STATEMENT OF JACK L. VANDERHEI, PH.D.
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TO
THE SUBCOMMITTEE ON OVERSIGHT
HOUSE COMMITTEE ON WAYS AND MEANS
CONCERNING THE ROLE OF PENSION PLANS
IN THE MARKET FOR CORPORATE CONTROL

T-69

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Although much of the recent controversy from changes in the market for corporate control has stemmed from leveraged buyouts (LBOs), it is important to realize that a LBO is only one of the ways in which control of a firm can be transferred from a group of shareholders to another entity. This takeover transaction can be accomplished though a number of activities:[1]

- acquisition
  - merger or consolidation of two firms
  - acquisition of stock through tender offers
  - acquisition of assets
- proxy contest
- going private

Going-private transactions are often defensive tactics when managers of a targeted firm attempt to resist the takeover. This arrangement frequently takes the form of a leveraged buyout in which existing management shares the new equity interest with outsiders. The public shareholders are forced to accept cash for their shares while the business is continued by existing and new management. The cash offer price is financed with large amounts of debt.

The short term financial benefit of takeover activity for existing shareholders of the targeted firm has been enormous. W. T. Grimm & Co. estimates that from 1981 to 1986 the total dollar value of the premiums paid for securities involved in change-of-control transactions was $118.4 billion.[2] Although financial economists have attributed the gains from these transactions to "productive entrepreneurial activity that improves the control and management of assets and helps move assets to more productive uses,"[3] there are continuing worries that other parties (such as existing creditors) may be paying for these gains.[4]

Concern over LBOs has been directed towards pension plans in three specific areas: the investment of pension plan assets in LBOs, the relationship between takeover activity and termination of overfunded pension plans and the impact of both of these factors on the Pension Benefit Guaranty Corporation (PBGC). This paper reviews the extant

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[1]Stephen A. Ross and Randolph W. Westerfield, Corporate Finance (St. Louis: Times Mirror/Mosby College Publishing, 1988), p. 690.

[2]Gregg A. Jarrell, James A. Brickley, and Jeffry M. Netter, "The Market for Corporate Control: The Empirical Evidence Since 1980," Journal of Economic Perspectives vol 2 (Winter 1988), p. 49.

[3]Michael C. Jensen, "The Takeover Controversy: Analysis and Evidence," Midland Corporate Finance Journal 1986, p. 6.

[4]Although there is recent anecdotal evidence to the contrary, the results from a sample of 108 LBOs from 1980 to 1984 indicate no evidence that losses from preferred shareholders or bondholders are used to create increased shareholder value. See Kenneth Lehn and Annette B. Poulsen, "Sources of Value In Leveraged Buyouts," in Public Policy Towards Corporate Takeovers (New Brunswick, New Jersey: Transaction Publishers, 1987).

literature for evidence of the role of pension plans in the market for corporate control to provide additional information on the likely impact of each of these cases.

PENSION PLAN INVESTMENTS IN LBOS

Although estimates from the witnesses providing oral testimony for this hearing have varied, it appears safe to conclude that pension plan investments in all LBO related activity (LBO funds and "junk" bonds) represent less than 5 percent of total pension assets. There also appears to be a tendency, at least among the larger plans, for state and local plans to invest larger absolute dollar amounts in this type of investment than their private pension fund counterparts. Even in a worst-case scenario it is unlikely that existing levels of LBO investments would impair the benefits of participants, the financial solvency of the pension plans or the long run profitability of the sponsor.

Still, some commentators have suggested an outright ban on the investment of pension plan assets in LBO related activity. The impact of imposing such restrictions would depend to a large extent on the ability of pension plan investment managers to substitute other assets with similar risk and return characteristics in their portfolios. Although there is currently insufficient data on the risk and return characteristics of LBO related investments to perform a detailed analysis, it may be useful, given the obvious similarities, to review the analysis performed by Westerfield[5] for restrictions previously suggested via social investing.

