0 | 0.60 |
| Total |  | \$7.10 |
| Needed to be Raised Balance from Refunding |  | (9.40) |
|  |  | (\$2.30) |
| Refunding |  |  |
| 3-year note due 5/15/84 <br> lo-year note due 5/15/91 |  | \$3.00 |
|  |  | 2.00 |
| 30-year bond due 5/15/11 |  | $\underline{2.00}$ |
| Total Refunding |  | \$7.00 |
| Minus Maturing Issues |  | (4.70) |
| Net Cash |  | \$2.30 |

This raises an additional $\$ 7.1$ billion, which, together with the $\$ 2.3$ billion acquired in the May refunding produces the required $\$ 9.4$ billion and the projected $\$ 15$ billion cash balance on June 30.

## Cash Management Bills

Cash management bills will have to be sold in early June to cover the low cash balance in mid-June.

## Rates

In view of the prevailing high volatility in debt markets, and the predictable market response to the president's awesome reception in his economic message to the Joint Congressional Session, this Committee does not opine as to the rate at which any of these issues might be sold.

Financing Schedule
The Treasury should follow its usual pattern of selling all the refunding issues at yield auctions: The 3-year anchor on Tuesday; the lo-year on Wednesday; and the long-bond on Thursday.

The $\$ 7$ billion three-pronged refunding package lies on the low end of market expectations, refunds the $\$ 4.7$ billion of maturing issues and produces a moderate" $\$ 2.3$ billion in the cash required to achieve the proposed $\$ 15$ billion cash balance on June 30 .

On the basis of some continuation of higher-than-expected economic activity and the resulting larger tax receipts, we would expect the actual cash balance to come in higher than the planned $\$ 15$ billion. To the extent this is realized, it would be a welcome addition to a good start we hope to make against the relatively heavier financing requirements of the third calendar quarter.

## The Quarterly Plan

The total financing plan, including the refunding, has the following desirable qualities:

1. The substantial paydown in bills may help tilt the yield curve toward the positive side.
2. The reduction in bills also produces great $\dot{f} l e x i b i l i t y$ so as to give the option not to reduce if present projections are not realized.
3. Paying down bills and emphasizing coupons in a surplus quarter reserves the use of bills for larger, more difficult deficit quarters.
4. The market will be pleased with both the smaller size of the refunding package and the relatively smaller size of its components and the smaller size of cycle note issues.

## Changes in Maturities

The Committee does not propose changing the maturities of coupon issues during the second quarter.

Although the Treasury has been using the coupon market persistently in recent years, only about $10 \%$ of total marketable debt matures beyond 10 years -- about the same ratio that existed 10 years ago. Also, with the massive amount of bill financing that has been done, average maturity of the debt has actually declined slightly in the past year.

## Long Bonds

The Group does not, therefore, believe the Treasury should de-emphasize the use of the longer-term market at this time.

The Treasury has carefully and systematically developed a viable, relatively liquid market for its longer-term debt over the years. Access to that market will be a continuing need and it should not be abandoned now. Furthermore, private borrowers who do not have access to this longer market at all or at an acceptable price, have shifted to shorter maturities so that "crowding out" would occur at every maturity. It may actually be that more crowding out would develop in shorter/intermediate maturities. About half of recent corporate issues have been sold with maturities of 10 years or less. If only the actual dollar proceeds of deep-discount bonds are counted, that fraction is close to $75 \%$.

## Call Provisions

Although there may be circumstances sometime in the future when the Treasury should sell debt with earlier redemption provisions, the Committee does not believe that these circumstances presently exist. Contrary to the position of private issuers of debt, the Treasury utilizes every gector of the market all the time so that the opportunity to refinance at lower rates constantly occurs.

However, as a supplement to the initial charge, we were asked ("in spite of your traditional opposition to shortened call provisions"):

Question: "If the Treasury were to shorten the period during which its issues could be called (at par) for early redemption from the prevailing 25 years to $1-3-5-$ and 10 years, respectively, what would be the cost, if any, in basis points, assuming the coupon on a 30 -year bond callable in 25 years is $13-1 / 28$ and is selling at par?" (The 13-1/28 was the Committee's - not the Treasury bench mark.)

All members of the Committee wrote down their views in response to the Question, with the following results:

The range of views on shortening the call from 25 to 10 years was 13.90 to $14-3 / 4 \%$, with 148 the mode and all but one view in a range of $14-14-3 / 48$. A spread of 125 basis points over a 25 -year call.

Shortened to $\underline{5}$ years, the range rose to 148 to $15 \%$ with 14-1/2s the mode. A spread against the range of 50 to 150 basis pointe.

For 3 years, the range was 148 to $15-1 / 28$ with 158 the mode. A epread of 50 to 200 basis points agains the predicted range.

For 1 year, the range was $14-1 / 28$ to 168 with $15-1 / 28$ the mode. A spread of 100 to 250 basis points against the range.

|  | 10 | 5 | 3 | $\underline{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| Ahearn | 14.40 \% | 14-3/48 | 14.908 | 15-1/48 |
| Barry | 14-1/2 | 14-3/4 | 15.00 | 15-1/4 |
| Brickley | 14-1/2 | 15 | 15-1/2 | 15-1/2 |
| Clyde | 14-3/8 | 14-3/4 | 15-1/8 | 15-3/8 |
| Crittenden | 14-1/4 | 14-1/2 | 14-5/8 | 15-1/8 |
| Ford | 14 | 14-1/2 | 15-1/2 | 16 |
| Grimm | 14-1/8 | 14-1/2 | 15 | 15-1/4 |
| Horowitz | 14-1/2 | 15 | 15-1/4 | 15-1/2 |
| Jackson | 14 | - | - |  |
| McMennamin | 14-1/4 | 14-1/2 | 15 | 15-1/4 |
| McMillan | 14 | 14 | 14-1/2 | 15 |
| Peters | 14 | 14-1/4 | 14-1/4 | 14-1/2 |
| Reifler | 14.25 | 14-5/8 | 14-3/4 | 15-1/2 |
| Runniun | 14 | 14-1/2 | 14-1/2 | 14-1/2 |
| Slonaker | 14-1/2 | 14-5/8 | 14-7/8 | 15-1/2 |
| Smeal | 14 | 15 | 15-1/2 |  |
| Stone | 14-3/4 | 15 | -- | 15-3/4 |
| Taylor | 13.90 | 14 | 14.50 | 15 |
| Toffey | 14 | 14-1/2 | 14-1/2 | 15 |
| Tritz | 14 | 14-1/2 | 14 | 14-1/2 |
| Range | 13.90/14-3/4 | 14/15 | 14/15-1/2 | 14-1/2/16 |
| mode | 14 | 14-1/2 | 15 | 15-1/2 |

The Committee does not - repeat - does not believe that the criteria applied to this financing are inviolable principles imbedded in Senate concrete. We do believe that changing economic conditions can and should alter financing strategies and perhaps even the structure of the debt and that this Administration's success in significantly reducing inflation has major implications for management of the debt in the future. It may be even an actual paydown of debt. Although these are circumstances devoutly to be wished, a skeptical, deeply scarred holder of fixed-rate debt may have to have realization before perception before he becomes a believer.

These views, surprisingly and untraditionally, reflect the virtually unanimous opinion of the Committee on all aignificant questions and issues. We would be pleased to answer any questions.

Frank P. Smeal
Chairman

FROM THE U.S. GOVERNMENT \& FEDERAL aGENCIES SECURITIES COMmittic
of the public securities association
Special Session : July 14, 1981
In compliance with a request of the Department of the
Treasury, the U.S. Government \& Federal Agencies Securities
Committee of the Public Securities Association held a special
meeting on July 14, 1981 at the Federal Reserve Bank of Nien
York for the purpose of advising the Secretary of the Treasury
on the management of the public debt, specifically as contained
in the "Charge" attached, dated June 17, 1981.
A list of Committee members who participated in the meeting
is attached. Mr. Francis $X$. Cavanaugh attended for the Treasury.

## July-Sentember Quarter

You have asked our vieks on "the appropriate financing techniques, procedures anci strategies which the Treasury should pursue in the July-September quarter and thereafter, based on your as sumptions as to the then current economic and financial environment."

Inasmuch as we will address the specific needs of the third calendar quarter during our meetings with Treasury on July 28-29, we make no specific recommendations at this time.

In general, the group does not anticipate a significant decline in economic actirity in the near term and hould expect busi. ness to be sustained by a tax cut and increased spending for defense. Inflation was expected to stay close to recent levels with interest rates declining but remaining at high levels. Some felt rates could go to new peaks before ycar-end. All felt that cash balances should be accumulated during the current quarter to anticipate heary requirements in the final calendar quarter. Emphasis should be put on coupon issues even to the extent of raising money in that area to pay down bills. This process hould also contribute to the emergence of a highly desirable positive yield curve.

## Indexation

The Committec was unanimous in the viek that it would not he advisable for the Treasury to issuc debt linked to some measure of price inflation. This conclusion was based on the following observations:

1. Almost half of the outstanding marketahle deht matures within one year, with 75\% due in about threc years. This rapid runoff of debt is a practical equivalent of indexing since it provides opportunities continuously to finance and refinance at prevailing rates. In effect, the 90 -day Treasury Bill is indexed four times a year, the 2 -year note 12 times a year, and other securities as regularly scheduled.
2. Increasing the constituency that is insulated from the costs of inflation (capital losses) to include bond investors re: duces the constituency with an interest in reducing inflation.
3. It vould be difficult to find a credible, stable index with which to link the securities; the CPI, the Deflator, or any other index exempt from random shock (oil) or distortions (mortgage rates).
4. Recent experience of the British government in the sale of indexed Gilts does not contradict these expectations. The initial one billion sterling 15 -year issue linked to a $2 \%$ real rate of return above the consumer price index was bid at $101 \frac{1}{4}$ reducing that return to $1.9 \%$. The market price subsequently dropped to produce a 2.9 real rate and the second issue of 25 -year bonds was auctioned at about that level.
5. Rational investors will buy indexed bonds mostly to assure that they will participate in an increase in interest rates. The recent failure of several major financial institutions plans to raise money on floating rate money market-type instruments under conditions ,here rates were widely expected to decline is strong evidence of that attitude.
6. Indexing would create large variances in interest cost to the Treasury and work against the budget process.
7. To some degree, too, indexing has been utilized by and associated with relatively weak borrowers whose access to markets has required offering "sweeteners" or other "gimmicks" to attract buyers.
8. Indexing U.S. Government securities might either "crowd out" and/or increase the cost of both private borrowers and statc and local government issuers who cannot secure their undertakings by printing the money required to service their debts.

Although the group was unanimously opposed to any general form of indexing, a mild case was made for indexing non-marketable sayings bonds. It was noted, however, that a realistic indexing of such bonds would not improve the position of the troubled thrift industry.

## Floating Rate Securities

Brief discussion was had of the merits of indexing Treasury issues to a "rate" index rather than a "price" index, i.e. selling "floating rate" securities. Floating against a long rate was not seriously considered since the long-term U.S. Treasury is itself the only appropriate bench mark that could be used. Fioating against a shorter rate was felt to be more costly then selling the debt against which it was floated.

## Long-Term Bonds

The overwhelming viek of the Committee was that the Treasury should not eliminate or even reduce long-term borrowing at this time, and that $30-y e a r$ bonds callable in 25 years should be sold on the established schedule during quarterly refundings.

Only 118 of marketable debt is scheduled to mature in ten years or more, unchanged in a decade, with average life declining slightly in the past year. Furthermore, history records that longterm financing, even when real rates of interest were high (1950's and 1960's) was a sensible thing to do.
ln addition, during the past three years of so-called negative yield curves, it has been cheaper to finance long term than short term. Although eliminating or reducing long-term borroning might reduce interest costs over time, the necessary replacemen $\bar{t}$ of these amounts by more inflationary shorter-term financing was not regarded as a trade-off in the public interest.

About half of the group would favor abandoning the 15 - and 20-year bends whose market performance has been less than distinguished and substituting some larger amount, 2l-3 billion, of 30 -year bonds to be sold four times a year only, during quarterly refundings. The sense of this group is that the frequent trips to market for $15^{-}, 20^{-}$and 30 -year money gives the appearance of heavy borrowing and raises financing costs.

Some felt that merely scaling back the $20-y e a r$ to two times rather than four times a year would be helpful.

If the Treasury should decide to eliminate the 15 - andor 20 -year issues, it is recommended that an announcement should be made at the time of the quarterly financing simultaneous with the announcement of a larger longer-term issue.

Only one member felt scaling back the size of long-term issues would be desirable.

## Callability

The Committee reaffirms the response to the question in April when it felt that there may be circumstances sometime in the future (balanced budgets, reduced deficit financing) when the Treasury should sell debt with earlier redemption provisions. It does not believe these circumstances presently exist. Contrary to the situation of private borrowers, the Treasury utilizes every sector of the market all the time so that opportunities to finance at lower rates constantly occur.

The prospect that high coupon Treasury issues might, in a very low rate environment, attain high premiums, was not felt to be a problem and would be welcome, market-broadening relief to fixed rate investors.

A further concern discussed in connection with paying the price of shortening the call was the fact that those who established the shorter call and paid the price will not likely be the ones who would exercise the call.
lf, in spite of the Committee's virtually unanimous recommendation (one member would shorten the call from 25 to 20 years) the Treasury should decide to offer securities redeemable sooner than the prevailing 25 years, it was felt that the cost of the process could be accurately determined by selling simultaneously two issues, one of wich is callable in 25 years, with the other redeemable in some shorter period, such as five or ten years.

Under prevailing market conditions, a callable issue kould be priced to call date, increasing cost. It was also felt that the issue would be priced to yield something more than non-callable issues maturing on the call date in order to cover the risk that the issue may not be called. lt was also the opinion of the group that offering such an issue not deliverable against a futures contract vould add to its cost relative to a longer call.

Individual judgments of the cost, in basis points, of reducing the period during which the Treasury can redeem its securities, at par, are shown in Exhibit 1.

## Other Techniques

In addition to the techniques discussed in detail by the Committee, brief discussion was had of : asset-based issues, adjustables, drop-locks, extendables and warrants.

## Zero Coupon Bonds


#### Abstract

The Committee considered at length and a respectable minority supported the idea that the Treasury could sell an issue of zero coupon ("Streakers") bonds at yields belok those on current coupons. This is because private pension plans continue to express interest in establishing investment portfolios which either "lock-in" a predetermined rate of return over a specific time horizon or which match asset and liability cash flows over a specific time horizon. These strategies generally use Treasury fixed income securities but are currently constrained by the relatively short "durations" of Treasury coupon issues. (At current yield levels, a 30 -year Treasury coupon has a "duration" of approximately eight to nine years.) Since duration is a key parameter in these strategies, the investment horizon is limited. A zero coupon long Treasury issue would have a duration which equalled its term to maturity. Such a security would significantly lengthen the period of years over which one of these strategies could be applied, thus providing added flexibility to pension plan investment programs. Thus a new and growing market might be developed if the Treasury were to experiment with long-term zero coupon bonds.

In response to the criticism that zero coupons issued by private borrowers denies Treasury tax revenues, some members felt that the Treasury's use of this market would "preempt" that market and limit use by private issuers. Others felt that it would be poor public policy for the Treasury to utilize a tech. rique not generally approved when used by others.


Withholding Tax
The Committec would like to reaffirm its recommendation that the Treasury continue to promote efforts to remove the uithholding tax on interest income of foreign investors which it is felt would significantly broaden the market for Treasury issues.

Fiscal 1982 Financing Plan
At a Special Meeting of the Committee on September 22, 1980 it was felt that it would be useful to consider debt management strategies and problems by doing some tentative planning for the forthcoming fiscal year. A pro-forma financing schedule meeting that objective is attached as Exhibit 11 .

## Conclusion

A cyncical, skeptical market seems focused more on what it regards as fundamental causes of high interest rates-deficits, inflation--and would not be likely to respond favorably to undocumented assertions of faith in a program whose results are uncertain, unknown and untested with the possibility that fear of inflation might be increased rather than diminished by debt management policies which effectively pile short debt on short debt. In a word, the Committee believes that existing policies should be continued with minimal reliance on Treasury bills and maximum reliance on coupon issues, regularization and debt extension whenever possible.


Frank P. Smear
Chairman

REPOR'T TO THE SECRETARY OF THE TREASURY
FROM THE U.S. GOVERNMENT AND FEDERAL AGENCIES
SECURITIES COMMITTEE OF THE PUBLIC SECURITIES ASSOCIATION
July 29, 1981

## Economic Environment

For many market participants, the striking resiliency of real economic activity in the face of near-record interest rates, remains a major concern. Uncertainty over the financial market impact of an emerging confrontation between a stimulative fiscal policy and a restrictive monetary policy over the next year appears to weigh heavily on the market and may be reducing the interest rate effect of a relatively low rate of inflation in the belief that the moderate weakness in economic activity will be short lived.

## The Market

Uncertainty over whether or not the Treasury will make any changes in the structure of the debt has probably restrained dealers from setting up positions in advance of a major financing as is normally the case. It was the unanimous view of the committee that the Treasury conduct this quarterly refinancing as a three-pronged offering of $3-1 / 4,10$, and 30 -year coupon issues. A large majority (13/18) of the group favored a package consisting of:

| \$4 bil. | $3-1 / 4-$ year notes due | $11-15-84$ |
| :---: | ---: | ---: |
| $* 2-1 / 2$ bil. $\quad 10-$ year notes due | $5-15-91$ |  |
| $* * 2-1 / 2$ bil. $30-$ year bonds due | $5-15-11$ |  |
| $\$ 9$ billion total. |  |  |

## Reopening

The 10 -year and 30 -year funds should be raised by reopenings of the 14-1/2\% note due 5-15-91 and the 13-7/8\% bond due 5/15/20ll. The 3-1/4-year issue should be sold at yield auction, and the reopened issues at price auctions. As follows:

3-1/4-year note on Tuesday, 8/4
lo-year note on Wednesday, 8/5
30-year bond on Thursday, 8/6.
Although all agreed that $\$ 9$ billion was the total amount that should be raised in notes and bonds, a smaller group preferred to raise $\$ 3$ billion at 10 years, reducing the 30 -year bond to $\$ 2$ billion. A $\$ 9$ billion financing would refund the $\$ 5.4$ billion of privately-held coupons maturing on August 15 , and raise $\$ 3.6$ billion in new money.

[^2]
## Cash Balance

In view of the exceptionally large, $\mathbf{\$ 3 0 - 3 3}$ billion estimated needs of the fourth calendar quarter, the committee recommends a closing cash balance of at least $\$ 18.3$ billion on $9 / 30 / 81$. This would not be out of line with the seasonallytraditionally high cash balances held on that date. As in the past, the committee believes that quarterly financings can and should be enlarged so as to take some of the weight off the large requirements of quarter-ending-months.

## Uses

The financing problem for the quarter requires covering a cash deficit of $\$ 12-1 / 2$ billion, a decline of $\$ 4$ billion in non-marketable sources of funds (savings bonds, foreign, and state and local) and an increase of $\$ 1.8$ billion in cash to produce a balance of $\$ 18.3$ billion on $9 / 30$.

## Sources

$\$ 6.8$ billion has already been done in coupon issues, $\$ 3.6$ billion is to be raised in this refunding, cycle notes are to be increased by $\$ 6.2$ billion and $\$ 1.7$ billion raised in the bill market (i.e., $\$ 3.0$ billion less 1.3 paid-down in July).
$\frac{\text { Third Quarter }}{\text { (calender) }}$
Summary

## Uses

| Cash Deficit | $\$ 12.5$ |
| :--- | ---: |
| Non-marketables | 4.0 |
| Increase Cash | 1.8 |
|  | $\$ 18.3$ |

## Sources

| Done in Coupons | $\$ 6.8$ |
| :--- | ---: |
| Refunding | 3.6 |
| Cycle Notes | 6.2 |
| Bills Net | 1.7 |
|  | $\$ 18.3$ |

## Cycle Notes

Increasing the 2-year note issues to $\$ 4-1 / 2$ billion, the 4 -year to $\$ 3-1 / 2$ billion and selling $\$ 3$ billion of a 5 -year note in September raises $\$ 6.2$ billion.
(Cycle Notes)
Coupons

| Date | Issue | $\begin{gathered} \text { \$ } \\ \text { Due } \end{gathered}$ | Offer | New Cash |
| :---: | :---: | :---: | :---: | :---: |
| August | 2-year note | 3.2 | 4.5 | 1.3 |
| September | 2-year note | 3.3 | 4.5 | 1.2 |
|  | 4-year note | 2.8 | 3.5 | . 7 |
|  | 5-year note | 0 | 3.0 | 3.0 |

Bil1s
Modest increases in weekly auctions of the 3 and 6 -month bills from a total of $\$ 8.4$ billion to $\$ 8.6$ and a $\$ 0.5$ billion add-on to two auctions of l-year bills will produce $\$ 3$ billion...raising $\$ 1.7$ billion net of the $\$ 1.3$ pay-down in July.

| Bills |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Due | 13-Week | 26-Week | Year | Change |
| July |  |  |  |  | (1.3) |
| August |  |  |  |  |  |
| 6 | \$8.4 | 4.0 | 4.6 |  | +. 2 |
| 13 | 12.6 | 4.0 | 4.6 | 4.7 | . 7 |
| 20 | 8.4 | 4.0 | 4.6 |  | . 2 |
| 27 | 8.4 | 4.0 | 4.6 |  | . 2 |
| September |  |  |  |  |  |
| 3 | 8.3 | 4.0 | 4.6 |  | - 3 |
| 10 | 12.4 | 4.0 | 4.6 | 4.7 | . 9 |
| 17 | 8.4 | 4.0 | 4.6 |  | . 2 |
| 24 | 8.3 | 4.0 | 4.6 |  | . 3 |
| (3-1.3-1.7) |  |  |  |  |  |

## Cash Management Bills

It may be necessary in both September and December to issue cash management bills to cover low points in cash balances. Although final size and timing of such issues is essentially a "housekeeping" job for the Treasury, consideration should be given to offering longer dated issues to mature in the relatively light second quarter.

## Coupon-Bill Mix

The group feels that the appropriate mix of bills and coupons on Treasury financing programs should be somewhere in a range of 108 to 208 .

## Two-Pronged Financing

Although no member of the committee would recommend a twopronged financing, with or without a bond, if the Treasury should, nonetheless, decide to finance in that way, we would suggest selling $\$ 5$ billion of a 3-1/4-year note due ll-15-84 (16/18) and $\$ 3$ billion of a lo-year note due 5-15-91 to raise $\$ 8$ billion in this financing. In order to reach a cash balance of $\$ 18.3$ at $9 / 30 / 81$, an additional $\$ 1$ billion would have to be raised by additions to bills. This could be done by adding an additional $\$ 125$ million to the 8 weekly auctions from $8 / 6$ to 9/24 raising these to $\$ 8.525$ million or other combinations such as adding $\$ 100$ million each to the 3 and 6 month bills for the 5 auctions $8 / 27$ through 9/24. Another alternative, of course, would be to target a cash balance of only $\$ 17.3$ on 9/30 and plan to pick up the financing in the fourth quarter. In view of the heavy requirements of that quarter, this is not recommended. One member would raise $\$ 9$ billion in this financing consisting of $\$ 5$ billion in 3-1/4 years and $\$ 4$ billion in 10 years. Most felt this was overloading the 10 -year and would be very costly, at best.

## Two Prongs with a Bond

There was some discussion though no real support for a two pronged financing made up of $\$ 5$ billion of a 3-1/4-year note and $\$ 3$ billion of a 30-year bond. This package would accommodate those who might, ultimately, choose to focus on longterm Treasury financing more narrowly and eliminate the 15 and 20 -year bonds and/or to reduce or eliminate even the lo-year note. This rationale is based on a belief that there is no real discrimination in the market at 10 years and longer and that the Treasury would then abandon that area to private borrowers.

## No Bonds

If no bonds are offered, the Treasury would, of course, have to increase the size of both note and bill issues.

Eliminating Bonds

[^3]It is probable that the market would assume very heavy bill financing since most regularly scheduled longer coupon issues are at or near practical auction limits now.

Fixed Price Subscription Issue
Discussion of a fixed price offering to raise large amounts in coupon issues was limited because of the difficulty in pricing such an issue in a highly volatile market.

## 1981-Fourth Quarter

If the Treasury were to begin the fourth quarter with a balance of $\$ 18.3$ billion, projected maximum financing requirements of $\$ 33$ billion could be met by modest increases in cycle notes (2-4 and 5-year), a $\$ 9$ billion refinancing in November to raise about $\$ 4$ billion for total coupon financing of about $\$ 14$ billion. A modest increase in bill financing plus the sale of \$7-8 billion of cash management bills would result in a cash balance at $12 / 31 / 81$ of about $\$ 15$ billion.

## Salability

The committee would also like to reassert its belief that the 30 -year bond callable in 25 years is the most viable vehicle for Treasury bond financing. This conviction has been strengthened by the increasing value of these terms to the financial futures market, which has been reflected in lower borrowing costs to the Treasury.

## Non-marketable Sources

The committee noted the continuing decline in non-marketable sources of funds (foreign, state and local and especially savings bonds) and would encourage all reasonable efforts to arrest the decline if not add to this source. The most obvious open course is to continue to raise, by the authorized amount (li) semiannually, the interest returns on savings bond issues.

## Conclusion

The committee's unanimous - unequivocal recommendation for a 3-pronged financing including a long-term bond should be viewed as the strongest possible restatement of its conviction that the Treasury should neither abandon nor scale back financing in that area of the market. Inasmuch as the committee considered some of the principal issues in debt management at its special meeting on July 14, we do not repeat those positions in this report. We are prepared to expand on these positions or answer any questions you may have.


Frank P. Smear
Chairman

# REPORT TO THE SECRETARY OF THE TREASURY <br> FROM THE U.S. GOVERNMENT AND FEDERAL AGENCIES <br> securities committee of the <br> PUBLIC SECURITIES ASSOCIATION 

October 28, 1981

## Mr. Secretary:

The committee is in general agreement with the Treasury view that although we are in a recession, it is not likely to be long and deep. We agree, too, that historically high rates of interest are a function of high rates of inflation and that a sustained decline in rates of inflation will produce lower rates of interest. It is also agreed that the deficit will be very substantially larger than the initial estimate of $\$ 42$ billion and that both spending cuts and revenue increases will be difficult to achieve.

The monetary policy is perceived as wholly appropriate to prevailing economic-financial market conditions. In view of the fragility of assumptions about business activity, inflation, revenues and expenditures and the real prospect that the probabilities seem to favor results that would inaterially increase the deficit, the committee strongly recommends a significant increase in financing this quarter.

## Overall Size Of Financing

The committee is also concerned about the diminishing size of quarterly financing relative to cycle and other financing needs which have to be met in between quarterly dates. It was felt that some of this weight should be shifted from these less visible intermediate financings to the more visible quarterly financing and that it would be appropriate to initiate that shift now. The group was virtually unanimous in proposing a financing package of at least $\$ 9$ 1/4 billion. Half of the committee preferred to raise more, as much as $\$ 93 / 4$ billion. The total $\$ 91 / 4$ billion of financing would include:

## Proposal for November Refunding

| $31 / 4$ | year note due $2 / 15 / 85$ | $\$ 4.75$ | billion |
| :--- | :--- | ---: | :--- |
| 10 | year note due $11 / 15 / 91$ | 2.50 |  |
| 30 | year bond due $11 / 15 / 06-11$ | $\frac{2.00}{}$ |  |
| TOtal |  |  |  |
| Maturities due $11 / 15 / 81$ | $\frac{5.00}{}$ | billion |  |
| Net Cash |  | $\$ 4.25$ | billion |

Willingness to increase substantially the total financing was also influenced by a belief that there is a very large demand for the $31 / 4$ year "anchor issue". Ten members favored an issue of $\$ 5$ billion rather than the proposed $\$ 43 / 4$ billion.

The ten year issue at $\$ 21 / 2$ billion and the 30 year issue at $\$ 2$ billion are within market expectations. About a third of the group preferred an issue larger than $\$ 2$ bilion for the long bond. On balance, therefore, it was agreed that the market would not be shocked by a larger than expected financing package weighted in the $31 / 4$ year area.

Quarterly Recommendations

1. We accepted a fourth quarter cash need of $\$ 421 / 2$ billion.
2. Our proposaj suggests a cut back in weekly bills from the $\$ 9.4$ billion recently sold to $\$ 8.8$ billion. In the nine weekly auctions remaininy in the quarter, this would raise $\$ 2.8$ billion, which, when added to the $\$ 41 / 2$ billion already raised, would bring total raised through the weekly series to $\$ 7.3$ billion.
3. The october 52 week bill already sold was for $\$ 5$ billion, and it has been announced that the November bill will be of the same size. We suggest continuing this progran to raise $\$ 3$ billion in the quarter.
4. The $\$ 10.3$ billion raised in the bill market would be about 24 percent of the quarterly cost requirement of $\$ 42 \mathrm{l} / 2$ billion. If the Treasury were to continue issuing $\$ 9.4$ billion of weekly bills and $\$ 5$ billion of one-year bills, bill financing would be 35 percent of cash needs.
5. We recommend modest increases in the cycle 2, 4, and 5 year notes to $\$ 5$, $\$ 4$, and $\$ 31 / 2$ billion respectively. This would raise $\$ 6.3$ billion for the remainder of the quarter. Adding this to the $\$ 6.4$ billion that has already been raised in the 2 and 7 year notes and the 20 year bond sums to $\$ 12.7$ billion.
6. If we add that $\$ 12.7$ billion to the $\$ 10.3$ billion raised through regular bills, we are left with $\$ 19.5$ billion to be handled in this refunding in cash management bills and/or by a reduction in the Treasury balance.
7. We suggest raising $\$ 9$ billion in two issues of cash management bills, $\$ 41 / 4$ billion in this refunding and a drawdown of the cash balance of $\$ 61 / 4$ billion. The $\$ 41 / 4$ billion new money is slightly larger than the $\$ 3-4$ billion sought by the treasury and the drawdown is slightly smaller.

