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TERMINATION INSURANCE FOR SINGLE-EMPLOYER PENSION PLANS: COST AND BENEFITS

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ABSTRACT

In this paper, the pension termination insurance program established under Title IV of the Employee Retirement Income Security Act is reviewed. Arguments for and against the program are analyzed.

I. INTRODUCTION

With the passage of ERISA in 1974, the Pension Benefit Guaranty Corporation was established to handle termination insurance for defined benefit pension plans under Title IV. At that time, qualified plans maintained by one employer were covered. Participants' benefits were guaranteed in the event the pension plan terminated without sufficient funds.

At the enrolled actuaries meeting held early in March 1982, in Washington, D.C., the issue of whether ERISA's Title IV termination insurance provisions are working was debated. The audience concluded that Title IV is not working in its current form. One's judgment of whether it is or not depends on personal and political values. The purpose of this paper is to review the relevant issues, and to provide a framework for such judgments.

The paper will focus on single-employer plans. We have had more than seven years to become familiar with the operation of that program, time enough to accumulate sufficient information to compare costs to benefits with the aid of hindsight. Since the multiemployer program has been effectively in place for just over one year, any discussion of it would rely more on perceived costs and benefits. Crystal ball gazing so soon after enactment of the Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) would not add much to the dialogue that attended its passage.

The views expressed in this paper are the author's own and do not necessarily represent those of any government agency.

II. COVERAGE

Title IV of ERISA requires the plan administrator for every covered defined benefit plan to file insurance premiums annually with PBGC. Cur-

rently, there are some 90,000 single-employer plans with about 26 million participants covered by the program. Relatively few plans cover the bulk of participants. Just over 3,400 plans have more than 1,000 participants each. This group represents just under 20 million participants. Thus, 4 percent of the plans cover a shade over 75 percent of the participants. Taking this one step further, we find there are approximately 120 plans, or 0.1 percent of the universe, each with more than 25,000 participants. This group embraces just under 8 million participants, which is 31 percent of the total. Whereas there are 300 participants per plan on average, total participant coverage is dominated by much larger plans.[1]

Large plans tend to be maintained by even larger corporate sponsors, who typically have separate plans for their salaried and hourly employees. Moeover, it is fairly common practice for large companies to maintain separate plans for each of their different operating divisions. From this it seems safe to conclude that most participant coverage is represented by relatively few plans maintained by even fewer controlled-group sponsors.

III. PREMIUM RATE

At enactment, ERISA established the single-employer premium at $1.00 per participant. PBGC conducted a premium study during 1977 and forwarded it to Congress requesting an increase to $2.25. After some deliberation, Congress approved an increase to $2.60 per participant for plan years beginning after 1977. In light of the subsequent claims experience, it appears Congress had access to a better crystal ball. In any event, the $2.60 premium generates approximately $68 million per year in revenue. During congressional testimony early in 1982, the administration supported a PBGC recommendation to increase the premium rate to $6 per participant for years after 1982. Although this would more than double the current rate, if Congress approves, it would still represent less than 1 percent of average annual per-participant pension costs.[2]

An increase is necessary in order to stem the widening gap between liabilities for guaranteed benefits and the value of PBGC's assets. At the 1981 fiscal year-end this deficit stood at $189 million, up from $95 million one year earlier.[3] More troubling, however, is the trend in net claims. For

[1] These data were compiled for inclusion in *Analysis of Single Employer Defined Benefit Plan Terminations, 1979*, which is scheduled for publication by PBGC.

[2] See *1981 Executive Report: Funding Costs and Liabilities of Large Corporate Pension Plans*, published by Johnson & Higgins, New York, 1981. Exhibit 6 shows the average 1980 pension cost per employee as $1,329 for 466 of the Fortune 500 companies.

[3] Fiscal year figures are taken from the *PBGC Annual Report to the Congress FY 81* (hereinafter FY 81 Statement).

Title IV purposes, a net claim is the portion of the liability for guaranteed benefits that is not met by the total of plan assets and employer termination liability collected. In November 1981, a single business failure resulted in a net claim of $58 million. Although paltry in comparison to the half-billion plus in exposure presented by several well-publicized companies that are flirting with bankruptcy,[4] it does represent PBGC's biggest claim to date. Moreover, the one claim will consume more than 85 percent of the premium revenue for the whole fiscal year.

