

*Federal Debt Management:
An Economist's View
from the Marketplace*

HENRY KAUFMAN*

I welcome the opportunity to express my views on Federal debt management. This subject was much discussed in the period immediately following World War II, but it has received only limited attention in recent years, even though important changes have occurred in the management of our Federal debt. It has been subordinated in importance to other important official policy requirements. Many modifications in fiscal and monetary policy have gained the spotlight recently. For example, there has been the emphasis on managing the monetary aggregates and on the role of the dollar internationally. Both of these policy developments have had, in fact, an impact on Federal debt management. The large deficit in our balance of payments and the resulting dollar weakness eased the financing task of the U.S. Treasury in recent years when Federal budget deficits were extraordinarily large. The monetarist approach, which made considerable headway in credit-policy implementation in recent years, is also beginning to make its imprint on the theory and implementation of Federal debt management.

The neutrality theory of debt management has gained support not only as an approach advocated by the monetarists but also by many market participants. This approach favors that Treasury financing be simplified, routinized, and regularized. The objective is to prevent debt management from being a source of instability and to ease the task of coordinating Treasury debt operations and Fed open market operations. The neutrality theory is, of course, in sharp contrast to the counter-cyclical and pro-cyclical approaches of debt management, which were in favor immediately following World War II. The

*Partner and Economist, Salomon Brothers.

former favors the issuance of long-term debt in economic boom in order to reduce liquidity and the issuance of short-term debt in recessions in order to increase liquidity. The latter places considerable emphasis on debt lengthening and minimizing interest cost.

While I have some leanings toward the neutrality theory, both from a theoretical and market viewpoint, many helpful hints for future debt-management policies can be learned from an examination of the changing role of the U.S. Government market. I want to begin by reviewing these changes, thereafter examine some of the new techniques of debt management and, finally, venture forth with some suggestions of my own. In addition, I want to urge that Federal debt management should not be confined to U.S. Treasury debt but also should include improved surveillance over the debt policies of the burgeoning credit agencies. I am not commenting on the role of the Federal Reserve or of the U.S. Trustfunds in the Government market because this subject is being covered by other participants in this Conference.

The Size of the Market

U.S. Government securities are still the most eminent obligations in the American securities market. All of their attractive features are still present, and most inter-market comparisons continue to be grounded to Government issues. U.S. Governments, however, are no longer the overwhelming market force in our credit markets as they were a few decades ago.

In the short-term sector, private domestic holdings of Treasury bills increased by only \$2 billion to \$47 billion from 1966 to 1972, despite a \$39 billion increase in these obligations. This is because almost all of the increase was absorbed by the Federal Reserve, U.S. Trust Accounts, and especially by foreign central banks. As shown in Table 1, during the same period of time, however, the volume of outstanding private domestic money market obligations increased by \$56.5 billion. Consequently, the volume of private domestic Treasury bill holdings as a percent of all U.S. money market obligations held privately declined from 57 percent in 1966 to 35 percent in 1972. Most of this decline occurred in the period from 1970 to 1972 when foreign central banks purchased a substantial volume of bills.

From a market viewpoint three points are worth noting briefly at this juncture. First, private money market obligations have become increasingly important to temporary holders of funds, although no private money market obligation enjoys all of the excellent features

TABLE 1
OUTSTANDING MONEY MARKET OBLIGATIONS, END OF CALENDAR YEAR
(\$ billions)

	1966	1967	1968	1969	1970	1971	1972
Total Treasury Bills	64.7	69.9	75.0	80.6	87.9	95.7	103.9
Less Holdings of:							
Fed & U.S. Trust Accounts	13.9	13.5	19.8	23.1	26.7	31.6	30.4
Foreign Central Banks (est.)	6.1	6.6	5.1	3.5	11.5	25.5	26.9
Private Domestic Holdings	44.7	44.8	50.1	54.0	49.7	38.6	46.6
Plus: Commercial Paper	13.3	16.5	20.5	31.7	31.8	31.1	34.7
Negotiable C.D.s	15.6	20.4	22.8	10.9	26.1	34.0	44.9
Federal Agency Discount Notes	1.0	1.5	3.0	3.8	3.4	2.2	1.6
Bankers Acceptances	3.6	4.3	4.4	5.5	7.1	7.9	6.9
Total Private Domestic Holdings of Money Market Obligations	78.2	87.5	100.8	105.9	118.1	113.8	134.7
Treasury Bills as % of Total	57	51	50	51	42	34	35

of Treasury bills. The commercial paper market, for example, has a limited secondary market at best, while bankers' acceptances and agency discount notes are relatively small markets. The volume of outstanding negotiable C.D.s, however, has not only increased substantially to where it now exceeds the private domestic holdings of Treasury bills, but they also have an improved secondary market although not yet equalling the resiliency of the secondary market in bills. Second, there is a plethora of money market obligations of very short maturity, but the volume diminishes rapidly beyond three months whereas Treasury bills are still the most important haven for short-term funds out to one year. Third, because of the changing dimensions of our money market, Treasury bill yields have at times not provided as accurate a gauge of money market conditions as they did years ago.

The U.S. Government coupon market is no longer the largest market. At the end of calendar 1972, the volume of outstanding publicly held U.S. Government coupon issues totalled \$108 billion (see Table 2). This compares with \$210 billion of corporate bonds (including \$143 billion publicly offered), \$161 billion of municipal bonds and \$56 billion of Federal credit agencies. From the end of 1962 to 1972, the volume of publicly held U.S. Government coupon issues actually contracted by \$1.1 billion while there was an increase of \$120 billion in corporate bonds, \$81 billion in municipals, and \$46 billion in Federal credit agencies.