## Cash Balance

The committee was unanimous in the view that the cash balance of $\$ 18.7$ billion should be drawndown by $\$ 61 / 4$ billion during the quarter so that the balance on $12 / 31 / 81$ would be $\$ 12 \mathrm{l} / 2 \mathrm{billion} \mathrm{The} \mathrm{drawdown} \mathrm{of} \mathrm{only} \$ .6 \mathrm{l} / 4 \mathrm{billion}$ is $\$ 500$ million less than Treasury had planned from this source and would be part of net market borrowing. The cash balance of $\$ 121 / 2$ billion is in line with the cash balance of $\$ 12.3$ billion on 12/31/80.

In summary, we propose as follows:

| Regular bills | $\$ 10.30$ billion |
| :--- | ---: |
| Cash management bills | 9.00 |
| Coupons | 16.95 |
| Balance reduction | 6.25 |
|  | $\$ 42.50$ |
|  |  |

The worksheet, attached, outlines our recommendations in detail.

## Bills versus Coupons

A major objective in debt management policy, in general and in this financing, was to minimize the use of the bill market so as to accelerate the development of a positive yield curve. The realization of that objective would have a much greater impact on reducing the cost of carrying Treasury debt than withdrawing or reducing issuance of long term issues. With half of the debt maturing in less than a year and 3/4 within 3 years--all being financed at rates significantly higher than long bond rates--it seems clear beyond a doubt that the major focus now should be on getting short rates down. The heavy carrying costs are much less a function of continuing the relatively modest 10 percent or so of total financing in the longer coupon market than of the much higher cost of financing massive amounts of debt short term on an inverted yield curve. The prevailing slope of the yield curve, rising sharply in the first year, invites this kind
of debt management strategy. Even in the bill area itself, 3, 6 and 12 months, we would add to the pressure to tilt the yield curve up by weighting bill financing toward the year bill and away from the 90-day bill.

In view of the widespread discussion, especially by academic economists, of the merits of the Treasury abandoning the issuance of long term bonds because of high interest rates, the committee reviewed its longstanding recommendation that the Treasury neither withdraw nor reduce financing in this area of the market. With only one exception, the group would like to reaffirm that recommendation for reasons outlined in previous reports. We would also like to restate our deep conviction that existing debt management policies be continued with minimal reliance on bill financing, maximum use of coupon issues, regularization and debt extension whenever possible.

## Auction Schedule

It is suggested that all three issues be sold at yield auctions: the $31 / 4$ year note on Monday, November 2 at 2 p.m., 30 minutes after the regular weekly bill (a small group preferred a $1 \mathrm{p} . \mathrm{m}$. sale); auction the 10 year note on Wednesday, November 4 and the long bond on Thursday, November 5.

The proposed schedule is designed to avoid a bond auction on Friday before the money figures. It was generally agreed, too, that a note auction following the bill auction on Monday would be preferable and would get the financing done closer to the announcement so that interest would not have declined because of a delay.

## Rate Levels

In view of the high volatility that has characterized the bond and money markets in recent years, it would be unrealistic to predict the rate levels at which these issues could be sold. We are satisfied that the issues have been fully discussed by the committee and are pleased with the level of agreement that has been reached on the recommendations. Even so, there are at least shades of differences among us on both the size and structure of the proposed financing. Members are encouraged to reveal those differences. We will be happy to respond to your questions or comments.

I need to report offically that Mr. David Barry, Executive Vice President of the Manufacturers Hanover Trust Co., who has served on this committee long and well will be retiring at the end of the year, so that this will be his last working meeting.

Thank you.
Frank P. Smeal
Chairman

WORKSHEET
ASSUMED CASH NEED IN FOURTH QUARTER OF $\$ 42.5$ BILLION Proposed Financing - Billions of Dollars

| Issue | Already Raised | To be Raised | Total for Quarter | $\begin{aligned} & \text { Issue } \\ & \text { Size } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Weekly Bills | 4.5 | 2.8 | 7.3 | 8.8 |
| 52 Week Bill |  |  |  |  |
| Oct. | 1.0 | -- | 1.0 | 5.0 |
| Nov. | 1.1 | -- | 1.1 | 5.0 |
| Dec. \#1 | -- | . 4 | . 4 | 5.0 |
| Dec. $\$ 2$ | -- | . 5 | . 5 | 5.0 |
| Cash Management Bills <br> to Mature, in Apr-June Quarter |  |  |  |  |
| Nov. |  | 4.5 | 4.5 | 4.5 |
| Dec. |  | 4.5 | 4.5 | 4.5 |
| Misc. <br> (Late non-comp. and <br> add-ons) |  |  |  |  |
| 2 year notes |  |  |  |  |
| Oct. | . 9 | -- | . 9 | 4.8 |
| Nov. | -- | . 8 | . 8 | 5.0 |
| Dec. | -- | 1.3 | 1.3 | 5.0 |
| 4 year notes | -- | . 7 | . 7 | 4.0 |
| 5 year notes | -- | 3.5 | 3.5 | 3.5 |
| 7 year notes | 3.0 | -- | 3.0 | 3.0 |
| 20 year bond | 1.8 | -- | 1.8 | 1.8 |
| Nov. Refunding | -- | 4.25 | 4.25 |  |
| Total | $\overline{13.0}$ | $\overline{23.25}$ | $\overline{36.25}$ |  |
| Reduce Cash Balance |  |  | $\frac{6.25}{42.50}$ |  |

Chairman Fauntroy. Next we will hear from David Bunting, managing director of the First Boston Corp., and Daniel Napoli, vice president and manager of Government securities trading for Merrill Lynch.

I am pleased to have you gentlemen. And we have your prepared testimony and you may proceed in whatever manner you choose. Thank you for making yourselves available.

## STATEMENT OF DAVID BUNTING, MANAGING DIRECTOR, FIRST BOSTON CORP.

Mr. Bunting. Thank you very much. We decided to go alphabetically.

I am David Bunting, a managing director of the First Boston Corp., responsible for the trading and sales activities in Government securities for that firm. In addition, I am serving this year as president of the Association of Primary Dealers in U.S. Government Securities, which is a group of 36 firms whose trading volume and position reports are accepted by the Federal Reserve. The purposes of this organization as specified in the articles of association are:
(1) To foster high standards of commercial honor and business conduct among its members and to promote just and equitable principles of trade.
(2) To promote practices conducive to efficient conduct of the business of its members.
(3) To provide a medium through which its members may be enabled to confer, consult, and cooperate with the Federal Reserve System, the U.S. Treasury Department and other U.S. Government agencies with respect to matters affecting the market for U.S. Government and agency securities. Government securities dealers perform three principal functions in the marketplace: (1) maintaining secondary markets for investors in outstanding Treasury and Federal agency issues; (2) underwriting Treasury and agency issues by bidding on these securities and distributing them to the public; and (3) trading with the Federal Reserve when the Fed conducts open market operations. Unlike investing institutions and private investors, who may choose the circumstances under which they participate in the market, dealers stand ready to trade daily in all conditions, and as a result, cannot by themselves influence interest rate levels, but rather reflect the market "as is." As I respond to the nine issues raised in this subcommittee's invitation to testify, may I emphasize that the opinions expressed are my own, although I have consulted with my colleagues on matters of fact. Members of the subcommittee have been furnished with copies of the First Boston Corp.'s 1980 edition of the "Handbook of Securities of the U.S. Government and Federal Agencies," which I hope will prove useful in providing background information on the instruments and activities of the Government securities markets.

## ISSUE NO. 1

The decision to continue to raise funds with the use of long-term financing in light of recent high interest rates. The Treasury's ongoing need to raise large amounts of cash-estimated at approxi-
mately $\$ 2$ billion net new money per week in calendar 1982-requires the use of all market sectors. Long-term Treasury debt accounts for only 10 percent of outstanding marketable debt and based on recent experience, will account for perhaps 15 percent of the new cash to be raised in 1982. In recent years, borrowing in shorter term markets has carried higher interest costs than long term issues. Also, because of the uptrend in rates, financing in the long markets has proved to be the cheapest for the Treasury. Between 1970 and 1979, the Treasury issued a variety of long-term bonds bearing rates ranging from $61 / 8$ percent to $91 / 8$ percent. Although many were issued at then record-high rates, most trade today at 60 to 70 percent of their par value. In retrospect, if more long-term bonds had been issued, the burden of interest costs would be much lower today. If the Treasury were to withdraw from the long markets, two adverse consequences might result. First, and most important, is the possible damage to the capital markets for private sector issuers. Treasury paper is the reference by which all other issues are priced. When the Treasury resumed regular bond sales in 1970-after a 6 -year hiatus-the ensuing growth of the capital markets helped process the large long-term debt requirements of all issuers. Investors will not generally commit money or attention to securities for which there is no active secondary market or regular calendar of new issues from which they can assess relative investment values. Second, if the Treasury stopped issuing longterm bonds because rates are "too high," any attempt to reenter the market would presumably warn potential investors that the Treasury felt rates were "too low." Interest rate forecasting is difficult at best, and the Treasury should avoid the appearance of trying to play the market while meeting its debt management responsiblity.

## ISSUE NO. 2

The impact of Treasury financing and refinancing operations on current interest rates, including the impact of the different terms for debt securities. The frequency of treasury borrowing undoubtedly has an effect on interest costs, but it is unavoidable, because of the large current cash-raising requirements. Dealer capital for underwriting and investor cash flow for investment are occasionally overwhelmed by the supply of new debt, particularly when interest rate expectations are pessimistic. At the moment, the Treasury has little choice as to the frequency of sales, but by issuing regular cycles in all maturity sectors, the impact of the large aggregate sales seems evenly distributed.

ISSUE NO. 3
Any features or changes which might make the sale of the debt easier or cheaper. Many features, including floating coupon rates, "tap" issues, put bonds, optional maturity issues and various call provisions have been studied carefully in the past, but most of these ideas are viewed as gimmicks used to shore up marginal borrowers and have not been recommended. No matter how the Treasury structures its issues, the funds attracted by innovative forms of securities would come at the expense of other borrowers and the
investing public. Since the Treasury now competes successfully for available investment money, it is doubtful that any savings would be accomplished by resorting to gimmicks. The Treasury's current practice of issuing bills, notes, and bonds in regular cycles has demonstrated an ability to generate sufficient cash to satisfy all requirements, while allowing market participants to prepare for known patterns of issuance. It is occasionally suggested that lowering minimum denominations of Treasury issues-currently $\$ 10,000$ for bills, $\$ 5,000$ for some short-term notes and $\$ 1,000$ for all other issues-would increase public participation and lower borrowing costs. Historically, the Treasury has sold some marketable issues in pieces as small as $\$ 50$-World War II tap issues-but in recent years has raised the minimum because of prohibitive processing costs for a large volume of small orders and to prevent large outflows from thrift institutions during periods of high interest rates. Lowering minimum denominations is not likely to significantly increase public participation in Treasury sales, given the variety of alternatives now available, especially money market mutual funds.

## ISSUE NO. 4

The impact of the financial-futures market on the ability of the Treasury to market its debt. The advent and growth of the finan-cial-futures markets have greatly increased the breadth and depth of the Treasury market. Hedging and arbitrage activities in the futures markets have clearly eased the burden on the cash market during Treasury financings and have probably had the net effect of slightly reducing borrowing costs. The fact that the Treasury has designed some issues-selected bills and the 20 -year bond cycle-to mesh with financial contracts indicates that Treasury sees those markets as beneficial. In this regard, it should be noted that if the Treasury were to discontinue sales of long-term bonds, it might serve to undermine the fundamental premise of the futures markets; that is, an ample supply of the underlying or deliverable commodity. Regarding subsidized alternative instruments, whether tax-favored-Industrial Revenue bonds and All Savers Certificates-or federally guaranteed-GNMA's, etc.- the net impact is always negative to borrowers not so favored. As the easy example, All Savers Certificates never grew to the proportions originally estimated, but the result was a transfer of funds from private business borrowing toward housing-related debt.

## ISSUE NO. 5

The problem of coordination between Fed policy and the refunding auctions. Federal Reserve policy, like Treasury financing, is a daily market factor. Perceived Fed policy actions can obviously affect the level of rates whether the Treasury is financing or not. Almost all market participants try to analyze the Fed's posture and position themselves accordingly. I feel that, usually successfully, the Fed tries to avoid issuing confusing signals in their open market operations. It would be hard to single out uncertainty about Fed intentions as a major negative affecting Treasury borrowing cost. As long as the future course of the economy is unclear, the outlook for fiscal and monetary policy will be equally so.

The impact on the market when dealers with underwriting responsibilities are left with higher than normal amounts of new issues. Dealers and other market participants bid for Treasury issues based on their position requirements and/or market viewpoint. Although more frequent Treasury auctions tend to result in higher dealer positions, dealers assume these positions at their own risk and the time of distribution depends on the market level, trend, and order flow. Occasionally, the pace of Treasury sales can "overload" the market but when dealers are left with larger than expected new-issue positions, we assume that we, not the Treasury, have made an error in market judgment, and efficient markets usually adjust quickly.

I doubt that future financings are greatly affected by recent "bad" experience among underwriters. Dealers are in the business of assessing and accepting risk and bidding levels are determined by that collective risk judgment.

## ISSUE NO. 7

The role of the advisory committee of primary underwriters who advise the Treasury.

The discussions of the Public Securities Association-PSA-Government and Agency Advisory Committee are confidential; since I am not a member of the committee, the results of these discussions are not available to me.

## ISSUE NO. 8

The October 1979 Fed change in its open market operating procedures abandoning the pegging of the Federal funds rate and moving to control directly the day-to-day supply of bank reserves on a basis consistent with long-run targets for monetary growth. The new FOMC operating procedures in effect since October 1979, have produced greatly increased volatility in rates. The most notable consequence of increased volatility is the "real" rates of return have risen, and now apparently include a volatility-or market-risk-premium. The Treasury has had to finance in this environment, thus paying the cost of greater market volatility, but significantly, the Treasury has always been able to sell the full amount of proposed issues, regardless of market conditions. Dealers have adjusted to this changed environment by increased reliance on arbitrage and hedged positons and by carrying smaller outright risk positions and by carrying smaller outright risk positions for shorter time periods. As dealers have adjusted to the fact of volatility, they have noticed that the number of price swings and trading opportunities in a given time span have increased; therefore in a roundabout way, greater volatility in the market has probably increased trading volume and liquidity.

## ISSUE NO. 9

Assessment of the relationship between the Treasury and the Fed in the placement and sale of the Treasury's debt. I have no way of knowing what kind of specific Fed-Treasury consultations
may occur regarding debt management, but it seems to me the Fed and the Tresury can hardly be other than well informed of each other's plans and policies. Both attempt to perform their duties in a way that is least burdensome or confusing to the public. I am not aware of any occasion when a lack of coordination was visible or disruptive to the market. I would observe that both the Treasury and the Fed are well behind private sector market participants in the use of computer and communications technology to accomplish open market activities and auction bidding.

The Fed-as the Treasury's fiscal agent-still adheres to many antiquated procedures that tend to inhibit dealers' and investors' willingness and ability to bid in Treasury auctions and participate in open market operations.

Chairman. Fauntroy. I thank you, Mr. Bunting, particularly for the structure of your testimony. And we look forward to questioning you once we've heard from Mr. Napoli.

## STATEMENT OF DANIEL NAPOLI, VICE PRESIDENT, MERRILL LYNCH GOVERNMENT SECURITIES INC.

Mr. Napoli. Thank you. Mr. Chairman, distinguished members of the subcommittee, my name is Daniel Napoli, vice president of Merrill Lynch Government Securities Inc. I'm pleased to have this opportunity to assist this subcommittee.
The original text has been handed out for the record. I am pleased to have this opportunity to assit the subcommittee in its review of the U.S. Treasury's debt management efforts. Any assessment of current debt management policies must above all be based on an understanding that the magnitude of today's Federal debt financing, with its unprecedented deficits, leaves the Treasury with an enormous task to perform and relatively few options open to it. The No. 1 one priority of the Treasury must continue to be the maintenance of its greatest strength, namely, its reputation as the strongest, soundest borrower in the world. Maintaining this stature is not an easy task, in view of the enormous amounts of new cash needed to finance the country's deficits. To accomplish this its reputation for prudent financial management must be maintained.
In my opinion, a critical factor in maintaining the Treasury's financial stature in the face of persistent, growing deficits is the policy of debt extension which has been followed during the last few years. In order for the Treasury to successfully finance the large deficits that the Federal Government has been running throughout the last decade, it has had to utilize a wide selection of maturities. By issuing longer dated debt as the first chart indicates, the average maturity of the Treasury's debt has been stretched out to 4 years from the low of 2 years and 5 months in the first quarter of 1976. Since the Treasury aggressively started lengthening the average debt maturity in the last 6 years, an aggregate budget deficit of $\$ 358$ billion has been financed by issuing a total of $\$ 363$ billion in new bills, notes and bonds. Presently the average length of marketable debt is about the same as that in early 1969. As the second chart indicates, the financing of the Treasury's debt has been accomplished by increasing the size of all the maturities. Had the treasury utilized only the short-term market throughout the

1970's it is clear that it would find itself in a very uncomfortable position today in terms of requirements to refund maturing debt. The combination of substantial needs for new funds and significant rollovers of maturing debt would severely restrict the Treasury's flexiblity in the area of debt management. To a significant degree the maturity structure adopted by the Treasury in conducting its debt management activities reflects an effort on its part to satisfy its own needs for funds by matching these needs with those of a wide spectrum of potential investors. While the outstanding marketable debt has expanded by $\$ 482$ billion or 203 percent from 1970 to the end of 1981, the supply of funds to finance this debt has been increasingly provided by nonbank investors. As the first table clearly illustrates, holdings of Treasury securities by commercial banks have declined from 18.5 percent in 1970 to 10.3 percent at the end of 1981. The burden in financing the debt has rested, for the most part, on all other investors which include individuals.

All other investors have increased their share in holdings of Treasury debt from 38 to 64 percent over the last 11 years.

An ongoing concern with respect to the debt extension program is the issue of cost, in particular the possibility that the issuance of longer term debt during a period of high rates creates a burden of higher interest cost for years to come. First, it should be stated categorically that the Treasury as a constant and primary borrower in the Nation's financial markets has an ongoing obligation to carry out its operations in the least disruptive manner possible. The performance of this task leaves no room for the Treasury to speculate on the future course of interest rates by structuring its market activities to conform to a particular interest rate forecast. The one thing that the Treasury should not do is to attempt to establish or influence interest rate levels.

Nevertheless, the issue of interest cost cannot be ignored. With regard to this question it should be noted that the lengthening of maturities since 1976 has already had a significant, positive impact on the average cost of the debt. As the chart below illustrates, the yield curve has remained flat or negative since then. Over the last 5 years we experienced only temporary spells of declining interest rates; if the Treasury had limited itself to issuing only notes and shorter dated Treasury bills, even larger deficits would have been experienced since greater emphasis on financing in the shorter maturities would have been much costlier. It is important, therefore, to keep in mind that the question of cost should be viewed with some historical perspective. While the present cost of raising long term debt may at first sight seem excessively high, we should remember that 5 years ago a $75 / 8$-percent coupon seemed expensive. Now such low cost seems a bargain for a 25-year maturity. A fair and realistic assessment of the Treasury's regular selling of longterm debt requires that the program be viewed since inception.

Efforts to reduce the cost of the debt usually include consideration of changes in the structure of the debt obligation itself. During the last few years the Nation's private capital markets have been forced to become increasingly innovative, utilizing such techniques as floating rate notes, zero coupon and original-issue discounts, complex sinking funds and call provisions, et cetera to enable borrowers to raise necessary capital. In my opinion the use of financ-
ing gimmicks of this type would be inappropirate for the U.S. Treasury. Resorting to techniques utilized by less credit-worthy entities will only act to reduce the Treasury's reputation as the finest credit in the world. Furthermore, the potential cost savings derived from these techniques may be open to question. More frequent use of call features, for example, is likely to raise the initial interest cost of an issue since it reduces its attractiveness to a prospective investor. Similarly, I would be skeptical of the usefulness to the Treasury of zero coupon or original issue discount securities. The issuance of a sizable amount of securities whose par value is significantly higher than the initial amount of cash generated would only exacerbate perceived debt managment problems in periods of large deficits. In addition, by the use of such instruments the Treasury would forego the possibility of refinancing a stream of coupon payments at lower cost if interest rates fall in the future. In considering the possible use of such financing techniques, it is important to keep in mind that the market for U.S. Treasury securities is the largest, deepest, most liquid financial market in the world and that at least one reason for this is the simplicity of the debt instrument itself. It seems to me that it would be imprudent to risk damaging this in the pursuit of dubious short-run cost savings.
Before leaving the subject of financial innovation, I would like to comment briefly on the financial futures market and its impact on the ability of the Treasury to market its debt. My opinion is that the existence of futures contracts on debt instruments have had a generally positive impact on related cash markets because they have brought new participants into the market and provided existing participants with greater flexibility in managing their portfolios. By creating hedging and arbitrage opportunities financial futures serve to increase trading volume and improve market depth and liquidity. This, in turn, has led to more efficient markets and reduced spreads which benefit debt issuers and investors alike.

This pattern of development appears to have been the case with Treasury debt futures, in particular the so-called long-bond contract. Volume of trading in the long-bond futures contract is now approximately three times the size of related cash market trading. Studies that we have performed at Merrill Lynch show that over 70 percent of our firm's trading volume in this contract represents public participation which indicates to me that there is a widespread public interest in this instrument. Through the risk-transfer process that the futures market facilitates, this strong public participation is channeled into the cash market by creating liquidity and hedging opportunities for all market participants including underwriters. As a consequence, dealers have greatly enhanced capabilities to underwrite more debt. This, in turn, materially increases the Treasury's access to the long-term market.
Having just touched on the use of financial futures by securities dealers in relation to their primary bidding activities it may be appropriate at this time to comment in greater depth on the role the dealer community plays in underwriting Treasury debt. Concerns have been expressed that the existence on occasion of higher than normal holdings of new Treasury issues by dealers may have a negative impact on future Teasury financings. Regarding this I would like to express my view on the appropriate role of a dealer in par-
ticipating in new issue auctions. Primary or reporting dealers are expected to assist the Treasury in marketing new issues by participating in the auction process. The price levels at which an individual dealer bids, however, is totally at his discretion. In participating in the auction each dealer competes not only with the rest of the dealer community but with the public at large as well. In the event, therefore, that the dealers as a group find themselves holding an excessive position of new issues it is essentially a reflection that price levels or investor demand have been misjudged. Since a dealer's stock in trade is market knowledge, responsibility for market misjudgments must rest solely with the dealers themselves. It has been my experience that losses sometimes suffered by the dealer community in carrying out its underwriting commitments are unlikely to influence dealer behavior in future new issue flotations. Dealers, as professional risk takers, must of necessity have short memories. Success in this field of endeavor requires that full attention be directed to present and anticipated market conditions only. The mistakes or successes of the past cannot be allowed to influence current decisions. This is not to say that the recent volatility of interest rates with its heightened risk of loss has had no effect on dealers' attitude toward auction participation. It is obvious that a dealer who witnesses a market decline in 1 day of perhaps 5 points for a long-term bond is going to approach an auction differently than he would if his experience of potential price change was oneeighth or one-fourth of a point. Clearly, current rate levels include an additional risk premium to reflect increased volatility and market risk. Considering this environment of higher risk and sizable new offerings, I think it is fair to say that the competitive auction procedures currently utilized by the Treasury are working with reasonable efficiency.

Nevertheless, I would like to recommend the following changes to the auction process that could improve it further. First, I believe that consideration should be given to reducing the number of note and bond auctions.

Currently, the Treasury issues 40 notes and bonds per year or the equivalent of a coupon issue being auctioned every 9 days. This is in addition to 64 bill auctions and an occasional cash management bill. Including the agencies there are, on average, three financings per week. Replacing this with a schedule of larger, less frequent auctions could have a positive impact on the tone of the market for a number of reasons. For one thing, less frequent entry into the market would give dealers more time to distribute a given issue in an orderly way. In addition, a reduction in the frequency of auctions should generate greater participation from those investors who must purchase securities but who now often choose to delay their participation with minimal risk because of the certainty that the auction of a similar security will shortly follow.

My second suggestion regarding the structure of the Treasury auction process is to give consideration to reviving the use, on occasion, of two auction techniques which differ from the competitive bid auctions currently being used. The first auction technique is the subscription method which can be an attractive way to raise substantial amounts of money with wide distributrion. Before analyzing the subscription method, let us briefly review the current
auction method. With this technique investors and underwriters bid for blocks of securities at levels which, to them, represent fair market value. The Treasury collects those bids starting with the highest price paid and accepts all those bids until their offering needs are completed with the lowest price accepted receiving a percentage allocation.

With the subscription, the Treasury sets the coupon and receives subscriptions at a specific price preset by them. Obviously, to achieve this, the Treasury must make it attractive to investors to subscribe to their new offering. This is not as simple as it sounds because of the extreme volatility of recent years, but I will outline the mechanics of the way it would be undertaken. First, it is my opinion that the subscription method be used primarily in the 10 year maturity which is offered in the quarterly refunding operations. The amount of the offering should be left open with the coupon assigned on the morning of the offering.

Sufficient press coverage as well as dealer advertising will keep potential participants involved and well informed. At 12 noon, New York time, the Treasury can assign a dollar price adjusting for any volatility that may have occurred that morning. The price stipulated should be offered with a 15 -basis point concession to the outstanding 10 -year maturity to attract a large participation from the investor public. Considering the amount of potential tenders that would be received, the Treasury would then allocate a percentage of the amount of the total customer bid. Since each participant realizes that he will not be awarded all that he subscribes for, his inclination will be to bid for more than he needs hoping to receive a substantial award.

With this type of financing technique, the Treasury may be able to raise, in one offering, $\$ 10$ to $\$ 15$ billion. With this result, it may allow the debt managers to come less frequently to market with future financings while achieving maximum distribution of their securities. Some of the underwriting fear factor would be eliminated creating a better market tone while raising substantial amounts of money. Another technique which should be considered is the "Dutch Auction" method of issuing long bonds. The "Dutch Auction" has been used successfully in Europe and should be considered domestically when the market comes under abnormal stress. The principle of the "Dutch Auction" is that all winning bidders receive their awards at the lowest price. If, for example, the range of bids covering the amount offered is 13.85 to 14 percent all winning bidders receive their bonds at the lowest price, 14 percent. Many institutional investors are not participating in the markets on a daily basis and their fear of overpaying at auction discourages them from bidding. This phenomena is what, many times, creates the long, disruptive bidding ranges that result in higher cost to the Treasury. With the fear of bidding reduced, putting all bidders on equal footing, most participants will bid more aggressively realizing that his award would be received a the cheapest price. In conclusion, these two techniques-which by the way are not beneficial to the professional underwriters-can result in wide distribution, less fear, and substantial financing at market prices.

Finally, I would like to suggest that the minimum purchase price for Treasury auctions be reduced to encourage greater public par-
ticipation. The rationale that a low minimum price encourages disintermediation no longer seems appropriate in view of the wide array of alternative investment vehicles currently available to individuals. Assuming, therefore, that it is not prohibitively costly to administer, a reduction in the minimum level should be adopted.

Before completing my remarks on the subject of the debt-raising process, I would like to comment briefly on another factor that I think can contribute to the continued success of Treasury underwritings. That factor is the maintenance of a close professional working relationship between the Treasury, the Federal Reserve, and the dealer community. It is my understanding that, within the constraints of their separate functions, the Federal Reserve and the Treasury cooperate with one another in terms of exchanging advice and market intelligence. Another channel of communication is the committee of primary underwriters who advise the Treasury. Since my firm presently does not have a representative on this committee, I am unable to comment specifically on the role that it plays in shaping Treasury borrowings. It is my impression, however, that the committee acts solely in an advisory capacity and, in so doing, performs a useful service by providing additional information to the Treasury on market conditions. In confining itself to this advisory function no conflict of interest appears to me to exist.

The market for U.S. Treasury debt is simply too large to be unduly influenced by any one group of participants.

I would like to conclude my remarks by attempting to assess the impact on the market and the debt-raising process of the changes in Federal Reserve open market operating procedures which were adopted in October 1979. There can be little doubt that, however necessary, these changes have contributed to the much more volatile markets we have been experiencing. The Fed's reserve targeting methods have greatly differed from the previous pegged rate environment and this has had an impact on the Treasury's debt raising activities.

In the current market environment it is not uncommon for bond prices to move 3 or more points in a single day; on several days 5 point moves have been experienced. This type of market action makes premature market decisions very visible and extremely costly to investors and dealers alike. The fear of capital loss will many times keep investors in as short a maturity as their investment policies allow. Price movements such as this will create even more volatility because underwriters will be more likely to liquidate inventories if a positive investor response is not immediate. What occurs many times is a self-fulfilling prophecy. Investors deliberately will not commit funds in primary offerings anticipating dealer liquidations at lower prices soon after the auction. This occurs when dealers attempt to price the new issues instead of allowing the overall market to do the pricing. The result is overhanding inventories which then seek the appropriate market prices. The role of the dealer is to distribute the debt in the most efficient manner possible and fear of these wide rate movements often makes this objective more difficult to accomplish.

Particularly during times of extreme market volatility, it is important that Federal Reserve policy is carried out in as orderly and consistent a manner as possible. I wish to make it clear that I am
not suggesting a return to the even keel policies under which the Fed undertook to stabilize credit market conditions during Treasury financings. As a practical matter such a policy would be impossible to implement given the current increased number of major new financings. It is important, therefore, regardless of whether or not a Treasury financing is in progress, that the Federal Reserve act consistently and objectively in carrying out its stated duties. Any deviations from a stable, consistent pattern of operations will create additional fear and mistrust, resulting in still larger risk premiums as investors attempt to protect themselves from further risk of loss. In assessing the cause of market volatility, attention should also be directed to the Federal budget situation. It is my opinion that present perceptions of the size of anticipated Federal finanacing needs have also played a role in increasing market volatility. If the Treasury is to operate in a more stable financial environment in a period when deficits must be financed, then two things are necessary. First, an open and consistent Fed policy. Second, greater public awareness that the administration and the Congress are willing to work together to address the budget situation realistically. In my view these two conditions would greatly improve the possibilities for market stability and a reduction in the risk premiums built into current interest rate levels.