In a nutshell, the requested premium increase is intended to amortize the current deficit and to keep pace with new claims as they arise. The premium formulation assumes a terminal funding approach, in which annual income should be sufficient to cover the value of all net claims incurred in the year and associated overhead. A survey of the fifty companies with the largest unfunded vested liability revealed a potential exposure of $15 billion. PBGC has also identified twelve high-risk firms, using several bankruptcy prediction models. Plans maintained by these firms have a total unfunded vested liability of $3 billion.[5] Of course, a net claim presented by any of these companies would be less than the reported unfunded vested liability, but these analyses do show the order of magnitude of potential net claims.

Does the premium contemplate a contingency reserve buildup? Yes and no. The $6 rate comprises three elements: expected future claims, amortization of the current deficit, and administrative expenses. There is no contingency reserve component. However, the premium contemplates amortization of the deficit over five years, which introduces some conservatism. If claims do not exceed expectations (which make no provision for "catastrophic" losses) and all other assumptions are realized, the premium rate should decrease in 1988 once the deficit is amortized. The potential decrease will depend on emerging trends in net claims, but might be in the neighborhood of $1 if current trends continue.

Amortizing the deficit is a minimum step in avoiding a pay-as-you-go system. The popular press treatment of social security has underscored the disruption that could be experienced if current benefits are held hostage because of reserve depletion. There are also questions of equity. Which generation of pension plans should pay for current net claims?

In any event, the premium formulation continues the previously adopted terminal funding approach; provides for amortization of the current deficit over five years; assumes future experience will behave much like the past

[4] See "Pension Liabilities: Improvement Is Illusory," *Business Week*, September 14, 1981, pp. 114–118.

[5] These results are summarized in the PBGC premium study for the single-employer basic benefits program forwarded to Congress in May 1982.

and the number of covered participants will increase at a rate commensurate with PGGC's experience; and, finally, makes no specific provision for catastrophic losses.

IV. PLAN BENEFITS

When a covered plan terminates, PBGC must be notified.[6] Under the statutory framework, participants in such plans have benefit guarantees as a matter of law.[7] Those rights cannot be abrogated. For example, a pre-ERISA plan might have assumed it was not required to pay PBGC premiums starting in 1974. If, in fact, the plan is covered under Title IV, benefit guarantees will apply upon plan termination. Unlike private insurance, denial of benefit coverage is not a sanction for missed premiums; PBGC has other remedies at its disposal for such cases.[8]

Of the 37,454 termination notices received through fiscal 1981, only 659 plans, or less than 2 percent, terminated with insufficient assets.[9] PBGC gives the 98 percent sufficient terminations a quick examination to assure that participants will not show up later looking for benefits guaranteed by the statute that were somehow overlooked in the termination process. The Corporation has assumed trusteeship for the 659 insufficient plans. In addition there were 126 potential plan trusteeships pending as of September 30, 1981. There are 71,200 participants in the trusteed group and, assuming a similar size distribution, another 13,600 in the pending group, for a total of 84,800 participants. By number of participants, insufficient terminations typically represent approximately 10 percent of all participants in terminated plans.[10] Thus, we can conclude that plans terminating without sufficient assets tend to be larger than their sufficient counterparts.

What does the termination program mean to the nearly 85,000 affected participants? Based on valuations performed as of each insufficient plan's date of termination, plan assets would have provided $275.3 million, or 40.5 percent of the $680.4 million in liability for guaranteed benefits.[11] An additional $60.1 million, or 8.8 percent, came from employer termination liability assessments, while the remaining $345 million, or 50.7 percent, represents the total of net claims against the insurance system. This break-

[6] See ERISA, sec. 4041(a).

[7] See ERISA, sec. 4022(a).

[8] See ERISA, sec. 4007(b).

[9] See Table 1 and p. 3, FY 81 Statement.

[10] See Table 12, *Analysis of Single Employer Defined Benefit Plan Terminations, 1978,* PBGC (hereinafter 1978 Termination Study).

[11] See Table 5, FY 81 Statement.

down suggests that PBGC premium payers are financing just over one-half the value of guaranteed benefits for 10 percent of all participants in terminated plans covered by Title IV.