In addition to the difference in size between the publicly offered corporate bond market and the U.S. Government coupon market, there are other important differences that are quite instructive from a market viewpoint. Corporate bonds, for example, are available over a much wider maturity structure than U.S. Government coupon issues. This is illustrated in Table 3, which shows the volume of outstanding publicly offered corporate bonds and U.S. Government coupon issues held publicly scheduled to mature from the year 1973 to 2008 and over. In each of the years from 1973 through 1978, the scheduled volume of maturities of U.S. Governments exceeds that of corporate bonds. Thereafter, with the exception of 1980, the volume of maturing corporate bonds far exceeds that of U.S. Governments in each year. Indeed, there are many years in which there are no scheduled maturities of U.S. Governments but a substantial volume for outstanding corporate bonds. Between 1980 and the year 2000 there are currently no U.S. Governments scheduled to mature in 1987, 1988, 1989, 1991, 1996, 1997, 1999 and beyond.

Another difference between these two markets concerns the size of the average issue which is far larger for Governments than for

TABLE 2
VOLUME OF OUTSTANDING ISSUES IN THE MAJOR SECTORS OF THE BOND MARKETS
(\$ Billions)

End of Year	Straight Corporate Bonds			U.S. Govts. (Coupon Issues Publicly Held)	Federal Agencies (Coupon Issues)	Municipal Bonds	Total
	Publicly Offered	Privately Placed	Total				
1947	14.1	12.0	26.1	119.7	1.6	13.9	161.3
1952	22.2	22.0	44.2	88.7	2.6	26.6	162.1
1958	41.3	31.0	72.3	98.0	6.2	54.7	231.2
1962	52.7	37.4	90.1	108.8	10.4	75.1	284.4
1967	75.6	54.8	130.4	109.4	24.0	106.8	370.6
1972	142.7	67.0	209.7	107.7	56.1	161.3	534.8

TABLE 3

OUTSTANDING AMOUNT OF PUBLICLY OFFERED CORPORATE BONDS AND PUBLICLY HELD
U.S. GOVERNMENT COUPON ISSUES CLASSIFIED BY YEAR OF FINAL MATURITY

Maturity Year	Corporate Bonds (as of 9/30/72)	U.S. Govts. (as of 12/15/72)	Range of Coupons(%)		U.S. Govts.*
			Corporate Bonds	U.S. Govts.*	
1973	0.6	17.7	3 to 10 3/4	4 to 8 1/8	
1974	2.1	22.7	Below 3 to 10 3/4	3 7/8 to 7 3/4	
1975	4.0	16.9	Below 3 to Above 11	5 3/4 to 7	
1976	3.4	12.9	Below 3 to 9 3/4	5 3/4 to 7 1/2	
1977	3.4	3.6	Below 3 to Above 11	7 3/4 to 8	
1978	3.3	9.5	Below 3 to 9 3/8	6 to 6 1/4	
1979	4.2	3.0	Below 3 to 9 3/4	6 1/4	
1980	2.6	2.9	Below 3 to 10 3/4	3 1/2 to 4	
1981	2.4	0.4	Below 3 to Above 11	7	
1982	2.7	1.7	Below 3 to 10 3/4	6 3/8	
1983	2.8	1.2	3 to 5 5/8	3 1/4	
1984	2.4	1.1	Below 3 to 7 5/8	6 3/8	
1985	2.5	1.5	Below 3 to 10 3/4	3 1/4 to 4 1/4	
1986	3.4	0.4	Below 3 to Above 11	6 1/8	
1987	3.9	0.0	Below 3 to Above 11	—	
1988	5.2	0.0	3 to Above 11	—	
1989	3.1	0.0	3 to 10 3/4	—	
1990	5.3	3.2	Below 3 to Above 11	3 1/2	
1991	4.7	0.0	Below 3 to 9 3/4	—	
1992	6.4	2.3	4 to 8 1/8	4 1/4	
1993	4.5	0.2	3 to 8 1/8	4	
1994	4.2	1.0	4 to 9 3/4	4 1/8	
1995	6.9	0.9	3 to 10 3/4	3	
1996	8.2	0.0	Below 3 to 9 3/8	—	
1997	6.4	0.0	3 1/2 to 8 7/8	—	
1998	4.5	2.6	3 1/2 to 9 3/4	3 1/2	
1999	4.3	0.0	Below 3 to 9 3/4	—	
2000	8.2	0.0	Below 3 to 9 1/8	—	
2001	8.0	0.0	Below 3 to 9 1/8	—	
2002	4.9	0.0	3 1/2 to 9 1/8	—	
2003	1.2	0.0	Below 3 to 9 1/8	—	
2004	1.1	0.0	3 to 9 1/8	—	
2005	1.2	0.0	4 to 9 7/8	—	
2006	1.2	0.0	4 1/2 to 8 7/8	—	
2007	1.2	0.0	4 to 8 7/8	—	
2008 & Over	5.9	0.0	3 to 9 1/4	—	
TOTAL**	140.4	105.4			

*1½% coupons not included.

