

# CRS Report for Congress

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## Defined Benefit Pension Reform for Single-Employer Plans

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# Defined Benefit Pension Reform for Single-Employer Plans

## Summary

There is considerable interest this year in reform of the laws governing funding of single-employer defined benefit pension plans and premium structure for the Pension Benefit Guaranty Corporation (PBGC). Large and growing deficits for the PBGC and continued underfunding of pension plans, particularly for financially weak companies, are the major reasons behind the push for reform.

This report outlines the complex current law governing the funding of single-employer defined benefit pension plans. It discusses the role of the PBGC in insuring pension benefits, the structure of the premiums that single-employer plans must pay the PBGC, and the benefits guaranteed by the PBGC in exchange for the payment of premiums. The report also describes reporting and disclosure requirements that apply to plans.

The Administration, early in 2005, proposed comprehensive reform of pension funding rules, PBGC premium structure, and reporting and disclosure requirements. Under the proposed approach, the interest rates used for pension funding would be based on a yield curve of corporate bond rates. This report describes the Administration proposal and provides a simple example to illustrate calculation of a liability using a yield curve.

Elements of the Administration proposal form the basis of some of the bills that have been introduced in the 109<sup>th</sup> Congress. Other bills emphasize features not included in the Administration proposal. Several bills have been introduced in the 109<sup>th</sup> Congress including H.R. 2830 (the Pension Protection Act of 2005), S. 219, (the National Employee Savings and Trust Equity Guarantee Act of 2005), and H.R. 1960 and H.R. 1961 (each titled the Pension Preservation and Savings Expansion Act of 2005). Other bills include H.R. 2233, S. 991, H.R. 2327, S. 1158, S. 685, H.R. 2106, and S. 861.

This report includes quantitative analysis based on regulatory filings by pension plans for 2001 and 2002 to provide an assessment of the number of plans that might be affected by certain elements of the Administration proposal. It also summarizes the reaction to the Administration proposal by business and labor.

The report also includes an illustration of the effect on a hypothetical plan sponsor's plan contribution and funded ratio of the credit balance approach used in current law versus the Administration proposal.

The PBGC also insures multiemployer pension plans. The laws and issues relating to multiemployer plans are quite different than for single-employer plans. This report focuses on single-employer plans. This report will be updated upon major legislative developments.

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Winnie Sun, actuarial intern in the Domestic Social Policy Division, contributed analysis of Form 5500 Schedule B data.

# Defined Benefit Pension Reform for Single-Employer Plans

## Background

The Pension Benefit Guaranty Corporation (PBGC) is the federal agency that insures most defined benefit pension plans. The PBGC posted a deficit (excess of its liabilities over assets) of \$23.3 billion as of September 30, 2004.<sup>1</sup> While the PBGC has sufficient assets to pay benefits for the interim future, without changes in the law governing PBGC premiums and funding of pension plans, it is estimated that the PBGC will run out of cash within the next 20 years.<sup>2</sup> The PBGC deficit has created alarm and raised the specter of an eventual taxpayer bailout of the PBGC. In May 2005, a federal bankruptcy court approved the termination of United Airlines' underfunded pension plans which will result in the largest loss to date in PBGC's history. Several other airlines are financially weak and have severely underfunded pension plans that may be terminated.

Since the passage of the Omnibus Budget Reconciliation Act of 1987 (OBRA-87) and until 2003, the interest rate used to calculate *current liability* that is used to determine pension plan contributions was based on the rate on 30-year Treasury bonds. When the Treasury stopped issuing 30-year Treasury bonds in September 2001, it was necessary to provide an alternative. The *Pension Funding Equity Act of 2004*, P.L. 108-218, provided a temporary solution for years 2004 and 2005 by requiring that the interest rate be based on the rate on high quality long-term corporate bonds. This provision expires at the end of 2005 and without action by Congress, the interest rate will revert to that based on long-term Treasury bonds.

In the 30 years since the passage of the *Employee Retirement Income Security Act (ERISA)* in 1974, pension law has become increasingly complex with a patchwork of legislation passed to meet the immediate and varying needs and

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<sup>1</sup> The PBGC's assets consist of revenues from premiums charged on pension plans that it insures, assets of terminated pension plans, and any asset recoveries from plan sponsors of terminated pension plans. The PBGC assets also include investment income on PBGC revenues. The PBGC's liabilities consist of the present value of the benefits payable by the PBGC for participants in terminated pension plans, plans whose termination is pending, and probable terminations. The PBGC receives no appropriations from Congress. For additional information on the PBGC's financial status, see CRS Report RL32702, *Can the Pension Benefit Guaranty Corporation be Restored to Financial Health?*, by Neela K Ranade.