The analysis suggests that the capital asset pricing model[6] may be utilized to assess the cost of social investing in the following procedure:

1. Choose a proxy for a market portfolio which includes the universe of investments deemed relevant for pension plans.
2. Exclude all assets that are considered socially undesirable.
3. Identify the most efficient portfolio from the remaining assets.
4. Compute the correlation of returns of the portfolio in step 3 with the portfolio in step 1.
5. Compute the cost of social investing based on returns, standard deviation, and correlations.[7]

Westerfield applied this analysis to Pax World Fund, an open-end investment company that avoids investing in the securities of firms that do business in liquor, gambling, weapons and defense contracts. His analysis of the fund's results from 1975-1981 yielded a cost attributable to diversification constraints of .34 percent and an overall cost of .14 percent.

PENSION PLAN TERMINATIONS IN LBOS AND RELATED TRANSACTIONS

Corporations have been known to use recaptured plan assets in the financing of corporate takeover and anti-takeover activities. Several firms have terminated overfunded pension plans of newly acquired companies such as Mobil Corporation's $29 million recapture from Superior Oil and St. Regis $88 million recovery from Champion International.[8] Reversions have also been reported when a company is threatened by a hostile takeover and wants to prevent excess plan assets from being used as a possible source of financing the takeover. For many financial economists the notion that post-takeover reversions should be prohibited or constrained is somewhat puzzling given (a)

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[5]Randolph Westerfield, "Capital Market Perspectives," in Social Investing Dan M. McGill, ed., (Homewood, Illinois: Irwin for the Pension Research Council, 1984):107-129.

[6]William Sharpe, Capital Asset Prices: A Theory Of Market Equilibrium Under Condition Of Risk, Journal of Finance (September 1974):425-442.

[7]See Westerfield, p. 119 for the equation.

[8]Lynn Asinof, "Excess Pension Assets Lure Corporate Raiders." Wall Street Journal (September 11, 1985): 6ff.

that participants receive the full accrued benefit to which they are legally entitled and (b) the conventional wisdom that the overfunding is already imputed in share price.

Before exploring the empirical evidence on this topic, it is important to note that there may be other reasons for a post-takeover reversion such as a desire to switch from a defined benefit to a defined contribution pension plan or the added efficiency of standardizing pension plans for all employees of the employer after a takeover. Unfortunately there is not sufficiently detailed data available at the current time to assess properly the significance of each factor.

INCIDENCE OF CORPORATE OWNERSHIP CHANGES AMONG SPONSORS TERMINATING OVERFUNDED PENSION PLANS

An SEC study by Mitchell and Mulherin finds no systematic evidence that takeovers are a primary cause of pension terminations.[9] Out of a sample of 313 terminations from 1980-1987, 34 cases were found in which the termination occurred within a year following an actual change in corporate ownership of the plan sponsor. The authors compare this rate of 10.9 percent to the 21.9 percent of a general sample of 1158 firms (not necessarily sponsors of terminated pension plans) that were acquired during the same time period.[10] The sample involved pension plans of 32 target firms of which only five were acquired in hostile takeovers. The authors conclude that "this evidence suggests that pension plan terminations do not disproportionately follow corporate takeovers." On average, the reversion for the takeover sample accounted for only 7.3 percent of the purchase value of acquisition.

It should be noted however that the 10.9 percent rate reported by the authors is not directly comparable to the GAO's finding that almost 40 percent of the 190 companies taken over in LBOs between 1982 and 1987 terminated pension plans after the takeover.[11] The GAO analysis included terminated defined contribution plans as well as defined benefit plans terminated prior to and more than one year after the LBO. A more appropriate comparison would be the percentage (5.9 percent) of defined benefit terminations occurring within one year after the LBO (39) to the total number of defined benefit plans (656) for the 190 LBO companies studied.

Expanding the analysis to consider unsuccessful takeover attempts as well, the SEC authors found that 25 percent of the reversion sample had been involved in some type of takeover attempt (either successful or unsuccessful). Again, this was actually a lower incidence than that found among the general population by Mitchell and Lehn (40 percent). A total of 64 (36) percent of the takeover attempts for the reversion sample was associated with hostile (friendly) takeover bids. The authors conclude that "even within this broader perspective, the large majority of pension terminations are not associated with corporate takeovers."