**May not add due to rounding.

corporates. In the longer maturities, however, this frequently consists of one large issue for Governments. In addition, while corporate bonds have a smaller average size, they are available in a wide range of coupons and, of course, credit quality. Only recently has the longer-dated Government market been enlarged with the addition of several higher coupon issues. The preponderance of longer-dated Governments still consists of low coupon issues, having been originally issued many years ago when interest rates were low. Since the Government received permission to issue \$10 billion of bonds with coupons above $4\frac{1}{4}$ percent, two long bond issues amounting to \$1.2 billion and four medium maturity bonds totalling \$7.1 billion have been marketed. This new effort to enlarge the size of the longer-term Government bond market continues to be retarded, however, by the retirement of outstanding "flower" bonds which are mainly used in payment of estate tax purposes. An estimated \$828 million or 5.5 percent of the outstanding issues with a maturity of 1990 and above were retired in 1972 through these types of tax payments. Since the start of 1966, \$3.0 billion of these bonds or 17.7 percent of the amount outstanding at that time have been retired through the payment of estate taxes.

The Investors

Despite its large size, the U.S. Government market does not enjoy broad investor participation in the private sector. Among private investors, three groups dominate the market. These are commercial banks, foreigners (mainly official institutions) and individuals.

Generally, the commercial bank participation in the U.S. Government market has continued to be very much a function of monetary policy. During periods of monetary ease banks have purchased a substantial amount of Governments and, in turn, they have liquidated a substantial amount during monetary restraint. They held \$66.6 billion or 25.5 percent of the privately held U.S. Treasury debt at the end of 1972 (see Table 4) as compared with \$56.2 billion or 25.9 percent at the end of 1967. Several important structural changes have occurred, however, in commercial bank participation in the U.S. Government market. With the increasing emphasis on liability management, large commercial banks have substantially reduced their reliance on Governments as a secondary reserve. The smaller regional and country banks, however, having less costly and interest-sensitive liabilities than larger banks, are today a larger investor in U.S. Governments than the large money center banks. In

TABLE 4
U.S. TREASURY DEBT
(\$ Billions)

	Annual Net Increases in Amounts Outstanding					Amounts Outstanding 12/31/72E
	1967	1968	1969	1970	1971	
OUTSTANDING:						
Treasury Debt	15.4	13.4	10.2	20.8	34.9	449.8
Less Holdings of:						
U.S. Trust Funds	7.2	3.4	12.5	8.1	8.9	116.9
Federal Agencies	0.0	-0.1	-0.2	1.7	-1.5	2.3
Fed. Res. Banks	4.8	3.9	4.2	4.9	8.1	69.9
Privately Held	3.4	6.2	-6.3	6.1	19.4	260.7
OWNERSHIP:						
Mutual Savings Banks	-0.4	-0.5	-0.6	-0.1	0.1	3.5
Savings & Loan Associations	1.5	0.4	-1.0	0.2	0.7	13.7
Life Insurance Companies	-0.2	-0.2	-0.3	-0.1	-0.2	3.7
Fire & Casualty Companies	-0.7	-0.3	0.4	0.0	0.2	5.0
Private Noninsured Pension Funds	-0.2	0.4	0.0	0.2	0.0	3.1
State & Local Retirement Funds	-0.3	-0.7	-0.8	-0.6	-0.2	2.6
Open-End Mutual Funds	-0.5	0.2	-0.5	0.2	-0.3	0.7
Total Nonbank Investing Institutions	-0.8	-0.7	-2.8	-0.2	0.3	32.3
Commercial Banks	6.3	2.0	-9.8	7.0	3.2	66.6
Credit Unions	0.1	0.2	0.1	0.5	1.1	3.0
Business Corporations	-0.9	0.1	-1.8	-3.0	2.6	6.2
State & Local Governments	0.1	1.2	2.6	0.0	-0.1	19.1
Foreigners	1.3	-1.5	-2.9	9.2	26.3	55.5
Residual: Individuals & Miscellaneous	-2.7	4.9	8.3	-7.4	-14.0	78.0
Total Ownership	3.4	6.2	-6.3	6.1	19.4	260.7

*In October 1972, Gross Treasury Debt outstanding and Trust Fund holdings were increased \$4.5 billion to reflect a non-recurring accounting change. Accordingly, we have reduced the net increases for 1972 in these two items by \$4.5 billion each.

recent years, moreover, the smaller banks in particular have been the largest bank buyers of intermediate- and longer-maturity issues. Large commercial banks, however, continue to be large distributors of U.S. Governments through their trading departments.

The active participation of foreign investors in the U.S. Government market is, of course, a recent development and reflects largely the investment of surplus dollars by foreign official institutions. Their takedown of U.S. Governments in just the past few years is staggering. Foreign holdings of U.S. Governments totalled \$63.1 billion or 23.7 percent of total publicly held Treasury debt at the end of March 1973 as compared with \$20.6 billion or 9.0 percent at the end of 1970. Foreign holdings of U.S. Governments at present exceed the holdings of even the largest domestic institutional investor group, the commercial banks. Their holdings of Treasury bills, in fact, were an estimated \$25.5 billion, only \$7.5 billion short of the amount held by the Federal Reserve at the end of March. Consequently, Federal debt management from hereon cannot ignore foreign holdings, which are bound to have substantial impact on market developments if they increase or decrease in size or composition. Moreover, we can no longer say that the size of the Federal debt is inconsequential because we owe it to ourselves.

The direct participation of the individual investor has been exceedingly volatile. It has hinged mainly on the extent to which open-market interest rates have exceeded deposit rates. Thus, when this interest rate spread favored market rates in 1969, the individual and miscellaneous group bought net \$8.3 billion. Incidentally, this occurred in a year in which the unified budget of the Treasury was in surplus and the total publicly held Treasury debt actually decreased. When the yield spread favored deposit rates in 1971, this group liquidated \$14 billion even though the unified budget was substantially in deficit and privately held Treasury debt rose sharply.