<sup>2</sup> See page 5 of CBO testimony *Defined-Benefit Pension Plans: Current Problems and Future Challenges*, before the Senate Finance Committee, June 7, 2005, at [<http://www.cbo.gov/ftpdocs/64xx/doc6414/06-07-PBGC.pdf>].

interests of different parties. In a departure from the incremental pension reform approach used in the past, the Administration early in 2005 proposed fundamental reform of pension funding rules, the PBGC premium structure, and reporting and disclosure.

Several bills are currently under consideration. Some build on the Administration proposal while others introduce elements not seen in the Administration proposal. H.R. 2830 was ordered to be reported by the House Education and Workforce Committee on June 30, 2005, and is currently under consideration by the House Ways and Means Committee.

## Current Law<sup>3</sup>

**Overview.** By law, plan sponsors generally must make annual contributions to the pension plan so that plan assets are available to pay pension benefits promised to employees. The defined benefit pension system is currently underfunded. The PBGC estimates that total plan underfunding on a termination liability basis was \$450 billion as of September 30, 2004.<sup>4</sup> Although plan sponsors are required to make contributions to pension plans, the law provides so many exceptions and overrides that even a sponsor of a substantially underfunded pension plan can go several years without making any contributions to its pension plan.<sup>5</sup> The interest rate used to determine the contribution to a pension plan is another area of focus since the temporary provisions of the Pension Funding Equity Act of 2004 expire at the end of 2005. We provide below an overview of funding rules for single-employer defined benefit pension plans.

When underfunded pension plans terminate, the financial burden is placed on the PBGC which had a deficit of \$23.3 billion as of September 30, 2004. The PBGC's large deficit is the result of two factors; substantial underfunding in plans that have terminated in the past, and inadequate levels of premiums paid by plan sponsors to the PBGC. We provide below a description of premiums payable to the PBGC, benefits guaranteed by the PBGC, and the PBGC's (limited) right to assets of sponsors of terminated plans.

Under current law, pension plans are required to file information related to funding and funded status with the Department of Labor (DOL), Internal Revenue Service (IRS), and the PBGC. In addition, summary information must be provided to plan participants. However, restrictions on disclosure of certain information may

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<sup>3</sup> For more details see Joint Committee on Taxation, *Present Law and Background Relating to Employer-Sponsored Defined Benefit Pension Plans and the Pension Benefit Guaranty Corporation ("PBGC")*, JCX-03-05, Feb. 28, 2005; and Department of Labor, *Strengthen Funding for Single-Employer Pension Plans*, Feb. 7, 2005.

<sup>4</sup> *PBGC Performance and Accountability Report-Fiscal Year 2004*, p. 8.

<sup>5</sup> United Airlines and US Airways, for example, made no contributions for several years preceding termination of their pilots' pension plans, even though the plans were severely underfunded. See PBGC testimony before the House Subcommittee on Transportation and Infrastructure, June 22, 2005 at [[http://www.pbgc.gov/news/speeches/testimony\\_062205.htm](http://www.pbgc.gov/news/speeches/testimony_062205.htm)].

result in participants being unaware of a plan being severely underfunded until it is on the brink of termination. We provide below an overview of the reporting and disclosure requirements under current law.

**Pension Funding Rules.** Under current law, the sponsor of a defined benefit pension plan must make a contribution to the plan each year that is at least as large as the minimum required contribution and no larger than the maximum deductible contribution.<sup>6</sup> The original rules relating to minimum required and maximum deductible contributions were laid out by ERISA and were fairly straightforward. These rules allowed the plan's actuary to use one of several acceptable actuarial funding methods<sup>7</sup> and an interest rate based on his/her best estimate of anticipated experience under the plan. The original calculations are now supplemented by calculations based on a comparison between the plan's assets and a more standardized measure of the plan's liability, known as the *Current Liability*.

The current liability is defined as the present value of plan benefits that have accrued as of the valuation date determined with the use of standardized interest and mortality assumptions specified by law. Several other technical terms are used in pension funding law. The common ones are defined in the box on page 4.

There is less flexibility in the choice of the interest rate for determining current liability than for determining the normal cost and accrued liability under the plan's funding method. **Table 7** in **Appendix 1** provides additional information on current liability and accrued liability.

Historically, the interest rate used to determine current liability was based on the rate on 30-year Treasury bonds. When the Treasury Department stopped issuing 30-year bonds in September 2001, it allowed contributions to be determined based on the rates on existing long-term Treasury bonds for plan years 2002 and 2003.<sup>8</sup> However, with the ceasing of issuance of new 30-year Treasury bonds, the rates on existing 30-year Treasury bonds dropped. Use of a lower interest rate leads to higher pension contributions. The business community would likely have found continued use of a required interest rate based on rates on existing Treasury bonds unfair. In addition, rates on existing long-term Treasury bonds could only serve as a temporary proxy for the rate on 30-year Treasury bonds, given that no new 30-year Treasury bonds have been issued since 2001. It was necessary to find a different solution for the current liability interest rate. The Pension Funding Equity Act (P.L. 108-218) came up with a solution, but only for two years. It specified that for plan years 2004

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<sup>6</sup> A plan sponsor may make a contribution in excess of the maximum deductible limit. However, this would be subject to an excise tax.

