



American Finance Association

The Integration of Insurance and Taxes in Corporate Pension Strategy: Discussion

Author(s): Guilford C. Babcock

Source: *The Journal of Finance*, Vol. 40, No. 3, Papers and Proceedings of the Forty-Third Annual Meeting American Finance Association, Dallas, Texas, December 28-30, 1984 (Jul., 1985), pp. 955-957

Published by: Blackwell Publishing for the American Finance Association

Stable URL: <http://www.jstor.org/stable/2327823>

Accessed: 26/11/2009 08:43

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=black>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Blackwell Publishing and American Finance Association are collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Finance*.

<http://www.jstor.org>

REFERENCES

1. F. Black. "The Tax Consequences of Long-Run Pension Policy." *Financial Analysts Journal* 36 (July–August 1980), 21–28.
2. F. Black and M. Scholes. "The Pricing of Options and Corporate Liabilities." *Journal of Political Economy* 81 (May/June 1973), 637–54.
3. J. Bulow, M. Scholes, and P. Menell. "Economic Implications of ERISA." In Z. Bodie and J. Shoven (eds.), *Financial Aspects of the United States Pension System*. Chicago: The University of Chicago Press, 1983.
4. S. Buser, A. Chen, and E. Kane. "Federal Deposit Insurance, Regulatory Policy and Optimal Bank Capital Structure." *Journal of Finance* 36 (March 1981), 51–60.
5. A. Chen. "Taxes, Insurance, and Corporate Pension Policy." Working Paper, Southern Methodist University, June 1983.
6. A. Chen and H. Kang. "*Financial Implications of ERISA: Theory and Evidence*." Working Paper, Southern Methodist University, December 1984.
7. S. Fischer. "Call Option Pricing When the Exercise Price Is Uncertain, and the Valuation of Index Bonds." *Journal of Finance* 33 (March 1978), 169–76.
8. J. Harrison and W. Sharpe. "Optimal Funding and Asset Allocation Rules for Defined Benefit Pension Plans." In Z. Bodie and J. Shoven (eds.), *Financial Aspects of the United States Pension System*. Chicago: The University of Chicago Press, 1983.
9. Johnson and Higgins. Funding Costs and Liabilities of Large Corporation Pension Plans: 1981 Executive Report. New York, Johnson and Higgins Law Firm, 1981.
10. T. Langetieg. "Optimal Funding and Investment Policy for Defined Benefit Pension Plans." Working Paper, University of Southern California, 1984.
11. D. Logue. *Legislative Influence on Corporate Pension Plans*. Washington, D.C.: American Enterprise Institute, 1979.
12. A. Marcus. "Corporate Pension Policy and the Value of PBGC Insurance." Working Paper, Boston University, November 1983.
13. W. Margrabe. "The Value of an Option to Exchange One Asset for Another." *Journal of Finance* 33 (March 1978). 177–186.
14. M. Miller. "Debt and Taxes." *Journal of Finance* 32 (May 1977) 261–75.
15. A. Munnell. *The Economics of Private Pensions*. Washington, D.C.: The Brookings Institution, 1982.
16. G. Mumy and W. Manson. *An Analysis of Why Business Firms Offer Employee Pensions*. Final Report Submitted to U.S. Department of Labor, 1982.
17. R. Posner. "Taxation by Regulation." *Bell Journal of Economics and Management Science* 1 (Spring 1971), 22–50.
18. W. Sharpe. "Corporate Pension Funding Policy." *Journal of Financial Economics* 3 (June 1976), 183–93.
19. I. Tepper. "Taxation and Corporate Pension Policy." *Journal of Finance* 36 (March 1981), 1–13.
20. J. Treynor. "The Principles of Corporate Pension Finance." *Journal of Finance* 32 (May 1977), 627–38.
21. J. Treynor, P. Regan, and W. Priest. *The Financial Reality of Pension Funding Under ERISA*. Homewood, IL: Dow Jones-Irwin, 1976.
22. R. Westerfield and W. Marshall. "Pension Plan Funding Decisions and Corporate Shareholder Value: A New Model and Some Empirical Results." Mimeo, September 1983.

