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Make Them Laugh!

Chairperson's Corner

by Amy S. Timmons

I'd like to keep my head down and just continue working, but I have a column to write. What to do, what to do, what to do. So many (and yet so few) ideas are revolving in my thoughts—ethics, cash balance plans, Society of Actuaries elections, new opportunities for actuaries, education of pension actuaries, the new exam syllabus… All topics I could spout great wisdom on. (Yeah, right).

Yet I turn to humans a topic that we, as actuaries, seem to be sorely in need of, given the recent articles slamming us on cash balance plans. I also could use a little lightening up, given that I live in Colorado with its recent tragedy. Since I never could remember a joke or its punch line, old ones are as funny to me as new ones. So stop me if you've heard this one... ..

Question:

How many actuaries does it take to screw in a light bulb?

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Excerpts from the PBGC Actuarial Valuation Report—1998 Fiscal Year

Editor's Note: The 1998 Annual Report of the PBGC and the complete 1998 Actuarial Valuation Report, including additional actuarial data tables, are available from Loretta Berg at the PBGC, (202) 326-4040, upon request.

The 1998 Annual Report of the Pension Benefit Guaranty Corporation (PBGC) contains a summary of the results of the September 30, 1998, actuarial valuation. The purpose of this separate Actuarial Valuation Report is to provide greater detail on the valuation of future benefits than is presented in PBGC's Annual Report.

Overview

The PBGC calculated and validated the present value of future benefits (PVFB) for both the single-employer and multi-employer programs and of non-recoverable financial assistance under the multi-employer program. For the single-employer program, the liability as of September 30, 1998, consisted of:

- $10.90 billion for the 2,655 plans that have terminated
- $3.31 billion for 26 probable terminations

Liabilities for "probable terminations" reflected reasonable estimates of the losses for plans that are likely to terminate in a future year. These estimated losses were based on conditions that existed as of PBGC's fiscal year-end. It is likely that one or more events subsequent to PBGC's fiscal year-end will occur, confirming the fact of the loss. In addition, the liability for reasonably possible terminations has been calculated and is discussed in Note 9 to the financial statements on page 37 of PBGC's 1998 Annual Report. A discussion of PBGC's potential claims and net financial condition over the next ten years is presented on pages 11-13 of that report.

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Excerpts from the PBGC Actuarial Valuation Report—1998 Fiscal Year

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For the multi-employer program, the liability as of September 30, 1998, consisted of:

- $6 million for 10 pension plans that terminated before passage of the Multi-Employer Pension Plan Amendments Act (MPPAA) and of which the corporation is trustee.
- $389 million for probable and estimable post-MPPAA losses due to financial assistance to 48 multi-employer pension plans that were, or were expected to become, insolvent.

Actuarial Assumptions, Methods, and Procedures

The PBGC continues to review the actuarial assumptions used in the valuation to ensure that they remain consistent with current market conditions in the insurance industry and with PBGC's experience. The actuarial assumptions that are used in both the single-employer and multi-employer valuations are presented in the table (on page 5). Assumptions concerning data that were not available are discussed in the data section of this report.

As in previous valuations, the select and ultimate interest rates used to value PBGC liabilities were derived by using an assumed underlying mortality basis and current annuity purchase prices. The interest rates so determined for the 1998 valuation were 5.70% for the fist 25 years after the valuation date and 5.50% thereafter. For the 1997 valuation, the interest rates were 6.20% the first 25 years and 5.50% thereafter. These interest rates are dependent upon PBGC's mortality assumption. However, this mortality remained unchanged from FY 1997 to FY 1998. (see next paragraph).

For the FY 1997 valuation, the mortality assumptions were updated by adopting the recommendations from a study by an independent consulting firm. This study recommended that, when conducting valuations for its financial statements, the PBGC use the male and female 1994 Group Annuity Mortality Static Tables (with margins), set forward two years, for healthy males and females. The study also recommended that continuing mortality improvements be taken into account by using Projection Scale AA, also set forward two years, to project these tables a fixed number of years. At each valuation date, the fixed number of years will be determined as the sum of the elapsed time from the date of the table (1994) to the valuation date, plus the period of time from the valuation date to the average date of payment of future benefits (the duration). This is an approximation to a fully projected table. Thus, the mortality table used for healthy lives in the 1998 valuation is the 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 12 years to 2006 using Scale AA. (Unchanged from FY 1997). The 12 years recognizes the 4 years from 1994 to 1998 plus the eight year duration of the 9/30/97 liabilities. The 1997 assumption also incorporated a 12 year projection, determined as the sum of the three years from 1994 to 1997, and the nine year duration of the 9/30/96 liabilities. Additional data was collected in FY 1998 and the model reviewed. Since the results of incorporating the new data into the model would not yield significantly different overall results, the formula remained unchanged for the FY 1998 valuation.