<sup>7</sup> The actuarial funding methods listed on the 2004 Schedule B of the Form 5500 are attained age normal, entry age normal, accrued benefit, aggregate, frozen initial liability, individual level premium, and the individual aggregate method.

<sup>8</sup> For the 2001 and prior plan years, the interest rate used to determine the current liability was required to fall between 90%-105% of the four-year weighted average of rates on long-term Treasury bonds. Under the terms of the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147), the permissible range was changed to 90%-120% of such weighted average for plan years 2002 and 2003.

and 2005, the interest rate for determining the current liability must fall within 90%-100% of the four-year weighted average of rates on long-term corporate bonds.

A term used in the definitions of the minimum required and maximum deductible contributions is the *Full Funding Limitation*. The full funding limitation (FFL) is the excess, if any, of: (1) the accrued liability under the plan (including normal cost); over (2) the lesser of (a) the market value of plan assets or (b) the actuarial value of plan assets. However, the full funding limitation may not be less than the excess, if any, of 90% of the plan's current liability (including the current liability normal cost) over the actuarial value of plan assets.<sup>9</sup>

<b>Pension funding terminology</b>
<b>Actuarial funding method</b> — An orderly method of developing the costs of a pension plan such that the payment of these costs will accumulate to the reserve required at retirement age. A plan's funding method determines the normal cost and accrued liability for the plan based on the demographics of plan participants and actuarial assumptions.
<b>Actuarial assumptions</b> — Assumptions that are required to determine the funding calculations. Primary among these are the <i>interest rate</i> assumption for the return expected to be earned by plan assets and the <i>mortality</i> assumption for the plan participants.
<b>Actuarial present value</b> — The value of future benefit payments discounted with interest to the current time to take into account the time value of money and adjusted to reflect the probability of payment by use of decrements for death, turnover, retirement and disability.
<b>Normal cost</b> — The portion of the actuarial present value of total pension benefits that is attributable to the current year's service under the actuarial funding method chosen for the plan.
<b>Accrued liability</b> — The portion of the actuarial present value of total pension benefits that is associated with the past under the actuarial funding method.
<b>Actuarial Value of plan assets (AV)</b> — Takes into account the fair market value of plan assets (MV) and may smooth fluctuations in MV by gradually recognizing appreciation or depreciation of plan assets over no more than five years. Under current law, the AV must be between 80% and 120% of the MV. The AV is used in the determination of the minimum required and maximum deductible funding limits.
<b>Funding Standard Account (FSA)</b> — An accounting device included in Schedule B of the Form 5500 that the plan sponsor must file each year. It is used to monitor compliance with the minimum funding rules. Charges to the FSA consist of the normal cost and amortization of unfunded liabilities. Plan contributions are credited to the FSA.
<b>Credit balance</b> — The balance created in the Funding Standard Account when the plan sponsor makes a contribution in excess of the minimum required contribution. It is carried over with interest at the rate assumed in the plan's funding calculations and may be used to reduce the employer's plan contribution for the following year.

<sup>9</sup> For plan years 2002 and 2003, the FFL was the excess if any of the lesser of (1)(a) accrued liability under the plan including normal cost or (b) the applicable percentage of the current liability (including current liability normal cost), over the lesser of (2)(c) market value of plan assets or (d) actuarial value of plan assets. The applicable percentage was defined as 165% for 2002 and 170% for 2003. However, the FFL could not be lower than the excess if any of 90% of the current liability (including current liability normal cost) over the actuarial value of plan assets.



**Minimum Funding Rules.** The minimum required contribution is generally equal to the sum of the normal cost and the amortized amount of the unfunded accrued liability (accrued liability less actuarial value of plan assets), reduced by the Funding Standard Account (FSA) credit balance. The FSA is used to track contributions made by a plan sponsor in excess of the minimum required contribution. **Appendix 2** provides a numerical example of a FSA under current law and under possible alternative definitions.

Interest is accrued on charges and credits in the FSA at the rate assumed for determining the plan contribution under the plan's funding method. This rate is chosen by the plan's actuary so that together with other assumptions such as mortality, employee turnover, etc., it represents his best estimate of anticipated experience under the plan.

Additional funding requirements apply to certain underfunded plans. Under special funding rules, called the "deficit reduction contribution" rules, a plan with over 100 participants may be required to make additional funding contributions under certain conditions.<sup>10</sup> The additional funding contribution requirements generally apply when the actuarial value of the plan's assets is less than 90% of the current liability.<sup>11</sup>

Calculation of the additional contribution under the deficit reduction contribution rules is complex and involves a faster amortization of the plan's unfunded liability for a plan that has a low ratio of current liability to the actuarial value of plan assets.<sup>12</sup> The law contains an override provision that specifies that the amount of the additional required contribution may not exceed the amount needed to bring the plan's actuarial value of plan assets to the level of its current liability.

