

Treasury-Federal Reserve Study of the
U.S. Government Securities Market

THE POSITION OF NONBANK DEALERS WHEN TREASURY SECURITIES
ARE ISSUED WITH PAYMENT PERMITTED IN TAX AND LOAN ACCOUNTS

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The Position of Nonbank Dealers When Treasury Securities
are Issued with Payment Permitted in Tax and Loan Accounts*
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Summary and Conclusion

Treasury permission to accept payment for debt issues by credit to tax and loan accounts gives commercial banks an incentive to underwrite such issues, even if an underwriting loss is involved. When the tax-and-loan-account privilege is granted, bank competition frequently makes underwriting activity unprofitable for the nonbank dealers.

The Treasury has provided tax-and-loan eligibility only in the case of cash financings in which Treasury cash balances are augmented for some time to come. Such financings impose abrupt net additional credit demands on the economy, which can be accommodated with least disturbance to financial markets, if there is a concomitant expansion of bank credit. When the banks are given the underwriting incentive through tax-and-loan eligibility, the desired bank credit expansion tends to be generated in a smooth manner and, in addition, the Treasury tends to economize on interest costs.

Introduction

When the Treasury needs to borrow additional funds, it frequently finds it convenient to sell a large issue of new securities that will satisfy its financing requirements for a time span of several

* For a related presentation and for some further detail, see, Irving Auerbach, "United States Treasury Cash Balances and the Control of Member Bank Reserves," in Fiscal and Debt Management Policies (prepared for the Commission on Money and Credit, 1963) pp. 352-8.

weeks. Cash financing of this sort, which tends to involve one or several billion dollars of new money, results in a temporary swelling of Treasury cash balances and imposes a sudden large additional credit demand on financial markets. The commercial banking system acting in cooperation with the Federal Reserve is geared to handle such large sudden shifts in credit demands in a smooth manner, and a temporary increase in commercial bank credit for such financing purposes does not prejudice an ultimate financing of Treasury deficits either directly out of business saving, or indirectly out of household saving. Hence, when the Treasury taps a large amount of new money a concomitant expansion of bank credit is desirable and appropriate.

In this general setting, the Treasury has adopted the practice to accept payment in commercial bank tax-and-loan accounts for large security issues that will increase its cash balance for more than a few days. Banks who underwrite for such security issues (for their own account or for customers') thus pay for them merely by crediting their tax-and-loan accounts and they can count on keeping the new tax-and-loan account for a number of days. As a result, the immediate excess-reserve drain for the underwriting banks is smaller than in a normal security purchase where it is unlikely that the seller of the security will use his proceeds to build up a deposit balance at the purchasing bank. In the case of a tax-and-loan account issue, the immediate excess-reserve drain consists of the required reserves that have to be maintained for the tax-and-loan

account, and the remainder of the drain is postponed until the Treasury calls the tax-and-loan account to be transferred to its Federal Reserve balance. Since this practice makes tax-and-loan account issues unusually attractive to commercial banks, the banks are willing to underwrite them at interest rates below the going market yield. The Treasury thus finds that tax-and-loan account financing (1) economizes on interest costs, (2) automatically insulates the size of the Treasury's balance of the Federal Reserve banks from the financing operation, and (3) insures bank participation in the underwriting for bulky security issues, for which some form of bank credit expansion is required in any case.

Treasury Bill Auctions

In Treasury bill auctions that involve the replacement of a maturing bill by a new issue of equal or somewhat larger size, the Treasury requires either direct payment to its account at Federal Reserve Banks or an exchange of maturing bills for the new issues. There is no particular advantage to investors in using the exchange option, and generally they find it more convenient to settle their accounts for cash. However, when a bill auction involves tapping the market for net new funds in excess of, say, one billion dollars and when the Treasury has not scheduled an offsetting large payment on the same day, the Treasury will invariably permit payment for the new bills by credits to tax-and-loan accounts. Banks can retain both their own and their customers allotments in tax-and-loan accounts, and they will, of course, do so.