STOCK PRICE STUDIES

Additional evidence on this question can be obtained from the event studies that measure the effects of reversions on stock prices, after correcting for overall market

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[9]Mark L. Mitchell, and J. Harold Mulherin, "The Stock Price Response to Pension Terminations and the Relation of Terminations with Corporate Takeovers," Financial Management (forthcoming).

[10]Mark L. Mitchell and Kenneth Lehn, "Do Bad Bidders Become Good Targets," mimeo. U.S. Securities and Exchange Commission (1988).

[11]Testimony of Joseph F. Delfico, Director of Income Security Issues, Human Resources Division, United States General Accounting Office, before the Subcommittee on Oversight Committee on Ways and Means, House of Representatives, April 27, 1989.

influence on stock returns. Alderson and Chen[12] argued that stock price responses to reversions could be used to test whether pension assets are distinct from the assets of the firm that is sponsoring the defined benefit plan (separation hypothesis) or inseparable from such assets (integration hypothesis). They predicted that an excess asset reversion would affect stock prices under the separation hypothesis if plan termination could not be accurately predicted. Under the integration hypothesis, they predicted that stockholders would not be affected by termination. Their estimates of large positive returns to shareholders around the legal date of the termination for all reversions in excess of $1 million between 1980 and 1984 were interpreted as providing support for the separation hypothesis. In other words, when considered on an aggregate basis, shareholders of firms sponsoring overfunded pension plans could expect a short term profit for the termination and recapture of excess assets. However, no separate analysis was provided for those reverting due to change in corporate ownership.

VanDerhei[13] also estimated abnormal returns associated with reversions using the Form 5310 filing date as the event date.[14] The results indicated a significantly positive abnormal aggregate rate of return for publicly-traded firms involved in a reversion in excess of $1 million between 1979 and 1983. However, this study went further to address the area of a change in ownership. When analyzed by self-reported reason for termination, the five firms terminating due to ownership change did not produce significant abnormal returns around the announcement day. Cross-sectional regression analysis of abnormal returns were also conducted and the results suggest that shareholder's gains were positively related to the firm's debt-equity ratio and the amount of excess assets and negatively related to the cash flow generated by the firm.

Preliminary findings from Alderson and VanDerhei[15] have extended this type of analysis to include more recent reversion activity. This study confirms that in aggregate the firms undergoing a reversion receive abnormally high returns. When the results are stratified by self reported termination reason, the returns for 52 firms reverting due to ownership change are not statistically significant. This finding is confirmed in cross sectional regression analysis on the abnormal returns. Although variables measuring financial distress and relative reversion size are both significantly greater than zero, the variable for ownership change was insignificant.

These findings suggest that while the average price increase for shares of firms reverting their excess assets is positive, there is no evidence that a reversion accompanied with a change in corporate ownership benefits the firm's shareholders in the short term.

PREDICTION STUDIES

Perhaps the most relevant results for this topic are contained in Mittelstat's[16] takeover prediction model of firms acquired between 1/1/81 and 12/31/83. Based on a series of financial variables, each sponsor of an overfunded defined benefit plan in his study was assigned a value -- the higher the value the greater the probability of being

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[12]Michael J. Alderson, and K. C. Chen. "Excess Asset Reversions and Shareholder Wealth." Journal of Finance 41 (March 1986): 225-241.

[13]Jack L. VanDerhei, "The Effect of Voluntary Terminations of Overfunded Pension Plans on Shareholder Wealth," Journal of Risk and Insurance, 54 (1987), 131-156.

[14]The administrator of a terminating plan must file a termination report with both the Department of Labor and the Pension Benefit Guaranty Corporation (PBGC). IRS Form 5310 commonly is used for this purpose.

[15]Michael J. Alderson and Jack L. VanDerhei, "Excess Asset Reversions and Securities Returns," (1989) Working Paper.

[16]H. Fred Mittelstaedt, "An Empirical Analysis Of The Factors Underlying The Decision To Make Extreme Reduction In Pension Plan Funding," Arizona State University (October 1988) Working Paper.

acquired. The average values were much lower for sponsors that maintained their overfunded plans then those that terminated. This result would be expected if sponsors of overfunded pension plans used reversions as a defensive tactic when they had been (or where perceived to be) targeted as a possible takeover.