Arguably, participants also bear part of the cost when a plan terminates without sufficient assets. Benefits accrued under terminating single-employer plans are subject to limitation.[12] The statute extends insurance guarantees to nonforfeitable benefits in effect five or more years.[13] Moreover, benefits cannot exceed a participant's high five-year earnings, and there is a flat $750 limit, adjusted for changes in CPI, on monthly benefits.[14] Finally, benefit increases effected by plan amendment are phased in over a five-year period.

Participants in insufficient plans who have attained no vested rights under plan (or statutory) provisions lose all benefits at termination.[15] Vested participants lose all nonvested accrued benefits, the portion of vested benefits eliminated by the benefit guarantee limitations, and benefits eliminated by the benefit guarantee limitations, and benefits not subject to accrual.[16] These lost benefits can be viewed as a cost of the termination program that is paid by the affected participants. The value of lost benefits can vary from participant to participant in a given plan. Also it can vary with prevailing interest rates in effect on the date of plan termination. Based on "armchair" assessments, the relationships among these benefit components are as follows (no effort is attempted at quantifying the value of benefits not subject to accrual; such benefits are not routinely valued at termination):

> *Guaranteed benefits typically represent between 90 and 95 percent of the value of vested benefits, and*
>
> *Vested benefits typically represent 80 percent of the value of accrued benefits.*

This breakdown implies that the value of guaranteed benefits is roughly 75 percent of the value of accrued benefits. In-house studies at PBGC

[12] See ERISA, sec. 4022.

[13] See ERISA, secs. 4022(a) and (b)(1).

[14] See ERISA, sec. 4022(b)(3); the limit for terminations during 1982 is $1,380.68.

[15] See ERISA, sec. 4001(a)(8).

[16] Internal Revenue Code, sec. 411(a), ties the minimum vesting requirements to a plan's accrued benefit. Income Tax Regulations, secs. 1.411(a)-7(a)(1)(ii), -7(c)(3), and -7(c)(4), indicate which plan benefits are subject to vesting and accrual. Participants in terminated insufficient plans lose plan benefits that are not subject to the minimum accrual requirements, and for which they have not satisfied the conditions for entitlement. See PBGC regulations, secs. 2613 and 2621, for the definition of guaranteed benefit and the limitations thereon.

indicate that the average monthly guaranteed benefit being paid is approximately $120. Combining this information with the figures just cited, we find that

> *25 percent, or $40 of the average $160 accrued monthly benefit, is lost, or paid for, by affected participants in insufficient terminated plans;*
>
> *37½ percent, or $60, is provided by plan assets, which include employee contributions in contributory plans, plus employer termination liability; and*
>
> *37½ percent, or $60, is provided by premium dollars through the insurance program.*

The various relationships should be studied with more attention to detail. In that way we could, with more precision, identify the various components of affected benefits. Indeed, it would be worthwhile to know what portion of accrued benefits is lost by participants in plans that do not present a net claim. After all, plan asset sufficiency means that guaranteed benefits are provided, without regard to accrued benefits.

The preceding conclusions strike an interesting historical chord. While ERISA was being actively considered by Congress, the Departments of Labor and Treasury conducted surveys of pension plan terminations. One survey was an analysis of all defined benefit pension plan terminations reported to IRS during 1972. The results of this study were published in a report issued jointly by the two departments in August 1973.[17]

The 1972 Study included about 1,200 terminated plans with a total of 42,000 participants. Of these, none of the 18,700 participants in the 652 "sufficient" plans suffered an accrued benefit loss. In the remaining 546 plans, 19,400 of the 23,100 covered participants lost some or all of their accrued benefits.[18] On the average, the 19,400 participants received 46.5 percent of the value of their accrued benefits. Surprisingly, benefit loss did not vary much by participation status. Of the participants who lost benefits, retirees, actives eligible for normal or early retirement, and other active or terminated vested participants received 46.8 percent of their benefits, while their nonvested peers received 45.8 percent.[19] This 46.8 percent can be compared to PBGC's experience, cited above, of 40.5

[17] See *Study of Pension Plan Terminations, 1972*, Final Report, Department of the Treasury, Department of Labor, August 1973 (hereinafter 1972 Study).

[18] See Table 3-1, 1972 Study.