In the bill auctions that require direct payments to the Federal Reserve, nonbank dealers usually perform an important underwriting function. From January 1961 to November 1966, for instance, there were 49 bill auctions for one-year bills alone with full payment required to the Federal Reserve accounts. They represented either rollovers or new cash financings, and they involved \$60.7 billion of issues.^{1/} Out of this total, nonbank dealers obtained allotment in the amount of \$20.1 billion, representing an average of 33 per cent (see Table). Obviously, the nonbank dealers invested much time, skill, and capital into the task of submitting profitable bids at bill auctions, and having acquired special skills in placing bids for bills they may understandably be disappointed when the Treasury, for reasons described above, permits payment in tax-and-loan accounts on some other bill financings which to the market appear quite similar in character. Since issues with tax-and-loan account eligibility involve special advantages to the banks that carry tax-and-loan accounts, these banks will submit bids below the market yield on comparable issues. As is described in more detail in the Appendix the banks are willing to take a capital loss in placing underwriting bids for such issues, and because of this bank competition the nonbank dealers are completely excluded from participating in the underwriting on a profitable basis until banks start distributing their allotments.

^{1/} Some one-year bills were issued during this period in new cash financings with fifty per cent of the payment permitted in tax-and-loan accounts. These are excluded from the figures cited here.

The present paper is particularly addressed to the question whether permission to make payment in tax-and-loan accounts imparts an unintended or unfair handicap on the profit-making opportunities of nonbank dealers. For the case of auction issues this question is evaluated as follows:

- (1) The specialization of dealers in underwriting regular Treasury bill issues, and in taking speculative positions in Government securities generally, implies that any institutional obstacle which limits a dealer's ability to underwrite a certain Treasury offering will restrict his opportunities of making profits in the very area where his skill is most developed. Thus, an arbitrary recourse by the Treasury to the tax-and-loan account provision could be criticized as discriminatory against nonbank dealers.
- (2) However, the Treasury's permission for payment in tax-and-loan accounts has not been granted arbitrarily in the past. It has been granted only when a large cash offering was not matched by large outpayments, and when the cash offering thus imposed an abrupt net new demand for credit on the economy. In such cases the impact of the cash offering--without bank underwriting--would impose a temporary stringency on capital markets or would require large offsetting operations by the Federal Reserve. It is desirable, therefore, to soften the impact of such new financings by matching the temporary increase in Treasury

balances with a temporary increase in commercial bank credit. This can be accomplished most smoothly, if the banks themselves are given an incentive to underwrite the new issue. Any realistic alternative financing technique would still require an expansion of bank credit but, perhaps, in the form of loans to dealers who could then function as underwriters. In view of the fact that the dealer loan market is more personal and less broad than the Government securities market, such an alternative would be less reliable as an operating device than present techniques. Moreover, the present techniques broaden the underwriting support for the Treasury issues by bringing in the banks and at the same time minimize the interest costs to the Treasury because of the tax-and-loan incentive.

- (3) In summary, then, it appears that when banks underwrite large new money financings by the Treasury, they simultaneously perform the functions of underwriting and of providing additional net new credit. Since the nonbank dealers can only perform the first of these two functions, the conclusion emerges that they are not arbitrarily excluded from providing services which they could adequately perform.
- (4) It may also be noted that banks which have dealer departments usually make only one tender in the tax-and-loan eligible bill auctions both for their dealer and investment account, and then normally allocate, at most, a small

portion of their allotment to their dealer department.^{2/}
Hence, on the face of it, the competitive position of the nonbank dealers vis a vis the bank dealers seems not to be affected by the tax-and-loan account eligibility of certain financings.