One aspect concerning Federal debt management and the individual investor deserves considerable discussion and analysis. It is the occasional attempt by the Treasury to deter the individual as a direct investor in U.S. marketable obligations. In other words, the Treasury does not want U.S. Government obligations to be a disintermediation instrument. This was one of several reasons that encouraged the Treasury to raise the minimum denomination of Treasury bills to \$10,000. In addition, because of the fear of compounding the disintermediation problem, the Treasury has occasionally limited its financing to the money market sector and to rights offerings instead of cash financing. I feel that these are fruitless measures and do not

deter disintermediation in the credit market as a whole. Disintermediation is determined by monetary and fiscal policies, reflecting efforts to slow credit availability to curb economic excesses. Raising the minimum denomination of securities and other well-intended debt management efforts just raise the level of interest rates at which disintermediation is likely to occur and shift part of the disintermediation process to other sectors of the credit market.

The other participants in the U.S. Government market are small in the aggregate considering the large size of the market. Non-bank investing institutions, which are the major investors in corporate bonds, held only \$32.3 billion or 12.4 percent of the privately held Treasury debt at the end of 1972, and they have been net sellers for most of the time during the past decade. This is in sharp contrast to the active role played by key British non-bank investing institutions in the Gilt-edged market. These institutions hold about 25 percent of the marketable Government debt in the United Kingdom.

The lack of breadth and depth of the long-term Government bond market largely accounts for the absence of the non-bank investing institutions. Despite the recent marketing of several new long-term issues, this market is still dominated by "flower" bonds. For most of the past five years, the yield spreads between these long Government issues and high-grade corporate bonds have been extraordinarily wide. These issues have been bought in the secondary market mostly by individuals for estate tax payments, occasionally by the Federal Reserve, and by speculative accounts when policies of monetary ease were pursued. Since the issuance of new longer-dated Governments late last year, the "flower" bonds have been under increasing price pressure but they are still yielding substantially less than either the two new long Governments or corporate bonds.

Finally, in this summary of investors in U.S. Governments, let me briefly mention business corporations and State and local Governments. They confine most of their investments to the short-term sector. For State and local Governments, their purchases are partly influenced by legal requirements while business corporations have considerably widened their temporary investment alternatives in recent years.

Recent Debt Management Changes

Before offering some suggestions for improving debt management, let me briefly summarize some of the important changes that have occurred recently in debt management policies and acknowledge

some of the accomplishments. The more important ones have been the following:

The restriction on the issuance of long-term bonds at interest rates above $4\frac{1}{4}$ percent has been pierced. While the initial emission of new bonds above $4\frac{1}{4}$ percent has been limited to \$10 billion, the way has been cleared for working towards a balanced maturity structure of the U.S. debt market.

The routinizing of U.S. Treasury financing gained considerable impetus when the Treasury decided to embark last year on a quarterly auction of a 2-year note. This type of financing was interrupted, however, a few months ago as a result of the large accumulation of Treasury cash balances.

The auction technique, which for many years was largely confined to the selling of Treasury bills, has also been used in recent years for raising cash through note and bond offerings.

The controversial "Dutch" auction has been used two times within the past six months to distribute new bond offerings. I will comment on this technique later.

The task of refunding maturing coupon issues has been substantially reduced in the last two years. As shown in Table 5, at the start of this year the volume of coupon issues maturing in calendar 1973 was only \$9 billion. The coupon refunding requirement for 1972 was \$16 billion and \$23 billion for 1970 and 1971. The reduced refunding task was accomplished through substantial advance and pre-refunding operations and by enlarging the volume of bill financing.

The 9-month bill auction was eliminated and the 1-year bill auction was shifted to a four-week interval instead of on a monthly basis.

Treasury cash management mobility was improved by re-classifying more banks which hold Tax and Loan Accounts as "C" banks.

A Federal Financing Bank that will centralize the financing requirements of the budgeted credit agencies is in the process of receiving Congressional approval.

TABLE 5

VOLUME OF OUTSTANDING MARKETABLE GOVERNMENT SECURITIES AT START OF YEAR
(\$ Billions)*

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Treasury Bills	51	57	60	65	70	75	81	88	98	104
Other Issues Due Within 1 Year	38	32	33	40	34	34	37	35	22	26
Total Short-Term	89	89	93	105	104	109	118	123	120	130
Due Over 1 Year	118	124	121	113	122	128	118	125	142	140
Total Marketable	207	213	214	218	226	237	236	248	262	270
Less: Held by Fed & U.S. Govt. Trust Accounts	46	49	54	59	66	69	73	79	88	89
Publicly Held	161	164	160	159	160	168	163	169	174	181

VOLUME OF MATURING GOVERNMENTS OTHER THAN BILLS, HELD BY THE PUBLIC

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
1st Quarter	5	3	3	4	2	5	6	6	4	2
2nd Quarter	5	5	5	4	4	6	5	6	4	5
3rd Quarter	5	3	6	5	5	3	6	4	4	1
4th Quarter	5	5	4	3	7	8	6	7	5	1
Total	20	16	18	16	18	22	23	23	16	9

RATIOS (%)

Treasury Bills to Total Due Within 1 Year	57	64	65	62	67	69	69	72	82	80
Governments Due Within 1 Year to Total Marketable Debt	43	42	43	48	46	46	50	50	46	48

AVERAGE MATURITY (IN YEARS, MONTHS)

Total Marketable Debt	5,1	5,0	5,0	4,7	4,1	4,0	3,8	3,4	3,4	3,1
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*May not add due to rounding.

