

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM

Office Correspondence

Date May 17, 1937To Chairman Eccles

Subject: _____

From Malcolm H. Bryan*MHB*

In accordance with your note of April 29, I have given considerable attention to the suggestion by Mr. Charles Taussig and Mr. Rexford Tugwell regarding the modification of the undistributed profits tax. The original of that suggestion is attached.

I am unable to convince myself that the proposal is feasible or that it would be useful to a corporation needing funds for expansion.

The inclosed memorandum does not exhaust the points that could be made regarding the proposal. It does, however, deal with the major financial aspects of the suggestion so far as a corporate borrower would be concerned.

Attachments

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Office Correspondence

Date May 17, 1937

To Chairman Eccles

Subject: Proposal of Mr. Taussig and
Mr. Tugwell for revision of
undistributed profits tax.

From Malcolm H. Bryan *

M. H. B.

The proposal is that "a corporation requiring additional cash for approved purposes such as additional working capital or plant expansion" should be allowed to put its earnings into a 25-year issue of 1 per cent Government bonds. These bonds could be used to support the corporation's note at a commercial bank, and the corporation's notes, with bonds as collateral, could be rediscounted with the Federal Reserve banks at par. Borrowed capital for expansion could thus be secured on the basis of notes to be amortized in equal annual installments. The face of the corporation's loan would thus have a maximum average length of 12 1/2 years.

I am not sure that I see all the meaning of this suggestion, but the following points occur to me:

1. It seems to be assumed that member banks, because the notes with bond collateral are to be discounted at par, would in fact lend the par value of the bond collateral behind a corporation's notes. Such a conclusion, if it is intended, appears questionable.

The risk involved in a loan to a corporation with poor credit, though somewhat diminished by the proposed plan, would by no means be eliminated. A bank, in regarding an otherwise risky loan, would be

* With acknowledgments to Mr. Martin Krost and the inventors of logarithmic tables.

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forced to contemplate the possible necessity of relying on the bond collateral to effect liquidation of the loan; and the collateral would have a market value less than par. At a yield rate of 2.80, a 25-year bond carrying 1 per cent interest would have an approximate market value at issue of \$68. At higher yields, which may well occur in later stages of the present recovery, the capital value of 25-year 1 per cents would correspondingly fall.

If a bank lent to the par value of the collateral, it might be forced to absorb a loss equaling the difference between the market value of the collateral and the principal of the loan. The fact that the bonds were rediscountable at par with the Federal Reserve banks would not alter the situation, for a rediscounting member bank would become an endorser on the note of the corporation and would assume a contingent liability. Default by the corporation would throw the loss upon the discounting bank.

The only way to avoid the foregoing conclusion is to assume that the Federal Reserve bank, by rediscounting at par, is to take the loss involved in defaulted notes. Under such a provision, however, it may be concluded that any risky loan would be promptly discounted, and the plan would amount to no more than a guarantee by the Federal Reserve System of the credit of risky corporations. This would in turn mean that the System would, so to speak, be paying the undistributed profits tax (via losses on bonds) for those risky corporations that were allowed to retain earnings untaxed and failed later on. Several aspects of this

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proposition appear to transcend the usual functions of a central bank.

The safer conclusion all around is that the borrowing corporation, if its credit were such that it needed to adopt the suggested method of financing, would be able to borrow somewhat less than the market value of its bond collateral. In view of bond yields now prospective, the figure might be in the neighborhood of \$60 for each \$100 1 per cent bond.

2. With the present undistributed profits tax schedule in effect, a corporation that could earn more than 2.18 per cent on capital retained in its business could not afford to adopt the proposed system of financing.

A corporation would have the choice of investing in Government bonds yielding 1 per cent annually or of paying the tax and retaining its earnings for use as new capital. A corporation could, under the present schedule of undistributed profits taxes, retain 100 per cent of its earnings by paying a tax of \$20.50 per \$100. It would have \$79.50 remaining for investment in its business.

Now, \$100 invested in Government bonds would yield an annual income of \$1.00 and a tax remission of \$20.50, realizable at the end of 25 years. A rate of approximately 1.26 per cent on \$79.50 will yield \$1.00 of annual income; and a rate of 0.92 per cent, compounded annually at 6 per cent, will yield \$20.50 in 25 years. Thus, a total earnings rate of approximately 2.18 per cent on \$79.50 of capital would give a corporation \$1.00 a year of income for 25 years, plus a realized amount of \$20.50 at the expiration of the period.

3. Stated in another manner, the undistributed profits tax would need to be \$64.12 per \$100 in order to make the suggested plan a feasible alternative for a corporation with a 6 per cent earning rate.

The magnitude of the loss involved in financing in the fashion proposed in contrast with retained earnings can be illustrated as follows:

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Let us assume, for instance, a corporation earning 6 per cent on capital. It lends \$100 to the Government for 25 years at 1 per cent. At the end of 25 years, it receives back the capital sum of \$100, plus interest accumulated at the rate of \$1.00 per year, which should be compounded annually at the 6 per cent earning rate. The total sum at the end of 25 years would be \$154.86. Actually, the sum would be slightly less than that amount because of tax charges on the earnings attributable to accumulated interest; but this factor is ignored in order to make the most favorable showing for the plan.