Flotations of Coupon Issues

Much of the analysis that was developed above applies also when the Treasury issues a coupon security at a fixed rate of interest, in order to raise new cash. New-cash financings at a fixed rate of interest practically always involve a large operation in which the Treasury raises more than one billion dollars at one time. Hence during the six years covered by this analysis, tax-and-loan account eligibility was provided in all new-cash financings in which coupon securities were sold without the auction mechanism. From 1961 through 1966, there were six such financings in which a total \$9.0 billion of funds were raised from the public. While in the case of the Treasury bill auctions with tax-and-loan account eligibility, successful bids by banks accounted for virtually 100 per cent of the total issue, bank allotments to these six coupon issues represented 76 per cent of the total sold to the public. Nonbank dealer allotments of these issues accounted for 5 per cent, and the remainder was sold directly to various other types of investors. As might be expected, bank

^{2/} Based on unpublished data provided by the Federal Reserve Bank of New York.

allotments were especially large for coupon issues with short maturities, since for such securities the benefit of temporary tax-and-loan deposits makes up a larger portion of the total returns on the investment than in the case of longer-term securities.

The relative allotments to banks and nonbank dealers in these new cash financings can be compared to their allotment rates in cash exchange offerings, where the new issues replaced maturing ones and where payment in Federal funds (or in maturing securities) was required. Among coupon issues such cash exchanges involved \$32.1 billion of securities between 1961 and 1966 after subscriptions by U. S. Government investment accounts and Federal Reserve Banks are excluded. Bank allotments accounted for 51 per cent of this total, and nonbank dealer subscriptions for 10 per cent. These data indicate that dealer underwriting was relatively low in the new money offerings which carried tax-and-loan eligibility. The attractiveness of the tax-and-loan offerings to nonbank dealers can be evaluated by comparing issue prices with the ask prices that were established in trading on a when-issued basis. Taking the three short-term cash financings with tax-and-loan eligibility, one finds that the ask prices in the first three days of when-issued trading averaged out to be the same as the issue price. In the case of the three longer-term financings with tax-and-loan eligibility, the comparable ask prices were 5/32 higher on average. These results can again be compared with the experience of the cash-exchange offerings. Here the when-issued ask price for new short-term

issues (under two years in maturity) tended to be $4/32$ above the issue price, while the ask price for longer-term issues average $5/32$ higher than the issue price.

The conclusion seems warranted that the Treasury does take the tax-and-loan privilege into account by shading the price upward in the case of short-term new-cash issues with tax-and-loan eligibility. In the sample investigated here the nonbank dealers were well advised to leave this underwriting to the banks as, in fact, they tended to do.

In the pricing of longer-term new-cash issues, the Treasury appears to be sensitive to the possible absorption difficulties of a new cash issue, and hence, it seems to allow for some underwriting profit in addition to the tax-and-loan incentive. The allotment data show that nonbank dealers underwrite 6.8 per cent of such issues and this suggests that underwriting participation by nonbank dealers in these flotations is inhibited only to a moderate extent.

Appendix: The Value of Tax-and-Loan Eligibility to Commercial Banks.

Assume that the Treasury issues a security which is expected to trade at price M in the market judging by the prevailing level of market yields and the shape of the yield curve. Potential underwriters then would expect to find buyers for this security at price M plus (or minus) a premium (or a discount) depending on special expectations that these underwriters hold about the near-term movement of market yields. Disregarding these special expectational factors, nonbank

dealers would be willing to underwrite the security issue as long as they can obtain it at a price slightly below M or lower.

If the security is issued with payment permitted by credits to tax-and-loan accounts, its expected price in market trading is not likely to be affected and can still be represented by price M . Banks, however, will be willing to underwrite such a security issue at a price greater than M . The bank will estimate the average number of days that the tax-and-loan account which it creates in payment for an allotment of the new security, will remain deposited with the bank. During that number of days the bank has the security on hand either for sale or as an interest-earning investment, but its opportunity cost consists only of the required reserves that have to be maintained to carry the tax-and-loan account. Hence, there exists a cost disparity between bank and nonbank investors: during the interval of a number of days, the bank's cost consists of the required reserve fraction, while the cost to nonbank investors consists of the full amount of their purchase.