[19] See Table 3-2, 1972 Study.

percent; these percentages tell us how far plan assets reach in relation to vested benefits or guaranteed benefits in the latter case.

Similarities between pre- and post-ERISA experience extend beyond benefit loss. Larger plans maintained by employers engaged in manufacturing or retail/wholesale trade continue to constitute the principal source of benefit loss.[20] Further analysis of PBGC claim experience could be useful. Precise information concerning source of claims might yield data useful for future policy consideration.

Of course, pre- and post-ERISA figures are not strictly comparable. ERISA's minimum standards for vesting and benefit accrual presumably affect the latter figures. Then too, the value of pre-ERISA benefits that were lost were not necessarily measured on a replacement cost basis. Nevertheless, it seems fairly clear: before ERISA and since enactment, most participants in insufficient plan terminations lost—or, absent Title IV, would have lost—a substantial portion of their plan benefits.

Other benefits of the termination program are harder to measure. In some cases, if the benefits paid for by premium dollars ceased, public assistance programs would make up some of the difference. The relationship between PBGC benefit payments and savings in social welfare costs should be studied in order to quantify this cost/benefit element. Benefits provided by PBGC premium dollars also provide subjective quality of life benefits; beneficiaries receive payments based on work-related service and earnings instead of demonstrated need tests associated with public assistance programs.

So far, we have looked briefly into how the termination program works and the extent of benefits being provided. Plan participants who receive benefit checks from PBGC that they would not otherwise receive probably think the termination program is working just fine. Some of the costs are somewhat more difficult to measure, however. As mentioned earlier, PBGC premiums, even at a $6 level, represent a very small part of total pension cost. So, putting this cost aside for now, what are the other potential components of cost? In various forums it has been suggested that the pension termination insurance program has the following features that represent hidden costs:

It inhibits growth of participant coverage under defined benefit plans,

It has an adverse effect on a company's cost of capital, and

It does not equitably assess program costs.

[20] See chap. 4, 1972 Study, and pp. 6–9, 1978 Termination Study.

V. DEFINED BENEFIT COVERAGE

When a covered single-employer defined benefit plan terminates without sufficient assets, the plan sponsor, on a controlled-group basis,[21] is charged for the shortfall with a limit of 30 percent of net worth.[22] In effect, ERISA precludes plan sponsors from limiting their pension liability to accumulated plan assets, a common pre-ERISA practice. It was felt in 1974, and PBGC's subsequent experience provides corroboration, that without termination liability the program would be untenable. Not necessarily because of additional revenue that would be generated, but as a deterrent to prevent companies from transferring unfunded liability for guaranteed benefits to the premium-paying universe to gain financial advantage.[23] Indeed, legislative action is currently being considered on this point.[24]

Various pension practitioners have suggested that the current termination liability provisions and surely some of the suggested legislative changes would sound the death knell for defined benefit plans. The argument has intuitive appeal. As costs unrelated to benefits increase for defined benefit plans, defined contribution plans become an increasingly attractive alternative. These plans are always, by definition, fully funded. Therefore, plan sponsors could avoid potential termination liability and a related increase in their cost of capital by slowly converting from defined benefit to defined contribution arrangements. Unfortunately, with reference to whether defined benefit coverage is growing or shrinking, the facts are anything but clear.

Putting aside consideration of whether defined benefit plans are intrinsically superior to defined contribution plans, let us look at participant coverage in defined benefit plans. To be sure, the number of defined benefit plan terminations surged in 1974–77 but has come down since. On the average, 6,034 covered plans terminated per year during ERISA's first three years. The comparable figure for the subsequent four years is 4,712.[25] This compares to 1,200 terminations reported by the 1972 termination study cited earlier. IRS plan qualification figures reveal a similar pattern: a steep drop in new plan formation in ERISA's early years with a strong upturn during 1978–80.[26]

[21] See ERISA, sec. 4001(b)(1).

[22] See ERISA, sec. 4062(b).

[23] Table 5, FY 81 Statement, shows that only $60.1 million of the total $405.1 million in asset insufficiency has been collected via employer termination liability.

[24] See Title VI in H.R. 4330 or S. 1541, introduced on July 30, 1981, in the House and Senate, respectively.

[25] See Table 1, FY 81 Statement.