Suggestions

I should like to confine my suggestions to two interrelated aspects of Federal debt management that are of importance to the marketplace. These are cash management and financing techniques.

The cash position of the U.S. Treasury has had a tendency to swing from feast to famine, reflecting most of the time the imbalances between revenue and expenditure flows. Generally, expenditures are spaced quite evenly through the fiscal year while revenues show substantial peaks and valleys from one tax date to another. For example, revenue collections are highly concentrated in the last four months of the fiscal year when about 38 percent of total revenues for the fiscal year are usually collected. In the last few years, Treasury cash management has also been complicated by the inflow of dollars from the issuance of non-marketable issues to foreign official institutions. Moreover, as indicated in Table 6, the U.S. Treasury must contend with strong intra-monthly seasonals. During some months Treasury cash balances (excluding debt transactions) decline sharply in the first half and rise sharply in the second half.

To eliminate the seasonal shortfall in cash, the Treasury has relied on tax anticipation bill financing and on borrowing directly from the Federal Reserve just before tax payment dates. While TABs are an important source of seasonal funds when the United States is not running up huge payments deficits abroad, their use as a tax payment instrument by corporations is actually diminishing. In 1968, \$4.3 billion or 39 percent of \$11 billion in maturing TABs were turned in for tax payments. The balance were redeemed for cash. The ratio of TABs turned in for tax payments to total maturing TABs was 34 percent in 1969, 28 percent in 1970 and 31 percent in 1971. The ratio rose to 40 percent in 1972 but the volume of TAB financing at that time was only \$7 billion. TABs are still an easy way to raise temporary funds for the Treasury but they are not as important a liquid asset as they were years ago to investors when money market instruments with tax date maturities were scarce. Now they are readily available in small and large denominations.

Little has been done thus far to smooth out the seasonal imbalances between Treasury revenues and expenditures. Perhaps both could be adjusted somewhat. Some expenditures (for example, revenue-sharing payments) might possibly be more concentrated in the fourth quarter of the fiscal year when revenues are large. I should also like to suggest that the large swings in Treasury cash balances during important tax payment months of March, April, June,

TABLE 6
NET CHANGE IN U.S. TREASURY OPERATING BALANCES FOR
SELECTED PERIODS EXCLUDING DEBT TRANSACTIONS
 (\$ Billions)

Period	1970	1971	1972
March 1-15	-3.0	-3.2	-4.3
16-31	+2.9	-0.4	+5.7
April 1-15	-2.7	-4.2	-5.8
16-30	+7.0	+12.3	+6.1
June 1-15	-2.4	-3.2	-0.7
16-30	+6.8	+ 3.7	+1.8
Sept. 1-15	-2.7	-3.3	-1.4
16-30	+4.3	+ 4.5	+7.4
Dec. 1-15	-4.5	-0.4	-6.3
16-31	+6.0	+ 8.6	+7.4

September and December (see Table 6) might be reduced if a discount were offered to those who would pay their taxes early. This is the same concept used by business in attempting to speed up the collection of their receivables. The discount offered by the U.S. Treasury to taxpayers could be varied according to the length of the anticipatory payment.

Another way to achieve optimum cash balances would be to issue 28-day Treasury bills on the day of the weekly auction of 3 and 6-month bills. Each auction of 28-day bills would vary in size, depending on the cash requirements for the period immediately ahead, thus helping to smooth out weekly cash balance requirements.

Repurchase agreements with recognized dealers in U.S. Government securities might be another way the Treasury could optimize its cash position. These agreements can be written for a day or two or longer and the securities involved are U.S. Governments. The balances of "C" banks could become somewhat more volatile but in the aggregate might not fluctuate as widely as generally expected under these new conditions.

Concerning other financing techniques and debt extension efforts, several procedures now in use deserve to be supported. These are the use of auctions to sell securities and the efforts to establish a routine and periodic pattern for the distribution of new notes and bonds. These procedures have at least two benefits. They let the market determine the issue price and not the Treasury, and they tend to minimize the need for even keel operations by the Federal Reserve.

Some market participants favor an offering of long bonds as part of each quarterly refunding or perhaps on a steady schedule of twice or three times a year. Their argument centers around the need to extend maturity and to limit the uncertainty concerning the Treasury's financing strategy. They claim that an announcement of long-term financing intentions and the establishment of a routine schedule of such financing would remove uncertainty from the market and improve its functioning. Moreover, this would eliminate the hesitancy among some investors who feel that the Treasury will refrain from issuing longer-dated issues when interest rates are high and tends to issue long when they are low. A systematic scheduling of new long bonds would also help institutional investors in planning their investment programs.

A few of these arguments are overemphasized, although I do not disagree with the idea of a somewhat more systematic approach to long-term Treasury financing. There is no way the Treasury can avoid some long financing, regardless of the level of interest rates, considering the shortening that has occurred in the average maturity of the marketable debt. There is, however, nothing wrong with efforts by the Treasury to finance its borrowings at low interest rates as long as this effort is compatible with other debt management objectives. One of these objectives should be a broad investor participation, which can be facilitated through a debt structure that offers a wide array of coupons and maturities.

Criticism of "Dutch" Auctions

In the distribution of new long-term bonds, however, I disagree with the "Dutch" auction procedure. I do not believe that it accomplishes its two basic objectives, which are to minimize costs and, even more importantly, to achieve a wider distribution. Two such auctions have been held within the last six months. One was an issue of 6³/₄s due in 1933 totalling \$627 million and the other was an issue of 7s due in 1997 totalling \$650 million. The interest cost savings were small at best. The first issue, which came to market in early December 1973, was priced too aggressively and therefore at some savings to the Treasury, and the second issue could probably have been marketed more cheaply through other financing techniques. Both of these two issues did not achieve the major objective of a broad distribution. A high concentration of both issues was sold to investors in the Second Federal Reserve District.