Suppose that bank reserve requirements are 15 per cent and that the average life of the tax-and-loan account will be 10 days. A bank that has been allotted 100 units of the new security at price P can plan to sell its allotment on a when-issued basis at price M . It thus can count on obtaining \$100M in Federal funds on the day of issue. Out of these proceeds it needs to deposit \$15P with the Federal Reserve for reserve requirements and it needs

to pay an additional \$85P 10 days later--on average--when the tax-and-loan account is called. During 10 days, the bank has at its disposition \$100M--\$15P which it can use for an interest-earning investment of its choosing. The value of this earning power can be measured by the going rate on Federal funds. Suppose the cost of \$100M-\$15P for 10 days, at the going Federal funds rate, is V. At the end of 10 days, then, the bank can expect to have obtained extra earnings valued at V. Hence the bank would break even as an underwriter if its eventual payment of \$100P should equal the funds that it has obtained, namely, \$100M + V.

Thus the break-even underwriting price for the bank can be computed by solving for P in this equation:

$$(1) \quad 100P = 100M + V$$

$$\text{or: } P = M + V/100$$

If the going rate on Federal funds is R, V can be calculated as follows in this example:

$$(2) \quad V = [10(R)/360][100(M) - 15(P)]$$

Substituting equation (2) into equation (1):

$$(3) \quad P = M + [10(R)/360][M - .15(P)]$$

By algebraic manipulation, equation (3) can be transformed into:

$$(4) \quad P = M \frac{360 + 10R}{360 + 10R (.15)}$$

As represented in equation (4), P represents the issue price at which an underwriting bank would expect to break even.

Whenever the actual issue price is below P , but greater than M , banks can achieve underwriting profits, but nonbank dealers would tend to suffer losses as underwriters.

SELECTED TREASURY DEBT OPERATIONS, JANUARY 1961 - NOVEMBER 1966

	Number of Financings	Amount issued to public 5/	Allotted To				Excess of Market Ask - Price Over Issue Price 1/
			Nonbank Dealers	Commercial Banks	Nonbank Dealers	Commercial Banks	
		AMOUNT (In billions of dollars)			PER CENT	(32nd's)	
A. Selected Bill Auctions							
1. All bills with tax-and loan eligibility 2/	18	33.1	*	32.9	0.1	99.4	
2. One-year bills without tax-and-loan eligibility	49	60.7	20.1	24.2	33.0	39.9	
B. Selected Coupon Issues							
1. All issues with tax-and loan eligibility	<u>6</u>	<u>9.0</u>	<u>.4</u>	<u>6.8</u>	<u>4.9</u>	<u>75.7</u>	
a. maturing within 2 years 3/	3	4.9	.2	4.4	3.3	89.3	--
b. maturing after 2 years 4/	3	4.1	.3	2.4	6.8	59.3	5
2. Cash exchanges--(not tax- and loan eligible)	<u>13</u>	<u>32.1</u>	<u>3.3</u>	<u>16.5</u>	<u>10.4</u>	<u>5.13</u>	
a. maturing within 2 years	10	28.3	2.9	14.1	10.3	49.9	4
b. maturing after 2 years	3	3.8	.4	2.3	11.1	61.6	5

* Less than \$50 million dollars.

1/ Average ask prices at close of first three days of when-issued trading compared to issue prices.

2/ In six auctions, included here, only 50 per cent of payment was eligible for tax-and-loan accounts.

3/ Includes a 1-year, 7-month note issued October 11, 1961, (with 75 per cent of payment eligible for tax-and-loan accounts), a 1-year, 4-month note issued April 8, 1964, and 9-month certificate issued January 19, 1966.

4/ Includes a 7-year, 8-1/2 - month bond issue January 24, 1962, a 6-year, 4-month bond issued April 18, 1962, and a 7-year, 2-month bond issued June 20, 1963.

5/ The data on bill auctions include allotments to Federal Reserve Banks and Government investment accounts; the data on coupon issues exclude such allotments.