[26] See Table III-9, p. 68 in *Retirement Income Opportunities in an Aging America: Cov-*

But these figures ignore plan size. After all, the relevant question is: Are relatively more or fewer workers being covered? Two recently published documents on this point seemed to draw opposite conclusions with regard to future trends.[27] In absolute numbers more workers are covered by defined benefit plans today than ever before.[28] Whether the rate of growth in coverage, which appears to have slowed in recent years, will resume its earlier upward climb or not is open to question. Furthermore, even if the current plateau turns into a decline, employer termination liability may not be a significant factor. Employment patterns are changing and pension coverage has historically varied by industry and employer size.[29] With all other things being equal, it might be possible to establish some correlation between defined benefit coverage and termination liability. Nothing is holding still long enough, however, to allow such a study. And, in several well-publicized instances, very large plans have been terminated to take advantage of a current asset surplus; "charging" such terminations to Title IV would be a difficult case to make.

VI. COST OF CAPITAL

When a single-employer plan terminates without sufficient assets to pay guaranteed benefits, the plan sponsor is liable to PBGC for the shortfall with a limit of 30 percent of net worth. As things currently stand, if the plan termination is in conjunction with a business liquidation, PBGC's claim is paid only after liability to all other creditors is discharged. If the value of the liquidating company's tangible and intangible assets is less than the amount owed to creditors, then the company has no net worth, and 30 percent of zero is zero.[30] Therefore, PBGC is paid after creditors but before stockholders. Legislation proposed during 1981 would treat PBGC like any other general unsecured creditor.[31]

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erage and Benefit Entitlement, by Sylvester Schieber and Patricia George, published by the Employee Benefit Research Institute, Washington, D.C., 1981 (hereinafter EBRI Study).

[27] See p. 12 of *Coming of Age: Toward a National Income Retirement Policy*, published February 26, 1981, by the President's Commission on Pension Policy, Washington D.C.: "The low rate of increase [in coverage] since 1960 raises doubts as to whether there will be substantial voluntary gains in the future." Also, see p. 58 of EBRI Study: "It is reasonable to expect continued increases in pension participation."

[28] See Table III-1, p. 54, EBRI Study.

[29] See pp. 53–58, EBRI Study.

[30] For the definition of net worth for purposes of the limitation on termination liability, see PBGC regulations, sec. 2622.4(c). For a thorough discussion of termination liability, see Yale D. Tauber, "Individual Plans: Title IV Liabilities after Ouimet, Nachman and M & M Transportation," in *NYU Institute on Federal Taxation (1981 ERISA Supplement)*. (New York, 1981), pp. 11-1–11-42.

[31] See H.R. 4330 or S. 1541, sec. 6123, which would amend ERISA, sec. 4068(a)(1).

In theory, the market value of a share of common stock is equal to the discounted value of future dividends plus gain or loss at sale. Thus, theoretically, the value of a share of stock would reflect the employer's termination liability in the event of subsequent liquidation. Such valuation is no easy task, however, since there is no termination liability unless the underlying plan is terminated. To compute the liability, then, the likelihood of plan termination in any given year would have to be assessed. Assumptions would be needed for each future year. In this way the current value of a potential future liability might be assessed. To be sure, the Financial Accounting Standards Board might simplify this otherwise difficult task. FASB could unravel the conundrum by fiat; for example, the value of termination liability could be determined by assuming that the underlying plan terminates on the valuation date. This is certainly one way to approach the problem, but it would ignore the likelihood of continuing the plan. As a practical matter, notwithstanding theoretical considerations, stock prices are usually buffeted by more short-term considerations for companies that are not on the brink of liquidation. Nevertheless, it would not be inconceivable to introduce unfunded pension liability as an element of the process.

If the law changes and PBGC is treated like other unsecured creditors, some companies with big unfunded liabilities could have their credit ratings downgraded. This could have an immediate effect on such companies. Historically, a company's credit rating and the interest it is charged on its long-term debt have been inversely related; the lower the rating, the higher the interest rate it must pay.