Chairman Fauntroy. Thank you so very much, Mr. Napoli, and Mr. Bunting. We've had a number of our members to join us in the committee hearing as you've seen, but we have a bit of a management problem in terms of the conduct of business on the Hill, so many of our members have other Committee meetings. I just had to leave to make a quorum for another subcommittee of the Banking Committee, so that there may be a time we'll invite you back to give us advice on how to manage our responsibilities as members of this Congress. Certainly every Member of the Congress should have been here to hear the expert testimony we've heard from all of you, and I would like to invite Mr. Taylor and Mr. Smeal back to the witness table and invite them to respond to any of the questions we may tender to Mr. Bunting or Mr. Napoli.

One of our colleagues suggested the use of an inflation-protected instrument. He would sell this instrument at some price of real interest rate return. He suggested he thought 2 percent with a remainder of the interest being adjusted periodically for inflation. Again some index. I wonder if you give this subcommittee your reaction to such an offering.

One of the questions I would like you specifically to address is the real rate of return that you believe would be minimally required by the market for such an instrument to be successful. Not everybody at once.

Mr. Bunting. I'll volunteer my body first. I think as a person from a trading background, I can easily support some of the comments that have gone before about the similar publicity of the Federal debt, the lack of the Treasury's ability to play the market, the prejudice against the use of gimmicks, the type of financing instruments that are usually reserved for less creditworthy borrowers. I see a great deal of difficulty in indexing.

First, there would be huge inflation numbers used today. Second, indexing in general, I think, tends to implant inflation as a no-cost
situation, whether it is for the Treasury or for other issuers or investors. I think it is significant that in the reviews we have made of the recent history of debt issuance that the market expected that inflation in the late 1970's to be temporary. This is why, in retrospect, Treasury was able to finance at very low rates of interest. The market, I believe, now fears a short-term recurrence of inflation or fears that the numbers we are now seeing fluctuate on the low side. Thus, in effect, the market is fighting the last "war" when interest rates were extremely high and rising.

The volatility of the marketplace has added some unmeasurable component to the real rate of interest. I'm not an economist, but I feel it is my duty to study all aspects of the marketplace. My understanding of the real rate of return tells me it is an artificial concept which is designed for zero inflation, therefore, 2-percent guaranteed return would be absolutely ideal. I don't think you can construct any environments where rates of inflation are steady or zero. They move around, especially now.

Chairman Fauntroy. I'll be happy to yield to the author of the suggestion.

Mr. Coyne. I'd like to clarify my proposal a little bit. Under my proposal inflation would be put into the principal column rather than the interest column. Inflation, then, would be reflected in the principal.

You're quite correct. We don't want gimmicks involved. My concern relates to real cost. Go back to the interest rates that the.Government paid in the early fifties, when the interest rates were low and the inflation rate was pretty close to zero, at least very nominally low.

Can you give us some estimate of the lowest financing cost by the Federal Government during those periods of low inflation costs?

Mr. Bunting. Back in the 1950's?
Mr. Coyne. Early 1950's.
Mr. Bunting. There was a time when the Treasury was issuing 4 -percent notes. I may look young, but I'm old inside.

Chairman Fauntroy. New model car; a lot of mileage.
Mr. Coyne. Under my proposal, I believe that 3, or 4, not 2 percent interest would be appropriate. I question Treasury's requirement that inflation be reflected in the interest column while not in the principal.

Mr. Bunting. It is a form of indexings because in a period of rapid inflation the particular value of the debt outstanding would be escalating rapidly since we are talking about deficits which might be large plus inflation.

Mr. Coyne. I sense I have a potential adversary. I would prefer a friendly colloquy than a debate.

Why should somebody take assets out of our Nation's economic private sector and transfer those assets to the U.S. Federal Government when that person could lose the worth of those assets? That lender should be entitled to receive back from the U.S. Government the same purchasing power and asset value he once lent? Is that not the purpose of lending and borrowing? To help other people who need access to credit and also preserve purchasing power of capital?

Mr. Bunting. I think I heard a pretty good answer to that. In effect, you're talking about indexing or floating something. Earlier testimony indicated when people believe rates are coming down they would not buy anything that is protected. Both borrowers and lenders in the recent past have inappropriately assessed the risk of borrowing and lending.

Mr. Coyne. As we previously discussed the real interest rate is traditionally around 4 percent. There is an inflation premium over and above that to reflect inflation expectations or the devaluation of the dollar. Inflation is nothing more than the lenders speculation about the devaluation of the denomination of the loan, the dollar in this case. The third component of interest rates is the uncertainty factor, what many call the insurance premium, because somebody might be wrong about their guess as to future devaluation of the dollar.

Now, the Federal Government is paying these three components in the interest column. I believe we should index the loans, and tie the long-term debt principal to inflation using the GNP-which would be a nondebatable index and is widely used in economics. Then we would pay only a real interest rate. The Government would be responsible for the inflation adjustment and the uncertainty premium. This would release the investor, the lender, from the need to wonder whether the Government was going to allow the dollar to devalue. Devaluation would not hurt the lenders, because the Government would accept that risk.

Mr. Taylor. Mr. Coyne, you're building inflation into the system.
Mr. Coyne. Let me finish. We're doing the opposite. We're penalizing the Government for allowing inflation, because if the Government allows inflation to continue it will have to pay for it. Now during inflationary times who wins the most? The Government. If inflation is higher than we expect right now, higher than the market expects, who will be the winner? The Government. Will the lender or the borrower win? Won't the U.S. Government be the winner?

Mr. Smeal. The borrower will be the winner.
Mr. Coyne. Obviously. So the U.S. Government has won a very substantial windfall due to the inflation of the last decade. Is that right?

Mr. Taylor. Correct.
Mr. Coyne. Is there any reason why the American investor, the American lender, should be exposed to the risk of inflation when in fact it is the creditor, the U.S. Government, that is responsible for that inflation?

Mr. Taylor. He should not be.
Mr. Coyne. Now let me proceed, therefore, the intelligent lender has tried the best he can to protect himself from inflation. He has moved away from long-term securities to short-term securities. Is this correct? The principal reason for this move is that the shortterm securities are really his best way of indexing himself against inflation, because he can rollover those securities every 30, 60, 90 days. This is why the entire Federal Government's debt is increasingly becoming de facto indexed-because it's becoming entirely a short-term debt. Now, why are we paying the price for indexing and not receiving any of the benefits? Indexing in long-term securi-
ties could then shift investors away from this tremendous reliance on short-term debt and reestablish long-term debt instruments, which would have credibility and encourage the investment of pension funds or college endowments in the government. Many people would prefer to secure long-term investment, which would eliminate the headache of refinancing every 90 days to keep up with financing. Additionally, they wouldn't have to become speculators on the dollar. They can get out of the business of speculating as to what the dollar was going to be worth and get back the original purpose of lending money to the Government to preserve their purchasing power.

Mr. Taylor. I like my way better.
Mr. Coyne. What is your way?
Mr. Taylor. My way is to cure inflation.
Mr. Coyne. You're not going to stop inflation, under our current method of financing. It is too easy for us to painlessly borrow and increase the deficit by pumping up inflation and repaying the debt with cheap dollars. We might stop inflation if we stop this practice and withdraw the pressures and built in incentives for run away spending.

Mr. Taylor. I would be skeptical that that scenario would work.
Mr. Coyne. I believe it would work if instead of financing our debt with short-term debt instruments, on which we are paying 13 or 14 percent, we replace them with long-term instruments on which we pay 4 percent interest plus escrowed inflation every year. Under my proposal we would pay a 4 percent interest-or whatever interest was negotiated at your Dutch auctions, Mr. Napoli, although the Treasury doesn't share your enthusiasm for themand escrow the inflation premium equivalent to the GNP. Last month, for example, we would have paid only whatever the negotiated interest was and put into escrow a 0.2 percent of whatever last month's escrow amount was (reflecting the 0.2 percent inflation of last month). Instead of paying 14 percent or 13 percent, the Government would be paying a much lower amount of money during times of declining inflation. This would not only save the Government a lot of money in financing its debt, but would give people an incentive to invest long term.

Mr. Taylor. I think you have a marvelous cure for this particular problem.

Mr. Coyne. I believe we must move in this direction.
Mr. Taylor. And Brazil has done this, they have devised ways to live with inflation.

Mr. Coyne. We're trying to solve it.
Mr. Taylor. Their way is to have only overnight and 30 day loans. The interest rates renegotiated every 30 days. You can devise ways to live with inflation and this is a way. Our Government tolerates inflation by offering its debt to investors on an index basis.

Mr. Coyne. It's exactly the opposite. Instead of indexing everybody to our dollar, declaring our dollar the standard, our Government's debt is going to have a legitimate purpose. We're going to say that if someone lends money to the Federal Government he's guaranteed the purchasing power of the original amount of the
loan. Your way yielded de facto high interest rates that squeezed out the rest of the economy from the credit market.

Mr. Smeal. I think the basic assumption you're making is that by increasing the cost to the Federal Government you are going to force the Government to do something with the cost.

Mr. Coyne. We're really not increasing the cost. The cost of inflation to our Government now is reflected in the rollover of our short-term debt. We're paying more now. We're paying short-term rates at astronomical levels because all of our debt is short term. Shifting it to long term and trying to get essentially the same incentives for people to go into the long-term debt market would lower our cost of financing. We would be underscoring for Congress every year the $\$ 115$ billion we are paying in "interest" only. A third of our current "interest" is really interest. The other twothirds is caused by Government mismanagement and the cost of our policy.

Mr. Smeal. Were you impressed by the British experience?
Mr. Coyne. The granny bonds have been a success in England for 25 years or so. Their recent experience with these bonds shows that granny bonds resulted in a lower cost for the British Government. I think there were shortfalls in their system, however. It didn't allow for a marketable bond, which I think would be allowed given the statute I have proposed for our Government.

Given England's experience, I believe that our short-term markets would be drawn out with these bonds and I think we have to do what we can to establish long-term debt instruments.

Mr. Bunting. Do you mean the corporate bond market in connection with futures? The use as to the Federal reserves are in the billions of dollars. The Treasury has never had a problem in a single auction day receiving twice the adequate bids-in fact there is always a keen interest.

Mr. Coyne. If I were selling bonds at 13 percent over the rate of inflation I wouldn't have a problem selling bonds either. That's the point. They're paying a very, very high premium over the current inflation.

Mr. Bunting. However, for 9 years they paid an insignificant premium because people did not expect inflation to persist.

Mr. Coyne. People have come to learn that they must add a tremendous insurance premium over and above their expectations of inflation. We're going to get them to change that perception. We in the Government have got to relieve them.

Thank you very much, Mr.. Chairman.
Chairman Fauntroy. I'm going to shoot that time having been yours and move on to questions from Mr. Patman.

Mr. Patman. Thank you. Mr. Napoli, I appreciate your description of the Dutch auction, because I think it's the first time I've really understood it. It's mentioned the other day when you talk about it being the winning bidders receive their bonds at the lowest price you're talking about really the best price for the lender, and the lowest price and the worst price for the issuer, right?

Mr. Napoli. What we're talking about is eliminating one of the biggest problems which creates the additional risk premium and that is the fear factor. We can talk about the economics of the markets, and the complexities of the markets, but at this point in time
what we're dealing with is emotion and fear. What I'm saying is that the volatile bidding ranges of long-bond offerings encourages many investors who would normally bid, to postpone their bid because of the fear of overpaying. We have seen wide bidding ranges in these long-term securities because of that fear. These investors are not always present in the market on a daily basis, so this apprehension takes them out of the auction process.

What we are advocating is taking away some of that fear. This would bring in more bidders who would normally participate in the auction if the environment is beneficial to do so. We have to make it more comfortable. I think if the potential buyers of long-term securitities had these fears eliminated, they would tend to bid more aggressively. This would benefit the Treasury by creating more aggressive bidding. If the account was sure he would be awarded bonds on an equal footing at the lowest price he will tend to bid higher to buy those securities.

Mr. Patman. It seems it would be encouraging for bidders to get together one bid on one and another bid on one. Someone bid 85 percent of his requirements. And withhold hoping that somebodyhe wouldn't get them all or he and the others wouldn't bid them all but that somebody will end up bidding a very low price. And all benefit from it.

Mr. Napoli. Not everyone wins. If there's $\$ 2$ billion to be allocated, the highest bidder will start the process which continues until the $\$ 2$ billion is raised. All bidders who bid too cheaply will, not be awarded any securities.

Mr. Patman. And basically for all the panel the people who buy bonds want to get the highest rates of interest they can get in every case, don't they?

Mr. Napoli. There is that fear.
Mr. Patman. No question about that. And many talk about the uncertainties they feel and the rate of inflation and all that sort of thing. If they can possibly get the rate up they will get it up, will they not? They will buy bonds with the highest possible rate and be encouraging higher rates. There's no benefit to them to be seeking lower rates. Except perhaps some consideration in the long range about the financial security from which they're buying the bonds.
Mr. Napoli. We've had a situation over the last 3 years where many economists saw the onset of recession in 1978 and 1979 causing investors to become invested in long-term securities based on that assumption. Market timing is certainly important in investment decisions. Considering where we are today, it would take a 60 point rally in the long-term market to bring prices back to original cost. Investment decisions are made to achieve maximum return and price appreciation. Early market purchases are very costly and visible.

Again, I think what we're talking about here is the comfort index which really has been violated over the last year in terms of the volatility of the market. The lack of comfort, and the fear factor that is attached to it adds risk premium to the levels of interest rates.

Mr. Patman. All right. Now, you mentioned, Mr. Bunting, about the interest of investors in longer term maturities. I can understand that, because a lot of people can see we're going to have
lower interest rates in the future, or some do. Talking about the advantage from the standpoint of a person who would speculate in bonds. If a person bought a 30 -year bond at 20 percent interest and that bond declined, and then comparable bonds were issued subsequently, 30 -year bonds at 10 percent interest, what would be the value of that bond at 20 percent? 100 percent?

Mr. Bunting. That is one of the computers I didn't bring. At this moment, the Treasury has a 14 -percent issue outstanding which was sold last fall. For trading purposes, each 100 basis points equals $71 / 2$ price points. If the yields drop by 10 full percentage points on that bond would be something in the vicinity of 70 percent over the par value. This issue in particular would move to 170 , let's say. The mathematics of bonds makes them move at different speeds depending upon the coupon rate.

Mr. Patman. Your example there was say a $\$ 1,000$ bond would be worth $\$ 1,800$ ?

Mr. Bunting. That is correct, sir.
Mr. Patman. It had been bought at what rate of interest?
Mr. Bunting. 14 percent.
Mr. Patman. And currently at what rate?
Mr. Bunting. It's at around $131 / 2$ percent interest.
Mr. Patman. Just that small amount of interest?
Mr. Taylor. Your example of 20 percent going to 10 would be worth 107.

Mr. Patman. What's the actual market of each comparable issue?

Mr. Bunting. In this particular bond each point of interest that it loses from between 14 and 13 percent is around $71 / 2$ percent of its value in price.

Mr. Patman. And that's what maturity?
Mr. Bunting. A 30 -year bond.
Mr. Patman. Obviously that added incentive is not present on a short-term debt, is it? Two years you don't have that increase at all, although some. Is that part of the interest in the long-term bonds?

Mr. Bunting. I would say that it has been my experience. I have watched long-term bond rates go from 4 percent to 14 percent over 18 years. That assumes every step of the way the majority opinion of the market is that rates are going to work lower, rather than higher. It is always, of course, and has been the official policy of the Government to predict lower rates or attempt to manage themselves.

Mr. Patman. We had those for the budget anticipation.
Mr. Bunting. The Treasury feels they are getting a good deal if everything comes out all right. Our recent experience is that their "guesses" have been all wrong and investors are paying the price. But the interest in the long-term market is for both permanent investment and speculation on price improvement.

Mr. Patman. What is the traditional real rate of interest, 4 percent, 3 percent?

Mr. Bunting. I would say 3 percent is what we read most often.
Mr. Smeal. Recent spreads are much higher. You might come out with Mr. Coyne's 4 percent, or even 5 or 10 percent.

Mr. Coyne. I said 3 to 4 percent yesterday.

Mr. Bunting. I would assume that a perfect system where inflation was dead flat zero, rates of return would be 1 or 2 percent. However, that is Utopian.

Mr. Patman. Real rates are at the highest in 50 years. Is that generally accepted? Some even say the highest of the history of this Nation.

Mr. Bunting. The highest rates occurred during the depression when we had deflation and real interest rates were 8 or 10 percent.

Mr. Coyne. Yesterday the CPI was up 2.4 percent according to the Times.

Mr. Smeal. Yes, but that was on a month-to-month charge, not long term. Year over year it is still above 8 percent.

Mr. Patman. Mr. Taylor, I think you wanted to tell us about wanting to cure the inflation? Your idea was to cure inflation. You want to give us for the record how to cure inflation?

Mr. Taylor. I don't know how to do it.
Mr. Patman. You think we ought to cure it. Which I agree with.
Mr. Taylor. I think we made some real progress in the last year or so. I think the rate has obviously come down. The question is, is it going to stay down? We're seeing signs now that it might. One of them is the renegotiation of labor contracts. I think that's highly significant in terms of the future of the country and the inflationary outlook. I am becoming optimistic. The oil situation is certainly beneficial. It can change, but it is now helpful. There are signs that the inflation battle is being won, in my view.

Mr. Patman. And what has caused this? Is it the tight money policy?

Mr. Taylor. Yes, that would be my opinion.
Mr. Patman. The highest interest rates, have they caused it?
Mr. Taylor. They have helped, yes. But, they are also the result.
Mr. Patman. You think the highest interest rates do help control inflation.

Mr. Taylor. I would say higher rates are the result of slower growth in money or of a decrease in the availability of money relative to its demand, and there are consequences. I wouldn't say they're to be desired, but they are consequences of policies designed to deal with inflation.

Mr. Patman. Like tight money?
Mr. Taylor. Like tight money.
Mr. Patman. Anything else? That's the most prominent.
Mr. Taylor. Yes.
Mr. Patman. That's what causes high interest rates.
Mr. Taylor. Supply and demand, and expectations.
Mr. Patman. Yes.
Mr. TAyLOR. Investor expectations are, in my view, the reason that we continue to have these high rates. There is a definite fear factor built into the interest rate levels at this point.

Mr. Patman. That's something I have a hard time understanding how the expectations operate in the free-market system on this sort of thing. I'm sure they do. They are present, and so forth. Would either one of you gentlemen care to comment?

Mr. Napoli. All right. In terms of investor expectations, it is the public's perception of what the policies will ultimately produce that is a major consideration. Tight money is a tool for bringing infla-
tion under control. Through a tight money policy you will tend to get higher interest rates and a slowing of the economy. With a slowing of the economy you will always tend to have higher rates. There are always costs involved. But are the costs worth it?

Mr. Patman. I understand if you expected the Fed to reduce money supply you expect also higher interest rates. And that's exactly what everyone's view anticipates.

Mr. Napoli. Through tighter monetary policy, interest rates would, hopefully, be reduced in the longer run.

Mr. Patman. Mr. Sprinkle notwithstanding tight money policy--

Mr. Napoli. Perception.
Mr. Patman [continuing]. Equals high interest.
Mr. Napoli. Perception of tight money would lead to higher interest rates.

Mr. Taylor. On a short-term basis.
Mr. Bunting. The shortrun effect of the tight policy would be somewhat higher interest rates. However, another contributor is the demand for credit. Regardless of whether the Feds policy is viewed as tight or loose, if the total demand for credit increases, interest rates will rise. This is especially true when a great deal of it is the Federal Government's financing.

Mr. Patman. That's something that worries me. At what point do we lose entire control of the deficit, having risen so high?

Mr. Bunting. I would say clearly the level of current interest rates reflects, to a large degree, concern that we have lost or are very close to losing the whole program.

Mr. Patman. The higher rate of interest the more out of control it looks. Is that true?

Mr. Bunting. I don't know what annual increase in interest expense is necessary trigger to the point. It clearly would be more comfortable to have a lower level of interest rates to save Treasury borrowing power for restructuring the debt. But the mismatch between monetary and fiscal policy as perceived by the market at now is certainly a large influence on the level of interest rates which. by inflation measures, should obviously be substantially lower.

Mr. Patman. What results do you anticipate from the tax cuts that are coming up in July? You think that's going to cause the economy to go back up?

Mr. Bunting. I am not an economist by background, but my surface judgment would be that it prevents the economy from falling further and might tend to create an upward tilt, with higher consumer spending as they receive more money.

Mr. Patman. Any of you like to make further comments?
Mr. Smeal. I would like to make one comment with respect to techniques of Treasury debt management discussed by Mr. Napoli, especially the subscription issue and the Dutch auction. Both are controversial in the market. There are some of us who feel that these are high-cost techniques. That the Dutch auction, especially, which clears the market at the lowest price is one that has been tried and at the moment rejected. Further, that the problems associated with subscription issues, which are efforts at some price to raise a lot of money, is not generally achieved at costs that many
of us have found to be appropriate. We feel that prevailing yield auction techniques are superior to either of those proposed by Mr. Napoli. I think you need to know this is a controversial subject and that we do not agree with Mr. Napoli's suggestion.

Mr. Taylor. That's what makes markets, different views.
Mr. Patman. And that's what gave birth to the money market funds and so forth.

Mr. Coyne. I do happen to agree with others in the Treasury who were arguing for the Dutch auction method. Unfortunately yesterday we heard testimony from Mr. Stalnecker who said it has been tried and in his opinion and their opinion, it failed.

I'd like to know if there are any arguments that you, who are proponents of Dutch auction, may give me in support of that method of sales. I would like to take back to the Treasury some good arguments and perhaps persuade them that the current conditions of the marketplace should give rise to other experiments to see if its current situation could be avoided or if maybe Treasury could learn what we thought they would learn in the previous experiments. I was frustrated they didn't seem willing to try new methods of financing especially in light of what seems to be very different market conditions today. I believe they should try and give it another shot.

Mr. Napoli. Well, as I said before we are certainly all advocates of debt extension. As I mentioned, our analysis at Merrill Lynch indicates that, in the financial futures market, 70 percent is in fact public participation. I guess Merrill Lynch probably talks to more doctors, dentists, and lawyers than anyone else. And they are in fact a very large component in the long.term market via the futures market.

Right now, as I said, the futures long bond contract volume is roughly 60 thousand contracts a day, which is about three times the cash market. The conclusion is that there is certainly interest in that long-term securities. And as we mentioned before a lot of the problems that have developed in the long bond market revolve around fear of volatility.

I think we're talking about people questioning whether the real rate of return is acceptable. We presently have the best real rate of return in history. The problem occurs when an investor buys a 14 percent security and is afraid it's going to turn to 15 -percent security. This premature judgment on his part when viewed versus a competing portfolio across the street, could be detrimental to his career. What we're talking about is trying to make a situation that is already stressful a bit more comfortable.

As I pointed out the Dutch auction is of no benefit to the underwriting community. Many institutional accounts are not included on a daily basis whereas the underwriting dealers have more expertise in the bidding process. By putting everyont on an equal footing I think the auctions wil! attract a lct more bidders that would normally be afraid to commit money it in fact he was afraid he was going to bid too aggressively.

Mr. Coxne. I didn't mean to get back into the reasons for the constant dollar debt instrument, but many of your points are intended to hold and bolster that argument. To relieve uncertainty about future inflation rates, I believe we must preserve the long.
term market. The instability of the long-term market impacts heavily upon the willingness of investors to provide the funds for those sectors of our economy that are dependent on long-term credit, especially housing and others. Of course, we are equally concerned about the inability of many of the new financial institutions to provide long-term credit.

Many financial institutions are discouraged from moving their assets into long-term instruments since they must compete with other instruments, especially the market money funds, which are invested, as you know, in maturities that bear out the best interest. Do you feel that there are mechanisms by which we can open up many of these new money market funds into long-term investments? This is obviously outside some of your expertise, but do you feel that by authorizing money market funds to have longer maturing portfolios we can create a more balanced marketplace?

Mr. Napoli. As you know the money funds in aggregate total $\$ 190$ billion, which is a large sum by any stretch of the imagination. And right now, the main reason for their growth and the main reason why people are in that type of instrument is because they're rewarded for doing so. The yield curve being what it is, due to the current tight money situation, is creating an environment that keeps the $\$ 190$ billion exactly where it is-in short maturities. If there is any alleviation in terms of monetary policy, and the yield curve starts not to reward, but penalizes for being in the short-term securities, you'll see a lot of money extend further out into the longer maturities. Right now the risk of capital by extending maturities at this point in time is still high.

Mr. Coyne. You would prefer to leave the money markets as short-term instruments and let people seeking longer term investments go into the exisiting long-term markets rather than let the money markets invest in long-term bonds?

Mr. Napoli. No.
Mr. Taylor. There are long-term bond funds?
Mr. Napoli. Yes.
Mr. Taylor. Tell him.
Mr. Napoli. We have Government funds that attract enormous amounts of money. But, of course, right now the vogue, because of the current volatility, is certainly the short-term money fund.

Mr. Coyne. Let me ask another question which is a little bit outside of our expertise and the committee's-tax policy. Currently, of course, we tax interest. We tax the full weight of the interest, and of course do not give any credit to the person who withdraws his $\$ 1,00020$ years after deposit for the fact that his $\$ 1,000$ doesn't have the purchasing power that it did when the man deposited the $\$ 1,000$. In a sense, the tax policy of our country really doubly penalizes people during times of inflation. To what extent do you feel that our tax policy encourages the high interest rate? What recommendations would you make to fix this situation? For example, some have proposed reducing the taxes on interest or raising the thresholds upon which interest is taxed. Others have said there should be a discount off of the interest earned to reflect inflation. For example, if you're earning 14 -percent interest and the inflation rate is 10 percent then to make you pay tax on the whole 14 percent, when most of your principal has been eroded is unfair. I be-
lieve people should be allowed to get credit for the lost purchasing power of their principal. Do you think it's all right to penalize the interest receiver to the extent we do today?

Mr. Napoli. I'm curious, I know the Federal Reserve comes under considerable criticism by many groups. I'm wondering how many letters of thanks from the investor public have been received for the 8 -percent return over the current inflation rate. I think that if we look at what's gone on in the last few years it's interesting. The investor no longer is content with a $51 / 2$-percent savings deposit return he has been receiving over the years considering today's yields in the growing money funds. If any of you attend cocktail parties you know that the conversation always seems to arrive at current money fund yields.

Mr. Coyne. Now that inflation is abated it's no longer a problem.
Mr. Napoli. We're talking about real rates of interest that no one has ever seen before.

Mr. Coyne. We still have an awful lot of investors holding 7-percent bank bonds or lower, who may be going to cocktail parties and crying while listening to their more fortunate neighbor who did not invest in bank bonds. Why should the investor be whipsawed like that by the tax policy of the Government? Maybe my pleas are falling on deaf ears here. Isn't there any interest in seeing a change to assure that tax rates are paid only on real income?

Mr. Bunting. As dealers and investors-
Mr. Coyne. It's irrelevant.
Mr. Bunting. No; the real rates of return have to be after tax.
Mr. Coyne. Certainly. So the tax policy seems to exacerbate the problem, does it not?

Mr. Bunting. The country has for many years, subsidized homeownership by the deductability of interest. You also allowed business borrowers to deduct their interest. Thus, there has been quite a prejudice to encourage borrowing-excessive borrowing in retrospect and, very few incentives to invest unless the price is right which it is now getting to be.

I don't know how the Government would solve the problem of the lost revenues if Congress suddenly reduced the taxes on interest and dividends. It has always struck me, as a citizen and as a professional, that it is wrong to have the tax on capital gains which are supposed to reflect whatever inflation or increase in assets is absorbed.

Mr. Coyne. But it is unfair in times of high nominal inflation.
Mr. Bunting. It is very easy to rail against it. However, I don't know how to substitute the billions of dollars that would be sacrificed. The recent reduction in capital gain rates and so forth are a step in the right direction to be sure.

Mr. Smeal. In answering that question, I think you are focusing too much the role of the committee in managing the debt. I think, on the tax and policy question, you ought to look at how the debt was created rather than managed. This is one of the reasons that the debt produces a high interest rate. However, we're still dealing with the symptoms rather than substance in the cases. I would add one point to what Mr. Bunting has said. There is one area in this market in which many investors, on an after-tax-basis, can get a reasonable rate of return. That is, to buy tax-exempt bonds of in-
vestment grade yielding 13 or 14 percent. This is historically a high after-tax rate of return.

Mr. Patman. Just a brief question or two.
Mr. Bunting, when you were talking about 3 percent as the real rate of interest, you weren't talking about after tax-return, were you?

Mr. Bunting. No. That was the after inflation rate.
Mr. Patman. Yes. In your testimony you're talking about on page 10 what the Treasury wants to know about the Federal and the Fed wants to know the debt policy. What does the Treasury want to know about the Fed policy? Plans and policies?

Mr. Bunting. I would assume the Treasury would like to know if the Fed were planning a major shift in policy during a financing period. As I mentioned I have no way of knowing what kind of specific consultations may go on between those officials. But I certainly didn't mean to imply that they are coordinating or attempting to. By the nature of the two institutions they can hardly bow down for each other because they're both constantly active in the marketplace.

Mr. Patman. Thank you. Anybody else for closing statement here? Comment? Mr. Coyne are you completed?

Mr. Coyne. I certainly am. Thank you.
Mr. Patman. Well, gentlemen, the subcommittee having concluded its business, will now stand recessed. [The subcommittee was adjourned.]

## APPENDIXES

Appendix A: Letter sent to hearing witnesses and the responses of the witnesses.
Appendix B: Statement of Treasury Assistant Secretary Roger W. Mehle.
Appendix C: Debt financing: Graphics.
Appendix D: Notice of subcommittee hearing.
Appendix E: Miscellaneous material.


April 1, 1982

## Dear

Pursuant to the request of the Subcommittee made during your appearance on Wednesday, March 24, 1982, I have enclosed additional questions which I would like you to give such comments as you find to be appropriate. If it is at all possible, I would very much like to receive your responses within the next 15 days since publication of the hearing record is scheduled to begin shortly thereafter. Your answers will appear without further editing by the Subcommittee through inclusion into the record by a photo reproduction process.

Your cooperation and assistance to the Subcommittee is deeply appreciated. I look forward to hearing your views again in the near future.