Regardless of whether the deficit reduction contribution rules apply, no contributions are required under the minimum funding rules in excess of the Full Funding Limitation.

Under the Pension Funding Equity Act of 2004, commercial airlines, steel manufacturers, and certain other employers may elect to use special rules to reduce significantly the deficit reduction contribution for plan years beginning between December 28, 2003 and December 27, 2005.<sup>13</sup>

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<sup>10</sup> The additional funding requirements were enacted by OBRA-87 and amended by the Retirement Protection Act of 1994 to address demands on the PBGC insurance system as a result of terminations of underfunded pension plans.

<sup>11</sup> However, the requirement does not apply if the actuarial value of the plan's assets is between 80% and 90% of current liability, provided that the plan's assets were at least 90% of current liability in two consecutive years out of the last three years.

<sup>12</sup> For a more complete description of additional funding requirements, see *Present Law and Background Relating to Employer-Sponsored Defined Benefit Pension Plans and the Pension Benefit Guaranty Corporation ("PBGC")*, JCX-03-05, Feb. 28, 2005.

<sup>13</sup> For more information, see CRS Report RS21717, *H.R. 3108: The Pension Funding Equity Act*, by Patrick Purcell and Paul Graney.

**Maximum Deductible Contributions.** The maximum deductible contribution determined under the plan's funding method is generally equal to the normal cost plus a 10-year amortization of any unfunded accrued liability. However, the maximum deductible contribution may not be greater than the full funding limitation. Under a special rule, a plan sponsor may deduct amounts contributed to the plan that are not in excess of the amount necessary to bring the plan's assets up to the current liability, without regard to whether the plan assets exceed the accrued liability under the plan's funding method.

**Impact of Funding Rules on Funded Status.** Three elements of the funding rules have contributed to the underfunding of pension plans in recent years and changes in these have been incorporated in many legislative proposals for funding reform:

- The definition of the Full Funding Limitation is based on 90% of the current liability, not 100% of the current liability. Also, the threshold for triggering of additional contributions under the deficit reduction contribution rules is based on 90% of current liability rather than 100% of current liability.
- The asset measure used in the definitions of the unfunded accrued liability under the plan's funding method, the Full Funding Limitation, and the threshold for triggering of additional contributions under the deficit reduction contribution rules is based on the actuarial value of plan assets. In years of market decline, the actuarial value can be higher than the market value due to the deferral of recognition of capital losses. For such years, the required contributions for plans that choose to spread capital losses (and gains) can be significantly lower than if the market value of assets was used.
- The credit balance in the Funding Standard Account is credited with interest at the assumed interest rate and may be used to lower the required funding contribution even when plan assets have suffered major losses and fallen below plan liabilities.

While the above elements of current funding rules may be appropriate for ongoing healthy plans, they can substantially contribute to the existing underfunding of plans of financially weak companies that are close to termination.

**Role of the PBGC.** The PBGC was established under ERISA to provide mandatory pension insurance for defined benefit pension plans. The premiums that companies pay for this insurance help to finance the benefits that PBGC distributes to beneficiaries of underfunded terminated plans. The assets taken over from those plans, investment earnings, and any recoveries from sponsors of terminated plans are the other sources of these benefit payments.

**PBGC Premiums.** The single-employer program has two different premium rates. The annual *flat-rate premium* that every sponsor pays was raised by Congress to \$19 per participant in 1991 and has remained unchanged since then. The *variable-rate premium* is charged to certain underfunded plans. It was last modified in 1994 and is currently \$9 per \$1,000 of the plan's unfunded vested benefits. The plan's

unfunded vested benefits are defined as the excess of the plan's current liability, taking into account only vested benefits, over the actuarial value of the plan's assets.<sup>14</sup> However, a plan with unfunded vested benefits is nevertheless exempt from paying variable rate premiums if the plan was at full funding limit for the prior plan year, i.e., the sponsor had made a plan contribution for the prior plan year not less than the Full Funding Limitation for the prior plan year under Section 412(c)(7) of the Internal Revenue Code (IRC).

The interest rate used to determine vested benefits for purposes of calculation of the variable premium differs from the rate used for funding purposes. For plan years 2001 and before, it was 85% of the rate on 30-year Treasury bonds. P.L. 107-47 changed it to 100% of the rate on 30-year Treasury bonds for plan years 2002 and 2003. P.L. 108-218 further modified it to 85% of the rate on long-term corporate bonds for plan years 2004 and 2005. In the absence of new legislation, the rate will revert to the rate based on long-term Treasury bonds. **Table 7 in Appendix 1** provides additional information on the determination of the present value of vested benefits for purposes of determination of the variable-rate premium.