The sum of \$154.86, then, has a present value of \$35.88, if discounted at 6 per cent, which has been assumed as the average earning. In short, a corporation that can earn 6 per cent on its capital could afford to take \$35.88 immediately rather than \$154.86 at the end of 25 years. (The sum of \$100 - \$35.88 equals \$64.12.) The loss in terms of present value is the difference between \$35.88 and \$79.50, which is \$43.62.

The foregoing points can be turned around into terms of annual loss or into terms of total capital loss at the end of the 25-year period involved. For example, if a corporation can earn 6 per cent on its capital, its earnings will be \$4.77 annually on each \$79.50 remaining to it after it has paid a tax of \$20.50 on each \$100 of undistributed earnings converted into new capital. Since the corporation will receive \$1.00 of annual interest if it chooses to invest \$100 in Government 1 per cents, it will have an annual loss of \$3.77 per \$100 for 25 years. When \$3.77 is cumulated at the assumed rate of earnings, namely, 6 per cent, there is a total loss of earnings during the period of \$206.83, which, when adjusted for the initial difference in capital value (\$100 minus \$79.50), gives a net capital loss of \$186.20 at the end of the period.^{1/}

The question arises, Is not the foregoing capital loss offset by the earnings of the corporation on the loan from the bank secured by bond collateral? The answer to the first question can be implied by asking a second, Why take the loss in the first place? Why not finance the cheapest way? However, the point can be further examined.

Generally speaking, a corporation that profits by borrowing money must have an earning rate greater than the interest rate. A corporation that borrowed at 6 per cent and earned 6 per cent, as in the preceding assumptions, would have no net loss or gain from the borrowing phase of

^{1/} The same result can be obtained by compounding \$79.50 (\$100 minus tax) at 6 per cent for 25 years and \$100 plus \$1.00 cumulated at 6 per cent for 25 years.

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its operation. That would be true whether it could borrow only \$60 for each \$100 bond, as the writer thinks likely, or the full par value of \$100. The loss resulting from a loan to the Government, as measured against retention of its earnings and the payment of the tax, would stand unreduced.

In the case of a corporation with a 6 per cent earning rate, there would need to be an annual profit, as previously demonstrated, of \$3.77 on its borrowing to equal the annual loss for each \$100 of funds invested with the Government. Should the writer's assumption that the corporation can borrow in the neighborhood of \$60 on each \$100 bond be correct, a corporation would require a difference between its earning rate and the rate of interest paid on its loan of more than 6.2 per cent. Thus, if the corporation could count on earning at the rate of 6 per cent annually, and could borrow \$60 on its 1 per cent bond, it would need a negative rate of interest on its loan to make the procedure more profitable than a straightforward retention of earnings in accordance with our present undistributed profits schedules.

In the unlikely event that the corporation would borrow a full \$100 on each \$100 bond, and its earnings were 6 per cent, it would need an interest rate of 2.23 in order to make its earnings on the \$100 borrowed equal to its annual loss in comparison with retained earnings. It must be noted that the \$3.77 annual loss on the bond-investment method as against the retained earnings method of financing new capital would be increased pari passu as the assumed earnings rate of the corporation were increased above 6 per cent.

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4. For a corporation in need of cash, the simpler and more satisfactory procedure for acquiring an equal amount of capital would appear to be the retention of 60 per cent of its earnings. Under the present rates of the undistributed profits tax, 60 per cent of earnings can be retained by the corporation for a tax charge of \$9.70 for each \$60 retained. On the assumption that the amount of the tax is borrowed at 6 per cent, the annual charge against the \$60 retained would be approximately 58 cents in perpetuity, which would in turn represent somewhat less than a 1 per cent annual charge against the capital thus secured. If it should be objected that perpetuity is too long a time, then the whole cost, including the principal of the tax and interest on it, could be amortized in 10 years at an annual charge against the retained capital of slightly more than 2 per cent. This figure will ordinarily be much less than the cost of borrowing an equivalent capital sum.

Perhaps it is not amiss to remark at this point that the cost of retaining earnings under the undistributed profits tax is frequently exaggerated. While it may certainly be agreed that the imposition of the tax creates a cost for capital secured by retained earnings, the tax is not a recurrent charge against the capital but is a once-and-for-all proposition. The cost of the tax must be prorated over the period for which the capital is to be used. Unless the capital requirement is for a brief period only, the retention of earnings is still entirely practicable from a cost standpoint.

5. The language of the proposal contains the words "approved purposes." The determination of what purposes, if any, shall be approved purposes is

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one of the crucial points in the current discussion of the undistributed profits tax. If we could determine what should be approved purposes, the tax schedule could be fairly easily and directly adjusted to permit un-taxed expansion in those directions.

Moreover, the language of the proposal contains the following sentence: "The Federal Reserve to have the right to deny re-discount privileges where the proceeds are to be used for purposes outside of their regulations." That might very well entail policing by the Federal Reserve banks.

6. "In times of over-expansion, Federal Reserve could discontinue re-discount privileges altogether."

The history of disputes regarding the existence of actual or threatened "over-expansion" is such that this provision would appear to impose an additional burden of omniscience on the Board of Governors. Perhaps, however, the omniscience of the Board of Governors is an unavoidable assumption in the long run.