1. The Treasury's receipts and spending estimates are usually on the optimistic side, with little room for error-and in reality results seldom come close to the projection in budget documents. If this is a correct assumption and the deficit for the next 2 years is closer to CBO's estimate, then net marketable Treasury financing will be approximately $\$ 90$ billion in the second half of this year. Given a task of that magnitude, what mix would you suggest for the next two quarterly refunding packages. How do you expect the market to react to this level of financing over the remainder of the year?
2. In the next few years, because of large deficits, the Treasury will be constantly coming into the market for new funds in relatively large amounts, in addition to re-financings. Will this create stiff competition for funds and thus increase the volatility in interest rates?
3. As you know, there has developed in the private market substantial numbers of new and different kinds of instruments which are variously pegged to Treasury instruments. Some of these are even tax exempt, others are tax exempt and guaranteed by the United States and are additionally backed by real property while other are merely guaranteed. What is the impact of these instruments on the ability of the Treasury to sell its debt? What is the future impact?
4. Can you estimate the extent to which the United States relies on non-Americans for its financing? To what extent do foreign nationals, foreign governments and central banks, and foreign financial institutions hold United States debt? To what extent has this changed over the past 10 years? To what extent do you expect the Treasury to rely upon foreign purchases to finance American debt in the future?
5. The Treasury has used up its authority to issue long-term marketable bonds above $4 \frac{1}{4}$ percent, and must, therefore, receive additional authority from Congress before it can announce its next bond financing. Given the concern by many in Congress, including myself, over the size of the deficit, the high interest rates, and the "pricing out" or "crowding out" of other issuers in the long market, do you think such a request is practical? Should, instead of increasing the sales authority, Congress authorize one marketable bond financing per quarter without dollar limit.
6. The 3-month T-bill rate averaged $10 \%$ in $1979,11.5 \%$ in 1980 , and 14.1\% in 1981. The Administration's forecast sees the rate receding to $11.7 \%$ in 1982, $10.5 \%$ in 1983, and $9.5 \%$ in 1984. The CBO estimate is even less optimistic about these rates--they are seen going higher, not steadily declining. I believe that one of the main reasons for the differences of these rates is the budget deficit projections. The Administration projects $\$ 98.6$ billion in FY 1982, $\$ 91.5$ billion in FY 1983, and $\$ 82.9$ billion in FY 1984. The CBO estimate is considerably higher, at $\$ 109$ billion in FY 1982, $\$ 157$ billion in FY 1983, and $\$ 188$ billion in FY 1984. How would debt management be different if CBO's figures, at some point in the near future, were to become reality? I am particularly interested in sales techniques--not merely the problem that is on its face obvious, namely the added burden of the sale of additional debt.
7. The quarterly refunding packages that have recently been announced have often had an exaggerated market impact despite their reduced relative importance as a means of raising funds. Could you suggest some alternative financing plans, such as more frequent financing with no more than say 2 issues sold at any one time? Would this allow the Treasury to vary the amounts sold to make the individual issues smaller if that seemed appropriate? On the other hand, would you consider going to less frequent refundings with larger amounts issued? Would the market absorb this less frequent borrowing easier than if it were done quarterly.
8. Do you agree with the Fed's monetary targets and more generally their conduct of monetary policy?

Sincerely yours,

Walter E. Fauntroy
Chairman

# The first Boston Corporation 

Member New York Stocr Exghanoe. Inc.

Park avenue Plaza New Yori, N. Y. 10055

April 8, 1982

The Honorable Walter E. Fauntroy
Chairman
Subcommittee on Domestic Monetary Policy
of the
Cominttee on Banking, Finance and Urban Affairs
H2-179, Annex No. 2
Washington, D.C. 20515
Mr. Chairman:
Thank you for the opportunity to respond to your Subcommittee's further questions concerning Treasury debt management problems. My comraents, in the sequence of your letter of April 1 , are as follows:

1. If the Treasury's cash raising requirement in the second half of calendar 1982 approaches the $\$ 90$ billion CBO estimate, the Treasury will clearly be forced to sell large amounts of debt both in new cash cycle issues and quarterly refunding packages. In addition, large additions to the weekly bill auctions would be necessary. The existing schedule of sales has shown the capability of raising large amounts of cash by regular additions to the size of the individual cycles, but with the Treasury currently foreclosed from the long term market, we can expect correspondingly greater pressure on maturities of ten years or less. The prospect of huge Treasury needs later this year has already had the effect of keeping rates higher than might be considered "normal" at this stage of the business cycle, and I feel that rates are likely to stay high when the actual barrage of financing occurs.
2. The Treasury can always compete successfully in the marketplace, but sometimes does so at the expense of other borrowers when funds for investment are scarce. The projection of chronic large Treasury requirements may tend to keep rates higher than would otherwise be the case. However, the recent volatility in interest rates appears to be more closely related to constantly shifting public perceptions of the inflation rate, Fed policy, etc. than to the specific burden of large deficit financing.
3. The development in recent years of various instruments pegged to underlying Treasury securities primarily reflects the desire of both issuers and investors to fix quality distinctions in term of yield differentials. By direct
inference, if the yield spread is too narrow, the preferred investment is the Treasury security. As the prime credit of the country, the Treasury can always sell its debt, but other issuers may occasionally view the yield spread "penalty" as too large a price to pay. Those issuers holding tax exempt or Federally guaranteed status will naturally fare better in the market than issuers not so favored, but none of the instruments mentioned here will impede the Treasury's ability to sellits debt.
4. In the past ten years, foreign holdings of United States debt have risen sharply, and now approximate $20 \%$ of the marketable debt outstanding. The major factors contributing to this pattern include central bank operations to support the values of various currencies, large demands for dollar-denominated assets from holders of Eurodollars, investment of oil revenues from some OPEC nations, and in recent years, high U.S. interest rates versus those available in other countries. I feel it is reasonable to assume that foreign purchases of U.S. debt will continue at high levels if the circumstances cited above remain intact.
5. The $4 \frac{1}{2} \%$ ceiling on long term bond issues is an anachronism that should be eliminated to provide the Treasury maximum flexibility in financing the large cash requirements ahead. My views on "crowding out" and financing long term at current rates are contained in my testimony of March 24 , but to emphasize the main point, i feel strongly that restricting the Treasury to short maturity debt runs the risk of increasing market congestion and causing substantially high interest costs on that portion of the Treasury's requirements. The proposal of one unlimited bond financing per quarter is preferable to no authority at all, but might push the Treasury toward outsized individual issues in attempt to take advantage of a 1imited opportunity. Regardless of the form, Treasury access to the long term market is desirable, given the large cash needs of the future.
6. The question of how to sell the quantities of debt implicit in the CBO deficit estimates is very difficult to assess. In a comparable previous period ( $1975-76$ ), the Treasury resorted to large subscription issues at the then-high rates of $8 \%$ and attracted funds from the stock market and thrift institutions. Subsequently, the use of regular cycles of notes and bonds has proved able to generate large amounts of cash, but not in the dimensions envisioned by the CBO estimates. A combination of the two techniques seems mostly likely to be used, but in any case, the treasury will be able to gather large amounts of cash only if the investing public views the rates available as "high."
7. The Treasury does not have the luxury of timing their sales, given current and projected levels of financing. However, from a trading and marketing point of view. I would prefer to see large aggregate packages sold at more widely spaced intervals, because large, "important" financings tend to attract and focus investor interest more readily than a series of routine issues. Also, a greater time interval between financings would allow for better distribution of the issues recently sold and greater market preparation for subsequent large financings.
8. As I am not an economist, I cannot answer this question with confidence. I strongly endorse the Fed's stated policy of restricting the growth of money and credit for the purpose of reducing inflation. Unfortunately, the attention focused on various narrow measures of monetary aggregates and their short-term fluctuations, however they are viewed by the Fed, has had the effect of producing great volatility in the financial markets. I suspect that the difficulties even of defining "money" and "credit" have made monetary targets hard to attain, and the resulting uncertainties have contributed to i general feeling of financial instahility.

Sincerely yours,


May 7, 1982

The Honorable Walter E. Fauntroy
Chairman, Subcommittee on Domestic Monetary Policy
U.S. House of Representatives

Washington, D.C. 20515
Dear Sir:
This is in reply to your letter of April 1, 1982 addressed to Mr. D. Napoli, Vice-President and Manager of Herrill Lynch Government Securities. Your letter was forwarded to me for response and $I$ hope that the following comments and reconmendations on the Treasury's debt management will be of interest to you and the subcommittee.

1. With the CBO's having revised its baseline projections for $F Y$ 1982 as well as outer years, the likelihood of net marketable debt of $\$ 90$ billion for the second half of calendar year 1982 would seem very real, unless some cuts are enacted on the spending side and/or some increases on the receipts side of the budget. Given such staggering financing needs, the Treasury would have to increase its debt issuance throughout the maturity spectrum. An even heavier reliance on the notes and bonds sector would, therefore, be necessary. In order to raise as much new money as possible through one issue, we would recommend an August refunding consisting of two issues, a ten-year note that would be sold through a subscription method and a thirty-year bond. The latter assumes that the present bond debt ceiling would be raised late July. Since by then the Treasury would have refrained from issuing a bond for six months, a $\$ 2.0$ billion new issue in a thirty-year maturity should not encounter problems in being distributed. For the ten-year issue, we would not 1 imit the ampunt that could be raised. The Treasury should accept as much as it feels comfortable with, in our opinion at least $\$ 8.0$ billion could be raised through such a subscription. This $\$ 8$ billion ten-year note, in addition to the $\$ 2.0$ billion thirty-year bond would provide $\$ 5.7$ billion of net new money for the treasury. An issue of $\$ 8.0$ billion or larger would enable the Treasury to limit the additions it would have to make to the weekly bill auctions. This type of refunding package is recommended as by issuing longer maturities some pressure would be lifted from short-term rates which in turn would allow the yield curve structure to become positive. For the November refunding, we would recommend a three pronged offering of $\$ 10.5$ billion, which would raise $\$ 5.9$ billion new money. Such a standard refunding could consist of a three to three and a half year note of $\$ 5.5$ billion, a ten-year note of $\$ 2.5$ billion and a thirty-year bond of $\$ 2.5$ billion. Certainly, the markets can hardly respond positively to such a
supply of new debt, especially if facing the possibility of escalating deficits looming ahead. With the economy not expected to recover meaningfully through the rest of the year, the key sectors will not be able to provide the needed supply of funds to accommodate the Government's needs. As a result, unless there is an improved outlook for the budget deficit in the outer years, some upward pressure on interest rates may materialize.
2. The ever increasing Government needs for funds have in recent years and will in the coming years continue to "squeeze out" other borrowers. With interest rates having remained at all time highs both in nominal and real terms, the corporate balance sheets have been under severe strain as corporate needs have been heavily accommodated through short-term debt. Presently, the overall short-term to long-term debt ratio is slightly above the all time record of $42 \%$ reached in the fourth quarter of 1981 . Unless there is a meaningful decline in nominal interest rates, the current strain on corporate balance sheets will persist through the early stages of the recovery. These strains combined with the heavy demand for funds from the Government sector will add to the interest rates volatility that we have experienced in recent years and as a result, will have a depressing impact on the economic recovery.
3. Tax exempt securities and Government guaranteed securities, while a drain on Government revenues, have been a positive factor for those sectors of the economy that have had access to these sources of funds. Since these instruments consist of only a fraction of those funds raised by the Treasury, their impact on the Treasury's ability to smoothly finance its debt is minimal. To the extent that the relationship of taxable vis-e-vis nontaxable securities remains constant, it should not have a meaningful impact on the Treasury's funding needs in the future.
4. Foreign investors have increasingly provided a steady flow of funds to the U.S. Debt Markets. While shifts during the last ten years have occurred within the debt markets, these investors have impressively increased their holdings of Credit Market instruments from $\$ 53.0$ billion to $\$ 197$ billion the end of 1981. Additionally, corporate equities' holdings have risen from $\$ 30.8$ billion to $\$ 54.8$ billion and direct investments have increased from $\$ 13.9$ billion to $\$ 77.9$ billion. Of the $\$ 144$ billion net increase in Credit Market instruments, the most remarkable change has been in holdings of U.S. Government Securities which surged by $\$ 94$ billion. Currently, these holdings have been on a declining trend, as the combination of higher domestic interest rates and a stronger dollar have resulted in some selling of marketable debt. While over the near-term, we expect this trend to continue as far as marketable U.S. Treasury Debt investments are concerned, overall foreign investors should continue to be an important source of funds for the domestic markets. As the worldwide economies recover from the current weakness, we anticipate these investors to increase their U.S. dollar denominated investments and to take an increasing share of U.S. Government Debt issues.
5. The request by the Treasury for an increase in the authority to issue marketable bonds in excess of 4 k is not only practical but necessary. Since the 4\% limit has actually been absolete since April 18, 1963, the date the last bond was issued with a coupon of $4 \mathrm{~m}_{8}$ or less, it would probably be even more efficient to lift the bond authority ceiling altogether. If a one bond per quarter limit without a dollar limit would be placed on the Treasury, instead of increasing the bond authority ceiling, congress may force the Treasury to lock in higher interest costs for a longer period than would be the case if the Treasury had the flexibility to do more than one bond of a different maturity, i.e., twenty and thirty years per quarter. In order for the Treasury's debt managers to raise the anticipated staggering amount of funds with a minimal impact on the credit markets, we feel various methods should be used in raising these funds. Each of the methods used, of course, has to properly fit into the market and economic environment at the time it is used.
6. Since two-thirds of the Treasury's financing needs for FY 1982 have already been accommodated and the administration has agreed with the CBO's $\$ 119$ billion deficit for FY 1982, we have answered this question on the basis of the revised CBO estimates for the outer years only. Therefore, if the CBO's latest estimates for FY 1983 of $\$ 182$ billion and FY 1984 of $\$ 216$ billion were to materialize in the near future, some alternative methods for the Treasury to sell its debt would be needed. As it was recomuended in the testimony, first of all, we would suggest larger and less frequent auctions. Secondly, we suggest reviving, when appropriate, two auction techniques which have been used in the past. One of these techniques is the subscription method whereby the Treasury sets a coupon and receives subscriptions at a specific price pre-set by them. The other technique which should be considered is the "Dutch Auction" method whereby all winning bidders of an issue receive their awards at the lowest price. The latter would place all bidders on equal footing. Therefore, most participants will bid more aggressively if they know that their award will be received at the cheapest price. The details on how both of these techniques work were discussed in the testimony. Both of these auction techniques can result in wide distribution, less fear and substantial financing at market prices. The third suggestion would be to lower the minimum purchase price for the issues. This would result in even more public participation and wider distribution of treasury issues.
7. Alternative financing plans, such as the two auction techniques suggested in the previous answer, less issues at the refunding, i.e., two instead of three and larger issues, would all allow the markets to absorb the constant supply of Treasury issues with less volatility. At the present time, there are an average of about 104 Treasury auctions per year, less frequent auctions would certainly have a positive impact on the tone of the markets. It would give dealers more time to distribute the issues and would induce those investors who hesitate to participate in the markets because they know that a similar issue will shortly follow, not to step aside because the time between similar issues would be longer.
8. The Fed's monetary targets and monetary policy are designed to bring down the supply of money and the growth of inflation on a long-term basis. The Fed has been successful in the last two years in bringing down the growth of money and making a dent on the inflationary front. The imbalance between a Fed policy geared to less money growth and a fiscal policy that has been and continues to be expansionary has caused the real rate of interest to remain high. Unless the pace of Government spending diminishes, Fed policy alone cannot carry the burden for relieving the pains in the economy.

In closing, we appreciate the opportunity to have participated in your hearings and look forward to being of any assistance to you in any further pursuit of this issue.

MFR:IC

cc: Mr. D. Napoli
Vice-President \& Manager
Government Securities Trading

## CONTINENTAL BANK

Mr. Walter E. Fauntroy
Chairman
U.S. House of Representatives

Subcomittee on Dornestic Monetary Policy
of the Conmittee on Banking, Finance
and Urban Affairs
H2-179, Annex No. 2
Washington, D.C. 20515
Dear Mr. Fauntroy:
I appreciated your cordial letter of thanks concerning our recent appearance before your Subcomittee. You are quite correct -- appearances like that are time consuming but nevertheless worthwhile if they lead to a better understanding of Treasury debt management problems and solutions.

I an also in receipt of your letter of April 1, with its additional series of questions concerning debt management. I am very sorry but $I$ must respectfully decline your invitation to furnish additional comment on these matters. Unfortunately, some extensive travel and other matters preclude the availability of time necessary to do justice to these subjects. I would hope, however, that a reading of my testimony along with that of others during your March hearings would provide general, if not specific, answers to the questions. Attention to our commentary on the basic principles of debt management in Itself offers answers to many of the choices faced by Treasury debt managers in the period ahead.

Our advisory comittee also will continue, at its officially convened meetings, to offer advice on these critical issues to Treasury officials.

I might also suggest that you may wish to have your staff sit down with some of us on these questions and would be happy to take some time and provide a forum of our "experts" for them if they could come to Chicago. Alternatively, I would be able to spend a couple of hours with you myself in Washington on Wednesday morning, April 28, which will be at the time of our next quarterly meeting with Treasury officials.

The one question that $I$ can comment on pertains to Cominittee membership. Members are chosen by a caucus of past Chairmen of the Committee, plus the current Chairman and Vice Chairman. Presently, this is a group of five men. Members are chosen on the basis of individual qualifications and no firm or bank has a "seat" on the Comittee ever, though many firms and banks have been represented continuously throughout the Committee's history. Treasury formally and annually approves all members.

Kind regards.


# U.S. HOUSE OF REPRESENTATIVES <br> SUBCOMMITTEE ON DOMESTIC MONETARY POLICY <br> of the 

COMMITTEE ON BANKING, FINANCE ANO URBAN AFFAIRS
NINETY-SEVENTH CONGRESE
WASHINGTON, D.C. 20515

May 5. 1982

Mr. David G. Tayior
Executive V1ce-President
Continental Illino1s National Bank
231 South LaSalle Street
Chicago, Illinols 60693
Dear David:
Thank you for your response of April 7, 1982, to ay recent letter. I am sorry that our planned visit on April 28th did not materialize. I was very much looking forward to seeing you and to engaging further in the discussion of the issues of debt management which we began at the hearing on March 24th.

You may be interested to know. incidentally. that while it is not a direct result, I have scheduled hearings on May 26 and 27, 1982, on business liquidity conditions. I hppe that these hearings will be as Interesting and informative as those at which you testified.

Whlle we were unable to meet during your last visit to Washington, do very much want you to know that I hope we can meet on your next visit, assuming that our schedules can be made to mesh. In the meantime, would you be so kind as to supply me with a list of the members composing the caucus of past chairmen which nominates members to the Government and Federal Agencles Securfties committee, as indicated in your letter of April $7 ?$ In addition, could you please include a list of the current members of the committee and the length of time each has served? Some interest in the names and positions of these individuals has been expressed by other Members.

With kindest regards, I am,
Sincerely yours,

Walter E. Fauntroy
Chairman
WEF/hl, cm/jlt

## CONTINENTAL BANK


May 17, 1982
DAVID G. TAYLOR
EXECUTIVE vice PRESIDENT
CE PRESIDENT
$312 / 822-240$

Mr. Walter E, Fauntroy, Chairman
U.S. House of Representatives

Subcommittee on Domestic Monetary Policy
of the Committee on Banking, Finance $\&$ Urban AfEairs
H2-179, Annex No. 2
Washington, D. C. 20515
Dear Walter:
In response to your letter of May 5, I am enclosing a list of the current members of the PSA Government and Federal Agencies Securities Comittee. As you requested, we have indicated next to each member's name the year each began serving on the Comittee. In some instances, you will note this service precedes 1971.

In addition, following are the past chairmen who currently serve on the Committee and who comprise the group that nominates members to the Comittee. Also noted are the years that each of these individuals served as chairman,

| Robert W. Stone | $1976-1977$ |
| :--- | :--- |
| Daniel S. Ahearn | $1978-1979$ |
| Frank P. Smeal | $1980-1981$ |
| David G. Taylor | $1982-1983$ |

Jack Runnion, in his capacity as current vice chaiman of the Conmittee and the person who will succeed me as chairman in 1984, is also included in the nominating group.

I hope that your hearings later this month on business liquidity are fruitful. If I can be of any further assistance to you and your Subcomittee, please let me know.

Kind regards.

DGT: EMH


Enclosure

SUBSID.AFIY CF CONTINENTAL IIUNOIS COAPORATION

REVISED

1982
PUBLIC SECURITIES ASSOCIATION
GOVERNMENT \& FEDERAL AGENCIES SECURITIES COMMITTEE

## Chairman

1974 David G. Taylor, Executive Vice President
Continental Illinois National Bank and Trust Company of Chicago
231 South LaSalle Street
Chicago, IL 60693

## Vice Chairman

Prior to 1971 H. Jack Runnion, Jr.
Executive Vice President
Wachovia Bank \& Trust Company
P. 0. Box 3099

Winston-Salem, NC 27102

Prior Daniel S. Ahearn
to Senior Vice President
1971 Wellingt on Management Company 28 State Street
Boston, MA 02109
1978 James A. Brickley
Executive Vice President
First National Bank in Dallas
P. O. Box 83754

Dallas, TX 75283
1982 Robert C. Brown
Senior Vice President
Northwestern National Bank
Seventh \& Marquette
Minneapolis, MN 55479
1981. Larry F. Glyde

Executive Vice President
Grocker National Bank
Money Market Division-4th F1.
1 Montgomery Street
San Francisco, CA 94104
Prior G. Lamar Crittenden
Executive Vice President
1971. First National Bank of Boston

100 Federal Street
Boston, MA 02110

1981 John B. Ford
President
Aubrey G. Lanston \& Co., Inc.
20 Broad Street
New York, NY 10005
1981 George H. Grimm
Executive Vice President
\& Managing Director
Wr. E. Pollock \& Co., Inc.
160 Water Street
New York, NY 10038
1979 Gedale B. Horowitz
Managing Director
Salomon Brothers Inc
One New York Plaza New York, NY 10004

1972 M. Dale Jackson
Senior Vice President Security Pacific National

Bank H12-4
P. O. Box 92121

Los Angeles, CA 90009
1982 Mark F. Kessenich, Jr. Senior Vice President Citibank, N.A.
55 Water Street
New York, NY 10043

PUBLIC SECURITIES ASSOCIATION GOVERNMENT \& FEDERAL AGENCIES SECURITIES COMMITTEE--1982 Page 2


1973 Frank P. Smeal Partner
Goldman, Sachs \& Co. 55 Broad Street
New York, NY 10004
1982 Morgan B. Stark
Senior Vice President
Chemical Bank
20 Pine Street
New York, NY 10015
Prior Robert W. Stone
to Executive Vice President
1971 Irving Trust Company
One Wall Street
New York, NY 10015
1974 H. James Toffey
Managing Director
The First Boston Corporation
Park Avenue Plaza
New York, NY 10055
1975 John Tritz
Senior Vice President
Bankers Trust Company
16 Wall Street
New York, NY 10015
1982 John R. Vella
Executive Vice President
Bank of America, NT \& SA
World Banking Division-Financial
Services-\#5030
555 California Street
San Francisco, CA 94104

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Mr. Chairman and Members of the Comittee:
My purpose here today is to advise you of the need for Congressional action to increase the public debt limit and to repeal the interest rate ceilings on savings bonds and on Treasury marketable bonds.
Debt Limit
The present temporary debt limit of \(\$ 1,079.8\) billion will expire on September 30,1982 , and the debt limit will then revert to the permanent ceiling of \(\$ 400\) billion. Based on the Office of Management and Budget's April estimates of FY 1982 and FY 1983 budget deficits of \(\$ 100.5\) billion and \(\$ 101.9\) billion, respectively, and other transactions affecting debt subject to limit, the amount of debt subject to limit outstanding on September 30,1983 will total \(\$ 1,270\) billion, assuming a \(\$ 20\) billion cash balance on that date. Given this projected debt level, and allowing a \(\$ 5\) billion margin for contingencies, we now recommend and request that the debt limit be increased to \(\$ 1,275\) billion through September \(30,1983\).
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R-806


#### Abstract

We recognize that Congress has not yet completed action on the first budget resolution for FY 1983 and that that resolution may contain a different debt limit figure for FY 1983. We do expect however that, given the efforts in Congress to develop a 1983 budget with a deficit close to $\$ 100$ billion, any resultant debt subject to limit amount will be in the same order of magnitude as the anount we are requesting. In that regard we urge that any budget resolution debt limit figure incorporate our recommended $\$ 5$ billion margin for contingencies and our assumption that the cash balance at the end of FY 1983 will be $\$ 20$ billion.

As to the timing of Congressional action on the debt limit bill, our current estimates indicate that final action on the bill will be needed by the third week of June. This will gi:e the Treasury sufficient time to auction a new 4-year note for subsequent issuance on June 30 to refund maturing securities and to raise the new cash needed at that time. Tre issuance of the 4-year note will cause the debt subject to limit to rise above the present statutory ceiling of $\$ 1,079.8$ bilifon. Treasury's earlier projection that action would be needed late In May has been changed due to a slightly lower estimate of our borrowing needs through early June because sf combination of higher receipts and lower outlays.

Timely action on the debt ceiling is requics to avoid a repetition of past dislocations which have hai.ço"zd Treasury financing operations. In recent years, delays in action on


#### Abstract

the debt limit have generated market uncertainty about Treasury financing schedules and on several occasions emergency measires have been undertaken, including suspension of savings bond sales, cancellation of scheduled security austions and failure to fully invest trust funds. A point may be reached at which the President must consider which obligations should be paid -social security checks, payroll checks, unemployment checks, defense contracts -- or, indeed, whether, for the first time in history, the United States will default on its securities. I hope we can avoid such problems this year.

Separate legislation for a statutory debt limit has not been an effective way for Congress to control the debt. The increase in the debt each year is simply the result of earliev decisions by Congress on the amounts of Federal spending and taxation. Consequently, the only way to control the debe is through firm control over the Federal budget. In this regard, the Congressional Budget Act of 1974 greatly improved Congressional budget procedures and provided a more effective means of controlling the debt. That Act requires Congressional concurrent resolutions on the appropriate levels of budget outlays, receigts, and public debt. This new budget process thus assures that Congress will face up each year to the public debt consequences of its decisions on taxes and expenditures.


The debt limit act of September 29, 1979, also amended the rules of the House of Representatives to tie the establishment. of the debt limit to the Congressional oudget process. Under
the new House rules, upon adoption by the Congress of a budget resolution, the vote by which the House adopts the budget resolution is deemed to be a vote in favor of a joint resolution changing the statutory debt limit to the amount specified in the budget resolution. The joint resolution on the debt limit is then transmitted to the Senate for further legislative action. No comparable procedure exists in the Senate. The Senate must still vote twice on the debt limit figure, in the budget resolution and in the separate debt limit bill.

To summarize our debt limit request, Mr. Chairman, we urge that legislation be enacted promptly to provide the requested amount of increase in the debt limit to $\$ 1.275$ billion, to be effective upon the date of enactment and through the end of FY 1983. Savings bonds

I would like to turn now to our proposal to repeal the interest rate ceiling on savings bonds. For most of the past forty-five years, the savings bonds program has been a relatively stable source of funds, financing a significant portion of the public debt. The program broadens the market for Government securities, and the cash raised by savings bonds reduces the amount of borrowing that the Treasury must undertake on a competitive basis in the open market. The relatively long maturity of savings bonds helps with Treasury's current objective of achieving a better maturity structure of the public debt. Also, savings bonds have proved to be a cost-effective means of financing the debt, with ultimate savings to the American taxpayer.

The program generally has been popular with the American people, has helped instill a habit of thrift among small savers, and has received broad support from leaders of industry and finance. Yet the future role of the savings bonds program in financing the public debt will depend primarily on the interest rate on savings bonds relative to rates on competing instruments.

Legislation enacted in October 1980 authorized Treasury to increase the interest rate on savings bonds by up to one percent during any six-month period. Accordingly, Treasury increased the maximum rate on savings bonds from 7 percent to 8 percent on November 1, 1980 and to 9 percent on May 1, 1981. Yet the maximum rate increases permitted under existing law have not been sufficient to stem the savings bond cash drain from the Treasury, because of higher interest rates available from other market instruments. Savings bond redemptions exceeded sales by over \$5 billion in 1979, over $\$ 11$ billion in 1980, nearly $\$ 9$ billion in 1981, and by $\$ 2-1 / 2$ billion in the first 4 months of 1982 (See Chart l).

This substantial cash drain from the savings bond program over $\$ 28$ billion since 1978 -- must be financed by other, more expensive, Treasury borrowing, namely the issuance of additional marketable securities at interest rates much higher than the savings bond rate. Interest rates on Treasury marketable intermediate notes are currently around 13-3/4 percent, compared to the current guaranteed rate of 9 percent paid to Series EE bond holders after 8 years.

To stem the cash drain, Treasury must assure savings bond investors that they will receive a fair rate of return throughout their holding period. Thus Treasury must be able to promise the small saver that the rate on savings bonds will vary with market rates of interest. Large investors can achieve this assurance through investment in short-term Treasury bills.

The alternative of raising the savings bond rate to, say, 10 percent now and possibly a higher rate later, under existing legislation, was rejected by Treasury, While such rate increases might over time reduce the savings bond cash drain, they would be relatively expensive over the long run if market rates of interest declined. In this regard, savings bonds differ from long-term marketable debt. Holders of marketable securities do not have the Option of redeeming their securities at par, and thus bear market risk not borne by savings bond investors. Also, there is no way under existing legislation that Treasury could assure long-term savers that the rate on savings bonds would continue to be competitive with current market rates. The need is for a savings bond rate that automatically increases, and decreases, with market rates, and that is what we propose. Simply stated, the major change will be that people holding either new or old bonds for at least 5 years from the beginning of the new program will be assured that their return will be no less than 85 percent of the average return on 5-year Treasury marketables during their holding period. They will also be guaranteed a minimum rate; so they will receive 85 percent of the average market yield on 5-year Treasury securities over the holding
period, or the guaranteed minimum rate, whichever 1 s higher. Fiveyear Treasury marketable securities currently are yielding about 13-3/4 percent. rf this rate prevailed over the holding period, the savings bond rate would be about 11.7 percent.

The rate paid on savings bonds must be less than the marketable rate for several reasons: (l) savings bonds are available in smaller minimum denominations and therefore entail higher administrative costs; (2) savings bonds have tax deferral advantages which increase their effective yield after taxes (relative to marketable securities); and (3) savings bonds are cedeemable at par, thereby eliminating the risk of market value depreciation inherent in ownership of marketable Treasury notes. On this basis, a rate on savings bonds equal to 85 percent of the rate on marketable Treasury five-year notes is a fair rate of return.

