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Correspondence: Treatment of Discount on Bonds

Lewis A. Carman

Correspondence

TREATMENT OF DISCOUNT ON BONDS

Editor, THE JOURNAL OF ACCOUNTANCY:

DEAR SIR: The comments of Colonel Montgomery in the April issue of THE JOURNAL on the treatment of discount on bonds struck me as not a little surprising, for the suggestion of the American Accounting Association (that this item be deducted from the face value of the obligation in the balance-sheet) is the first intelligent pronouncement on the subject that I have had the good fortune to see in print. Colonel Montgomery says, "I do not follow the theory underlying this suggested violent change in what I thought was accepted accounting practice." His appraisement of what constitutes "accepted accounting practice" is unfortunately all too correct, but there is always the consoling thought that in the end bad practice must yield to sound theory. After all, "accepted practice" has furnished thousands of sacred cows to be slaughtered in all branches of science during the past generation, and there is no reason to suppose that accountancy has not a herd ripe for the pole-ax. "Accepted practice" becomes pretty etiolated after a while and it is a good thing to drag it out occasionally into the light of reason.

The "theory underlying this suggested violent change" rests upon two simple and fairly obvious points, namely:

1. A liability as well as an asset may be stated at its present value.
2. The real principal of a discounted obligation payable in the future is the face value less the unamortized discount.

In a free money market these two theorems mean the same thing, for the real principal of an obligation discounted in such a market will be the present value provided the discount is scientifically amortized. ("Scientifically amortized" means amortized in such a manner that the effective interest rate is constant over the entire period. This is the principle upon which bond tables are based.)

It has long been recognized that a dollar in the hand may be worth two in the future. A thousand dollars receivable in ten years has by no means the enjoyable features of a thousand dollars on the barrel today. Cognizance of this obvious fact is taken, of course, in commercial circles, and an amount receivable in the future is valued at considerably less than its face. It is usually valued at the sum which, if invested now at the prevailing rate of return, will amount at the end of the period of deferment to the future payment. This sum is called the *present value*, and a lender ordinarily will not advance more, for it is contrary to his interests to do so.

One man's meat is another man's poison, and one man's asset is another's liability. The practice of carrying bonds as an asset at the amount advanced by the lender is well established, but the analogous practice of stating the liability in the balance-sheet of the borrower at the same amount has not been generally "accepted." Yet it is patent that if the enjoyment of a future payment is of less value to the payee than the enjoyment of the same amount in hand, the pain of a future payment must be

less to the payor than the pain of an instant payment. It would not trouble me in the slightest to incur an indebtedness of $1,000,000 payable in a thousand years, for if I could invest today approximately a quarter of a cent at 2 per cent. per annum my heirs and assigns would be able to meet the obligation very nicely in 2937. I should be very glad indeed to sell promissory notes for $1,000,000 due in 2937 for any monetary consideration from one cent upward. And if I—or any other accountant—should include such notes among my liabilities at $1,000,000 each, I—or he—would be crazy. Yet this is precisely the "accepted accounting practice" of today—the liability is invariably stated at its face value regardless of the date of maturity.

"Accepted accounting practice," then, recognizes the present value of an asset but has not yet advanced to the point of recognizing the present value of a liability. The treatment recommended by the American Accounting Association has the effect of stating a liability payable in the future at its present value or approximate present value. An understanding of this very simple and obvious fact is the first mile-post on the road to follow "the theory underlying the suggested violent change."

But there is more. Colonel Montgomery attributes to credit grantors a repugnance to seeing a "note payable of $100,000 reduced to $98,000." Yet it is a simple matter to demonstrate that the "accepted practice" school would not bat an eye or turn a hair at showing a $2,000,000 obligation at $1,000,000, or vice versa.

Corporation A issues its bonds of the face value of $1,000,000, bearing interest at the rate of 5 per cent. per annum, and maturing in 20 years. The consideration received is the face value of $1,000,000, and for the sake of simplicity let us say that the interest is payable annually. There isn't an accountant in the country (including myself) who would show the amount of the liability at anything but $1,000,000. Yet the bond is neither more nor less than an absolute and enforceable contract to pay $2,000,000—$50,000 at the end of each of nineteen years and $1,050,000 at the end of the twentieth year. And $950,000 of the $1,000,000 not shown as a liability must be and will be paid prior to the $1,000,000 that is shown! Tie that one!