The major weakness of the "Dutch" auction technique is that it assumes a perfect credit market in which all supply and demand

forces readily assert themselves and thus there is no need for an investment banking function to facilitate the distribution of securities. There are not only imperfections in the credit market, but also a wide range of participants with varying size, requirements, and investment management talent. Under the current market arrangements, these investors can be reached best through securities dealers. They are in a position to create an awareness of the new issue, to ascertain investor interest, to evaluate for investors the relative value of the new issue and to arrange portfolio swaps to facilitate the successful marketing of the new obligation. In contrast, the "Dutch" auction provides no incentives to U.S. Government dealers to help in the distribution process and instead of creating a wide institutional following, it probably confines institutional support to a few that are large in size. The use of competitive syndicate bidding or regular auctions are probably the most effective ways to achieve broad institutional participation in the long-term U.S. Government market.

Lastly, it seems that the Treasury could also increase the incentives to commit funds long in the U.S. Government market. This could be done through offerings containing a variation of maturity and interest-rate conversion features. For example, some offerings of new notes would contain provisions allowing the holder to exchange the note for a long-dated bond at a stipulated coupon within the first year or two of the life of the new note. Other notes might be convertible during the terminal year of the obligation. These types of offerings would reduce the cost of note financing and accelerate the extension of the maturity of the marketable debt.

Federal Credit Agency Financing

Concerning Federal credit agency financing, I share many of the views expressed by Bruce MacLaury in his excellent paper on the subject. From a market viewpoint, however, I want to add a few comments pertaining to the rapid growth of this market, the need to have an all-inclusive Federal financing strategy incorporating direct U.S. debt and all Federal agency borrowings, and to place before this symposium some of the other shortcomings of this type of financing.

While the establishment of the Federal Financing Bank will be a welcomed development, it does not go far enough in bringing either order or adequate surveillance over the burgeoning credit agencies. All the off-budget agencies will escape the discipline of the new bank and, of course, of the budget itself. The relationship between the U.S. Treasury and the various federally sponsored agencies is not

well-defined. The Treasury seems to have some influence in scheduling and in setting the maturity of their new issues, but I suspect that this power is waning and is being immobilized by the increasing large volume of new agency offerings. During the 12 months ended April 1973, the monthly gross volume of new Federal agency financing (excluding short-term discount notes) averaged \$2.4 billion with a high of \$3.6 billion in March and a low of \$1.8 billion in August (see Table 7). The monthly net new volume allowing for retirements averaged \$900 million.

Many of these agencies are privatized in the legal sense but most market participants still regard them as the responsibility of the U.S. Government. Some have contingent lines of credit with the U.S. Government, which also plays an important role in setting their policies and in choosing their management.

In appraising the efficacy of Federal credit agency financing, therefore, let me raise five issues which I originally introduced at this Bank's Conference on "Housing and Monetary Policy" in October 1970. These are:

1. *The Problem of Enlarging Credit Demands.* The Federal agencies transfer a regional or local demander of credit into a national demander of credit with efficient financing alternatives in the money market and national money and capital markets. There is nothing wrong with this objective by itself. However, our problems in the credit markets during the past five years and perhaps in the 1970s is not really how to make demands more effective. Isn't the heart of the problem how to generate a larger supply of genuine savings in order to finance future requirements in a non-inflationary way?

Federal agency financing does not do anything directly to enlarge the supply of savings. Its main thrust is on the demand side. In contrast, as agency financing bids for the limited supply of savings with other credit demanders, it helps to bid up the price of money. I suspect this is a rather costly way to redistribute savings flows. It causes considerable distortions and hampers monetary policy implementation as I shall explain later.

2. *Who Will Be Rationed Out?* With the continued proliferation in Federal agency financing, there should be no doubt that agency demands will grow even larger in absolute and relative terms. Therefore, if the agencies will be accommodated in the credit market, you must ask, "Who will do without funds? Who will be rationed out? Who will be the new disadvantaged in the credit market? How will they fare in their individual sectors as they are denied funds?" It is

TABLE 7
MONTHLY VOLUME OF FEDERAL CREDIT AGENCY FINANCING
FOR 12 MONTHS ENDED APRIL 1973*
(\$ Millions)