A healthy savings bonds program is not only good for small savers it is good for the treasury too. Even at the higher marketrelated rates we propose to pay to savings bond holders the costs to the Treasury will be less than the alternative cost of financing this debt in the open market. Thus the longer we delay the introduction of the new variable rate savings bond the greater the cost of financing the debt.

## Iong-Term Bonds

Finally, 1 would like to discuss our proposal to repeal the interest ceiling on marketable Treasury bonds.

The maximum interest rate that the Treasury may pay on marketable bonds has long been limited by law to $4-1 / 4$ percent. This limit did not become a serious obstacle to Treasury issues of new bonds until the mid-1960's. At that time market rates of interest rose above 4-1/4 percent and the Treasury was precluded from issuing new bonds. The average length of the privately-held rarketable debt of the Treasury declined steadily from 5-3/4 years in aid-1965 to about $2-1 / 2$ years in 1975 , because of the heavy reliance by the Treasury on short-term bill financing of the large budget deficits during this period (See Chart 2).

Congress first granted relief from the $4-1 / 4$ percent ceiling in 1967 when it redefined, from 5 to 7 years, the maximum maturity of Treasury notes. Since Treasury note issues are not subject to the $4-1 / 4$ percent ceiling on bonds, this permitted the Treasury to issue securities in the 5 to 7 year maturity area without regard to the interest rate ceiling. In the debt limit act of March 15, 1976, the maximum maturity on Treasury notes was increased from 7 to 10 years. Today, therefore, the $4-1 / 4$ percent ceiling applies only to Treasury issues with maturities in excess of 10 years, and certain amounts, such as bonds held by the Federal Reserve and Govermment accounts, have been exempted from this ceiling. In 1971, Congress authorized the Treasury to issue up to $\$ 10$ billion of bonds without regard to the $4-1 / 4$ percent ceiling. In 1973 Congress relaxed the \$10 billion limit by applying it only to private holdings. The dollar limit since has been increased from time to time, most recently on October 3, 1980, when the limit was raised to $\$ 70$ billion to accommodate additional long-term financing (See Chart 3).


#### Abstract

Since 1975 the Treasury's debt extension policies have moved the average length of the marketable debt from 2 years, 5 months in January 1976 to 4 years in March 1982, thus reducing the administrative burden and the market-disrupting effects of frequent Treasury operations to refund maturing issues. Yet while the Treasury has significantly improved the maturity structure of the debt in recent years, almost one half of outstanding marketable debt matures within one year (See Chart 4). This refunding need must be added to Treasury's new cash borrowing requirement to determine gross Treasury issuance in the market. Because of the short average maturity of outstanding Treasury debt, long bond issuance must remain an integral part of Treasury's debt management policy.

Some observers have suggested that Treasury should avoid the sale of long-term securities when interest rates are "high". in order to avoid locking in high interest costs. However, any definition of "high" interest rates is extremely subjective and carries with it an implicit forecast of future interest rates. If Treasury "temporarily" withdrew from the bond market because it felt rates were "high", market reaction to reentry in the long market could well be that rates were "low". Thus reentry could be interpreted as a Government forecast of higher rates in the future. Management of the debt based on interest rate forecasts would create tremendous uncertainty as to Treasury's financing schedule and, over the long run, would result in higher costs to the Government by reducing the market's willingness to bid in auctions. Therefore, a consistent policy of debt issuance across the maturity spectrum must be maintained without regard to expected interest rate developments.


#### Abstract

I would also note that, because of the large volume of maturing obligations refinanced each year, interest expense on the public debt is extremely sensitive to interest rate movements. This adds volatility to the interest expense component of Federal outlays. As interest rates move up and down, Treasury's interest expense also rises or falls. As long as the debt outstanding retains this short-term character, debt extension must be a part of our debt operations.

At this point I would like to note that market uncertainty has recently arisen because of Congressional inaction on Treasury's request to repeal the $4-1 / 4$ percent ceiling on long bonds. As mentioned earlier, the face amount of Treasury bonds held by the public with interest rates in excess of 4-1/4 percent may not exceed $\$ 70$ billion. Treasury has exhausted this authority (See Chart 3). Unless Congress repeals the $4-1 / 4$ percent ceiling, or grants additional issuing authority, no more bonds may be sold. In fact. Treasury was forced to cancel its regular auctions of 20 -year bonds In March and 30-year bonds in April. These cancellations are a result of Congressional inaction. Inability to sell these securities has created dislocations in the market and raised questions about the Treasury's ability to carry out predictable, prudent debt management policies. I urge Congress to expedite the long bond authority legislation so that r.this uncertainty can be resolved.


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In conciusion Mr. Chaiman, we face large borrowing requirements sver the foreseeable future. This Administration abhors interest zate ceilings as ineffective attempts to control prices and incompatible with our commitment to a free market pricing system. We view -ne interest rate ceilings ur savings bonds and rariketabie bonds as anachronisms which serve only to frustrate the efficient management of the public debt. A viable, modern savings bonds program and remsvai of the 4-1/4 percent ceiljing on Treasury markitable bonds will help the Treasury mee: these financing needs in an efficient, sest-edEective mannex. Interest on the putlic debt is estimated to total a record \(\$ 116\) billion in \(F Y\) ig\&i. We aust make every
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``` Ar thif time of severe budget stringency, we must not ada to our budget costs by mismanaging the puilic debt.
Thar conrludes my prepared statement, Mr. Chairmar. I will ;e happy to respond to your auestions.
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AVERAGE LENGTH OF THE MARKETABLE DEBT Privately Held

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## USE OF AUTHORITY TO ISSUE TREASURY BONDS

 WITH INTEREST RATE OVER 411/4 PERCENT
and

Chart 4


APPENDIX C



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AVERAGE LENGTH OF THE MARKETABLE DEBT






## FEDERAL DEBT




4) ELLLS Treasure Bith (bithoms of \$)

6) NOTES Treasury Notes (bitiaoms op t)
7) NOTESF Fercert of Triterest-Fearins Marketable Fublice hemt which is T-Notes
8) BONDS Treeswry Bomds (billions of \$)


11) ITNF Fercent of Interest - Bearins Fublic mebt Gecurities which are Nonmerketable

|  | Tr | TTM | TTMF | ETlic | ETILS 5 | Notes | NOTESF | HONIS | HONTIEF | ITN | ITNF* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | - - - - - | (2) | (3) | (4) | (5) | (6) | 1.7 | (8) - | (-9) | +401- | 174. |
| 1958 | 275.46 | 1.68 .09 | 61.02 | 24,66 | $114+67$ | 21.97 | 13.07 | 86, 76 | 6i. 6.1 | 1.07 .37 | 38.98 |
| 1959 | 284.96 | 182.37 | 63.97 | 35.53 | 19.48 | 33.40 | 18.32 | 84,63 | 46.41 | 102.62 | 36.01 |
| 1960 | 286.03 | $187+60$ | 67.59 | 37.929 | 20.21 | 47.5 | 25.35 | 92.77 | 44.12 | 98.43 | 34.41 |
| 1961 | 288.71 | 190.93 | 66.13 | 40.23 | 21.07 | 4.1.25 | 32.09 | 79.37 | 41.67 | 97.78 | 3, 5.81 |
| 1962 | 295.72 | 179.90 | 67.26 | 44.28 | 22.26 | 4.1.87 | 31.11. | 7\%.35 | 38.89 | 96.91 | 39.74 |
| 1963 | 301.59 | 204.55 | 67.82 | 49.02 | 23.97 | 54. 1.9 | 26.49 | 82.43 | 40.32 | 97.04 | 32.18 |
| 1964 | 308.37 | 208.86 | 67.73 | 53.09 | 25.42 | 61.40 | 29.40 | 92.41 | 44.25 | 99.51 | 32.27 |
| 1965 | 314.08 | 211.72 | 67.41 | 56.61 | 26.74 | 52.36 | 24.73 | 102.75 | 48.53 | 102.36 | 32.89 |
| 1966 | 31.9 .04 | 214.27 | 67.16 | 59.91 | 27.96 | 44.06 | 22.89 | 101.60 | 47.42 | 1.04 .77 | 32.84 |
| 1967 | 330.22 | $219+17$ | 66.37 | 65.23 | 29.76 | 52.95 | 24.16 | 97.62 | 44.54 | 11.104 | 33.63 |
| 1968 | 34\%.00 | 232.34 | 66.57 | 70.71 | 30.43 | 71.14 | 30.62 | 90.48 | 38.95 | 116.66 | 33.43 |
| 1969 | 358.81 | 234.03 | 65.22 | 75.95 | 32.45 | 80.1.1 | 34.23 | 7\%.9\% | 33, 32 | 1.24.78 | 34.79 |
| 1970 | 373.61 | 238.80 | 63.92 | 91.84 | 34.27 | 9 9, 1.17 | 39.85 | 61.80 | $35+88$ | 134.80 | 36.08 |
| 1971 | 401.51 | 249.68 | 62.17 | 89.42 | 35.81 | 106.94 | 42.83 | 53.33 | 21. 36 | 151.83 | 37.81 |
| 1972 | $430 \cdot 65$ | 261.68 | 60.76 | 98.25 | 37.55 | 1.11.39 | 44.10 | 48.04 | 1.8 .36 | 1.68.97 | 39.24 |
| 1973 | 457.67 | 266.62 | 53.26 | 103.30 | 38.74 | 120.42 | 45.16 | 42.91 | 1.6 .09 | 1.91.04 | 41.74 |
| 1974 | 476.14 | 272.29 | \%7.19 | 110.27 | 40. 50 | 127.67 | 46.89 | 34.34 | 1.2.61 | 203.85 | 42.81 |
| 1975 | 534.53 | 323.11. | 60.45 | 135.42 | 41.91 | 1.51 .23 | 46.81 | 36.16 | 1.1. 28 | 211.41 | 39.55 |
| 1976 | 618.57 | 396.28 | 64.06 | 161.77 | 40.89 | 194.94 | 49.19 | 39. $5 \%$ | 9.99 | 222.28 | 35.94 |
| 1977 | 680.66 | 438.48 | 64.4 \% | 158.83 | 36.22 | 235.70 | 53.75 | 43.96 | 10.02 | 242.16 | 35.58 |
| 1978 | 752.28 | $480 \cdot 31$ | 63.85 | 161.1.9 | 33.38 | 264.94 | 55. 17 | 5.64 .35 | 4.1.31. | 271.9\% | 36.15 |
| 1979 | 809.35 | 507.83 | 62.74 | 163.17 | 32.13 | 276.04 | 94.36 | 68.61 | 13.61 | 301.53 | 37.26 |
| 1980 | 983.56 | 576.2 F | 6 \%.22 | 194.74 | 33.79 | 300.37 | 6.13 | 81.14 | 1.4.08 | 307.31 | 34.78 |
| 1981 | 976.73 | 670.45 | 68.63 | 226.89 | 33:84 | 349.54 | \%2.14 | 94.03 | 1.4.02 | 306.47 | 31.37 |
| 1992 | $\cdots$ | -- | --- | --- | $\cdots$ | - $-\cdots$ | -- | $\cdots$ | -- | .... | -.. |

1.98 CRUs

* Subcomnittee on Domestic Monetary Policy







## TREASURY FINANCING REQUIREMENTS



## TREASURY FINANCING REQUIREMENTS



## NET MARKET BORROWING

## April - June 1982

Total ..... $151 / 2$
Cash Management Bills:
April Issues ..... 8
April Retirements ..... $-10$
June Maturities ..... -3
Net Borrowing ..... $-5$
Other Net Borrowing: ..... $201 / 2$
Done ${ }^{1 /}$
7 year note ..... $3^{1 / 4}$
2 year note ..... $11 / 4$
Regular bills ..... $1 / 2$Total5
To Be Done ..... $15^{1 / 2}$1/ Issued or announced through April 23, 1982.
Othac ol the Sacreeroy d the Tresury

## TREASURY OPERATING CASH BALANCE



## TREASURY NET MARKET BORROWING ${ }^{\text {¹ }}$



TREASURY NET BORROWING FROM NONMARKETABLE ISSUES


QUARTERLY CHANGES IN FOREIGN AND INTERNATIONAL HOLDINGS OF PUBLIC DEBT SECURITIES


2) Parlly estimated.

## SHORT TERM INTEREST RATES

Monthly Averages


## SHORT TERM INTEREST RATES



## LONG MARKET RATES



## INTERMEDIATE AND LONG MARKET RATES

Weekly Averages


## MARKET YIELDS ON GOVERNMENTS

Bid Yields



USE OF AUTHORITY TO ISSUE TREASURY BONDS WITH INTEREST RATE OVER $41 / 4$ PERCENT



## PRIVATE HOLDINGS OF TREASURY MARKETABLE DEBT BY MATURITY



## PRIVATE HOLDINGS OF TREASURY MARKETABLE DEBT BY MATURITY



## OWNERSHIP OF MATURING COUPON ISSUES <br> May 1982 -September $1982^{1 /}$

 (In Millions of Dollars)

1 Amounts for investor classes are based on the February 1982 Treasury Ownership Survey.
$2 \boldsymbol{r}$ Includes State and local pension funds and life insurance companies.
3 Includes casualty and liability insurance companies, mutual savings banks, savings and loan associations, and corporate pension trust funds.

- Less than $\$ 500$ thousand.


## TREASURY MARKETABLE MATURITIES

Privately Held. Excluding Bills and Exchanqe Notes


TREASURY MARKETABLE MATURITIES


## AGENCY MATURITIESㅗ

Privately Held

 certificates, mortgage-backed bonds, and mortgage participation certificates.

APPENDIX
GOMOE MANGEM, IDAM
RON PALL TEX.
HL Mowery.calia
CO WIEER. OHIO

## U.S. HOUSE OF RİPRESENTATIVES

SUBCOMMITTEE ON DOMESTIC MONETARY POLICY OF THE
COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS
NINETV-SEVENTH CONGRESS
WASHINGTON, D.C. 20515

## HEMORANDUM

T:': Members
Subcommittee on Domestic Monetary Policy
FROM: Walter E. Fduntroy
Chairman, Subcomittee on Domestic Monetary Policy
DA:E: Marlif 18, 19: :
SUBJECT: Debt Management by the Department of Treasury
Hearings on Iuesday, March 23, 1982 - 10:00 a.m.;
Wednesday, March 24, 1982-10:00 a.m. - 2222 RHOB

## INTRODUCTION

On March $9,198^{\circ}$, the outstanding national debt of the United States totaled $\$ 1.046$ trillion. The current temporary debt ceiling is now $\$ 1.080$ trillion. Tnere are indications that the national debt may expand by an additional $\$ 554$ billion-a $50 \%$ increase--between now and 1935. That expansion $i$ more than the total debt accumulated by the United States up to $197^{\circ}$. At tnat time, the national debt was $\$ 534.53$ billion. From that time until 1981, the national debt grew an additional $\$ 442.40$ Billion for a total of $\$ 976.93$ billion in 1981 . This year, the deet is expected to gron an additional $\$ 120$ billion.

Whatever one ma; believe about the impact that a current deficit nudy have on interest ra:es, economic activity, potential borrowers, or unon inflations or recessions, the reality of the national debt compels ore to consider how it is treated by the government. Like any debt, it hes a maturity, it has on interest rate, it must be sold, registered, refinanced, and held within the established limits of the law as to amount, maturity, and cist. Unlike other debt, however, this is the debt of the United States. It commands the highest ratings, it is the most secure, and it wil: always be sold over any other conpetition in the market. Whether it is sold dt the best terms for the taxpayers of the country 15 very generally difficult to ascertain since it has no pciual in quality. Mors importantly, no one else borrows on the same stale.

Therefiot, management of the debt can have profound effects on the marketplace. One need only to watch the announcements of Treasury sales. The total amount of interest paid, and the total costs in processing infe sate and redemption of these securities, has now become a major item 3. the Budget o: the Utired Stades and a major component of the Gros:: Nationei Proos: equaling approximately $2.34^{*}$ in 「Y-1981 vs. :.AZ: in F. 10

The two days of rearings are intended to explore some of the 1 1ssues associated with the management of the debt. Included in this inquiry are such matters as the timing of debt sales, the maturity of various issues and the reasons :herefore, the use or not of various kinds of devices such as calls, coupons and variable rates. Ownership of the debt is also of some concern since reliance on foreign buyers can impinge on the national security interest. Finally, there is the role wnich various aovisory groups and dealers have on the decisions of the Treasury that arise fror their advice. No one has suggested that the advice provided by these groups is faulty or tinged in any way.

Small mistakes, however, can be costly to all parties. There is very little way of measuring the usefulness of their advice since the scale is beyond the pale of any other borrower.

The materials provided herein are intended only as a guide to assist Members in fashioning their own lines of inquiry. They are not complete nor are they definitive of the issue. There is a paucity of published materials and suprisingly, there is little even in the way of considered scholarly materials. It appears that those who are knowledgeable in this field foresake writing about the subject to become participants in what has been characterized as a most rewarding field of endeavor.

## DISCUSSION OF TERMS USED

Throughout this inquiry, one will periodically find reference made to various kinds of Treasury securities. References to various securities are also noted on the attached graphs and tables. There are essentially two kinds of securities: Marketable and Non-Marketable. The differences turn, essentially, on whether or not the securities can be resold into the secondary market. Within the category of Marketable Securities, there are Treasury Bills, Coupon Issues (no longer issued), Treasury Notes, and Bonds.

Marketable Treasury securities may be exchanged at any Federal Reserve Bank or branch for an equal amount of any authorized denomination of the same issue. Bearer bonds are interchangeable with registered bonds. However, all Treasury bills and a large fraction of all other marketable securities are now in "book entry" form. That is, they exist as computer entries only and no paper securities are issued.

Marketable Treasury securities are acceptable to secure deposits of public moneys. They are also acceptable as security for notes discounted at Federal Reserve Banks. Income is subject to all Federal income taxes, but is exempt from state, municipal, and local income taxes.

## NONMARKETABLE SECURITIES

Non-marketable securities include: (1) United States Savings Bonds, which are currently designated as EE and HH; (2) retirement plan bonds, which have been issued by the Treasury since 1963; (3) individual retirement bonds, which have been issued by the Treasury since 1975; (4) government account series which are sold by the Treasury directly to government agencies, trust funds and accounts; (5) depository bonds which are no longer issued although $\$ 11 \mathrm{million}$ were still outstanding in late 1980; (6) state and local government series, which are issued to state and local governments that wish to reinvest the proceeds of advance refundings of their tax-exempt debt; and (7) the foreign series, which are foreign-currency-denominated securities offered to residents of foreign countries.

## MARKETABLE SECURITIES

Treasury Bills
T-bills are issued on a discount basis. That is, they are sold at a dollar price less than their redemption value at maturity, which is the difference, or discount, constituting the payment of interest. When T-bills are to be offered, the Treasury issues a notice with respect to the new offering inviting tenders under competitive and non-competitive bidding.

In the case of competitive tenders, the price must be expressed on the basis of 100 , with not more than 3 decimals (e.g. 95.615). Non-competitive tenders without stated price are accepted in full at the average price of accepted competitive bids. Since April 1974, the Federal Reserve has been allowed to bid noncompetitively to "roll over" maturing bills owned by itself or its governmental customers (mainly foreign monetary authorities). Such holdings have averaged about $\$ 3$ billion each week through 1979, a sizable amount when measured against the total of nearly $\$ 7$ billion of bills offered each week in the 1979 auctions. In 1981, Fed purchases increased to about $\$ 8$ billion out of $\$ 20$ biliion of bills offered each week.

3-month and 6 -month Bills normally are auctioned weekly on Mondays, with payment due the following Thursday when issues sold three and six months earlier mature. The amounts to be auctioned are ordinarily announced late in the afternoon on the Tuesday preceeding the auction.

52-Week Bills are auctioned every 4 weeks, presently on a Wednesday with payment due the following Tuesday when the issue sold 52 weeks earlier matures. The size of the offering is usually announced in the late afternoor on the Thursday preceeding the Wednesday auction.

Cash Management Bills are issued at irregular intervals with maturities ranging from a few days to about 6 months. Typically they are issued early in the month when government spending tends to be the heaviest, and they usually mature shortly after one of the major mid-month tax receipts dates in March, April, June, September, or December. Cash management bills are used to raise new cash and are sold only in large olocks, with minimum tenders of $\$ 10 \mathrm{milli}$ ion for the short-ciated issues and $\$ 1$ million for bills with longer maturities. Cash management bills are usuai y announced only a few days before their sale.

## COUPON ISSUES

Certificates, notes, and bonds may be offered to the public for cash subscription or in exchange for outstanding or maturing securities. Offerings are generally announced 1 to 3 weeks in advance of the issue date. The announcement designates a deadline through which the books are to be open for entry of subscriptions at the offering price set by the Treasury or for the submission of bids if the price is to be set by auction. Since over-subscriptions on fixed-price offerings are the ruie, allotments of securities are made on a percentage basis. The Treasury may grant preferential or full allotments to certain investor classes: this 15 generally done for the Federal Reserve and other domestic and foreigr governmental subscribers.

Ireasury Notes
Treasury notes may be issued with a maturity of not less than 1 year nor more than 10 years. The shorter notes are frequently purchased by non-financial corporations. In recent years, all quarterly Treasury refunding operations--in February, May, August, and November--have included one or more note offering;

Two-Year Notes are auctioned a week or so before the end of each month. They are dated and mature as of the month's end. The amount to be sold usually is announced about a week before the auction.

Three-Year Notes are not issued in a regular cycle, but are frequently included in the Treasury's regular quarterly refundings. These occur in

February, May, August, and November. The terms for these offerings are usually announced on the last Wednesday of the preceeding month.

Four-Year Notes are offered for sale in the last month of each quarter and are dated and mature at month's end.

Five-Year Notes were first offered on a more or less regular basis beginning in 1976. They are usually offered in the first month of each calendar quarter except January.

Seven- to Ten Year Notes are typically used as an option in the quarterly refunding packages, along with a long-term bond and, for large offerings, a note maturing in about 3 years. The Treasury selects the particular maturity to accomodate requirements and policies at the time of refunding.

## Treasury Bonds

Treasury bonds may be issued with any maturity but generally have an original maturity of over 10 years. Recently the Treasury's quarterly refundings have included auction sales of new bonds. Treasury bonds outstanding and available in the market cover a wide range of maturities. There have recently been issues with maturities of 15 or 30 years, and in generally smaller amounts than notes. Since July 1978, 15-year bonds maturing at mid-month have been offered for payment early in the first month of each quarter. In addition, every recent quarterly refunding has included a bond with a maturity up to 30 years, but callable 5 years earlier.

## OTHER SECURITIES

A third category of securities are those which are issued by Agencies of the United States. These are not direct obligations of the Treasury, but in one way or another involve federal sponsorship or guarantees. These issues have continued to increase in recent years. The enlarged supply has been absorbed readily by the investing public, which recognizes the investment quality of these obligations and their sizable secondary markets. The following is a list of some of the most important agency securities currently issued to the public:

Ordinary Debt Issues:
Chrysler Corp. Loan Guarantee Board Farm Credit System Federal Home Loan Bank Board Maritime Administration World Bank

Mortgage-Backed Issues:
Federal Home Loan Mortgage Corp. Government National Mortgage Assoc.

Tax-exempt Instruments:
Department of Housing and Urban Development project notes
Like Treasury obligations, these securities generally are issued under the authority of an Act of Congress and are exempt from registration with the SEC. A few are backed by the full faith and credit of the

United States, many are guaranteed by the Treasury or supported by the issuing agency's right to borrow from the Treasury.

## AUTHORITY FOR DEBT

Treasury securities are issued under authority of the Second Liberty Bond Act of 1917, as amended. Section 21 of the Act limits to $\$ 400$ billion the outstanding total face amount of obligations issued under authority of the Act or guaranteed as to principal and interest by the United States. The $\$ 400$ billion debt limit has been raised many times, but historically Congress has made the increases temporary. The ceiling reverts back to $\$ 400$ billion after a certain date in the absence of new legislation. The current "temporary" limit is $\$ 1.080$ trillion. As of March 9, 1982, outstanding debt subject to the limit totaled $\$ 7.046$ trillion.

Under the Public Debt Act of 1942, the Treasury has wide discretion in determining the terms on marketable securities. They may be sold on a competitive or other basis, they may be issued on an interest-coupon or discount basis, or in some combination, at whatever prices the Secretary of the Treasury may prescribe. There is no statutory limit on the coupon interest rate that may be paid on bills, certificates, or notes. There is a long outstanding limit of $4 \frac{1}{4} \%$ on the coupon rate for Treasury bonds, but Congress has provided certain exemptions from that limit in recent years. Currently, the Treasury is allowed to have outstanding up to $\$ 70$ billion of publicly held bonds exempt from any coupon rate limit. $0^{f}$ this authority, $\$ 69.97$ billion was exercised as of March 8, 1982.

## HISTORY OF THE DEBT

The first major growth of the U.S. Government debt occurred during World War II. At the end of fiscal year 1941, the debt was $\$ 44$ billion. In February 1946, it stood at $\$ 280$ billion. Subsequent reductions brought the figure down to $\$ 251$ billion in April 1949, but since then the trend has been largely upward.

A iarge volume of the debt issued during World War 11 was long tern. The average length of the marketable interest-bearing public debt peaked at 10 years and 5 months in June 1947. From the end of the War unt $: 1$ 195\%, financing operations involved only issues maturing in less than 10 years. Thus by 1953. the average maturity was down to 6 years. Several issues of bonds maturing in more than 10 years were offered from 1953 through 1959 , but the t(tal sold was only $\$ 10$ billion.

Although concentration of Treasury debt in short-term issues was a matter cf concern, it proved difficult to achieve any major extension into long-term securities. Funds for investment in long-term government securities were available only in limited amounts, and economic and market conditions generally were not favorable to large-scale sales of long-term bonds for cash.. In the late 1950s and thereafter, moreover, market yields moved above the the statutory limit of $4 \frac{1}{4} \%$ coupon rate for Treasury conds, confining the Treasury to the issuance of notes (then subject to : statutor: maximum maturity of 5 years), certificates, and bills

Altnough refusing to relax the $4 \frac{1}{2} \%$ ceiling, Congress did enact legislation in 1959 that facilitated a series of advance refunding offers by the Treasury beginning in 1960. In these refundings, the Treasury offered holders of various issues, most of which still had years to run until maturity, the opportunity to exchange their holdings
for longer-dated bonds at a higher rate of return. Thus massive amounts of long-term obligations were created with a minimum impact upon market prices through the use of an exchange instead of a conventional sale and refunding. ? A total of $\$ 67.8$ billion was placed in 11 such advance refundings during the $1960-65$ period, with $\$ 54.4$ billion representing issues with more than 5 years to maturity. These operations brought a significant lengthening of the average maturity of the marketable debt. After mid-1965, however, market interest rates rose so far above the 4! $\%$ coupon rate maximum that further long-term refunding became impossible.

In 1967, Congress lengthened the maximum maturity of notes from 5 years to 7 years. Since notes are not subject to the $4 \frac{1}{4} \%$ ceiling, this in effect permitted the Treasury to sell securities of up to 7 years maturity freely, and it made active use of the privilege. The maximum maturity of new notes was extended to 10 years by legislation enacted in March 1976. However, for the $6 \frac{1}{2}$ years between 1966 and 1971, the Treasury could not issue any securities with a maturity of longer than 10 years. In 1971, the Treasury was authorized to issue up to $\$ 10$ billion in bonds exempt from any coupon interest rate limitation. Thus the average maturity of the privately held debt, which mainly shortened from 1967 until the end of 1975; when it reached a low of 2 years and 5 months began to then rise until late in 1979. However, since that time, it has been again contracting somewhat. The authority to issue bonds exempt from the $4 \frac{1}{2} \%$ ceiling has been increased a number of times since the initial $\$ 10$ billion in 1973. In 1976, it was increased to $\$ 12$ billion. In 1977, it was increased to $\$ 15$ billion; in 1978 to $\$ 30$ billion; in mid-1979 it was increased to $\$ 40$ billion and later to $\$ 50$ billion. In October, 1980, it was increased to its present level of $\$ 70$ billion.

# FEDERAL <br> RESERVE BANK OF NEW YORK 

## THE DEALER MARKET FOR UNITED STATES GOVERNMENT SECURITIES

# The Dealer Market For United States Government Securities 

The market for United Stetes Government securities occupies a central position in the nation's financial syatem. The market helps the Treasury finance the Government debt and provides the Federal Reserve with an effective means of implementing monetary policy. While the safety of Government securities is a fundamental feature, perhaps their most vital quality to investors is their liquidity-the ability to transform them into cesh quickly and at low cost. The market is an over-the-telephone one in which dealer firms stand ready to buy and sell from a wide range of public and private participants. The dynamic interaction of all participants enhances the attractiveness of Treasury securities and the importance of the market itself.

The dealer market is an eflective conduit for the distribution of new Government securities to investors. Treasury financing requirements have grown significantly in recent years, owing to a eeries of increased Government deficits and to the need for refinancing a heavy schedule of maturities. Since 1974, dealers have initially bought alightly more than 40 percent of the securities competitively auctioned to the public by the Treasury. Moreover, the active role that the dealers have taken in making a secondary market, i.e., buying and selling outstanding issues, has enabled investors to use Government securities more readily in carrying out their portiolio strategies.