**Guaranteed Benefits.** Under ERISA, no further service credit is earned toward accruing benefits, vesting, and entitlement to retirement subsidies once a plan is terminated. As of that date, the plan administrator allocates the plan assets among six priority categories as the statute dictates. If there are not enough assets to pay all the benefits that have accrued, the PBGC takes over the plan as trustee and pays the plan participants guaranteed benefits. Only basic benefits are guaranteed and benefits from new plans and recent amendments are phased in at the rate of 20% per year for five years.<sup>15</sup> Non-vested pension benefits are not guaranteed.

The maximum PBGC guarantee per covered participant is \$3,801.14 per month at age 65 for plans terminating in 2005, and is reduced for benefits commencing prior to age 65. This provision has caused considerable distress to retired pilots of airline pension plans terminating with insufficient assets. Under federal regulation, airline pilots are forced to retire at age 60.<sup>16</sup> The maximum PBGC guaranteed benefit for a pilot who retired at age 60 and whose pension plan terminated in 2005 would be \$2,470.74 (\$3,801.14 times 0.65), considerably lower than the typical pension benefit for a full service airline pilot that might amount to \$10,000 per month.

Contingent benefits such as those that have been promised in a case where a plant shuts down are only guaranteed if the precipitating event takes place before the termination date. This is why PBGC will try to terminate a plan before a company

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<sup>14</sup> IRC Section 412(l)(7)(C)(ii)(II) allows the Secretary of the Treasury to specify an updated mortality table to be used by pension plans for the determination of the current liability and the vested benefits. 29 CFR §4006.4 states that when the mortality table is updated, the fair market value of assets rather than the actuarial value of assets must be used to determine the unfunded vested benefits.

<sup>15</sup> This phase-in period is 30 years beginning with participation in the plan for a substantial owner, i.e., one who owns more than 10% of the company.

<sup>16</sup> See CRS Report RL32960 *Age Restrictions for Airline Pilots: Revisiting the FAA's 'Age 60 Rule'* by Bart Elias.

triggers shutdown benefits by closing its plants. Since contingent benefits cannot be prefunded, they can place a great strain on PBGC's resources.

***Lien Against Plan Sponsor Assets.*** When a plan sponsor does not make required contributions to the plan, it weakens the plan's funded status and increases the potential claim against the PBGC. Both ERISA and the IRC give the PBGC the right to perfect a lien against the assets of a plan sponsor and members of its controlled group when \$1 million in required pension contributions are missed, but only if they have not filed for bankruptcy. The Bankruptcy Code currently keeps the PBGC from perfecting a lien against the debtor, and effectively prevents it from requiring further contributions to the plan.

***PBGC's Right to Recovery for Unfunded Benefits.*** The law allows the PBGC to attempt to recover monies for unfunded pension liabilities from other assets of the plan sponsor. When the PBGC does make recoveries on its claims for unfunded benefit liabilities, it shares the proceeds with beneficiaries who are not receiving the full benefits to which they were entitled under the plan. In the event that sufficient monies are recovered, a plan participant's benefit could be higher than the maximum PBGC guaranteed benefit. ERISA prescribes the use of an average recovery ratio over the five years immediately preceding the year in which the plan terminates instead of using the actual amount recovered for each individual plan. For very large plans with over \$20 million in participants' benefits losses, the actual amount of the recovery is used to determine how much will be allocated to the participants. Any amounts recovered from the plan sponsor for contributions that were due before termination are considered as plan assets as of the termination date and are distributed in the same manner as the rest of the assets available at that time. All amounts are determined according to the actual amount recovered for the specific plan regardless of the size of the recovery.

***Reporting and Disclosure Requirements.*** Both ERISA and the IRC require defined benefit plans to provide annual information related to funding and the funded status of the plan to the IRS, DOL, and PBGC. Certain reports and notices must also be provided to participants and beneficiaries on an annual basis. There are additional reporting requirements for underfunded pension plans.

***Form 5500.*** A qualified pension plan generally must submit an annual report (Form 5500) with information pertaining to the qualification, financial condition, and operation of the plan. Form 5500 must be filed with the DOL seven months after the end of the plan year unless the available 2½-month extension has been granted. A defined benefit plan subject to minimum funding standards of ERISA generally must include an actuarial statement on Schedule B that is certified by an actuary enrolled to practice before the IRS, DOL, and PBGC. The Schedule B includes information on the plan's assets, accrued and current liabilities, contributions from the sponsor, expected payments to beneficiaries, actuarial cost method and actuarial assumptions, and amortization bases established during the plan year. The Schedule B also includes the Funding Standard Account statement for the plan year. The DOL forwards a copy of the Form 5500 including the Schedule B to the IRS and the PBGC.