1972	Fed. Land Banks	FHLB	FiC	Bank for Co-op	GNMA	Ex-Im Bank	Farmers Home Admin.	All Others	Total Gross	Total Net
May	Gross 0	0	722	317	0	200	0	38	1972	
	Net -200	-200	+108	+36	0	+200	0	+38		+ 877
June	Gross 0	0	488	289	1000	0	0	0	1977	
	Net 0	0	+85	-51	+600	0	0	0		+ 384
July	Gross 719	0	475	288	0	0	300	150	2082	
	Net +277	0	+53	-58	0	0	+300	+150		+ 837
Aug.	Gross 0	400	563	434	0	400	0	0	1797	
	Net 0	0	-31	-13	0	+400	0	0		+ 356
Sept.	Gross 585	0	508	0	700	0	400	160	2353	
	Net +139	0	-71	0	+100	0	+400	+60		+ 628
Oct.	Gross 862	0	342	360	0	0	0	375	2100	
	Net +216	0	-85	+97	0	0	0	+375		+ 364
Nov.	Gross 0	1000	540	331	0	300	0	196	2567	
	Net 0	+440	-94	+14	0	+300	0	+196		+1006
Dec.	Gross 0	0	491	338	1000	0	600	227	2861	
	Net 0	0	-67	+49	+400	0	+600	+227		+ 1389
1973										
Jan.	Gross 347	673	591	0	0	0	0	320	2254	
	Net +59	+266	+77	0	0	0	0	+320		+ 1045
Feb.	Gross 0	1000	544	568	0	0	0	80	2409	
	Net 0	+250	+62	+134	0	0	0	+80		+ 743
March	Gross 0	1200	790	0	800	0	500	165	3595	
	Net 0	+1200	+99	0	+100	0	+500	+165		+ 2204
April	Gross 1000	0	660	536	0	0	500	150	2846	
	Net +567	0	+185	+176	0	-400	+500	+150		+ 978
Total	Gross 3513	4273	6714	3461	3500	900	2300	1861	28813	
	Net +1258	+1956	+321	+384	+1200	+500	+2300	+1761		+10811

*Does not include discount notes.

unlikely to be the large well-known corporations or the U.S. Government. It is likely to be some State and local governments, medium-sized and smaller businesses, some private mortgage borrowers not under the Federal umbrella, and some consumer sectors.

3. *Impact of Federal Agency Programs on Economic and Financial Concentration.* With the increase in agency financing, I feel that business will increasingly recognize that Government is harnessing financial resources to finance governmental objectives without adopting encompassing and meaningful national budgets. The failure to adopt meaningful national budgets will surely trigger another credit clash. This next clash, perhaps a few years off, will be a ferocious battle between the demands of Government and its powerful agencies on the one hand and those of private credit demanders on the other. In this confrontation, the credit demands of consumers small business, lower-rated corporations, privately financed mortgages, and local governments will be casualties eventually, despite the introduction of the dual prime loan rate. There will be no room for them in the capital markets as the Government and large well-rated businesses struggle for the limited volume of available funds. This is bound to contribute to additional economic and financial concentration in the United States.

4. *The Problems for Monetary Policy.* There are two conflicting objectives as the monetary authorities move to restraint. The seemingly laudable objective of agency financing is to sustain the housing market and other programs. The objectives of both fiscal and monetary restraint is to slow down or decrease overall economic activity. The result is a very costly delay in the economy's response to monetary restraint. Indeed, the credit demands of the agencies contribute importantly to a sharp escalation in interest rates and to the rising costs of housing.

This is quite evident by looking at the sequence of events as restraint unfolds. In the early stages of restraint, thrift institutions are encouraged to continue making a large volume of mortgage commitments by the Federal agencies even though the net inflow of savings is starting to slow down. At this stage, the net result is to intensify the competition for scarce real resources, to lift costs, to sustain inflationary expectations, and to temporarily immobilize monetary restraint. Indeed, the high level of construction encourages additional business spending, thus complicating the task of the authorities. As monetary restraint persists, liquidity standards are lowered by the private sector. The decline in savings flows to thrift institutions accelerates. As the agencies provide funds to offset the

savings outflow, the situation is further aggravated by the attractive market rates on the issues of the Federal agencies, which cause further disintermediation from the deposit institutions. In essence, the Federal agencies do not increase the total supply of funds in our financial system. They do, however, inflate the demand.

5. *The Problems for Federal Budgeting.* The de-budgeting or privatizing of Federal agencies brings these operations outside of the discipline of the Federal budget. To date, our leaders take credit in a political sense for the operations of these agencies. They disclaim them, however, in terms of the high interest rates created by their credit demands. They fail to integrate them in official fiscal plans or in budgeting the wide-ranging demands of Government on economic and financial resources.

It would be highly beneficial if the Government adopted encompassing budgets including the federally sponsored programs which are now excluded but still make demands on the economy and the credit markets. This is not to say that the programs outside the budget are not deserving but by including them the priorities of the Federal Government will be well-defined and ranked. It will also improve the alignment of the limited supply of new savings with the demand for funds, and thereby avoid much of the tension created by the current approach and would raise the value of the budget as a meaningful economic and financial document.

DISCUSSION

R. BRUCE RICKS*

Let me first summarize Henry Kaufman's paper as I read it and distill it.

He cites statistics to show that: 1) Treasury debt is a decreasing portion of total debt; 2) little Treasury debt other than low coupon "flower" bonds are available beyond 1978; and 3) foreigners and small banks hold an increasing share of Treasury debt while U. S. nonbank investing institutions are net sellers, individuals are in and out, and corporations and State and local governments stay short.

Mr. Kaufman then relates a list of recent changes in Federal debt management. These include improved issuance techniques, routinizing some issues, lengthening maturities and the proposed Federal Financing Bank.

Then Mr. Kaufman proceeds to several suggestions. He proposes smoothing out the Treasury's cash position through improved tax collection, revenue sharing and such fine tuning as 28-day bills and repos. He proposes offering (through a competitive underwriting) some long-term bonds each quarter with a variety of coupon, maturity, and conversion features. Finally, Mr. Kaufman reintroduces issues brought up at the October, 1970 Conference concerning Federal agency financing. Unfortunately, his only suggestion on this subject is one which has been heard a number of times — the need for comprehensive, all-inclusive Federal budgets so that "priorities will be well-defined and ranked."

His suggestions for fine tuning Treasury debt management are better addressed by technicians in that Department, though I would expect no major disagreement with most of his points. I would like to spend my time on his suggestion for incorporating, and in some cases reincorporating, government-guaranteed debt in the Federal budget.