Federal Reserve open market operations are undertaken with dealers in the market to implement monetary policy. The Manager of the System Open Market Account buys and sells securities on a temporary or outright basis either to augment (through purchases) or to reduce (through sales) the reserves available to member banks. These operations, conducted at the Trading Desk of the Federal Reserve Bank of New

York (FRBNY), have an important bearing on overall economic activity. They help to determine the growth of monetary aggregates and the availability of credit, and they influence the trend of interest rates.
Open market operations are also used to counter sharp fluctuations in bank reserves, which arise from such tactors as changes in the public's demand for currency or in the size of Treasury cash balances held at Federal Reserve Banks. The Federal Reserve serves as the fiscal agent for the Treasury and as agent for Government and foreign official institutions in the market, buying and selling Treasury securities for them. Activity at the Trading Desk has grown significantly in recent years, mainly in reflection of greater fluctuations in other factors affecting reserves and the increased participation of foreign central banks in the market. The expansion of this activity has also contributed to the growth and liquidity of the secondary market.
The Treasury and the Federal Reserve closely monitor developments in the market. The Trading Desk at the FRBNY conducts regular meetings with representatives of dealer firms and throughout the day remains in telephone contact with their trading rooms, receiving price quotations and assessments of the state of the market. Officials of the Treasury are also in frequent contact with these firms and often solicit their views on debt management. The FRBNY has recently stepped up its surveillance of dealer firms. In addition to obtaining statistical reports from them, it visits the individual firms to gain further insight into market practices and to evaluate the activities of the fims themselves.
The market has expanded sharply in the past few years, both in overall trading activity and in the
number of dealer firms. The growth of trading, outright buying and selling, reflects the greater short-run variation in interest rates in the 1970's as well as the large increase in Treasury debt. The Treasury's debt management policies, especially efiorts to extend the maturity of the Government debt while meeting enlarged borrowing needs, have also contributed to the market's development. There has also been a growing willingness on the part of portiolio managers to seek to anticipate interest rate movements and thus to trade more actively in the short run.
The entry of a number of new dealer firms into the market has substantially reduced the concentration of trading activity-i.e., the share of trading activity accounted for by the largest firms-and has to some extent altered the trading relationships among the tealer firms. A more impersonal and even more competitive market atmosphere has developed. At times, participants, in seoking greater returns, may also have overreacted to events that could affect interest rates. This. combined with the active trading, could have contributed to short-run volatility in interest rates.

## Stock in Irade: United Siates Treasury debt

The Treasury increased its borrowing sharply following the onset of the $1973-75$ recession. This mainly reflected the large increases in spending during the most severe business downturn in the post-World War il era. The public took on about $\$ 130$ billion net of marketable Treasury securities during 1975 and 1976, and the amount held outside the Federal Reserve and United States Government accounts rose by approximately 70 percent. The large increases in the debt in 1975 and 1976 caused the ratio of Treasury debt to gross national product to end a long downward trend and to rise for the first time since 1958. Still, the ratio of Treasury debt to GNP in 1976 was only about one-third as high as in the years following World War II.
The Treasury was able to float the bulk of the sizable increases in its debt without major disruptions to the financial markets, partly because the expansion of private credit demands and inflationary expectations both abated amid a more moderate pace of economic growth. At the same time, the Treasury adopted new techniques to aid its sales efforts. Initially, it concentrated debt offerings in the most liquid areas of the market, raising a substantial amount of new cash in bilis during 1975. (For a discussion of the types and characteristics of Treasury debt, see box on page 37.) It then furned heavily to the coupon sector. particularly the two- to five-year area, and also issued long-term bonds as the Congress acted to ease existing interest rate constraints on new issues of these
securities. The greater reliance on the coupon sector helped make these securities more liquid by increasing the size and number of securities available for trading.

To facilitate its financing operations, the Treasury increased the amount of information provided to the public on the expected amount and characteristics of its financing each quarter. The Treasury began to expand the schedule of routine coupon offerings so that by 1976 it was holding monthly sales of two-year notes and quarterly sales of four- and five-year notes.' Midquarter refundings of maturing coupon securities generally contained offerings of a three-year note, an intermediate-term note, and a long-term bond. This evolving pattern helped to extend the maturity of the debt. Starting in 1970, the Treasury came to rely increasingly on auctions to sell its coupon issues, thus letting the market set the rate competitively. This technique makes pricing easier. because it allows market participants to adjust their bidding to incorporate evaluations of last-minute developments in the credit markets. Notable exceptions to this policy occurred in 1976, when on three occasions the Treasury used a fixed price and coupon subscription method that led to successful sales of very large amounts of seven- and ten-year notes.

## Investor:

The largest investors in Government securities are financial institutions who prefer to have very liquid and high-quality assets in their portfolios. Domestic commercial banks owned over $\$ 100$ billion of Government securities in mid-1977 (Table 1). Banks shape their portfolio decisions in response to pronounced seasonal and cyclical flows of funds. For example, bank holdings of Government securities increased substantially in 1975 and 1976 as an offset to cyclically weak demand for loans caused by a restructuring of balance sheets on the part of bank customers in the aftermath of the 1973-75 recession. The expansion in holdings of Government securities followed many years of little or no growth while customer loan demand was heavy. Other private financial institutions-such as thrift institutions, insurance companies, and pension funds-hold somewhat less than half the amount of Government securities held by commercial banks. While they keep Treasury issues in their securities portfolios, their needs for funds are generally more predictable than those of commercial banks. They typically hold a larger proportion of mortgages and other securities that offer

In June 1977 and agan in December 1977, ifteen-year bond
were sold rather Ihan tive-year notes The Treasury has
indicated that it will make such substrutions trom time to time
higher yields but are less liquid than Treasury issues. The Federal Reserve System's holdings of Government securities rival the amount held by the commercial banks. These lissues constitute the great buik of the System's assets and they suppon Its llabilities, primarily Federal Reserve notes which consiltute most of the nation's currency In circulation, member bank reserves, and Treasury deposits. The principal reason for the growth of Federal Reserve holdings of Government securities has been the expansion of Federal Reserve notes and, to a lesser extent, the increases in
average Treasury cash balances at the Reserve Banks. Member bank reserves have expanded iltie in recent years, since the growth of member bank liabilities subject to reserve requirements has been offset by reductions in average requiremente.

Other governmental units, both domestic and foreign, hold aubstantial amounts of United States Government securites because they are bound either by law or custom to hold the safest and most liquid securities avaliable. Foreign and international investors, primarily official institutions, held about $\$ 85$ billion of marketable

## Charcotivitetion of Truangy Excuritioe

The Trempury celle twe efinerent kinde of marketable obilgatione: coupon-beering encurtiee and bile. The Investor's retum on a coupon-bearing eveurly comes from eemiannual interest perments plus any gein or loen in tive price of the eecuriny from the time of purtheme to meturliy or sale if $\boldsymbol{H}$ te cold before it moturet. Geupen-beteing eecurlite tere elther notet or bonde. By taw, notes have an origlnd maturly of from one to ter years. securtion dealgneted as bonde are permitiad to have ary maturty, but the congreed hee rectricted to 27 bfllion the anount of bonde in the hande of the pubilc that may beer soupons oxceeding 4 k percerit As of June 30, 197t, only \$13V bliluon of bonde with coupone over $4 \%$ peroent wat in pitvate handt, Ie., outelde the Federal Reperve Syatem and enlofal United grates Government aceousta. There be no comparable restriction on notes. in reoeent years, ment coupan socurtios heve been lieusd in minimum denominitions of 81,000 , except for two- and three-year notet for which ss,000 hate been the mindmum.
Coupon mecurtiles are ubually sold through auctions in which bidders eubmit compotitive bide expressed as ennual ybide to two decimal places- 7.31 percent, for exemple. Noncompetitive blddere may submit tenders of up to $\$ 1$ million. The Treasury allots to the noncompetitive biddere first and then allote competituve blde, beplnning with thowe at the lowest yleld. When the laeve has been fully allotied, the Treasury calculated the welghted average of the ylelde it has eccepted and then extabliahee a fixed coupon to the nearest elghth percent, 00 thet the average price is usually at par or ellghtly below par. For example, a tecurty told with an average lasuing ylald of 7.31 percent would have a 74/4 percent coupon and an average price slightly below par. A mecurty is sold at par when the average yield ts oxectly equal to the coupon. All noncompelifive biddere pay the average leaulng price, and competilive blddere pay the price aseociated with the
dde mecepted by the Treseury
Pres quotations in the eecondary market are expreated in points with par value equal to 100 points. Frections of a point are expreeted in 32nde. Thus, the price of a coupon eceurty when it is below par might be expresed es 80 10/32, l.e., sep3.12 for a $\$ 1,000$ bond. (when ine price le sbove par, the quote might be $1023 / 22$, l.e., $\$ 1,020.94$ for a $\$ 1,000$ bond.) The quoted price does not lnclude any interest that hae acerved on the secunty after the previous amimnnual coupon paymert dote. The accrued interest is edded to the quoted price the buyer egroet to pay the eeplier.
Ella do not carry coupona. They are Inilially sold and ebsequantly trade at a diecount from par value. The investor's return Is derived from the increase in value from the original diecounted price at purchase to the par velue at maturity. The Treamury auctions threeand sax-month bitts wery week and 52 -week bils every four wemks. Bille In the eecondary market are quoted In terint of berk discount ratea: the dollar diecount ls oxpreased es a percentage of par value computed at on ennual rate untll maturity (besed on a 360 -day year) The mindmum denomination for a bill is $\$ 10,000$, and noncompetitive tenders are allotted in full up to $\$ 600,000$ each at the evarage auction price.
Another charectertstic of Trtasury securlitios It trelr marketability or nonmarketability. Marketable securtioe may be resold after lasue, while nonmarketable sacurtises are sold to dasignated purchasart who may not sell them to others. Offelal United States Govemment eccounts hold sightly more than half the Treaaury'e nonmarketable securtiles. Among the most Important accounts are the Federal employee rettrement funds and the Federal old-age and eurvivors Ineurance truct fund. sevinge bonde held by Individuals constitute alightly lese than one third of the nommarketable debt. Other important holdere of nonmarketable debt are for elgn governmente and atate and local govemments.

## Table :

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- inchuder \$88 bllion of coritificatite of indeblednese.
+ Partily ankarated.
Source: Treasury Buthetr

Treasury issues in mid-1977.2 The growth of foreign holdings of Treasury securitiss mainly reflected foreign central bank investments of dollars obtained in exchange market operations as well as substantial acquisitions by oil-exporting nations. State and local governments invest in short-term Treasury securities to bridge the gap between the timing of periodic tax receipts and Federal gramt-in-aid and the more continuous fllow of payments for goods and services.
Individuais hoid a considerabie volume of marketable Treasury issues oven though there are several tactors tending to inhibit purchases by small investors. The transactions costs for small purchases and eales, the cost of cuatody, and large minimum denominations for shorter term issues have tended to restrain purchases by individuals except in periods when market yields on Treasury securities moved substantially above those on allernative liquid investments, mainly thrift and savings deposits. (The major portion of the Treasury debt held by individuals consists of savings
Fice:gr utivostors atso held about $\$ 22$ billion ci normarketatie irgesury securite in mid-197\%
bonds with small denominations. They are not marketable, but they are redeemable prior to maturity.)

The dealer market
The market for United States Government securities centers on the dealers who report activity daily to the FRBNY. The dealers buy and sell securities for their own account, arrange transactions with both their customers and other dealers, and also purchase debt directly from the Treasury for resale to inveators. In the normal course of these activities, they hold a substantial amount of securities. In addition to the deater firms, there are brokers that specialize in matching buyers and sellers among the dealers in the Government'securities market.
The dealer firms include dealer departments of commercial banks (bank dealers) and all others (nonbank dealers). Bank dealers call upon the cuatodial and other facilities of the bank and frequently obtain a portion of the financing of their securties holdings from the bank. The bank dealer often acts to meet the needs of the correspondent banks of the parent. In
addition to trading in Government eecurities, bank dealers are generally active in other money markel inetruments and In the market for tax-exempt general obilgation securties of state and local governments. They are, however, proscribed by the Banking Act of 1933 (Glase-Steagall) from trading corporate equities and bonds, as well as tax-axempt revenue issues. The Glass-Steagall Act was intended to create a legal dis tinction between commercial banking and investment banking. Nonbank dealers face no such proscription, and mosst of them trade in these other markets, elthough a tew firms concentrate their energies on Government securities and money market instruments such as bankers' acceptances, commercial paper, and large negotiable bank cerlificates of deposit.

At the end of 1977, there were thirty-six securities dealers that reported their transactions, financing, and inventories to the FRBNY daily; twelve were commercial banks and twenty-four were nonbank dealers. A firm is added to the reporting list when it demonstrates that it conducts a significant amount of business with customers as well as with other dealers, that it operates in size in the major maturity areas of the market and that it is adequately capitalized and managed by responsible personnel. If a firm's performance meets high standards in these respects for some period of time, the Manager of the System Open Market Account will generally establish a trading relationship with it. Thus. not all firms on the FRBNY reporting list necessarily trade with the System Open Market Account.

In 1944, the Federal Open Market Committee (FOMC) entered into formal relationships with a limited group of dealers to facilltate its objective of pegging interest rates during World War II. The dealers, numbering about a dozen, were required to make vigorous efforts to find buyers for their excess securities before selling them at the established prices to the System Open Market Account. When this basis for the special relationship ended with the demise of pegged interest rates in the early 1950's, a subcommitlee of the FOMC acknowledged the need to develop specific standards for inclusion on the list. Among the characteristics noted at the time were that dealers should make mar kets, take positions, and operate in volume in all segments of the market.

For a time the size of the list showed some tendency to expand, and by 1960, when the FRBNY began receiving detailed statistical reports from dealers daily, the list included eighteen dealers. The number hovered around twenty through the 1960's but has since expanded rapidly to its present size, largely because investment banking firms have sought to expand the range of their operations as activity in the intermediateand long-term Treasury market grew.

Dealers trade actively among themselves as well as with customers. Brokers facilitate this interdealer trading because they bring buyers and sellers together; the interdealer brokers themseives do not make markets or hold securities for their own account. They charge a commission on each transaction, amounting to roughly $\$ 78$ per $\$ 1$ million of Treasury coupon issues sold. The commission on Treasury bill transactions is gener ally calculated in basis points: for example, the commission on three-month bills frequently is half of 1 basis point, approximately $\$ 62$ on a $\$ 5$ million trade. (A basis point is $1 / 100$ of 1 percentage point in interest rate terms.) In many cases, brokers provide their services by displaying participating dealers' bids and offers on closed circuit television screens located in the dealers' trading rooms. Other dealers then may contact the broker, respond to the quoted price, and complete the transaction. Some brokers operate completely by telephone, contacting deaiers to pass along bids and offers.

In the dealer market, practically all trading is transacted over the telephone. There is no formal central ized marketplace such as an exchange; instead, the market consists of a decentralized group of firms, each willing to quote prices for purchase or sale of Treasury securities. Each firm's traders quole prices and buy from, and sell to, their counterparts at other dealer firms directly or with brokers. The firm's sales personnel use the telephone to contact customers to learn their investment needs and to arrange trades with them The price for each block of securities traded is negotiated, and many customers will typically canvass the market to find the dealer with the best price.

The over-the-telephone organization of the Government gecurities market parallels that of other fixedincome securities markets. In contrast, stock exchanges largely rely on brokers to funnel orders from customers o the floor of an exchange. There, brokers called specialists attempt to match orders with designated prices from buyers and sellers in an auction market. At times the specialists are required to act as principals and to buy and sell securities, especially when there is an mbalance of buy and sell orders.
For the most part, the delivery of Treasury bilis takes place on the same business day (called "cash" delivery) while coupon issues are generally delivered on the following business day (called "regular" delivery). Delivery and safekeeping of securities is in large part handled by a book entry system provided by the Federal Reserve Banks. At the beginning of 1977, four ifths of the Treasury's marketable debt was in the form of bookkeeping entries on computers at the Federal Reserve Banks; the remainder was in paper certificates. The computerized system eliminates physical
handling of cerlilitates, alnce the aecuritios can be transferred electronically from sallers to buyers through entries on the safekeeping accounte of commorelal banks that are members of tho Federal Roserve System and who act as agent for these fransactions. Whon transactions are arranged betwoen paricipants in dipferent Reserve Districis, the securitian Iransfer is carried over the Federal Reservo wirg-transfor network. Book entriea and wire fransfera facilitato rapid and tow cont tranafors of securtios, especially among dealera and customers who are separated geographicolly.

The role of the dealer
The dealer firm makes markets by purchusing and sellIng securities for lte own account. Dealers do not typically charge commissions on their trades. Rather they hope to self sacurities at priciss abovo the onots at which they were bought. Dealers also saek to have a positive "carry" on the socurltios they have in position, l.e., they iry to earn more intereat on tholr inventory than thoy must pey on the funds ralsed to finence that inventory.

Dealers ettempt to eatabilsh positions in the various maturities of Troasury securities in light of their expectations aboul interest rates and then trade around that position. But the inifiative often rests with customers trying to undertake apecific transactions, and the doaler must be willing to bld or offor at compelitive prices to ratain his customar base. Whon tradere quote pricos to cuatomere and to other dealors, they continuously make amall adjuatmenta in relation to perceived prices elsowhere in order to maintain the firm's position, its inventories of securites, within the fimits laid down by the fim's management. The management relies heavlly on the traders' skilis to enable the firm to change lis position in various maturities whenever the outlook changes. A good trader is also expected to make monay from the spread befween bid and offered pricos in a steady market.
The spraad betwoon bid and offered prices in general depends on a variety of factors. Two basic determinants are the curront stato of market activily and the outlook for interest rates. Sproads are narrower or actively traded iasues, because tho dealer is farrly certain about the price at which the fisus cent be purchased or sold. Sproads are narrowest of all on Treasury bills, because thoy are both actively traded end imolvo less risk of prico loss than longer term securitiles. Spreads for three-month bilis are ofien as amall as 2 basis points on recent lasues, i.e., $\$ 50$ por $\$ 1$ milion. The spread on an activoly traded coupon iesue mighl be $2 / 32$ to $4 / \mathbf{3 2}$, or $\$ 825$ to $\$ 1,250$ per $\$ 1$ milison of eecuritlos. The sproad is wider the longer the ferm 0 maturity and the smaller the sre of a requosted

Iranaaction. Spreads alao widan-4donetimes dramati-cally-when new devalopmenta genorate caution or uncurtainty in the market.
A subsiantial increase in tho short-run volatility of interest rates-and thus securities prlces-in tho 1970's has caused dealer firms to place groat emphasis on position management. Sharp, unexpecied price movemente can tead to profits or losses on their net positon, gross long positions minus gross short postions, that can easily outweigh the gains or lossas arising from other sourcos.' Corisequontly, they manage their positions actlvely, frequonlly altaring them in response to changing economic nowb, tho pertelved supply and demand conditions for Government securilies, and other factors aflecting the outlook for the securities markets. In the past, when tates were roasonably stondy in the short fun, dealors placed somewhat more emphasis on strutiuring their inventories to meet customer noeds.
Dealor Invontorios are highly leveraged. Moro than 85 porcent of the value of tholr holdings is lypically linancod with borrowed money; the dealer's own eapital furnishes the remainder. Thus, the cost and avaubility of funds is an important considaration in a dealer's willingnass to hold aecurities. When Interest ralos on tho securities themselves are higher than tho cost of the funds noeded to finance the position, there is a "posifiva" carry. A dealor will tend to hold a higher Imventory than in the opposite case when "negative" tarry provails. In all but a few periods in the lasi sevoral years, interest rates havo genorally been higher on longer maturitios-l.e., the yield curve. the market yield at a specific time for oach quailablo maturty outstanding, is utually upward sloping. Thus, the cost of day-to-day funds is usually below the yiald on all but tho shortest term securitios in the dealer's inventory. Howover, the full risk of any rise in interest rates talls on tho daaler. Carry profits can quickly vanish." The

[^4]amount of riak a dealer is willing to take by holding a longer term portiolio ls one of the dlatinguisining characteristics of management style.
Searching out and obtaining financing at the lowest cost is a vital Ingredient in making markets and the pursuit of profit. in dolng so, the dealert provide temporary investment outlets for market participants with idle cash. In addition, dealers take in funds to provide them to others who are temporarily short of cash, in effect acting as intermediaries between shortterm lenders and borrowers. (See section on dealer financing and the growth of intermediation on pages 45-46.)

Dealers also provide a service to thair customers by giving their views about and advice on the market. Many dealer firms distribute market letters about recent and prospective market developments. The letters often contain assessments of Treasury financing needs, Federal Reserve actions, and prospects for the economy and interest rates. Salesmen discuss these subjects directly with participants and also seek to develop a familiarity with customers' investment objectives so that the firm's traders can provide the customers with buying and selling opportunities that mesh with their plans.

The growth of trading activity
Trading activity has grown sharply in the fast few years after many years of more modest expansion. Outright trading, the total of purchases and sales, amounted to nearly $\$ 101 / 2$ billion on a dally average basis in 1976, roughly three times the level in 1974 (Table 2). In part, the growth of activity reflected the substantial outpouring of Treasury debt. But the efforts of all market participants in seeking superior returns on their portiolios have also been an important factor. Many investors disenchanted by falling stock prices, have sought to obtain higher returns in the securities market by buying and selling more frequently in response to anticipated shorl-run movements in interest rales. Interdealer aclivity has expanded as well, particularly in the brokers' market.
While trading in bilis has continued to dominate activity in the dealer market, trading in coupon securities has grown in relative importance. As recently as 1974, coupon trading accounted for 29 percent of total activity, but by 1976 it had reached 36 percent. The growing share of coupons resulted from the more rapid growth of coupon debt outstanding, and this growth in turn led to a more active secondary market for these issues. When measured by activity per dollar of debt

Table 2
Transections In Unilied Btetes Government Eecurities by Deatore
Reporting to the Federal Reaerve Eank of Now York

|  | Ey maturity <br> (In millions of doliarn, daify everages) |  |  | By treding participant (as a percentage of total) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Due within one year* | Due in one year or miste | Total |  | Dealers broxers | Commercial banks |  |
| 19604 . . . . . . . . . . . | 984 | 579 | 1.373 | 31 |  | 440 | 245 |
| 1985. | 1,451 | 346 | 1.827 | 31 |  | 41.4 | 26.7 |
| 1970 | 2.032 | 481 | 2.513 | 42 |  | 37.0 | 203 |
| 1971 ................. | 1,888 | 712 | 2.700 | 39 |  | 357 | 24.6 |
|  |  |  |  | Deaters | Erokers |  |  |
| 1972 ................. | 2.259 | 671 | 2.830 | 24.8 | 140 | 341 | 27.2 |
| 1973 | 2,643 | 796 | 3,439 | 19.3 | 23.1 | 31.8 | 258 |
| 1974 ................. | 2.800 | 779 | 3,579 | 18.2 | 27.0 | 27.9 | 26.9 |
| 1975 ................ | 4.112 | 1.015 | 8.027 | 14.7 | 29.0 | 24.1 | 32.2 |
| 1976 ................. | 6,888 | 3,585 | 10,449 | 13.0 | 32.6 | 23.2 | 31.2 |
| 1977: ............... | 7.061 | 3,877 | 10,938 | 11.' | 34.1 | 22.0 | 32.2 |
| Discrepancies in totals ate oue to rounding. |  |  |  |  |  |  |  |
| - Includea a emali volume of transactione in coupon securities with lese than one year io maturly |  |  |  |  |  |  |  |
| $\dagger$ Avarage for last tour months of the year. |  |  |  |  |  |  |  |
| - Averege for frat nine monthe of the year. |  |  |  |  |  |  |  |
| Bource: Federal Reserve Bulletin. - |  |  |  |  |  |  |  |


outstanding in the hands of the public, the expansion of trading in longer term securities from 1974 to 1976 exceeded that for shorter term securities (chart).

The growing importance of the coupon sector also stems from the increased liquidity of these issues. For severat reasons, participants can make desired porttolio changes more easily than in the past. The number of coupon securities outstanding has expanded sharply, and by mid-1977 there were nearly 100 different coupon issues, over 50 percent more than in 1974. Several maturity gaps wers filled in. especially in the under-ive-year area, thus facilitating adjustments to the maturity distribution of portfolios. Secondary market activti) has been encouraged by an increase in the average size of coupon offerings from about $\$ 15$ billion in 1974 to about $\$ 2.8$ bition in 1977 . Thus, dealers and other participants now have a greater variety of tairly sizable issues available with which to engage in hedge or arbitrage operations. A dealer, for example, may hedge to avoid markel risk by matching a short sale in one
issue with a purchase of a similar issue whose price is expected to move by about the same amount as that on the security sold short. In an arbitrage operation, a participant would attempt to profit from what is expected to be a temporary disparity in the market's pricing of two issues by selling one and buying the other. He would then wait until the disparity is eliminated to reverse the transaction. If it is not eliminated. he might take a loss on the operation.
The dealers' customers, who account for slightly more than half of total dealer trading activity (Table 2), have expanded their trading substantially. Portfollo managers often seek to anticipate movements in Interget rates and to lengthen or shorten the average mafurly of their holdings to take advantage of expected rate changes. Changes in the outlook for interest rates over a day, week, or month now play an important role in portfolio decisions. In the past, such decisions were often tied to the investor's expectations of short- and long-run needs for liquidity. The profits generated by falling interest rates, i.e., rising prices, in 1975 and 1976 also acted as an inducement to active trading. The annusl growth in trading activity moderated through the first three quarters of 1977, compared with 1976, and trading per doilar of debt declined sharply from the highs posted at the end of 1976, as short-term interest rates rose and longer term rates fluctualed irregularly over a good part of the year.
Commercial banks account for over 40 percent of dealer trading with nondealer customers. In recent years, banks have come to rely on their securities holdings less as a secondery source of reserves, given their emphasis on liability management, and to use securities trading more as a means of maximizing profits. The more active approach to asset management has also meant greater variability in bank holdings of coupon issues. Banks have not been the only institutions that have adopted a more aggressive approach to portiolio management and trading. In fact, the activity of other customers, including state and local governments and nontinancial corporations, has grown even more rapidly.' As a result, trading activity by dealers with customers other than banks grew from 35 percent to 57 percent of total trading with customers between 1970 and 1976.
Trading within the dealer community itself is conducted either directly between the firms themseives or indirectly through brokers. In the past few years, trading through brokers, who put together trades between dealers, has come to dominate interdealer frading; such brokering now accounts for nearly three quarters

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of dealer trading with other dealers, compared with about one third in 1972 (the first year for which separate data on trading through brokers are available). Using a broker provides anonymity and allows a dealer to shield information about his activity and position from other dealers and market participants. Another factor contributing to the popularity of trading through brokers is the rapid transmission of quotes to other dealers, reducing the costs of canvassing a large number of dealers to collect that information.

Still, dealers continue to arrange a portion of their trades, slightly more than 10 percent of total activily, directly with other dealers. This activity reflects established interdealer trading relationships. A dealer firm specializing in one area of the market can sometimes meet customer needs by dealing directly with a firm primarily engaged in another area of the market.

The increased emphasis on position management has contributed to a tendency for total interdealer trading to assume a larger share of total activity, since dealers will typically look first to other dealers to find bids or offers for issues they want to sell or buy. Such trading has expanded from about one third of total activily in the early 1960's to about 45 percent recently. To some extent, this reflects an increase in the number of reporting dealers.' But over the longer run the expansion of the reporting list has probably not substantially distorted the measurement of the rising trend in activity. Many of the new entrants were not active in the Treasury market for very long before they became reportIng dealers, and their trading volume was essentially nonexistent in the 1960's.

On the other hand, many of the newer firms are relatively more active in interdealer trading and have no doubt contributed to its measured rise. They have used trading with other deslers as a way of building up expertise and volume. (To meet the criteria for the reporting list, however, a firm must show a substantial volume of trading with customers.)

## Dealers' poditions

Several important changes in the market have enabled dealers to conduct their operations with a lower leval of inventories in relation to trading volume than in the 1960's and eariy 1970's. While dealers have placed greater emphasis on managing their positions actively, they can meet their customers' needs with inventories that are lower relative to sales than in the past. The

A trade between a reporting dealer and a newly report - dealet is an interdeales wade Belore the new deater was added to the
reporing lisi, that trade was classilied as a lrade with $\hat{t}$
customer Also. because the new deater is now a repor ing dealer as well, the trade is counted twice-as is true lor
wider range of participants in the market, the growth in the activity of brokers, the greater ease in covering short positions (as is discussed below), and possibly more caution in exposing capital have contributed to this trend. Positions were sharply cut back-in the aggregate and in relation to sales-during the 1973-74 period of steep increases in interest rates. When money market pressures later abated and rate expectations changed, inventories expanded threefold to $\$ 7 / 2$ billion by 1976 (Table 3), about the same as the expansion in trading activity. Even with the enlargement of inventory positions, however, dealer inventories were lower in relation to trading activity in 1976 than they had been during the years before the bear markets in bonds in 1973-74. The ratio of inventories to activity continued to fall over 1977 as a whole, when positions declined while growth of activity was rather modest.
The more performance-oriented approach of customers has generated a higher turnover of their portfolios. Dealers now find it easier to oblain issues to meet demands, especially for coupon issues. Moreover, the expansion of activity by brokers and the price quotations they provide almosi continuously have probably bolstered dealers' confidence that particular issues can be found more readily than before.
The growth of the market for repurchase agreements

Toble 3
Inventorles of United 8tatee Treesury
Securtites Hold by Dealers Reporting to the
Foderal Recerve Benk of Now York
in millions of dollars: daily averages

| Year | Due within one year | Due in one year or more | Total |
| :---: | :---: | :---: | :---: |
| $1960{ }^{\circ}$ | 1,936 | 642 | 2.578 |
| 1885. | 2.818 | 533 | 3.348 |
| 1970 | 3.124 | 642 | 3.768 |
| 1971 | 3,322 | 867 | 4.188 |
| 1972 | 4.084 | 198 | 4.282 |
| 1973. | 3,047 | 58 | 3.105 |
| 1974 | 1,926 | 655 | 2.580 |
| 1975 | 4,562 | 1.322 | 5.884 |
| 1976 | 6.478 | 1,115 | 7,592 |
| 1977\% | 5,082 | 328 | 5.409 |

Digcrepancies in lotals are due to rounding

- Average for lasi four monithe of the year.
t Average for lirst nine months of the year
Source-Federal Regerve Bullotin.

Table 4
sourcee of shartienim Finencing of United states Government ond Fedarally sponeored Aeviey Sewntiles for Deelore Reperting to the Federal Reserve Bemk of Mow York*
In militions of dollars: daily avernege

| Telf | Towd | Commercial banks in Now York City | Commercial benka Moentere | Corporavions | Others |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1060 \dagger$ | 2.810 | 559 | 684 | 1,091 | 338 |
| 1985 | 3,540 | 858 | 782 | 1,336 | 471 |
| 1970 | 3,805 | 1,098 | 1.072 | 538 | 1,256 |
| 1971 | 4,058 | 1,364 | 678 | 789 | 1.827 |
| 1972 | 4,2\%1 | 1,292 | 713 | 804 | 1.292 |
| 1973 | 8.604 | 1.227 | 659 | 467 | 1.252 |
| 1874 | 3,077 | 1,032 | 1.084 | 459 | 1.423 |
| 1975 | 0,088 | 1,821 | 1,498 | 842 | 2.738 |
| 1978 | 6,718 | \$,886 | 1,800 | 1,479 | 3,681 |
| :977\% | 0.047 | 1,412 | 1,092 | 2,233 | 4.320 |

Discrepancies in fotais are due to rounding

- Includes both bank and nenbank datiere.
$t$ Average for last four monithe of the year.
Average lor firsi nine mowhe of the veer.
Source: Federal Reearya Bulletin.

