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settle, by permitting such procedure, the question of whether or not surplus of constituent companies may be carried over in a consolidation. While the Delaware law is silent on the latter question, probably there is no doubt that such procedure will be permissible.

Pennsylvania recently amended slightly the statute relating to no par stock, but the change seems to be of no practical importance. It is understood that some changes have been made in the Missouri statutes; however, copies of the new law are not available at this writing.

Some of the perplexities which surrounded surplus have been removed by the recent changes mentioned. Accountants probably will feel impelled to sanction corporate practices which the law permits. Economists, undoubtedly, will find it difficult to accept any statute which makes possible the declaration of dividends out of surplus derived from paid-in capital. The conflict between statutes and economic doctrines will be interesting to watch as more states follow the example of Delaware, which probably will be the case.

Amortization of Discount on Serial Bonds

BONDS issued originally at a discount exceed in number by far those issued otherwise. An increasing proportion of these bond issues contain a provision for their redemption on a serial basis. The accounting treatment of the bond discount on the books of the issuing company becomes a practical problem of amortization.

Assume an issue of 5% bonds of \$10,000,000 is to be floated, maturing serially during the succeeding ten-year period, and the investment house underwriting the bonds agrees to take over the entire issue at 90. In making an offer of 90 the investment house perhaps will allow five points for the estimated expenses of underwriting. The profit for underwriting will depend upon the price for which the bonds ultimately are resold. A price of 98 perhaps would constitute sufficient spread between the original offer of 90 and the resale price to permit the investment house to realize a reasonable profit for underwriting the issue.

The issuing company will be faced with the problem of disposing of the \$1,000,000 bond discount. Two things are fairly certain about writing off the discount: (1) it is not necessary for the company to write off the entire discount in the year in which the bonds originally are issued; (2) the discount should be written off entirely by the time the last bond matures.

Evidently the \$1,000,000 discount is to be amortized in some way over the life of the bonds, ten years. There are several methods which may be presented for consideration.

Probably the simplest method for writing off the discount is the straight-line, or equal-installment, method. The total discount is prorated over the entire number of years that the bonds will be outstanding. In this case the discount would be written off at the rate of \$100,000 per year for the ten-year period. This method provides for the distribution of the discount expense equally over the life of the bonds. It does not take into consideration the fact that the bonds outstanding during the early years constitute a much greater amount than the bonds outstanding during the later years. If the bonds are being purchased in the open market and the discount applicable to bonds purchased by the company during any year should exceed the straight-line amortization, then the larger figure would be used.

Care should be taken in wording the provision for writing off the discount in case bonds are purchased annually in the open market and retired through a sinking fund. The provision may stipulate that all the discount should be written off on the bonds as they are retired through the

sinking fund with the expectation of retiring approximately one-tenth each year. The discount to be written off would be substantially the same as the straight-line method discussed above provided one-tenth or more of the bonds are purchased each year. However, to go to the extreme, payments might be made regularly to the sinking fund, but no bonds purchased until maturity in the tenth year. The entire discount then would have to be written off in the tenth year.

A variation of the straight-line method which recognizes the decreasing amount of bonds outstanding is to amortize the discount on a straight-line basis increased by the entire discount on bonds retired through the sinking fund. The discount left unamortized would represent the remaining portion of discount applicable to the bonds outstanding. The charges would be large during the early years, reducing gradually to small charges toward the end of the period. In case one-tenth of the \$10,000,000 bond issue was retired each year the discount to be written off the first year would be one-tenth of the total discount, or \$100,000 plus the entire discount remaining on the \$1,000,000 bonds retired the first year, or \$90,000, making a total of \$190,000. The amounts to be amortized would be \$20,000 less each year until the tenth year when the amount would be \$10,000, representing one-tenth of the \$100,000 discount applicable to the bonds of \$1,000,000 par value retired in the tenth year. This method may be used when the amounts to be retired each year are not ascertainable in advance.

Another arithmetical procedure for writing off bond discount is to amortize the discount by applying the straight-line principle to each year's portion of the series of bonds. The discount applicable to the bonds maturing the first year would be written off entirely in the first year; the discount applicable to the bonds maturing the second year would be prorated over two years, and so forth, the discount on

the bonds maturing the tenth year being prorated over the ten-year period. This method presupposes that the bonds will mature or be retired on a definitely known schedule. The charges will be very high during the early years and the discount written off more rapidly than by any of the other methods under consideration. In the case of the \$10,000,000 bond issue, \$1,000,000 maturing annually, the discount to be amortized the first year would be \$292,896.82; second year, \$192,896.82; third, \$142,896.82; . . . eighth, \$33,611.11; ninth, \$21,111.11, and the tenth year, \$10,000.