**Summary Annual Report.** The plan administrator must send a summary of the annual report (SAR) to participants and beneficiaries with basic financial information about the plan. The SAR must state whether or not the contributions to the plan were enough to meet the minimum funding standards and the amount of any deficit. In the case where the plan's assets are valued at less than 70% of the current liability under the plan, the SAR must state the percentage of such current value of the plan's assets. The SAR must be provided within nine months after the end of the plan year or within two months after the extended due date for the Form 5500, if applicable. In addition, upon written request, a plan participant must be provided with a copy of the full annual report (Form 5500).

**Participant Notice of Underfunding.** Under ERISA Section 4011, plan administrators of certain underfunded plans must notify participants and beneficiaries annually of the plan's funding status and the limits of the PBGC's guarantee. A Participant Notice is due two months after the due date (including extensions) for the Form 5500. The plan administrator of any single-employer plan for which a variable rate premium (VRP) is payable for the plan year is required to issue a Participant Notice, unless the plan meets the *Deficit Reduction Contribution (DRC) Exception Test* for the plan year or the prior plan year. A plan meets the DRC Exception Test for a plan year if the actuarial value of plan assets is at least 90% of the current liability. A plan with actuarial value of plan assets between 80% and 90% of current liability will still meet the DRC Exception Test if the actuarial value of plan assets was at least 90% of current liability in two consecutive years out of the last three years.

**Section 4010 Disclosure.** Section 4010 of ERISA requires the reporting of plan actuarial and company financial information by employers with plans that have (i) aggregate unfunded vested benefits in excess of \$50 million (determined on a variable-rate premium basis), (ii) missed required contributions in excess of \$1 million, or (iii) outstanding minimum funding waivers in excess of \$1 million. Filing is on a controlled group basis.<sup>17</sup> The information is required to be filed with the PBGC and includes the plan's fair market value of assets and its termination liability. **Table 7 of Appendix 1** provides additional information on determination of the termination liability for Section 4010 disclosure purposes. Plan sponsors must provide Section 4010 information within 105 days after the end of their "information year." This is April 15 for most employers.

Section 4010(c) prohibits the PBGC from disclosing §4010 information, except for information that is otherwise public. As a result, plan participants of severely underfunded pension plans of financially troubled companies may be unaware of the extent of the problem until the company is in bankruptcy reorganization and the plan is about to be taken over by the PBGC.

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<sup>17</sup> Two or more companies are said to form a controlled group if the parent corporation owns at least 80% of the stock in each company.

## Administration Proposal<sup>18</sup>

The Administration proposes a comprehensive overhaul of the laws governing the defined benefit pension system. The proposal included in the FY2006 budget submission consists of a three-pronged approach to reform: changing the rules for funding defined benefit plans, improving the financial position of the PBGC, and improving disclosure to better inform workers, investors, and regulators.

**Changing the Funding Rules.** In place of the various measures of pension liabilities described above, the Administration proposes the adoption of a single measure of liabilities based on benefits earned to date with minimal smoothing. The proposal would also adjust the funding target of a plan according to the financial strength of the plan sponsor. The time allowed to make up shortfalls would be shortened, and limitations would be placed on benefit enhancements and accelerated distributions during periods of severe underfunding. The final change in funding rules would allow plans to make additional deductible contributions during periods of favorable economic conditions.

**Measuring Assets and Liabilities.** The Administration's position is that the smoothing available under current law masks the underlying financial weakness of many underfunded pension plans. Its proposal would measure assets at fair market value on the valuation date for the plan (the first day of the plan year for plans with more than 100 participants, or any day of the plan year for smaller plans). For a healthy plan sponsor, the funding target would be based on its *ongoing liability*. The ongoing liability like the current liability is defined as the present value of benefits earned to date. However, the discount rate used to calculate the plan's ongoing liability as of the valuation date would be based on a spot yield curve of high quality corporate bonds. This concept is explained below in the 'Yield Curve Proposal' section. There would be a three-year phase-in period. Projections of future salary increases would not be used in determining the present value of expected benefit payments, but plans would be required to include the likelihood of lump sum payments in calculating their liabilities. The spot yield curve would eventually be used in determining lump sum payments, but this would have a longer phase-in period than its use in determining liabilities and funding requirements.

The proposal would also include additional costs in determining what it calls the *at-risk liability* of a plan that is financially weak. While plans with ongoing liability would rely on relevant recent historical experience in setting assumptions for age at retirement and lump sum elections, at-risk plans would be required to assume that participants would retire at the earliest opportunity and take a lump sum or another form of distribution that results in the largest liability for the plan. A loading factor

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<sup>18</sup> For more details see Joint Committee on Taxation, *Present Law and Background Relating to Employer-Sponsored Defined Benefit Pension Plans and the Pension Benefit Guaranty Corporation* ("PBGC"), JCX-03-05, Feb. 28, 2005; Department of Labor, *Strengthen Funding for Single-Employer Pension Plans*, Feb. 7, 2005; Department of Labor, *Fact Sheet: The Bush Administration's Plan for Strengthening Retirement Security*; and Assistant Secretary of Treasury Mark J. Warshawsky's testimony before the Senate Special Committee on Aging, Apr. 12, 2005.

that reflects the administrative costs of terminating the plan would also be included in at-risk liability.