Corporation B, on the other hand, notes that the Treasury Department is issuing ten-year, non-interest-bearing savings bonds at a 25 per cent. discount (yielding the purchaser approximately 2.9 per cent. per annum), and decides to adopt a similar method of financing. It accordingly issues $2,000,000 *face value* of non-interest-bearing instalment bonds that mature at the rate of $50,000 a year for nineteen years and $1,050,000 at the end of the twentieth year. The bonds are sold at a price to yield the purchaser a return of five per cent. per annum. The one-year maturities are valued at $47,619.05, the present value of $50,000 one year hence, the two-year maturities at $45,351.48, and so on. The total proceeds were as follows:

19 maturities of the face value of $50,000 each...	$ 604,266.04
20-year maturities, face value, $1,050,000.....	395,733.96
Total.....	$1,000,000.00

If the accounting of the accepted-practice school is followed, ***the liability of Corporation B will be stated at $2,000,000*** and the deferred charges will include a discount item of $1,000,000. Yet Corporation A and Corporation B are in a precisely homoousian status with respect to their bonds!

Each has received $1,000,000 and each is obligated to pay $2,000,000 at the rate of $50,000 per annum for nineteen years and $1,050,000 at the end of the twentieth year. More than that, each will have an annual interest charge of $50,000 (Corporation B may call this charge "amortization of debt discount" instead of "interest"). There is not one iota of difference between the financing schemes of the two corporations, yet the accepted-practice school would unquestionably state the liability of Corporation A as $1,000,000 and that of Corporation B as $2,000,000, a result too absurd for further comment.

In each case the initial *real principal* is $1,000,000 and in each case the annual payments of $50,000 represent the payment of *real* (not nominal) interest. In both cases, therefore, the real principal remains at $1,000,000 until the final payment is made. Note how simply this is shown by deducting the unamortized discount from the face value in the case of Corporation B:

	Beginning	End of year: 1	End of year: 19
Face value	$2,000,000	$1,950,000	$1,050,000
Less unamortized discount	1,000,000	950,000	50,000
Real principal	$1,000,000	$1,000,000	$1,000,000

To continue the illustration, suppose that Corporations A and B issued the bonds described above at a price to yield the purchaser a return of six per cent. per annum. Again, the two corporations would be in precisely the same financial status with respect to their bonds. Each would receive $885,300.78 and each would be obligated to pay $2,000,000 in the manner previously stated. Each would have the same real principal at all times as the other. This may always be shown by following the practice of deducting the unamortized discount from the face value, as illustrated in the following:

	Beginning	End of year: 1	End of year: 19
Corporation A			
Face value	$1,000,000.00	$1,000,000.00	$1,000,000.00
Less unamortized discount	114,699.22	111,581.17	9,433.96
Real principal	$ 885,300.78	$ 888,418.83	$ 990,566.04
Corporation B			
Face value	$2,000,000.00	$1,950,000.00	$1,050,000.00
Less unamortized discount	1,114,699.22	1,061,581.17	59,433.96
Real principal	$ 885,300.78	$ 888,418.83	$ 990,566.04

The reasons for deducting the discount from the face value should now be evident. By so doing the liability is stated at the real principal and not at an absurdly inflated figure based on a nominal principal payable long in the future. In a free-money market this real principal is or should be very close to the present value of the obligation. The liability is shown at approximately the amount at which it might be liquidated at the date of the balance-sheet. If the financing arrangements described above were called off by mutual consent of the borrower and lender a few days after the bonds were issued, Corporation A would not pay $1,000,000 and Corporation B certainly would not repay $2,000,000. And if the bonds were retired by mutual agreement after they had been outstanding several years, the amount of the settlement undoubtedly would lie somewhere between the amount received, $885,300.78, and the face value. Obviously, the real liability for a bond sold at a discount is not the face value and does not approach the face value until maturity. No matter what the nominal principal and the nominal interest of an obligation may be, the real principal is disclosed by deducting the unamortized discount from the face value. In all discounted obligations the nominal face value includes some (or even all) of the real interest, and the deduction removes this and leaves the real principal.

Of course all factors must be given, and the deduction should be shown on the face of the balance-sheet somewhat after the following fashion:

First mortgage, 5 per cent., near-gold bonds, due April 15, 1957 (face value).....	$1,000,000.00
Less unamortized discount.....	111,581.17
	$ 888,418.83

Any member of the accepted-practice die-hard school is, of course, at liberty to make a mental transfer of the discount to the other side of the balance-sheet. The change from the "accepted" practice strikes me as only mildly "violent." It merely affords a more intelligent and logical view of the actual liability.

The American Accounting Association, I believe, is to be complimented on its insight and courage in recommending a logical treatment of a little-understood item in the face of an unenlightened "accepted accounting practice."

Yours truly,

LEWIS A. CARMAN.

Los Angeles, California.