Table 5
Categories of Bhort-term Financing Arrangemente by Nonbank Daaters
Reperting to the Federel Recerve Bonk of Now York
in bilions of dollarg: dally everages


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(RPs) and reverse RPs' has faclitated short saleseither to meet demands of customers or because of interest rate expectations. The availability of securities in thls market has made it easier for a dealer to locate the particular lseue he neede to deliver by acquiring the securlty under a reverse RP. In fact, a market for "specific issues", with the party obtaining the eecurities specifying the particular issue, has developed in the RP and reverse RP markets and has become an alternative to borrowing securities. The older method of finding a holder willing to lend securities could be more costly and cumbersome. It often meant that a dealer's positioning move became obvious to others and required the borrower to put up other securities as coliateral. The growth of RP markets has enabled dealers to take larger short positions than they had before during periods when interest rates were expected to rise. In other periods, dealers on average have not enlarged their long positions by as much as they had previously.

Dealers may also have become more cautious about exposing capital by assuming large short or long positions. Year-end capital' relative to positions in Treasury securities at the nonbank dealers has moved somewhat higher in recent years, compared with the 1960's and early 1970's. However, capital which has reached the industry in part through the entry of additional firms did not grow so rapidly as trading volume.

Dealer finencing and the growth of intermediation
Dealers have broadened their sources of funds significantly in recent years. Their greater participation in the money market has enabled them to reduce their reliance on borrowing from banks in money centers. The growth of the market for RPs reflects the changes in dealer financing patterns and the increasingly sophisticated cash management techniques used by many money market participants. Dealers typically raise more funds than they need to finance their positions in securities and have become important as intermediaries in the money market.

See "Federal Funds and Repurchase Agreemenis". Inis Reviow
See "Federal Funds and Aepurchase Agreemenis", this Re
(Summer 1977). Dages $33-48$ in a repurchase agreameni. ine owner ol a security sells it outright to the provider of lunds and agrees to repurchase the issue at a specified future da:e and orice. In a reverse repurchase agrement, the provider of funds putchases a securty and agrees to sell in back al a specified twiure date and price These lerms. RPs and reverse RPs. are sometimes interchanged in market parlance. however. and RPs are olten used to describe the usual transactions of ar insitition in the markel-whether il is a provider or uset of lunds.

- The capital aoplied to trading in Covernment securilies represents the sum of each nonbank dealer firm's estimated allocation of its ne: worth to its activities in that markel. Capital data $e r$ ie
only an aoproximation of the capital employed, likely that the various hrms may use diflerent because il is arbirary methods of estimating ingir allocation of capital

Commercial banks have remained the largest source of funds to dealers, but by 1976 the share they provided had slipped to about 40 percent from roughly 50 percent in most earlier years (Table 4). Large corporations once provided most of the rest, but insurance companies, savings institutions. Federally sponsored agencies, and state and local governments have become relatively more important. The Federal Reserve, through the RPs arranged by its Trading Desk, has also played a larger role in providing funds to dealers for short periods of time. The volume of RPs with the Federal Reserve has grown substantially since mid1974, mainly because of the need to counter the effect on commercial bank reserves of enlarged fluctuations in Treasury cash balances at the Reserve Banks. As a result, the volume of funds provided by RPs with the Federal Reserve rose to about 15 to 20 percent of dealer financing in 1974 through 1976; in many earlier years it was only around 5 percent.

Dealers employ two basic methods of financing inventories: entering into RPs or furnishing securities as collateral for a loan. The rate of return on ovemight RPs is related to the Federal funds rate but is typically below it, in part because the agreements are viewed as secured loans by many market participants. The interest rate on collateral loans to dealers by large banks in money centers is usually somewhat above the Federal funds rate since the banks view the latter rate as the cost of funding the loan.

Collateral loans have remained a significant source of dealer financing despite their higher cosi. The banks are often residual suppliers of funds when money market conditions are tight and liquidity is scarce. Thus, collateral loans amounted to about one third of nonbank dealers' financings through collateral loans and RPs combined in 1973-74 but that proportion declined substantially in 1975-76 (Table 5). Bank loans can be obtained late in the day-and often are-after dealers have searched out other sources of funds. They can be used when a dealer agrees during the day $t o$ take delivery that same day, say, in Treasury bills, or ends up with securities that were expected to be sold but were not. Dealer departments of commercial banks do not use collateral loans. They rely on RPs and on other lorms of financing and often obtain funds from their own banks.

Dealers also obtain funds to provide them to others. A deater may raise funds through use of RPs and provide them to others by arranging a reverse RP. The growth in holdings of Government securities by many institutions over the past few years has enabled them to sell their holdings temporarily through RPs 10 meet short-term cash needs as an alternative to raising funds in the commercial paper market or at

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| Desmer | $\begin{aligned} & \text { en maturiks } \\ & \text { ege within } \\ & \text { enre yov? } \end{aligned}$ | Dut in one yway or more | By ineding partcipent |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dealers | Brokers | Commercial benks | Other |
| Aat bank deata: ......... | 72 | 28 | 13 | ${ }^{3} 5$ | 20 | 32 |
| AH nonbank desiers ...... | 82 | 38 | 19 | 31 | 25 | 31 |
| Nonbenke: |  |  |  |  |  |  |
| Ten recent ombunts :..... | 60 | 41 | 12 | 38 | 18 | 32 |
| Older timit ............. | 0 | 30 | 14 | 27 | 29 | 30 |
| Tod five firms Others | * | 33 | 12 | ${ }_{37}^{88}$ | 27 | ${ }_{28}^{35}$ |

banks. In addition, corporations and financial institutions have also been willing to invest temporary cash surpluses in short-term RPs in preterence to holding demand deposits which pay no interest.

Frequently the dealer acts as a middleman in these transactions, obtaining funds from one customer to provide them to another. While the dealers are principals in the transactions, some are essentially acting as brokers because they "match" the maturities of the RP and the reverse RP that they arrange with customers. When the maturities of such transactions are not exactly matched, the dealer shoulders some risk with respect to interest rates. There can also be some risk in that the dealer is dependent on the performance of one customer in ordar to ensure that he can fulfill his obligation to another customer. Dealers are often willing to finance the placement of funds under reverse RF's through a series of RPs with shorter maturities. The upward slope of the yield curve over the past few years has encouraged this pattern.

These money market activities of the dealers have grown substantially in recent yoars. The daalers role as a financial intermediary rivals their use of the market to finance inventories. In 1976, nonbank dealers provided $\$ 1.8$ billion of funds (primarily raised through RPs) to others through reverse RPs on a daily average basis. In addition, they entered into matched transactions of $\$ 3.4$ bilion. The total, $\$ 5.2$ billion, was somewhat more than the $\$ 4.7$ billion they retained for their own use-collateral loans plus RPs exchuding reverse RPs (Table 5). In 1977; the intermediation function continued to grow while the volume of funds retained declined as inventories felf.

The changing etructure of the market
The structure of the market has changed significantly since the early 1970's. At work have been a sharp increase in trading activity, the closer trading relationships that have developed between the Government coupon and other capital markets, and new entrants. The new entrants have been abie to take on a significant portion of overall trading activity despite their recent entry. An increase in competition has led to narrower spreads between bid and offered pricesparticularly for coupon issues-and it has reduced market concentration to some extent.

Eleven firms were added to the reporting list from early 1974 through 1976, including two firms that left the market in 1973 and 1974 but returned in 1976. Ten of the new entrants were nonbank dealers, many of whom were already active elsewhere in the capital market. They were attracted by the expansion of trading in the Treasury coupon sector and the opportunity to provide alternative investment outlets for their customers. The lackluster performance of the equities market was an added factor. As a group, the new entrants have concentrated more of their trading in the coupon sector, with 41 percent of their activity in the more-than-one-year maturity area compared with 36 percent for the older nonbank firms in 1976 (Table 6).

The nonbank entrants appear to have placed more emphasis on position management and arbitrage, in that they hold lower net positions in relation to trading volume than older active nonbank firms. In addition, they do not seem to have developed customer relationships to the same extent as the lirms active earlier. In 1976 about 50 percent of their trading was with cus-
tomers, compared with 59 percent for firms in the market prior to 1974. Some of these characteristics were highlighted in early 1977 when trading volume sagged as prices declined. Trading activity at the new nonbank dealers fell by roughly 20 percent in each of the trading participant categories. The older nonbank firms experienced a 12 percent decline overall, but their trading in the brokers' market fell by somewhat more than their trading in those areas involving established customer relationships (direct trading with other dealers, with commercial banks, and with all other customers).

The sizable growth in the number of reporting dealers has contributed to a substantial decline in the concentration of trading activity. In the late 1960's and early 1970's, the five most active firms accounted for about half of total trading activity, but by 1976 the share of the top five firms had fallen to slightly more than one third. Concentration of trading activity had begun to diminish slightly in the early 1970's when participation in the market began to expand. Even so, the same firms have tended to remain in the most active group over the past ten years. Over the interval, four firms were elways among the five most active firms each year, and four others were included at various times.

Even though their share of activity fell, the five most active firms continued to account for about halt of dealers' net positions, on average. Their positions may have remained higher because of the firms' orientation foward meeting investor demands. About 60 percent of the trading activity by the tive most actuve dealers was directly with customers, while for other dealers it was about one half (Table 6).

Growth in the number of dealers in recent years may have been stimulated in part by high prolits earned in the industry in 1975 and 1976, although dealer ranks have also increased in 1977 when the profit picture was far less favorable. The years 1975 and 1976 were two of the most profitable ever for dealers, rivaling 1970 and 1971. The Treasury's large outpouring of debt, the larger than expected declines in interest rates from record highs, and positive carry contributed importantly to the upswing of total profits.' In 1977, against a back-
-The profils reported by the lirms 10 the FRBNY should De viewed
The protils reported by the lirms to ine FRBNY s
as an indicator of the general trend ralher than a precise
as an indicatof of the general trend ralher than a precise
measure of levels, as there are several conceptual problams in calculating the hirms' protis on trading in Treasury and Federal agency securities Among the problems are ine separaliof of uverhead and capital costs for lirms that operate in other markets and the calculation. Ior bank dealers, of the cost of lund: obtained Ifom the parent bank
ground of fluctuating intereat rates, market activity leveled off and profits shrank. The risks inherent in the business are demonstrated by the profit results from 1967 to 1974, for in three of those years dealers as a group reported before-tax losses in their operations in United States Government and Federally sponsored agency securities.

## Concluaions

Recent years have witnessed substantial grcwith in the Government securities market, both in terms of activity and in the number of dealer firms. The market has responded well to sizable increases in Treasury financing requirements and in Federal Reserve open market operations. The liquidity of Government securities, particulariy coupon issues-the fact that they can be converted into cash more quickly than other assets of similar maturity-has been enhanced in the process. Consequently, participants can carry out investment decisions readily at competitive prices.

Increased activity has both contributed to and resulted from the greater efficiency and competitiveness of the market. The market's capacity to handle large Treasury financings and Federal Reserve operations smoothly has expanded in recent years. The market is also better able to weather surges in trading activity precipitated by shifts in participants' perceptions of the economic outlook. These expanded capabilities are due in part to the increase in the number of available maturities, the enhanced ability to establish long or short positions, and the wider variety of independent decision makers active in the market. Competition has been strengthened through the large increase in the number of dealers and the resulting reduction in market concentration.

The expansion in the market and in activity has not been an unmixed benefit, however. Trading has taken on speculative overtones at times, which may well have exacerbated the volatility of prices. Participants-in searching for information about the probable course of interest rates-have increased their focus on, and reacted more to, temporary phenomena. The emphasis on trading and performance may not always have been accompanied by adequate appreciation of the increased position and credit risks that derive from this approach. Experience in 1977 seems to have served as a pertinent reminder of these risks. The dealers in the market confront a new challenge to develop and maintain activity in the more cautious but increasingly competitive market environment with which 1978 begins.

# Federal Deficits: <br> A Faulty Gauge of Government's Impact on Financial Markets 

by Brian Horrigan and Aris Protopapadakis*


#### Abstract

In the ongoing debate about :he inyut of goternment borrowing on financial markets, the ficus usually centers on the sif: al Federal budget deficits. In the following articie, the authors argue that looking only at the cificit can make for misleading conclusions aboul government's influen: ${ }^{\text {e }}$ on the credit markin. They propose a more comprehensive measur: which often behave: differently than the Felteral defirit The views expressed here are those of the authors ami shuid mot be identified as Hitial vic ws of the Federal Reserve Bank of Philadelphia or the Federa! Reserve System. . Doi; Jd J. Myiliataux. Senior Vice President and Chief Economist, Federa! Reserve Bank of Philampabia


Newspapers and magazines frequently warn about the dangers of big Federal budget deficits, claiming that the recent large deficits have pushed interest rates to record highs. The continuing debate over tax and expenditure cuts illustrates the impertance many people attach to Federal budget deficits. Projections of large deficits apporar to have prompled the Administratior: te request
"Briar Slorrigan received bis Ph. D. from the University of Criifornit at Los Angeles and fuined the Ihbla delphia Fed in 1980. He specializes in monetary and financial economics. Arrs Protopapadakis is Restarch Officer and Etconomist at the Philadplphia Fea. He received tas Ph ; from thr Universils if ithicapo.
more expenditure cuts for 1982, and these projections have sparked a lively debate within the Administration on whether to propose sizable tax increases for 1983 . Some members of Congress continue to advocate rolling back recent tax cuts or increasing other taxes in order to reduce the deficit.

People are concerned about budget deficits because they equate them with increased government borrowing from the private sector and increased government competition with private investors. They fear that when the U.S. Treasury borrows more, fewer funds will be available for private investment and interest rates will rise. But does a bigger budget deficit necessarily mean that

## Table :

United Stelea Tremeury Detot
In blilions of dollere

| Public dabt | December 31. 1960 |
| :---: | :---: |
| Oroes pubile deet | 280 |
| Normarketable debt | 101 |
| Markstable debt | 189 |
| martetoble by type of meomitry |  |
| Bilie | 39 |
| Notes | 51 |
| Bonde | 80 |
| Merteetable by type of hevderit |  |
| Unitad Eitess Govemment acoounto | - 8 |
| Fedicral Reserve System | 27 |
| Commercisi bunks | 62 |
| Mutual asvings bante | $\theta$ |
| insurance companise | 10 |
| Other corporations ...... | 19 |
| Stats and local govemments | 18 |
| Indwiduals | 20 |
| Foreign and international | 10 |
| Oiher invesiort | . 7 |
| Diecrepancies In votele are due to rounding |  |
| - Includer $\$ 18$ billion of certificster of indebierness. |  |
| $\dagger$ Parially eatimated. |  |
| Source: Treasury Butiotin |  |

Treasury issues in mid-1977. ${ }^{\text {2 }}$ The growth of foreign holdings of Treasury securities mainly reflected foreign centrai benk investments of dollars obtained in exchange market operations as well as substantial acquisitions by oil-exporting nations. State and local governments invest in short-term Treasury securities to bridge the gap between the timing of periodic tax receipts and Federal grants-in-aid and the more continuous flow of payments for goods and services.
Individuals hold a considerabie volume of marketable Treasury issues even though there are several factors tending to inhibit purchases by small investors The transactions costs for small purchases and sales, the cost of custody, and large minimum denominations for shorter term issues have tended to restrain purchases by individuals except in periods when market yieids on Treasury securities moved substantiaily above those on alternative liquid investments, mainly thrift and savings deposits. (The major portion of the Treasury debt held by individuals consists of savings

raasuly :eaurtes in mid-197;
bonds with small denominations. They are not marketable, but they are redeemable prior to maturity.)

## The dealer market

The market for United States Government securities centers on the dealers who report activity daily to the FRBNY. The dealers buy and sell securities for their own account, arrange transactions with both their customers and other dealers, and also purchase debt directly from the Treasury for resale to investors. In the normal course of these activities, they hold a substantial amount of securities. In addition to the dealer firms, there are brokers that specialize in matching buyers and seliers among the dealers in the Government 'securities market.

The deajer firms inciude dealer departments of commercial banks (bank deaiers) and all others (nonbank deaiers). Bank dealers call upon the custodial and other facilities of the bank and frequently obtain a portion of the financing of their securities holdings from the bank. The bank cealer often acts to meet the needs of the correspondent banks of the parent. In
the government sector is a bigger drain on credit markels? We argue that the deficit is not a reliable indicator of government's drain on credit markets. The Federal deficit is an incomplete measure of government borrowing because it does not include all government borrowing. More importantly, all government borrowing must be adjusted for inflation before it can be used as a gauge of government's competition with private borrowers. An alternative measure which we call "government net borrowing" accounts for all government borrowing and is adjusted for inflation to do a better job of gauging government's drain on the credit markets.

## GOVERNMENT GROSS BORROWING

So far as the credit markets are concerned, what matters is how much the government sector borrows from the public. The Federal budget deficit measures only part of the government sector's borrowing activity. Other government units and related bodiessuch as off-budget Federal agencies and state and local governments-also compete for funds in the credit markets by issuing their own debt, and these agencies often lend funds to the Treasury as well. To obtain the right total, the borrowing of all government units has to be added together and what they lend to each other has to be subtracted out. We label the resulting magnitude "government gross borrowing." Government gross borrowing measures the amount of money the government sector borrows from the pubilc.

Off-Budget Agencies Borrow, Too, . . . The Federal government borrows funds that do not appear in the Federal budget. Federally owned agencies, such as the Postal Service and the Tennessee Valley Authority, have the authority to borrow in the credit markets, but their activity does not explicitly appear anywhere in the unified Federal budget. Also, some Federally sponsored agencies, such as the Farmers' Home Administration and the Rural Electrification Administration,
can borrow directly from the Treasury via the Federal Financing Bank. ${ }^{1}$ The Treasury lends to these agencies and to the Federal Financing Bank by borrowing directly from the public. ${ }^{2}$ This kind of Treasury borrowing also does not appear in the unified Federal budget. Thus, even if the unified budget is balanced, gross borrowing from the public can be large.

The annual increase in total Federal debt includes all Federal borrowing, whether the Treasury is involved in it or not. ${ }^{3}$ Column 1 in Figure 1 gives the Federal budget deficits as reported by the Treasury while column 2 in Figure 1 gives total Federal borrowing. The data show that in some years total Federal borrowing was over $\$ 20$ billion more than the Federal budget deficit.

In addition to off-budget borrowing, there are other government obligations that shouid be taken into account in a comprehensive measure of the debt (see WHAT IS FEDERAL DEBT? overleaf). Since it is not possible to measure these obligations accurately, we do not inciude them in the calculations that follow. Adding accurate estimates of these obligations to the measures of borrowing developed here could change some of the conclusions.

[^5]
## FIGURE 1

## ANNUAL INCREASES <br> IN TOTAL GOVERNMENT DEBT HELD BY THE PUBLIC CAN BE QUITE DIFFERENT FROM THE BUDGET DEFICIT*

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| Yegr | Reported Federal Budget Deficits | Increases in Total <br> Federal Debt | Increases In Total Government Debt | Increases in Privately Held Total Government Debt (Grosa Borrowing) |
| 1881 | 61.6t | 98.0才 | 119.3 t | 89.04 |
| 1080 | 61.2 | 84,5 | 108.9 | 90.3 |
| 1978 | $14 . \mathrm{B}$ | 54.5 | 72.7 | 49.4 |
| 1978 | 29.2 | 88.5 | 90.9 | 60.2 |
| 1977 | 48.4 | 83.7 | 80.9 | 53.2 |
| 1978 | 53.1 | 77.8 | 91.0 | 63.0 |
| 1875 | 88.3 | 83.6 | 97.2 | 83.3 |
| 1874 | 11.5 | 23.3 | 38.1 | 24.7 |
| 1873 | 5.8 | 20.4 | 33.3 | 11.9 |
| 1972 | 18.8 | 25.1 | 30.3 | 28.0 |

"In billions of dollars. All figures are reported on a calendar year besis.
tPrellminary estimates.

## sOURCES:

Federal deflcits are from the Economic Report of the President 1982. Deftcits are calculated by the NIPA mothod, which is based on accrual, unilke the unified budget deftcilt, which ta besed on cash flow.
For 1972-78, Federal debt outtetanding, Federal debt held by agencies, Federal debt held by atate and local governments, and Federal debt held by the Federal Reserve are taken from the Annual Statistical Digest (19701070). After 1976, these data are taken from the Federal Reserve Bulletin, January 1082.

State and local government data are taken from the Flow of Funds Outstanding, September 1981. State and local debt outstanding data are from p.39, line 2, while lnternal holdings of state and local debt and holdings of the retirement funds are from p. 39, lines 9 and 15 respectively.

## WHAT IS FEDERAL DEBT?

In this article, we define the Federal debt as the sum of all the notes, bonds, and bills issued by the Treasury and other Federally owned agencies. But is this all the Federal debt? Debt is nothing more than an obligation, and the Federal government has many obligations that do not take the form of Treasury debt. An Important example of obligations not included in the Federal debt is the Federal program of loan guarantees for private debt. The Federal government guarantees hundreds of billions of dollars of private loans against default risk, and it also has assumed hundreds of billions of dollars' worth of insurance commitments. According to the Treasury (as reported by U.S. News and World Report, May 4, 1881), Federally guaranteed private loans were $\$ 323.6$ billion in 1880, and Federal insurance commitments were \$2,217.4 biliion.
The majority of the loan guarantees are for mortgages and housing loans ( $\mathbf{\$ 2 1 8 . 7} \mathbf{~ b i l l i o n ) . ~ I t ~ w o u l d ~}$ be absurd to add private mortgages to the national debt just because the Federal government guaranteas the mortgages. If, by chance, none of the mortgages defaulted, the guarantees would cost the Treasury nothing. But if all of the mortgages defaulted, the Treasury would be stuck with having to pay off all of the mortgages. It would also end up owning the housing behind these mortgages. A cound strategy for the Treasury is not to include loan guarantees in the Federal debt; instead it could create a sinking fund to cover loan defaults, and make a fixed payment into the sinking fund every pear. The annual payment would have to be large enough to keep the fund liquid and should be adjusted with the default experience. That way, the cost of these guarantees would appear in the budget, and Congress and the public would be forced to recognize and deal with the cost of loan guarantees. The same principle applies to insurance commitments.
Another serious problem with measuring the Federai debt concerns the actuarial deficits of the retirement and compensation programs of the Federal government. The Federal government obligates itself to pay retirement benefits to members of the armed forces and the Civil Service. It cannot morally renage on those obligations. If the government does not fund the retirement programs (as private pension and life insurance programs do), then the debl of the Federal government incraasesthat la, the government has committed Itself to jay benefits for which it doesn't have funds. In 1980, the actuarial deficit of retiremest and compensation programs (military, Civil Service, veterans, rillroed, Foreign Service, Public Health Servicej; was estimated at $\$ 031$ billion. These liabllitles are part of the Federal debt and should be included in it. If the government commits itself to funding these llabllities fully, then it should create an asset position that exactly offsets its total pension linfilities. We have not included unfunded pension liabilities in the estimates of government net borrowing only because the estimates of the actuarial deficits are unralisble.

The above principle does not apply to Social Securlty. Social Securty benefits and taxes are set by Congress and may be changed at any time. The $\$ 1,464$-billion actuarial deficit of the Social Security trust funds in 1080 only indicates that Social Security needs reform, not that the Federal debt is miemeanured. Changes in the law could easily eliminate the entire actuarial deficit of the Social Becurlty Administration.
. . . As Do State and Local Governments. Even adding in the off-budget Federal agencies doesn't give a complete picture of government borrowing. A large portion of government financing activity occurs at the state and local levels. It does not matter to private borrowers whether the Federal, state, or local government competes with them for
available funds. Therefore, from the viewpoint of the private credit markets, the correct measure of government borrowing must include Federal, state, and local government borrowing, not Federal borrowing alone.
Column 3 in Figure 1 shows the annual borrowing of the combined Federal, state, and local governments for the past decade.

The consolidated government borrowing is always larger than Federal borrowing alone, and It is much larger than the Federal deficits. For instance, though the 1979 Federal deficit was less than $\$ 15$ billion, total government borrowing was almost \$73 billion. But not all of the increases in the Federal, state, and local debt represent a drain on private credit markets; some of this debt is purchased by Federal agencies, by the Federal Reserve System, and by state and local governments.
Not All Government Debt Is Held by the Public. A sizable portion of Federal debt is currently owned by Federal agencies, primarily the Social Security Administration. Since Social Security receipts almost always exceed outlays (they have in 9 of the last 10 years), the Social Security Administration purchases more Federal debt each year. Debt issued by the Treasury doesn't affect the credit markets if it is purchased by a Federal agency such as the Social Security Administration. Thus, increases in debt holdings of Federal agencies must be subtracted from the total increase in Federal debt. Increases in the Federal Reserve System holdings of Treasury debt must be subtracted for the same reason. 4
And so must holdings of state and local governments. These governments typically are prohibited by their constitutions from running current account deficits. On average, they run surpluses which they often use to purchase their own debt and Treasury debt. To gauge the impact of government borrowing
${ }^{4}$ The case for subtracting debt held by the Federal Reserve is less clear cut than that for Federal agencies and state and local governments. The Federal Reserve annually purchases a certain amount of Treasury debt, and in that reapect it acts just like a Federal agency. It purchases this debt, however, by selling new reserves to the banking system. One could argue that the Federal Reserve is only converting interest-bearing Treasury debt to non-interest-beartng Federal Reserve debt, and that this debt represents as much of a demand on the credit markets as Treasury debt. Those who believe that government borrowing can crowd out private invest-
in the credit markets, increases in state and local government debt holdings must be subtracted from the total increase in government debt as well.
The calculations for 1980 illustrate the magnitude of the adjustments discussed above. In 1980, Federal debt increased by $\$ 84.5$ billion while the state and local debt increased $\$ 24.4$ billion, for a total increase of $\$ 108.9$ billion. Of this increase, the Fed purchased $\$ 3.8$ billion, Federal agencies purchased $\$ 5.4$ billion, and state and local governments purchased an additional $\$ 9.4$ billion. Thus, only the remaining $\$ 90.3$ billion of government debt was available for purchase by the public.

Column 4 in Figure 1 shows the increases in the consolidated government debt held by the public-government gross borrowing. This borrowing is always larger than the reported Federal budget deficit, but in some cases it is smaller than the increases in total Federal debt. Gross borrowing is smaller than increases in the Federal debt whenever agencles, the Federal Reserve, and state and local governments buy back more debt than they issue.

Gross borrowing is an accurate measure of the money government borrows from the public to finance its expenditures. Compared to this measure, Federal deficits understate the amount of money government borrows. But even gross borrowing may be an inadequate and misleading measure of the government sector's impact on credit markets, because
ment assume that consumers consider purchases of government debt and private corporate debt equivalent. Consumers do not realize that excess government debt may mean increased future taxes. There is not much disagreement, however, that individuals do not view purchases of bonds (government or private) and money as being equivalent. Thus the response of the financial markets to increases in the supply of reserves (and consequently money) will be different than their response to increases in the supply of government bonds, so that reserves and government debt should not be added together.
gross borrowing greatly depends on the inflation rate. Gross borrowing seriously overstates government's impact on credit markets when prices are rising, because inflation increases the interest rate government must pay on its debt while it reduces the real value of government bonds held by the public.

## GOVERNMENT BORROWING AND CREDIT MARICETS: WHATS THE CONNECTION?

A higher inflation rate automatically results in larger government grobs borrowing, because interest rates are higher when inflation is higher. But does an inflation-induced rise in government borrowing mean that the government is competing for more funds in the credit markets? Only when gross borrowing rises more rapidly than prices is government a drain on the credit markets. Therefore, gross borrowing figures need to be adjusted for the effect of inflation to get a good measure of government's impact on credit markets.
As inflation increases, the interest that government pays on its debt rises. ${ }^{5}$ The higher interest compensates bondholders for the inflation-caused erosion of the real value of their bonds (see INFLATION AND INTEREST RATES). If these people are to restore the purchasing power of their bondholdings, they must use the portion of the interest payment that compensates them for Inflation-the inflation premlum-to purchase additional bonds. Therefore, increases in government debt that keep the real value of the debt constant don't add to government's claims on the financial resources availabie for private investment.
Inflation causes government borrowing requirements to increase. But this increased demand for funds can be met by the private
${ }^{5}$ The Federal government alone has accumulated a large debt ( $\$ 1$ trillion), and a eignificant part of its budget goes to interest payments on this debt (elmost $\$ 98$ billion to fiscal 1981).
sector without affecting consumption and investment, because the inflation premium makes enough funds available to finance the additional borrowing. Therefore, judging the impact of government borrowing in the credit markets without accounting for the effect of inflation is highly misleading. In fact, two economies can be identical in real terms, but if they experience different inflation rates the government deficits and the amounts of new debt the two governments must issue can behave very differently.
Figure 2 gives an example of two such hypothetical economies. Transyivania and

## INFLATION AND INTEREST RATES

Interest rates, including those on government debt, are influenced by inflation because Intarast involves payment in the future, and tomorrow's dollars may be worth far less in terms of goods and services than are today's dollars. For example, if a $\$ 100$ loan today is repaid with 8102 a year from now, the nominal interest rate on that loan is 2 perceni. If there is no inflation, the 2 percent to also the real intereat rate-real because $\$ 102$ buys 2 percent more goods than $\$ 100$ does. But if there is inflation, the real interest rate differs from the nominal interest rate. Inflation causes the purchasing power of the doliar to depreciate; future dollars buy fewer goods than current dollara. Lenders want compensation for any expected depreciation of their dollars caused by inflation. If anticipated inflation rises from zero to 10 percent, for instance, the nominal interest rate must increase by 10 percentage points (to 12 percent) just to hold the purchasing power of the principal constant. Only in this way will the realinterest rate ramain at 2 percent; 12 percent more dollars (\$112) buys 2 percent more goods after the price level rises by 10 percent. The additional $\$ 10$ of Interest payment (the Inflation premium) doesn't represent real Income, because it only offeats the lost purchasing power of the $\$ 100$ principal.