**Funding Targets.** The proposal would link a plan's funding target to the financial health of the plan sponsor. The minimum required contributions of a firm with debt that is rated as investment grade would be enough to fund its ongoing liability including the normal cost for the current plan year. A financially weak firm would be responsible for funding its at-risk liability including a loading factor of \$700 per participant plus 4% of the at-risk liability. Presuming that the at-risk liability would be significantly higher than the ongoing liability, the proposal provides for a phase-in period of five years during which the actual funding target for financially weak firms would be a weighted average of the ongoing and at-risk targets.

**Time Allowed to Make Up Shortfalls.** A seven-year amortization period would be established for funding any shortfalls (amounts by which the asset value of a plan is below its funding target on the valuation date). The plan sponsor would be required to amortize the shortfall in level amounts over the next seven years. On the valuation date in the following year, the present value of the amortization payments due in the next six years would be added to the value of the plan's assets and that total would be compared to the plan's funding target. If a shortfall results, that would similarly be amortized in seven level payments. If there is no new shortfall, the plan would continue to pay the same amounts of remaining amortization payments as in the preceding year. This process would continue in each subsequent year.

For each year, a plan's sponsor would be required to contribute enough to cover that year's normal cost plus any amortization payments that are due to fund shortfalls. A plan sponsor could contribute more than the minimum required contribution, but merely that fact would not reduce the required payments for amortization of funding shortfalls. However, amortization payments would cease once the market value of plan assets exceeded the funding target. If the market value of plan assets exceeded the funding target by more than the normal cost, no plan contribution would be required for the year. The proposal would require a plan to make quarterly payments if its funding target was not fully covered by the value of its assets in the previous year. Fully funded plans would continue to have 8½ months after the end of the plan year to make their minimum required contributions.

**Credit Balance.** Under current law, a plan with a large credit balance may have no minimum required contribution even if the value of plan assets has dropped below the value of plan liabilities. A typical pension plan invested 60% in large cap common stocks and 40% in corporate bonds earned an investment return of -3.75% in 2001 and -9.16% in 2002.<sup>19</sup> This led to the market value of assets for many pension plans dropping below the value of plan liabilities. Nonetheless, if such a pension plan had a high enough credit balance in its Funding Standard Account at the beginning of the year, the plan sponsor was not required to make any pension

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<sup>19</sup> Common stocks assumed to track the S&P 500 stock index and corporate bonds assumed to track the Lehman Brothers Aggregate Bond Index.

contribution. The Administration's proposal would eliminate the credit balance so that it can no longer be used to offset the minimum required contribution.

***Limiting Benefits and Distributions.*** In addition to keeping the present prohibition on a company in bankruptcy increasing its benefits, the proposal would freeze benefits and prevent additional accruals if the company's plan is not fully funded. The prohibition on benefit increases would also apply to any plan that was not funded at more than 80% of its target unless additional contributions were made to cover the cost of the amendment. In addition, continued accruals would be frozen for the plans of financially weak sponsors that were not funded at more than 60% of their target. These sponsors would also face restrictions against funding nonqualified deferred compensation arrangements for their top executives. These limits on benefit increases and accruals would not affect a plan in its first five years.

The prohibition on distributions in forms other than an annuity (e.g., lump sums) that applies to plans during a period of a liquidity shortfall would be extended under the proposal to all plans of companies in bankruptcy that are less than 100% funded, all plans that are funded at 60% or less, and to financially weak plans that are funded at 80% or less, based on the plan's funding target.

***Increasing Deductible Contributions.*** The Administration's proposal allows companies to increase the amount of their deductible contributions by including two separate cushion amounts in their calculations. In addition to the amounts needed to raise the value of the plan assets to the sum of its funding target and that year's normal cost, plan sponsors could deduct contributions up to 30% of the plan's funding target and any increases that may be expected for future salary increases in a final salary plan or for benefit increases in a flat dollar plan. Finally, the deductible limit for the year would not be less than the sum of the plan's at-risk liability and its at-risk normal cost, regardless of whether the company is financially weak or not. The Full Funding Limitation would be eliminated.

***Improving the Financial Position of the PBGC.*** The proposal would adjust the annual flat-rate premium for all plans from \$19 to \$30 per participant. This adjustment is based on the increase in the Social Security Administration's Average Wage Index since the \$19 rate was set in 1991. This index is used to determine the annual increase in PBGC's maximum benefit guarantee and would be used to adjust the premium each year as well. The variable-rate premium of current law would be replaced by a risk-based premium that would be paid by any plan with assets less than its funding target. The same rate per dollar of underfunding would be paid by all plans. Plans with financially weak sponsors would be charged for each dollar of unfunded at-risk liability while plans with financially healthy sponsors would be charged for each dollar of unfunded ongoing liability. Note that the premium would be based on every dollar of unfunded liability (whether the benefits are vested or unvested) versus every dollar of unfunded vested benefits under current law. The rate for the risk-based premiums would be set periodically by the PBGC Board based on the goals of meeting expected future claims and eliminating the PBGC's current deficit over a reasonable period of time.