*President, R. Bruce Ricks, Inc.

I must speak in opposition to Mr. Kaufman's suggestion today and not because I am opposed to the general concept that budgets should be comprehensive — I am sure none of us has problems with that *as a concept*. Instead I ask how would the concept be implemented, with the best degree of bureaucratic efficiency we are reasonably entitled to expect? And do we like the system, thus implemented, sufficiently to accept the concept as practicable? My answer to this is no.

It seems to me there are two broad types of Federal debt guarantee. The first is where the issuer is created by Congress; the debt issuance is a part of a national policy of credit assistance to a group of borrowers, most of whom either do not have access to credit in the private capital markets or would have to pay socially unacceptable rates; and in the absence of a debt guarantee, the Federal Government would be prepared to make direct loans — the guarantee or line of credit is probably a well advertised part of the debt offering. I would include in this category Farm Credit and Farmers Home notes, the Student Loan program, the Import-Export Bank and Housing agencies.

The second type of guarantee is where the credit would not be made available if proposed initially as a direct government loan; the decision to guarantee may be made when the danger or fact of default on private debt is at hand; the guarantee decision is made because the public interest is better served, or served with less detriment than it would be by default and bankruptcy of the borrower. I place in this category the Lockheed loan guarantee, discussions of loans to railroads and the like.

Now, Mr. Kaufman neither explains what he means by Federal agencies or which borrowers he wants in the budget, nor does he speak to the extremely important question of whether borrowing limits, terms, maturities, and interest rates would be part of the annual Congressional appropriation hearings process. If this last is the case, I submit Mr. Kaufman would be far more bothered by the rigidities and delays of that process than he is of the present situation.

Perhaps the suggestion of inclusion of Federal agency borrowing in the budget is for informational purposes and similar to that already in the appendix to the Federal budget (if anyone cares to read it) and such other sources as the Annual Economic Report by the CEA, *Fortune* Magazine's interesting effort "An Annual Report of the Federal Government" (May 1973), work by Brookings, and Henry Kaufman's own fine work at Salomon Brothers where supply and demand for credit are estimated. Such work and a substantial increase in these efforts is commendable provided one does not take

the estimates too seriously, since they are estimates of residual or contingency suppliers of credit; in fact our degree of accuracy in forecasting flows for the primary suppliers is far from good.

I do think Mr. Kaufman puts down too abruptly the ability of the Treasury (and OMB) to influence fund flows. Referring to offerings by agencies he says, "the Treasury seems to have some influence over scheduling and setting the maturity of (agencies') new issues but its power is waning and being immobilized by the large volume of new agency offerings." I think this is a significant understatement of both the present and the possible influence by the Treasury over agency financing. It is my impression that almost all agency debt managers have a great deal of respect for the Treasury's preemptive role in the issue calendar and for the factors it must consider in debt management. The fact that agency offerings have grown and agencies have proliferated does not change this relationship of respect. If the Treasury wanted to request more comprehensive financing plans be submitted to it by agencies and more discussion between agencies in a given credit area, such as housing, as to how much credit is needed and who would supply it, the Treasury could certainly do so, and I would encourage more such contingency planning. However, there is a considerable difference between (1) contingency planning by and among the agencies themselves and with the Treasury together with the periodic discussions some of the agencies have with OMB and (2) an annual fixed amount of debt sale which might be established in an appropriations process. Wide swings in the need for residual credit for various agencies within fiscal years make highly formal fixed annual budgeted levels extremely difficult — perhaps counter-productive.

Federal agency debt may indeed be complicating the life of Treasury debt management staff. However, a number of steps have been taken in recent years which have streamlined and "routinized" agency financing and debt management to go along with the improvements in Treasury debt management.

First, most difficult and beneficial has been maturity lengthening to get what, in the 1969 crunch, were huge refundings out of the way of new money raising. According to Salomon Brothers, as of May 31, 1973, 42 percent of the \$61.4 billion Federal agency debt was 1-5 year maturity and 26 percent was over 5 years — a total of 68 percent over one year compared to 51 percent in 1967. Since the Treasury's main market problem is with the volume of new issues rather than the level of outstanding debt, this extension helps tremendously.

Second, the market for agency debt has broadened considerably due to the educational efforts by the agencies and market makers.

Third, some agencies can issue discount notes or other short-term paper to assist in their own cash management. This is particularly important as agencies shift to a quarterly issue schedule. Other agencies should be given a similar authority.

Fourth, some agencies are developing computer-assisted models and other planning and forecasting tools to better analyze their credit needs and alternative ways of meeting them. Staffing in debt management has improved.

I could go on with a list which is familiar to many of you. Suffice it to illustrate that alongside Mr. Kaufman's list of improvements in Treasury debt management is a companion one for agencies — much of it with the encouragement and technical assistance of the Treasury.

Certainly, some borrowers are rationed out in a period of credit stringency and, as Mr. Kaufman points out and Governor Andrew Brimmer has eloquently documented, it is not the large multinational corporation or its commercial bank. The agencies were in many cases set up specifically to give students, home purchasers, small farmers and others an increased ability to compete for funds with the large corporate and financial borrowers and the Treasury. That they are doing so with increasing efficiency should be cause for satisfaction rather than alarm. Continuing improvement, coordination, and analysis of credit-access tradeoffs should be pursued. Henry Kaufman's concept of inclusion in the formal budget should not be embraced without thorough analysis of the possible rigidities introduced — rigidities which in my judgment are likely to be counterproductive.