Three additional studies have used statistical analysis to measure the quantitative relationship between the likelihood that a sponsor will terminate an overfunded plan and characteristics of the plan sponsor and the pension plan. In particular, the regression analysis conducted by Hamdallah and Ruland[17], Harrington and VanDerhei,[18] and Stone[19] each showed a significantly positive relationship between reversions and financial leverage. This finding is important because firms involved in hostile takeovers often undergo massive financial restructuring that results in highly leveraged positions. These results suggest that continuing LBO activity leading to increasing financial leverage could result in increased reversion activity. However, it is important to note that each of these studies used a sample period that ended prior to the 10-percent excise tax on reversions added by the Tax Reform Act of 1986 (later increased to 15 percent by the Technical and Miscellaneous Revenue Act of 1988). To the extent that this increase in the penalty tax is not offset by decreases in the effective corporate tax rate,[20] the increased cost of "borrowing" from the pension plan may decrease the importance of the leverage variable in explaining more recent reversion activity. Moreover, the reduced full funding limitation imposed by the Omnibus Budget Reconciliation Act of 1987 will tend to reduce the magnitude of overfunding in the future.

PENSION PARACHUTES

Conceptually similar to poison pill provisions that are designed to defend against acquisition attempts, a pension parachute is designed to provide either all or a portion of excess pension assets to current participants in the form of increased pension benefits. Mitchell and Mulherin identified the exact dates when investors became aware that parachutes had been adopted for each of 10 firms. The average three-day rate of return for the shareholders (after controlling for market effects) around the adoption date is a statistically significant loss of 2.01 percent. Although this suggests a sizeable reduction in share price, the results must be interpreted carefully due to the small sample size and the possibility of confounding events. For example, companies may have instituted other antitakeover provisions around the time the parachutes were adopted.[21]

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[17]Ahmed El-Sayed Hamdallah And William Ruland, "The Decision to Terminate Overfunded Pension Plans," Journal of Accounting and Public Policy, 5 (Spring 1976): 77-91.

[18]Scott E. Harrington, and Jack L. VanDerhei. "Internal vs. External Financing in Credit Markets with Asymmetric Information: The Case of Pension Plan Asset Reversions." Pension Research Council Working Paper Series, Number 87-3, (December 1987).

[19]Mary Stone, "A Financing Explanation for Overfunded Pension Plan Terminations," Journal of Accounting Research Vol. 25, No. 2 (Autumn 1987):317-26.

[20]Even though the Tax Reform Act of 1986 reduced the maximum corporate tax rate, many firms receiving reversions had tax loss carryforwards that effectively shielded the sponsor from the tax. See In-Mu Haw, William Ruland, and Ahmed Hamdallah, "Investor Evaluation of Overfunded Pension Plan Terminations," Journal of Financial Research, Vol. XI, No. 1 (Spring 1988): 81-88. Carryforwards will not offset the penalty tax however.

[21]See for example Gregg A. Jarrell and Annette B. Poulsen, "Shark Repellents and Stock Prices: The Effects of Antitakeover Amendments Since 1980," Journal of Financial Economics 19 (1987): 127-168.

IMPACT ON THE PBGC

The long run impact of corporate control changes on the PBGC will likely depend on the relative tradeoff between changes in the sponsor's exposure (i.e., underfunding) and the probability of an insured event (i.e., bankruptcy of the sponsor) for the companies involved in these transactions. As mentioned earlier, pension plan investments in LBO related activity does not appear to be a major problem due to its relatively small magnitude for most portfolios. However, many commentators have suggested that LBO transactions, when accompanied by excess asset reversions, will necessarily increase the expected claims for the PBGC due to the removal of any buffer for adverse investment experience or future funding waivers. This ignores the possibility that a LBO may actually decrease the likelihood that a sponsor will eventually be forced into bankruptcy and hence present a claim to the PBGC if the pension plan is not sufficiently funded at the time. Unfortunately there currently is not sufficient data available to assess whether LBO activity (with or without an accompanying reversion) will result in the entity being able to better meet its long-run pension obligations.