However, unfunded pension liability presumably would not be evaluated for credit purposes in the same fashion as debt obligations. A company's financial results reflect debt service that applies to a fixed liability, while pension expense typically includes some prepayment of future liability assuming current plan provisions remain in effect. But pension plan sponsors are not legally obligated to maintain current benefit levels in the future. If a company experiences financial difficulty, future pension accruals could be reduced or eliminated; and if pension contributions remain at prior levels, the unfunded vested liability would be paid off at an accelerated rate. In any event, the process of assessing credit worthiness for debt offerings could change to include specific recognition of unfunded pension liability. The unfunded plans would have the same status as the other creditors in the scenario envisioned by the proposed legislation. If this comes about, some companies will surely pay higher interest charges for their long-term debt.

The purpose of the proposed change is to minimize the upward pressure

on PBGC premiums. If relatively more of the liability for guaranteed benefits in insufficient terminations comes from the plan sponsor, who generated the unfunded liability, relatively less will need to come from other plan sponsors in the form of PBGC premiums. Enhanced equity in the allocation of termination program costs compared to an increase in the cost of capital is a lopsided comparison, with the clear winner depending on whether a company has a big unfunded pension liability or no unfunded liability. However, in evaluating how a company with substantial unfunded liability will react if the proposed change is effected, the available alternatives should be considered.

It seems reasonable to assume that a viable company will not eliminate deferred compensation plans altogether. The remaining alternatives to the status quo are (1) to keep or modify the defined benefit plan and step up the funding to minimize the unfunded liability or (2) slowly or abruptly, to switch over to a defined contribution arrangement.[32] Both families of alternatives would result in better-funded plans. And neither choice would necessarily cost more or less than the other. Plan sponsors realize that a change to a defined contribution arrangement would constitute a termination of the defined benefit plan, which could precipitate employer termination liability for the plan asset insufficiency. When we view the situation this way, it is not at all clear that defined benefit plans would be abandoned en masse in favor of defined contribution plans if the proposed legislative change is effected.

VII. RISK-RELATED PREMIUMS

Equitable pricing is a necessary ingredient of voluntary insurance arrangements. Even though the termination program is mandated by law for virtually all defined benefit plans and violates some basic insurance tenets (benefits do not depend on premium payment, for example) an equitable allocation of program costs is a worthwhile goal. To this end, section 412 of MPPAA instructs PBGC to study the pros and cons of establishing a graduated premium rate schedule, based on risk.[33] Studies directed to that end are currently underway.

These developments present something of a *déjà vu* situation. ERISA was signed into law on Labor Day, 1974, after a gestation period that began in March 1962, with the appointment of the President's Committee

[32] See Jeffrey J. Furnish, "Pension Plans in an Inflationary Environment," *TSA*. XXXIV pgs. 29–44. It explores the defined benefit/defined contribution choices faced by pension plan sponsors.

[33] In addition, ERISA, sec. 4006(a)(4), which was added by MPPAA, gives PBGC statutory authority to recommend risk-related premiums.

on Corporate Pension Funds.[34] It was not until the early 1970s, though, that conclusive action was taken. What finally became law was the result of legislative compromise between the Labor and Finance committees. In 1973, two bills, S. 4 and S. 1179, were introduced by the Senate Labor and Finance committees, respectively. Together with the House versions, these bills led to ERISA. Interestingly enough, S. 4 and S. 1179 differed on premium formulation for the termination insurance program. The Labor bill established premiums that varied with a covered plan's unfunded vested liability,[35] while S. 1179 used a flat per-participant premium.[36] The latter approach prevailed.

Although a plan's unfunded vested liability, measured on a consistent basis, measures the intensity of a potential PBGC claim, it ignores the likelihood of one. Nevertheless, using a plan's unfunded liability would infuse more equity into the ratemaking process. But at what cost? Presumably, standard actuarial valuation procedures would have to be used for this purpose. Only the largest plans that are well funded would stand to save enough premium cost to make up the added cost of performing these calculations. And since claim volume would be largely unaffected, premiums saved by better-funded plans would have to be shouldered by the rest.

In order for a plan to present a claim, it must terminate. PBGC's experience to date indicates that by value, the vast majority of net claims are incurred as a result of business hardship.[37] So, the task of formulating a risk-related premium embraces bankruptcy prediction. Despite the investment community's long-standing interest in building such a machine, little progress has been made in reaching the objective.[38] For PBGC premium purposes, a credible bankruptcy forecasting horizon of a minimum of five to ten years would be necessary, which compounds the problem.[39]

[34] See pp. 34–37 in *Fundamentals of Private Pensions* (4th ed.), by Dan M. McGill, published for the Pension Research Council at the University of Pennsylvania, 1977.