Two methods which are used quite commonly are the scientific amortization method and the bonds outstanding method. Both of these methods require that the amounts to be retired each year be known in advance. The scientific method assumes that the original discount is entirely an adjustment of the rate of interest. Under this method the discount is amortized over the term of years in such a manner that the nominal interest on the bonds plus the discount amortized each year is equivalent to the effective interest on the amount of principal available. The result is that the financial costs connected with the bond issue are distributed so that the charges each year are a constant percentage of the funds available that year. The amortization of the discount on the scientific basis is not as rapid as under the bonds outstanding or some of the other arithmetical methods. This is because the arithmetical methods do not give consideration to the fact that, from a compound interest point of view, the later the bonds mature the greater is the discount thereon.

The bonds outstanding method provides for amortizing the discount in proportion to the par value of bonds outstanding each year. Using the same illustration of the \$10,000,000 bond issue maturing serially over a period of ten years, there would be a par value of \$10,000,000 outstanding the first year, \$9,000,000 the second year,

\$8,000,000 the third, and so on, the total being equivalent to \$55,000,000 outstanding for one year. The discount would be written off 10/55 the first year, 9/55 the second year, 8/55 the third, and so forth, for the entire ten-year period. In this instance the \$1,000,000 discount would be amortized \$181,818.18 the first year, \$163,636.36 the second year, \$145,454.55 the third, . . . \$36,363.64 the ninth, and \$18,181.82 the tenth year.

One would hesitate to say that any particular method of amortizing bond discount should be used in every instance to

the exclusion of all other methods. The straight-line method obviously is inappropriate for serial bonds. The scientific method is logical for the purpose it achieves, but the calculations under this method are upset if bonds are retired ahead of the schedule planned. Probably the most practical procedure is to apply the bonds outstanding method. This method may be applied with little difficulty; it is readily susceptible to adjustment should any change be made in the schedule of retirements; and it is conservative at all times.

Our Fluctuating Dollar

OUR dollar is defined by law to be equivalent to 25.8 grains of gold, nine-tenths fine, no more and no less, and hence by definition it is a never changing monetary standard. But a little experience in trying to get the maximum of utility from a dollar will demonstrate that, as a medium of exchange, the value of a dollar is anything but stable. Index numbers of prices have been prepared to indicate the extent of variation of the purchasing power of the dollar. So misleading is our dollar as a measuring unit that it is possible to have money profits without real profits and real profits without money profits.

Suppose a house costing \$15,000 in 1910 was sold for \$30,000 in 1920. Ignoring interest and depreciation the owner would realize a money profit of \$15,000 (the greater part of it taxable income). But \$30,000 in 1920 had less purchasing power than \$15,000 in 1910, so that the net economic result on the transaction would be a loss.

Or take the case of the ultraconservative investor who prefers to avoid stocks and bonds and other securities. Suppose he had deposited \$1,000 in a savings bank in 1896, yielding 3½% per annum interest. In 1926 not only did his \$1,000 have less purchasing power than in 1896, but so

much less that the principal of \$1,000 plus thirty years' simple interest thereon had less value in 1926 than the original principal of \$1,000 had in 1896.

Such occurrences are not rare. Endowed institutions, trust estates, and the like, being dependent upon a fixed number of dollars, have suffered in common in the face of a depreciating dollar. Contracts extending over any lengthy period of time and statements or analyses based on various transactions which take place on widely separated dates all are affected more or less seriously by a fluctuating dollar value. The question well may be raised as to what extent, if any, the changing value of the dollar should receive recognition in the accounts or in accounting interpretation.

If statistical comparisons of sales volume are kept in dollars, a decline in dollars would not necessarily indicate a decline in volume. In a period of declining prices sales may fall off, so far as dollars are concerned, without a decrease in the unit volume. And similarly, where significant trends are established by means of a statistical study of ratios, consideration must be given to the element of fluctuating money value. In order to avoid misinterpretation in such instances it is necessary to eliminate the effect of the changing value of