Ruthenia have the same unchanging real (inflation-adjusted) consumption and investment, real interest rates, real government purchases and taxes, and real national debt. The two economies have different rates of inflation, though. Transylvanis has no inflation, while Ruthenia maintains a steady 10-percent rate of inflation. Every year, Ruthenia's nominal consumption and investment, nominal government purchases and taxes, and nominal debt rise by 10 percent, but in real terms nothing changes. Transyl-
vania has a balanced budget, while Ruthenia has an ever increasing budget deficit and increasing gross borrowing. Yet this budget deficit (or gross borrowing] has no impact on the Ruthenian economy because the real value of government debt does not change. The budget deficit ( 100 billion Ruthenian dollars in the first year) is exactly equal to the inflation premium the government pays on its debt, and it serves to keep the real value of the debt constant.
The quantity that correctly measures the

impact of government borrowing on the credit markets of both economies is government net borrowing, shown in column 7, Figure 2. Government net borrowing is the change in the real value of the government debt, expressed in current dollars. While gross borrowing is very different for the two countries, net borrowing is the same, reflecting the fact that the two economies are identical except for inflation.

But how is Ruthenia's inflation-induced government gross borrowing financed without causing a drain on the credit markets? The households in Ruthenia provide the funds by saving the inflation premium component of the interest payments on government debt. This is the only saving strategy that allows them to maintain both the real value of their consumption and the real value of their wealth in the face of rising prices. Thus the increase in the dollar savings
of the households is just equal to the dollar increase in government borrowing, leaving both real savings and real investment unchanged. A numerical example of a typical Ruthenian household may serve to illustrate the case.
Consider a family with wage income of $\$ 25,000$ and accumulated savings of $\$ 20,000$, all invested in one-year government bonds. Suppose there is no inflation and the interest rate is 2 percent, resulting in $\$ 400$ of interest payments. To simplify the example assume that this family consumes all its wage and interest income--it undertakes no new saving. Over time, its assets (bonds) remain at $\$ 20,000$ and its consumption at $\$ 25,400$ (Figure 3, panel a).
If inflation suddenly increases to 10 percent and is expected to stay there, the interest rate rises to 12 percent (fully reflecting inflation), and the family's wages rise at the

## FIGURE 3

> TO KEEP REAL CONSUMPTION CONSTANT, HOUSEHOLDS MUST SAVE MORE WHEN THERE IS INFLATION


10-percent inflation rate (Figure 3, panel b). For the first year, the family's total income is higher because of the higher interest rates. Can this family still consume all its income and maintain the purchasing power (real value) of its assets? Obviously not, because inflation erodes the purchasing power of its bonds. If this family consumed all its new income, by the end of the third year its assets would be worth only $\$ 16,529$ in today's Ruthenian dollars. Instead, it must save the inflation premium built into the nominal interest rate and buy more government bonds with that money. Only this behavior will allow the family's real consumption and its real assets to remain the same as before.

Figure 3 (panel b) shows the details of the family's new saving strategy. The key point is that the inflation premium built into interest rates is not truly income. Rather, it compensates investors for the loss of the purchasing power of their nominal investments (bonds). The family in the example must save all of the inflation premium component of the interest payments to keep its real wealth constant. In dollar terms (though not in real terms), this family is saving more than it used to, making more funds available to buy government bonds.

The examples about government and household finances show that inflation causes budget deficits and government gross borrowing to increase. But this increase can be exactly met by an equal increase in the dollar savings of the households. ${ }^{6}$ Thus, though such inflation-induced deficits may seem alarmingly large, they are not due necessarily
${ }^{6}$ The examples in the text and in the appendix assume that inflation is neulral-that is, real GNP, the real rate of interest, and real investment are not affected by inflation. Given the current structure of tax laws it is highly unlikely that inflation is neutral in the U.S. However. Ihough inflation may cause some real variables to change at the same time as it increases deficits, we try to focus on the deficits and theirimpact. leaving out the effects of inflation on the economy. Assuming neutrality greatly
to increases in net borrowing and therefore would not represent a drain on credit markets. Net borrowing is the correcl gauge of any potential crowding out of private borrowers from the credit markets. ${ }^{7}$
The argument so far is made as if inflation is fully anticipated. But, realistically, inflation is never fully anticipated, and forecasts of inflation are often far off the mark. Under these circumstances, is government net borrowing still the correct measure of the government's impact on the credit markets? As discussed in detail in the Appendix, government net borrowing is a correct measure even when inflation is not fully anticipated.

## IS GOVERNMENT A NET BORROWER?

With an inflation-adjusted measure of government borrowing, it is possible to find out whether the government sector might be crowding out private investment by calculating the net borrowing of government. 8 Columns 1 and 2, Figure 4 [overleaf), show Federal net borrowing and total net borrowing, respectively. These figures show that government net borrowing has been far smaller than the Federal deficit or gross

[^6]
# FIGURE 4 <br> NET BORROWING GENERALLY HAS BEEN SMALL RELATIVE TO INVESTMENT* 

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Federal <br> Net Borrowing | Total Government Net Borrowing | Net Private Investment | Total <br> Net Government Investment |
| 1881 | $23.2 \dagger$ | $19.0+$ | $130.2 \dagger$ | 28.5 |
| 80 | 19.7 | 18.2 | 132.6 | 92, 9 |
| 1970 | -12.9 | -14.6 | 198.5 | 29.7 |
| 78 | 1.3 | 9.0 | 186.6 | 17.4 |
| 77 | 13.8 | 17.0 | 154.5 | 12.0 |
| 78 | 37.7 | 36.8 | 118.0 | 15.5 |
| 75 | 88.0 | 52.8 | 89.2 | 18.2 |
| 74 | -15.6 | -20.0 | 105.4 | 18.6 |
| 73 | -18.5 | -18.2 | 145.6 | 16.4 |
| 72 | 1.4 | 0.5 | 115.5 | 16.5 |

## -Billions of dollars.

tBased on mont recently available eatimates.
SOURCE: Survey of Currant Business. Net raal govarnmeat invertment is the annual change in the net physical capital etock owned by the government eector as reported in the National Income and Product Accounts. This capttal stock includes all oqutpment and etructures owned by Federal, state, and local govarnment and govarn-ment-owned enterprizea. Net private investment, column 3 , is calculated by adding the net private inveatment ahown in the National Income and Product Accounta (Gross Inventrment minus capital consumption allowancea) to mat consumption of dureble goodt. Net consumption of durablea is calculated by applying a 20 -percent depreciation rete to the ofock of durables and subtracting that from durablea consumption in the National Income and Product Accounts.
borrowing figures would suggest. Often net borrowing is negative: the public reduced its real holdings of government debt in those years. When net borrowing is negative, government in effect supplements savings available for private investment. ${ }^{9}$
The figures show that government net
${ }^{9}$ To the extent that inflation is fully anticipated, negative net borrowing implies a flow of funds to the public. If inflation is completely unanticipated, there is no actual flow of funds. However, the unanticipated
borrowing was substantial only during the 1975 recession and the ensuing recovery. There is some government net borrowing also in 1980, the year of a sharp, but shortlived, downturn. It is not surprising that net borrowing, especially Federal net borrowing, rises during recessions; the increase in bor-
capital loss on government bonds will cause households to save more out of their income to rebuild their wealth position. Thus negative government net borrowing in effect increases the supply of private savings.
rowing coincides with the recession-induced decline in tax revenues. ${ }^{10}$

One way to assess the potential impact of government net borrowing on the credit markets is to compare it to net private investment (see column 3, Figure 4). The data show that net government borrowing was very small relative to net private investment in the last decade. Thus the potential drain of government on the credit markets has been relatively small. For instance, in 1980 net government borrowing was only 12 percent of net investment and in 1978 it was less than 2 percent. Only during the 1975 recession was government borrowing large relative to private investment, and that was a result mainly of the recession.
Another way to gauge the significance of government net borrowing is to compare it to government net investment. Net government investment measures the net addition to the physical capital stock (items such as buildings, bridges, highways, and defense installations) owned by the Federal, state, and local governments. These data are shown in column 4, Figure 4. Government net borrowing is considerably smaller than government net investment, except during periods of recession. Government has been collecting more taxes than it needs in order to finance its current expenditures. All of net borrowing and some lax revenues go to finance government investment projects-a situation which raises policy issues [see SHOULD GOVERNMENT INVESTMENT PROJECTS BE FINANCED WITH TAXES? overleaf).
The results of our analysis show that the size of government net borrowing usually has been small compared to the amount of

[^7]either private investment or government investment. It is difficult to see how these relatively small amounts of net borrowing could have caused the record high interest rates experienced recently.
Using the concept of government net borrowing can help put the projected budget deficits in perspective. The Administration's most recent forecast is a \$87-billion deficit for calendar 1982. This deficit is by far the largest ever. Nonetheless, this large deficit represents only about $\$ 46$ billion in Federal net borrowing according to our estimates. ${ }^{11}$ By historic standards $\$ 46$ billion of net borrowing is large, but $i t$ is much less (47-percent less in real terms) than Federal net borrowing was in 1975-another recession year. Such large net borrowing-and a budget deficitwould only be a problem if it persists after the economy comes out of the recession.

## CONCLUSION

Many people are concerned that large Federal deficits cause high interest rates and crowd out private investment. Whatever the validity of the crowding-out hypothesis, the unified Federal budget deficit simply is not the appropriate measure of government's drain on credit markets. The unified Federal budget deficit does not include the borrowing of off-budget Federal agencies and of state and local governments, nor does it exclude the debt purchased by government agencies, by state and local governments, and by the Federal Reserve System. Most importantly. the meaning of the Federal deficit is distorted

[^8]
## SHOULD GOVERNMENT INVESTMENT PROJEGTS BE FINANCED WITH TAXES?

When a private firm undertakes an investment profect, it dona dot usually suspend dividendr and try to finance the project internally. If the firm's credit standing la good and the proposed profect is expected to be profitable, it borrows in the market or bevet new equity; the new invertment generates new cash flows sufficient to pay the additional dividends and interiest.
Investment projects, whether private or public, ure undertaken becauee they are axpacted to yleld benefits that exceed the cost of bullding and malntaining them. Tha difforencn batween privale and public lovestment projects is that while private profecta will be underiaken only when their francial benefits axceed their cost, this rule need not hold for public inventment. Por exampla, a loeal governmant may decide to build a bridge to alleviate traffic congeation. The local goverimeni could finance the bridge from additional tax revenues. But the appropiate financing atrategy is lo borrow the initial cost of the project and plan to pay for the roal porition of the Intarpat charges, for maintenance, and for depreciation with future taxes or tollh. The project will evenfually be pald for in etther case, but debt finance matches the tax paymenta the communily maken to the benefits in receives more closely than immediate tax finance.
The reason that the government should not finance inveatmeni projects with curront taxes lise in the role taxes play in the economy. While taxes ralse revenuen for the government. they also affert the decisions individuals make about labor supply and saving. Evidence suggents that an Increave ta fncome and profits taxas dacreases saving and labor aupply moderately." Financing Investraen! projects from currant taxes meens that tax ratas are higher than they need be, ulneceanarily reduellog incentives to produce and save.
The Department of Commerce has estimated the net Investmant of the Federal, state, and local governments, t Column 4 in FLgure 4 ahows that government nal Invealment auhtantally exceode government not borrowing except during the 1975 recession and the 1880 downturn. Por the laft ted years government net borrowing has covered only part of new government Invertment. The arm of government net borrowing from the private sector from 1972 through 1979 amounts to 890 binion fim 1972 dollars), while the sum of government net investment is $\$ 138$ billion ( In 1872 dollari). Thus a large part of these investmente has been and le continulng to be financed by current texes. Thise has meant higher taxes and higher tax rates than necessary. $\ddagger$ The econumy could benefl from lower tax rates that would result from flinancing government inveatmenta through borrowing from the public.
 Reaserve Benk of Philadelphin, May/June 1981.



 creste and we do not ticlude tham ln our net havestment ingures.
$\ddagger$ We do not arguo here that the taree collected shoald etwars be equal to current expendtrares and serinates.



 chould allow net borrowling to rise and fall over the basineise cycle
by inflation. The inflation of the last decade caused interest rates to rise and therefore caused budget deficits to balloon. These large deficits do not represent necessarily a drain on the credit markets.

Government net borrowing is a better measure of the government sector's impact on credit markets. The net borrowing figures
show that government has not been a significant drain on the credit markets. Looking to the future, it is clear that as long as inflation persists, government can run substantial budget deficits without crowding out private investment. But as inflation and inflationary expectations fall, budget deficits will fall without any expenditure cuts or tax increases.

APPENDIX

## THE CASE <br> OF UNANTICIPATED INFLATION

The examples in the main text on the relationship between inflation, interest reten, and government budgel deficits assume that inflation is always fully anticipated. But a 10 -percentage-point rise in the inflation rate raises the nominal interest rate from 2 percent to 12 percent only if the public fully anticipates the inflation, and then only if inflation is neutral. If increases in inflation are not fully anticipated, the reported budget deficits will not rise sufficiently to hold the real national debt constant. At the same time, an unanticipated incresse in the price level imposes a windfall lose on bondholders,*

The wealth loss imposed on holders of government bonds by unanticipated inflation is a wealth gain for the government. An inflation-induced drop in the real value of government bonds is equivalent to an increase in the taxes of the bondholders. The real value of the outstanding debt falle, but the interest rate is not high enough to compensate the bondholders for this loss.

The thesis of our articis- that the proper measure of the lmpact of government borrowing is given by the change in the real value of total government debt-does not depend on whether or not inflation is unanticipated. It is easiest to see why by considering again the inflationary economy of our example, Ruthenia.

If the Ruthenian Inflation is anticipated, tbe additional financing needs of the government equal the inflation premium of the interest payment- $\$ 100$ billion. But what if the inflation is not anticipated at all? As long as the government takes no action, there would be no budget deficit and the net borrowing would be-\$100 billion. This sum is the same as the purchasing power loss suffered by the bondholders. If the government uses net borrowing as a gulde for its fiscal policy and tries to keep net borrowing constant, it would attempt to return to lts original net borrowing, 80 in thls example. It can do so by either increasing transfer payments or cutting taxes and running a $\$ 100$ billion budget deficit. If it cuts taxes by $\$ 100$ billion, individuals in the economy who suffered capital Iosses on their bondholdings will use tbese unanticipated taxes to restore their portfolio without changing their consumption or saving plans [taxea are unanticipated because the inflation was unanticipated.) But since the government, by running a $\$ 100$-billion deficit, is providing the right quantity of bonds the public needs for the rebullding of portfolios, consumption and inveatment will remain the same, whether or not the inflation is anticipated.

To the extent that each individual is different, the capital losses on bonds will not be exactly offset by the tax breaks or by the increases in transfer payments for each individual. Thus, any government action to offaet the impact of unanticipatad inflation will alter the distribution of wealth and probably the value of the real variables in the economy, which may be legitimate cause for concern. Under these circumstances, government net borrowing may not be the only information neceasary to gauge government's impact on the credit marketa.
-If, for example, bondholdera require a 2 -percent real return on their Investment and they expect a e-percent Inflation rate, the nominal intereat rate would be 8 percent. Should the actual inflation rate turn out to be 10 percent, the bondholdert realize a real returp on thair inveatment of $\mathbf{- 2}$ percent.

## Financing the Deficit

According to Congressional Budget Office estimates, Federal budget deficits in fiscal years 1982 and 1983 could reach $\$ 119$ billion and $\$ 182$ billion, respectivelyseveral times the size of any previous budget deficit -in the absence of any revenue or expenditure changes. These deficits must be financed by Treasury sales of bills, notes and bonds. Some of this new debt will be purchased by the Federal Reserve System, but the vast amount-perhaps 95 percent on the basis of the last two years' experience-will be purchased by private investors.

Also, in view of the increased strength of the dollar, foreign official institutions probably will not purchase as much of the new debt as they formerly did, when they were able to purchase Treasury securities with funds obtained from buying cheap dollars in the exchange markets. For example, foreign purchases of new privately-held public debt dropped from 29.2 to 19.8 percent between the June 1976-june 1980 period, when the dollar was weak, and the June 1980-June 1981 period, when the dollar was much stronger. This means that the burden of a larger deficit will affect domestic financial markets more than it did previously.

Large Treasury financing needs coupled with high interest rates portend high interest costs for the Treasury. These interest costs have more than doubled in recent years, from $\$ 29.1$ billion in 1977 to $\$ 73.3$ billion in 1981. As a percentage of total Federal expenditures, interest payments thus rose from 7 percent to more than 10 percent over that period (Figure 1). In light of President Reagan's call for reducing the cost of government, the question of how to minimize the interest cost of the new debr becomes especially important.

## Minimizing cost

The Treasury could attempt to minimize costs by affecting either the supply of or the de-
mand for its securities. The amount of cash needed by the Treasury in any fiscal year is given by the size of the deficit, so the Treasury cannot choose the total supply of securities it will issue. It can, however, vary the composition and maturity distribution of its supply of bills, notes, and bonds, and this choice could affect the current and future interest costs of the new debt. Alternatively, the Treasury could minimize costs by increasing the demand for its securities, specifically by issuing more attractive types of securities.

On the supply side, the Treasury could limit the transaction costs that arise every time it issues new debt. For example, it could issue longer-term debt that would require fewer refinancings. More importantly, it could try to minimize interest costs. This can be done specifically by "playing the term structure." That is, the Treasury could issue debt based on what it believes to be the future course of short- and long-term interest rates, and minimize its interest costs according to these expectations.

Most theoretical work on the term structure of interest rates follows the expectations hypothesis, which states that in a world of certainty the yield on a multi-period security (where the number of periods equals " $n$ ") equals the yield that could be attained by holding a series of one-period securities over " $n$ " periods. The term structure of interest rates therefore would provide predictions of the future course of shorter-term interest rates. For example, a positively-sloped term structure-with long rates higher than short rates-would imply an expectation of a future rise in short-term rates.

According to the expectations hypothesis, securities of different maturities are highly substitutable by both sides of the debt contract. Given such substitutability in an efficient capital market, the term structure should not, in the long run, be greatly affected

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by an increase in the supply of bonds of any particular maturity. If, over time, long-term rates approximated the average of current and realized future short-term rates, the maturity distribution of new Treasury debt makes little difference in cost. One could argue that the government faced a rule analogous to the "Modigliani-Miller theorem"-that the average cost of long-term financing to a firm is independent of the debt-equity mix. One might then argue that, with efficient capital markets, the government has no optimal long-term/shor-term debt mixture. In the short run, however, this need not necessarily be so. By appropriately altering the supply of debt of different maturities, the Treasury could potentially reduce its costs, just as private corporations do by funding short-term when long-term interests rates rise above what appear to be suitable levels.

## Increasing demand

The Treasury could also reduce interest costs by increasing the demand for Treasury securities. It might be able to do this by issuing a new, more attractive type of security rather than by relying on the traditional bills, notes, and bonds. In 1941, George L. Bach and Richard A. Musgrave proposed just such an innovation-a bond redeemable not for a constant amount of dollars, but for an amount of dollars representing a constant amount of purchasing power. The coupon on this bond would be similarly adjusted. The real value of a "constant purchasing power" bond would not be affected by inflation, as traditional security prices are.

This type of bond has several advantages. It would eliminate the inflation-uncertainty premium which some economists claim is the cause of high real interest rates, since inflation would not reduce the value of the bond. This approach would immediately reduce the nominal interest cost of the new debs. Such a bond would place the inflation risk on the borrower rather than (as at present) on the lender, much as variable-rate mortgages do.

A constant-purchasing-power bond would induce lenders who fear inflation to purchase the Treasury securities rather than real assets such as gold. Furthermore, such a bond would restore the role of Treasury securities as "riskless assets," since both default and inflation risk would be absent. Given the enormous new supply of Treasury securities overhanging the markets in the next two years, this increased demand would be welcome. Finally, tying the interest cost of the debt to the inflation rate would force the Federal government to take stronger measures to reduce the inflation rate. Issuing a constant-purchasing-power bond would appear to be a positive step toward reducing the nominal interest cost, especially if inflation were to decelerate faster than expected by private investors.

## Recent Treasury behavior

With a large deficit, Treasury financing operations can exert a severe impact on the financial markets. By issuing securities with a broad range of maturities, the Treasury could minimize its distortion of the term structure of interest rates determined by the market although as discussed earlier, there may be little distortion in any event. Most empirical work indicates that Treasury financing operations only temporarily affect the structure of interest rates, with the effect largely disappearing within a month's time.
In recent years, the Treasury has issued debt in various maturities, generally emphasizing consistency rather than innovation. Recently, therefore, it has issued no new types of securities. Also, the Treasury has issued securities of particular maturities on regular schedules, apparently with the aim of increasing the overall maturity of its debt outstanding (Figure 2). As a result, the average maturity of private holdings of marketable interest-bearing public debt increased from two years seven months in June 1976 to four years in September 1981.
Again, there is no overwhelming evidence that the Treasury's actions affect the general
level of interest rates. To some extent, however, the Treasury may be "crowding out" long-term corporate financing. The debt structure of corporations increasingly has become skewed toward short-term obligations (Figure 3). Many corporations would like to correct this imbalance, but do not want to pay the current high long-term rates. If the Treasury wanted to minimize the impact of its financing operations on corporate operations, it might not issue long-term debt. Instead, it could leave that segment of the financial market to corporations, thereby permitting them to restructure their balance sheets and finance more investment. Why, then, has the Treasury been lengthening the overall maturity of its debt? Perhaps the idea
is to reduce transaction costs by decreasing the number of times required to refinance its debt. Still, given the high interest costs associated with this strategy, the approach may cost the Treasury more than it saves.

Treasury debt management has not been a "hot" issue lately in academic discussions, possibly because of a belief that Treasury actions do not affect the term structure of interest rates. However, the government's financing requirements will be very large for at least the next few years, and will thus impose a heavy burden on domestic financial markets. Given this fact, the issue of Treasury debt management deserves more attention.

Joseph Bisignano and Brian Dvorak



SOURCE: Treasury Bulletin, various issues


JOHN R. VELLA
Execulive Vice Presiden
Septen ber 2, 1982

Honorable Walter E. Fauntroy
Chairman
Subcommittee on Domestic Monetary Policy
House of Representatives
H2-109, House Annex 2
Washington, D.C. 20515
Dear Congressman Fauntroy:
I am pleased at the opportunity to cffer the following comments in response to your recent request to address certain issues a:s you prepare for your hearings on debt management by the Department of the Treasury.

1. Issue:

The role of the financial futures market on the ability of the Treasury to market its debt in the aftermath of the collapse of a government security firm.

Response:
The advent of the futures market has a positive impact on Treasury debt issuance. It has expanded the number of participants and increased market efficiency. The continued growth of this market has also prompted the regular issuance of Treasury securities rith 10 and 20 year maturities. The availability of futures as an offset to cash instruments provides liquidity, as well as hedge and arbitrage opportunities as dealers prepare for Treasury auctions. To the extent that liquidity is improved, interest rates are typically lower. The futures market role in terms of Treasury debt issuance has not been altered as a result of Drysdale.
2. Issue:

Your perception of the actions taken by the Federal Reserve System immediately following the collapse of the Drysdale firm. What other actions, if any, should the Fed have taken?

Response:
The visible actions taken by the Federal Reserve System were, in our judgment, ones that were appropriate to assure the continued viability of the market place. When one examines the role of the Fed's trading desk in addition to calling out monetary policy, i.e., information gathering on prices, interest rates, volume of activity, positions, and its informal surveillance role over the primary dealers, it appears the actions taken kept market disruption to a minimum.
3. Issue:

The effect of recent Federal Reserve actions in its conduct of monetary policy on Treasury financing and the likely impact of financial markets in the remainder of this year of heavy Treasury borrowings in light of these actions.

Response:
In our judgment the Federal Reserve provided the necessary liquidity and these additional reserves had a favorable impact on financial markets. However, the effect was short term in nature, did not cause a major market disruption and should not for the remainder of the year, notwithstanding the amount of Treasury financing in the second half of this year.
4. Issue:

The impact on the market when dealers with underwriting responsibilities are left with higher than normal amounts of new issues. What is the effect of such an event on the cost of future Treasury financing operations bofore and after the Drysdale collapse? What is the effect of such an event on dealer participations at future auctions?

## Response:

Generally speaking when dealers with underwriting responsibilities are confronted with bigger positions under the circumstances described, prices would declinc and yields would rise. However, the level of economic activity, price level expectations and other factors also must be considered by dealers when they decide on the extent of their participation in Treasury auctions. The "Drysdale collapse" will not have any impact on the financing operations of the U.S. Treasury. in the market place.
5. Issue:

Whether the new rulos adopted by the Fed and the dealer associations would have been adequate to prevent the collapse of a government securities firm if they had been in force? Are other actions by either the Fed or the dealer organizations necessary?

Response:
Although additional capital requirements and clearly defined business standards may be helpful, these actions alone would not have prevented the collapse of a government securities firm in the past and they cannot be expected to do so in the future.
6. Issue:

How the financial community has coped with the collapse of a government securities firm. Whether this or any other recent financial failures have increased interest in government securities and the impact such increased interest might have upon Treasury financing operations.
6. Response:

The financial community and the market place are extremely resilient and have coped well during past crises periods. During periods of financial uncertainty the government markets has a tendency to benefit as investors tend to concentrate more funds in short term U.S. Treasury instruments. To the extent that the Treasury is raising funds during such a period they would benefit through lower interest costs.
7. Issue:

Please comment upon the view expressed by some analysts that the collapse of a government securities firm was "inevitable" and that the quality of internal credit controls and credit decisions of large magnitudes are often not well considered.

Response:
We do not share the view that a collapse was inevitable. To the extent that a particular firm may choose to manage its risk in a more aggressive fashion to enhance profits the possibility of failure exists. It is not, however, necessarily inevitable. Credit controls and decisions are only as good as the management responsible. The lack of credit discipline on the part of some participants in the market allowed excess leverage to occur. However, this is not a situation which is solely related to securities transactions.

Again, thank you for the opportunity to offer my views on this subject.
Sincerely,



[^0]:    Response Received From Mr. Stalnecker
    The $\$ 3.00$ versus $\$ 4.00$ tradeoff is the traditional relationship between the interest cost savings to the issuer of the tax exempt securities and the tax revenue loss to the Federal Government. This is also the relationship used by the Office of Management and Budget in the discussion of tax exempt credit in Special Analysis F of the

[^1]:    To Members of tine Public Securities Association
    Government \& Federal Agencies Securities Coumittee

[^2]:    *Reopen 14-1/2's
    **Reopen 13-7/8's

[^3]:    If the Treasury should decide to finance in 10 years or less at this time, it should be prepared to announce the limits of a strategy which, to be consistent, would also mean the elimination of the 15 and 20 -year issues and they should also announce the alternative sources for those funds.

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     ascuanngy temporary poscatsion of the secutiv, for trampte. by borrowing if from it thirs party. In turs case, ung firm trande to gain il the perce tails bociuste the fitim can lhen purchase ane security to roturn if to the levider at a orice bower than the poet at which if cold the securaty.
    Prodts aarned from positwe earry cen be racher emall, comparme wilh tinose pratulting from buyigg and esting on the bra-ashed prated or the prothes and wises atimming fron price chiange For ouampte, e change of i bubs porm in the decoumt rate to the carry profish esmed in one dury the thaneng ecas of carging the bit is 100 benus points (1 percerdaz count law then the ratio on lhe bill liselt Moreoverr, poettwe cermy
    
    

[^5]:    ${ }^{1}$ For a detailed analysis of the Federal government's off-budget activities, see David Resler and Richard Lans. "Federal Agency Debt: Another Side of Federal Borrowing," Review, Federal Reserve Bank of St. Louis, November 1979. Also see John Fialka, "Growing Giant: U.S. Lender, Bigger Than Citibank," The Wall Street journal, December 15, 1881; and H. Leonard and E. Rhyne, "Federal Credit and the 'Shadow Budget'," The Public Interest, Fall 1961.
    ${ }^{2}$ For example, as of the end of June 1981, the Student Loan Marketing Association(SLMA) owned \$3.4 billion of Federally guaranteed student loens. The SLMA purchased the loans by issuing debt. The Federal Financing Bank (FFB) purchased the SLMA debt by lssuing its own debt, and the Treasury in turn purchased the FFB debt. In effect, the Treasury borrowed money from the public to lend to students.
    ${ }^{3}$ A more precise calculation would involve using the market value of the new Treasury issues rather than their par value. However, the differences between par and market value are small.

[^6]:    simplifies that task, without changing the conclusion.
    Another feature of our example is the absence of taxes on interest income. That omission is readily remedied by thinking about these rates of interest as after-tax rates.
    ${ }^{7}$ See G. V. Jump, "Interest Rates, Inflation Expectations, and Spurious Elements in Measured Real Income and Savings." A merican Economic Review, December 1980, and J. Siegel. "Inflation-Induced Distortions in Government and Private Saving Statistics," Review of Economics and Statistics, February 1979 for a similar analysis. The Economic Report of the President 1882 also adjusts deficits for inflation. See Chapter 4, Appendix.
    ${ }^{8}$ To compute net borrowing, we use a price index to deflate the end-of-year gross deht. This procedure gives an estimate of real debt. The annual change in real debt gives real net borrowing: multiplying that by the price index gives net borrowing in current dollars. The price index is the geometric average of the GNP deflators for the last quarter of the year and the first quarter of the following year.

[^7]:    ${ }^{10}$ If the government were to try to hold down its net borrowing by reducing its expenditures and raising taxes during a recession, it would destabilize the economy unnecessarily, and a deeper recession could result. The potential impact of net government borrowing must be evaluated over the business cycle and not year by year.

[^8]:    ${ }^{11}$ Projections of Federal borrowing for 1982 are from Borrowing and Debt Special Analysis E. released by the Office of Management and Budget. Since detailed 1982 estimates of Federal Reserve, state, and local holdings of Federal debt are not available, we asaume that these institutions will behave as they did $\ln 1881$. Thus, as a result of a projected increase in Federal debt of $\mathbf{\$ 1 3 1 . 3}$ billion, public holdings have to rise by $\$ 90.8$ billion. We also adopt the consensus forecast that the GNP deflator will grow by 7.3 percent in 1982.