[35] See sec. 403 in S. 4, a bill introduced in the Senate on January 4, 1973.

[36] See sec. 403(c) in S. 1179, as reported from the Senate Finance Committee on August 21, 1973.

[37] See p. 25, 1978 Termination Study.

[38] Ismael Dambolena and Carkis Khoury, "Ratio Stability and Corporate Failure," *Journal of Finance*, XXXV Sept., 1980 Pg 1017–1026 is a recent addition to the literature. References cited therein provide a good road map of the territory.

[39] For companies involved in credit insurance, accurate bankruptcy forecasting for periods measured in accounts receivable terms is essential. For PBGC premium purposes, however, where net claims can run to thousands of dollars per participant, increasing premiums enough to prepay its unfunded liability in the year or two prior to a company's likely collapse would all but ensure the bankruptcy.

All this suggests that a pure risk-related premium is an awesome undertaking, on any sort of cost-effective basis. However, something short of theoretical purity may be possible.

Given the cost of assessing risks individually, as long as PBGC premiums remain at relatively low levels, risk can be introduced in the premium process in only crude ways. On the other hand, as program abuses are identified, steps can be taken to minimize the size of net claims at the time of plan termination. In this way the responsible plan sponsor pays a relatively larger share of the unfunded liability. Indeed, a primary objective of Title VI in the proposed legislation cited earlier is to keep single-employer premiums relatively low. This may be a more effective way of having program costs assessed on an equitable basis, and it would tend to render the issue of risk-related premiums moot.

VIII. CONCLUSION

The current pension termination insurance system entails costs and benefits. How one decides whether the costs outweigh the benefits depends on personal and political values. Changing or eliminating the termination insurance program would change the cost-benefit analysis, not obviate it. This paper has illustrated that evaluating costs and benefits under the current program is a difficult business. It is not likely to be any easier under a different program.

DISCUSSION OF PRECEDING PAPER

HOWARD YOUNG:

Mr. Amoroso adds some useful data, which unfortunately suffer from a time lag in the publication process, together with thoughtful comments on the termination insurance program's purpose and results. However, three points are omitted or understated.

No mention is made of the benefit that plan participants derive from the additional assurance that part or all of their pensions will be paid. Most people are risk averters, so the simple existence of a mechanism that reduces their risk of loss is a benefit to them; that is the fundamental value of any insurance arrangement.

The discussion in Section V about the impact on defined benefit coverage is inconclusive, as it probably should be. However, it should not be assumed that termination insurance, and the premium cost involved, is an inhibiting factor. It can be argued that the increased security provided by termination insurance produces an environment that promotes the existence of private pension plans.

The implicit assumption in Section VII that premium variation based on some acceptable measure of risk would be fairer is open to question. In our interdependent economy many business reverses or failures stem from decisions by other businesses—for example, a large firm decides to change its product and therefore no longer needs output of a supplier. A neutral premium structure reflecting a "no-fault" concept is quite reasonable for a mandatory program. Whether such a premium should be related to the size of the possible claim is another issue; it should be recognized that asset values can deteriorate, so that unfunded liabilities are not the only exposure measure to be considered.

Finally, even without adjusting for experience subsequent to the data cited in the paper, I doubt whether it was realistic to project a future decrease if the $6 premium rate is enacted. The benefit levels guaranteed grow over time as a result of inflation and other factors, so that any fixed-dollar premium level is likely to become less adequate simply because of that trend.

ROBERT G. BOLTON:

Mr. Amoroso points out that at the 1981 fiscal year-end there was a $189 million deficit between liabilities and guaranteed benefits and the value of the PBGC assets. As of September 1982, the deficit had increased

to $332 million. The PBGC recommendation of increasing the premium rate from $2.60 per participant to $6.00 per participant is one way to deal with this problem.

However, there are other approaches. As noted in the paper, the nature of the plan termination risk does not lend itself to an actuarially based premium structure. In fact, the present per-head charge is more a tax on defined benefit plans than a premium. Instead of increasing "premiums" on a limited tax base, the per-head charge should be extended to defined contribution plans.