There was no change in the assumptions for retirement ages.

The Small Plan Average Recovery Ratio (SPARR) assumptions as shown in the table on page 5 were updated to reflect the actual SPARRs calculated for FY 1994 (7.04%) and for FY 1995 (7.22%). The SPARRs for subsequent years are assumed to equal the FY 1995 SPARR.

Efforts continued into 1998 to improve the quality of the seriatim data. In addition, changes were made to improve the quality of the seriatim data. In addition, changes were made to improve the accuracy, speed, and auditability of the calculations as well as to integrate with the evolving PBGC computer environment. Special achievements in FY 1998 included extensive testing to insure Year 2000 compatibility and the implementation of a more efficient database system.

Statement of Actuarial Opinion

This valuation has been prepared in accordance with generally accepted actuarial principles and practices and, to the best of my knowledge, fairly reflects the actuarial present value of the corporation's liabilities for the single-employer and multi-employer plan insurance programs as of September 30, 1998.

In preparing this valuation, I have relied upon information provided to me regarding plan provisions, plan participants, plan assets, and other matters.

In my opinion, (1) the techniques and methodology used for valuing these liabilities are generally accepted within the actuarial profession; (2) the assumptions used are appropriate for the purposes of this statement and are individually my best estimate of expected future experience discounted using current settlement rates from insurance companies; and (3) the resulting total liability represents my best estimate of anticipated experience under these programs.

Joan M. Weiss, FSA
Chief Valuation Actuary
Pension Benefit Guaranty Corporation
Washington, D.C.
April 5, 1999

ACTUARIAL ASSUMPTIONS

	Current Valuation as of 9/30/98	**Previous Valuation as of 9/30/98**
Interest Rate	Select and Ultimate • 6.2% for 25 years • 5.5% thereafter	Select and Ultimate • 5.7% for 25 years • 5.75% thereafter
Mortality • Healthy Lives • Disabled Lives Not Receiving Social Security • Disabled Lives Receiving Social Security	• 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 12 years to 2006 using Scale AA • Healthy Lives Table set forward three years • Social Security disability table as described in subpart B of PBGC regulations on Allocation of Assets in Single-Employer Plans for persons up to age 64, adjusted to parallel the table for disabled lives not receiving Social Security benefits for ages above 64.	Same (but see discussion)
SPARR	Actual SPARR for fiscal years for which it has been calculated. The most recent actual SPARR is assumed for years for which the calculation is not yet completed (most recent SPARR: FY 1993 = 7.44%). See Table 2B for values.	Actual SPARR for fiscal years for which it has been calculated. The most recent actual SPARR is assumed for years for which the calculation is not yet completed (most recent SPARR: FY 1995 = 7.22%). See Table 2B for values.
Retirement Ages	Same	(a) Earliest possible for shutdown companies. (b) Expected retirement age (XRA) tables from 29 CFR 4044 for ongoing companies (c) Participants past XRA are assumed to be in pay status. (d) Unlocated participants past normal retirement age (NRA) are phased out over three years to reflect lower liklihood of payment.
Expenses	All terminated plans and single-employer probable terminations: 1.30% of the liability for benefits plus additional reserves as shown in Table 2C for cases where plan asset determinations, participant database audits, and actuarial valuations were not complete.	Same

Social Security Paper Notice

There is presently a great deal of debate about approaches to the financing of Social Security benefits. The Committee on Social Security-Retirement and Disability Income has written a paper, "Social Security, Productivity, and Demographics," intended for actuaries to focus their attention on the fundamental economic reality that the capacity of any social security system is ultimately determined by the output of the nation's economy.

The paper appeared in the "Perspectives" column of the April 1999 edition of *The North American Actuarial Journal*, (Volume 3, Number 2).