DISCUSSION

GUILFORD C. BABCOCK*: This article by Bicksler and Chen sets up the logic of two extreme positions on pension fund management, points out that neither is consistent with the real world, and thus seeks a reconciliation between "theory and practice" based on the existence of some market imperfections.

* University of Southern California.

The issue is a classic confrontation between town and gown: on the town side we have the fastest growing pool of capital in the world—corporate pension funds—which currently invest in stocks and bonds on roughly 50–50 basis, and on the gown side we have both the pure stock advocates (like Sharpe) and the pure bond advocates (like Black and Tepper). The academics seem to take an either/or approach while the practitioners have found a happy medium. In any event, there is no question about the significance of the issue: billions of dollars are involved, a plethora of articles have appeared, yet a gap still exists between theory and practice.

The paper first establishes the significance of the issue by citing figures on the explosive growth of pension assets and an example of a respectable company like General Motors which had unfunded pension liabilities equal to 25% of its net worth at the end of 1982. It then reviews the impact of some of the major provisions of ERISA, but notably the creation of the Pension Benefit Guaranty Corporation (PBGC) which guarantees up to 85% of the workers' benefits for a fixed fee. This provision extended the liability of the sponsoring company beyond the assets of the pension fund, but it limited this extension to 30% of the company's net worth. This limitation is the basis for viewing the fixed cost of insurance as the cost of a put option or contingent claim on the PBGC. The economic value of this put increases as the need for insurance increases. Therefore, according to the theory, portfolio managers are encouraged to provide a minimum level of assets to fund their pension liabilities and to use a maximum level of risky assets, that is, volatile common stock. This is the essence of the so-called mini-max strategy which is one of the academic positions.

Bicksler and Chen meet this argument by pointing out that plan termination, which is implied by this strategy, is not without some "deadweight losses." These include legal expenses in dealing with unhappy workers, early interference from the PBGC, and later problems with the IRS. The cumulative effect of these costs would be to diminish the value of the put and to turn down the left edge of the author's saucer-shaped curve. This would force at least the local optimum to an inferior position.

One thing the paper does not do is establish firmly the relevance of the underlying model, i.e., the motivation of financial managers to maximize the value of a put which means, in effect, driving the "augmented pension assets" below the liability of the vested benefits. Since these "augmented" assets include up to 30% of a firm's net worth, it seems to me that there may not be many firms in such desperate straits and fewer still that would pursue a policy to put themselves there.

The tax-effect argument advanced independently by Black and Tepper leads to a conclusion which is opposite to the insurance argument advanced above. The tax-effect argument depends only on the deductibility of company contributions and the exemptibility of investment income. Under this scenario, a company is led to a maxi-min strategy which means a maximum level of funding using a minimum level of risky assets, i.e., high yielding bonds. In effect, a company has the opportunity to hide liquid assets from the tax man. Bicksler and Chen find an interior solution for this argument as well as by questioning the

assumption of previous authors that the marginal tax benefit is constant. As that benefit diminishes, the right edge of the saucer-shaped curve is turned downward and another corner solution is driven inward.

Once again I have no trouble with the direction of the argument, but it is difficult to evaluate its significance since the authors do not establish a scale factor on either the *X*- or *Y*-axis of Figure 1. For example, the tax rates cited are only marginal on corporate incomes under \$100,000. Therefore, we are still left to wonder why the vast majority of American corporations do not pursue the tax advantages offered under ERISA. We are also left to wonder, without a scale factor on Figure 1, whether the insurance effect is comparable to the tax effect. That is the crucial question of the tradeoff.

In summary, Bicksler and Chen have provided a useful summary of both the literature and the practice of portfolio management since the passage of ERISA in 1974. They have also identified, if not quantified, certain additional costs (market imperfections) which tend to modify the contingent-claims approach to conform with the real world. Their arguments would be strengthened by showing more clearly the motivation of portfolio managers toward such claims and by providing data to show where real firms lie on their scale of funding.