Pension Section News

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PENSION SECTION NEWS

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From the Pension Section Council Chairperson

Pension Training Software

by Colin England

Help! We recently completed Phase I of our Pension Training Course. We've been working on this for several years. We are trying to develop material to teach a new analyst the things they need to know to do their job. We don't expect to supplant on-the-job training, but to help you in training your new analysts. Phase I is a modest beginning, primarily focused on an overview of the pension world, with limited instruction in pension plan documents, benefit calculations, and the steps in a pension valuation.

We need your comments on:

- How useful are the current materials?
- How can we make them more useful?
- What are the most critical additional areas for additional training?

(continued on page 3, column 1)

Excerpts from the PBGC Actuarial Valuation Report—1999 Fiscal Year

Editor's Note: The 1999 Annual Report of the PBGC and the complete 1999 Actuarial Valuation Report, including additional actuarial data tables, are available from Loretta Berg at the PBGC, (202) 326-4040, upon request.

The 1999 Annual Report of the Pension Benefit Guaranty Corporation (PBGC) contains a summary of the results of the September 30, 1999, actuarial valuation. The purpose of this separate Actuarial Valuation Report is to provide greater detail conerning 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, 1999, consisted of:

- $10.06 billion for the 2,775 plans that have terminated
- $2.85 billion for 25 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 8 to the financial statements on page 37-38 of PBGC's 1999 Annual Report. A discussion of PBGC's potential claims and net financial condition over the next ten years is presented on pages 15-17 of that report.

For the multi-employer program, the liability as of September 30, 1999, consisted of:

(continued on page 4, column 1)

In This Issue

Excerpts from the PBGC Actuarial Valuation Report — 1999 Fiscal Year

continued from page 1

- $5 million for 10 pension plans that terminated before passage of the Multi-Employer Pension Plan Amendments Act (MPPAA) and of which the PBGC is trustee.
- $480 million for probable and estimable post-MPPAA losses due to financial assistance to 46 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 1999 valuation were 7.00% for the first 25 years after the valuation date and 6.50% thereafter. For the 1998 valuation, the interest rates were 5.70% the first 25 years and 5.75% thereafter. These interest rates are dependent upon PBGC's mortality assumption which changed from FY 1998 to FY 1999 (see below).

Beginning with 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 1999 valuation is the 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 14 years to 2008 using Scale AA. The 14 years recognizes the five years from 1994 to 1999 plus the nine-year duration of the 9/30/98 liabilities. The 1998 assumption incorporated a 12-year projection, determined as the sum of the four years from 1994 to 1998, and the eight-year duration of the 9/30/97 liabilities.

The model used to determine the reserve for future administrative expenses was changed in FY 1997 based on a study by an independent consultant. Additional data were collected in both FY 1998 and FY 1999 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 1999 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 1996 (7.90%) and for FY 1997 (5.98%). The SPARRs for subsequent years are assumed to equal the FY 1997 SPARR.

The change in the method of obtaining seriatim data was the principal improvement in valuation processing for 1999. We now obtain data directly from the official Genesis database, rather than through a transitional system that mimicked the structure of the prior PAY3000 database. This change enables us to capture a more complete data set and to utilize more fully the unique features of Genesis. Among the associated improvements in calculation are better error detection and analysis, explicit valuation of payments to be recouped by PBGC, and more accurate valuation of future lump sums.

We continued our ongoing efforts to improve the quality of the seriatim data and, as in other years, made various changes to improve the accuracy, speed and auditability of the calculations and to integrate with the evolving PBGC computer environment. We also continued to perform intensive Year 2000 testing.

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, 1999.

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, is chief valuation actuary at Pension Benefit Guaranty Corporation, Washington, D.C.

ACTUARIAL ASSUMPTIONS

	Previous Valuation as of 9/30/98	**Current Valuation as of 9/30/99**
Interest Rate	Select and Ultimate • 5.7% for 25 years • 5.75% thereafter	Select and Ultimate • 7.00% for 25 years • 6.50% thereafter
Mortality • Healthy Lives	• 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 12 years to 2006 using Scale AA	1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 14 years to 2008 using Scale AA.
• Disabled Lives Not Receiving Social Security	• Healthy Lives Table set forward three years	Same
• Disabled Lives Receiving Social Security	• 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
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 1995 = 7.22%).	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 1997 = 5.98%).
Retirement Ages	(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 likelihood of payment.	Same
Expenses	All terminated plans and single-employer probable terminations: 1.30% of the liability for benefits plus additional reserves for cases where plan asset determinations, participant database audits, and actuarial valuations were not complete.	Same