Defined contribution plans share the same tax advantages as defined benefit plans. Moreover, defined contribution plans have enjoyed a degree of growth at the expense of defined benefit plans simply because of the plan termination insurance program. It would be logical, as well, to extend the tax to defined benefit plans for substantial owners and to small professional service employer plans.

Other courses of action also are available to reduce future deficits. If the plan termination insurance program is considered from the point of view that contributions, both "premiums" and employer liability payments, plus interest must equal benefits plus expenses, the alternatives become clearer. Interest, benefits, and expenses can each be adjusted.

On May 6, 1982, Gerald D. Facciani, president of the American Society of Pension Actuaries, pointed out some of the alternatives in a letter to the secretaries of labor, commerce, and the Treasury. In terms of investment return, he notes that the PBGC trust funds earned an 11.9 percent annual rate from fiscal 1978 to fiscal 1981. He also points out, however, that "the bulk of PBGC's assets are held in the Revolving Funds, which show a negative annualized return of −0.4 percent from 1978–1981." A more successful investment program is critical to maintaining any kind of reasonable plan termination insurance program.

As for expenses, Mr. Facciani notes that "it has cost approximately $0.89 to pay out each dollar of benefit payments attributable to the operations of PBGC in the single employer program." He offers several suggestions to control these administrative expenses.

There is also a reasonable approach to controlling benefit payments. Mr. Facciani points out that by guaranteeing subsidized early retirement benefits, the PBGC has adopted an unnecessarily broad definition of basic benefits. There may be room to tighten the definition of basic benefits without undermining the integrity of the plan termination insurance program.

Each of these alternatives must be considered fully before there are increases in taxes or other new burdens placed on defined benefit plans.

(AUTHOR'S REVIEW OF DISCUSSION)
VINCENT AMOROSO:

I appreciate the interest shown by the two discussants. Judging by their tones, it appears that they represent opposing views of the relative value of the termination insurance program. I find it pleasantly surprising, however, that both discussions contemplate the program's continuation.

I am especially gratified by Mr. Young's interest. He has been long a champion of the pension termination program and was involved actively in its formulation prior to the enactment of ERISA. Mr. Young correctly adds two additional benefits to those listed in the paper. I agree that quantifying the risk of business failure on a credible basis is a tall order. PBGC's fiscal year 1982 net claims experience certainly seems to corroborate Mr. Young's final point: net claims for the year, over $200 million, were roughly twice the level forecast for the year in the premium study. I did not mean to imply that the premium would necessarily decrease. Rather I meant to suggest that the premium would decrease if all assumptions used for our study are realized, including the trend in claims beyond 1988.

Although it was my intention to stay within the confines of the statutory status quo, Mr. Bolton offers a novel suggestion: charging premiums for noncovered plans. PBGC's premium base would go up and defined benefit plans would be helped, but the rationale escapes me. Mr. Bolton says that defined contribution plans receive the same tax advantages as defined benefit plans; so do contributions made to profit-sharing plans, black-lung trusts, and sec. 501(c)(9) trusts. Should these plans be assessed premiums too? Mr. Bolton also cites three points raised in a letter by ASPA president Gerald Facciani. The quoted yield is +7.4 percent for the period from program inception to March 1983. As for expenses, the following figures are taken from PBGC annual reports.

	Fiscal Year (Dollar Amounts in Millions)					
	1977	1978	1979	1980	1981	1982
(1) Benefits paid	$19.8	$32.5	$36.7	$40.6	$61.1	$98.6
(2) Administrative expenses	$13.4	$16.4	$17.6	$21.8	$22.9	$27.4
(3) (2) − (1)	67%	50%	48%	54%	37%	28%

I do not know how Mr. Facciani determined his expense-to-benefits figure. It should come as no surprise, though, that this ratio should be quite high in the program's early years. Administrative costs will go up

much more slowly than benefit payments as the latter's growth stabilizes with the insurance system's increasing maturity. Based on in-house studies of future benefit payout, I believe the ratio will stabilize in the 5–10 percent range within fifteen years.

With respect to Mr. Bolton's final comment, I point out that the lowest premium is associated with zero benefit guarantees. As noted in the paper's conclusion, that would merely change the cost benefit analysis, not obviate it.