The proposal would also freeze the PBGC guarantee when a plan sponsor enters bankruptcy proceedings. If a plan terminates during these proceedings or within two



years after the company emerges from bankruptcy, the PBGC guaranteed benefits would be based on plan provisions, salary and service records, and guarantee limits that were in effect on the date that the company entered bankruptcy. The plan administrator would be required to notify participants of these limitations put into effect by the bankruptcy. The proposal would amend federal bankruptcy laws to create an exemption that would allow the creation and perfection of a lien in favor of the PBGC against the plan sponsor for missed pension contributions, regardless of whether the lien is perfected before the company enters bankruptcy proceedings. The PBGC guarantee provisions would be amended to eliminate any coverage for unpredictable contingent event benefits, such as plant shutdown benefits.

**Improving Disclosures.** The proposal would require additional disclosures on a plan's Summary Annual Reports to participants (SAR) and to the government (Form 5500). On the Form 5500, plans would be required to disclose both ongoing and at-risk liability whether or not the sponsor was financially weak. The Schedule B actuarial statement would show the market value of the plan's assets in addition to the ongoing and at-risk liability. The SAR would show the funding status of the plan for each of the three last years as a percentage based on the ratio of the plan's assets to the appropriate funding target. The SAR would also include information on the financial health of the company and on the PBGC. The participant notice of underfunding required by §4011 of ERISA would be replaced by the SAR, which would now be due 15 days after the filing date for the Form 5500 and would be required to be sent to all participants regardless of the plan's funding status.

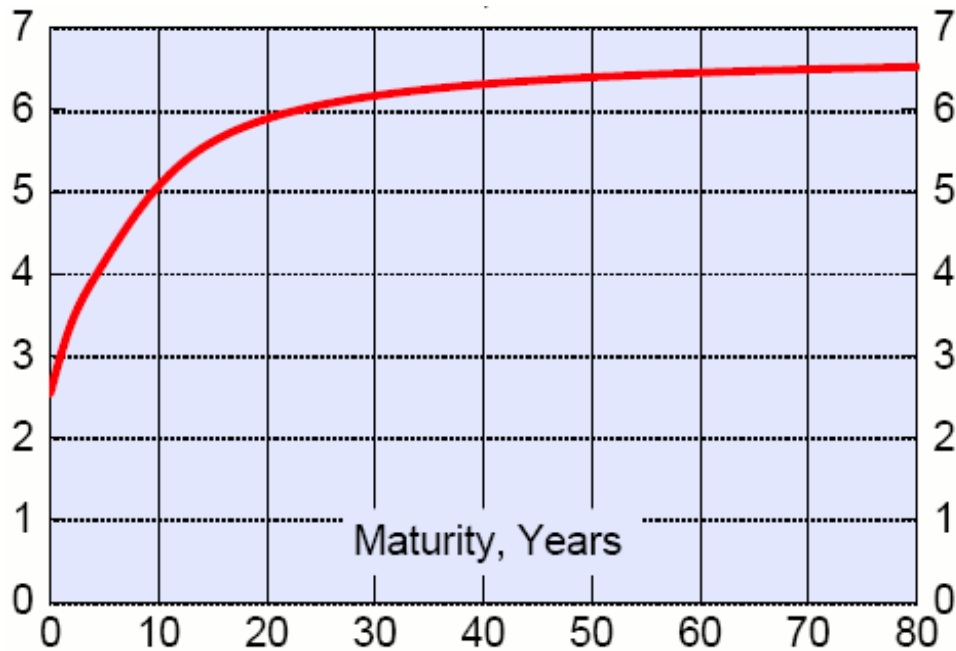
For plans that cover more than 100 participants and are required to make quarterly contributions because of their underfunding, the deadline for the Schedule B actuarial report would be moved up to the fifteenth day of the second month after the close of the plan year. Any additional contribution made for the plan year would be included on an amended Schedule B filed with the Form 5500.

Information filed with the PBGC pursuant to §4010 of ERISA would generally be available to the public. Confidential "trade secrets and commercial or financial information" would continue to fall under the Freedom of Information Act protections for corporate financial information.

## **Yield Curve Proposal**

Under current practice for the determination of present values, liabilities, and normal cost for a pension plan, a single interest rate is used to discount pension amounts payable at different points in the future. Under the Administration proposal, the ongoing liability, at-risk liability, and normal cost would be determined using a series of interest rates drawn from a yield curve for corporate bonds based on the timing of pension payments. This corporate bond yield curve would be issued monthly by the Secretary of the Treasury and would be based on the interest rates (averaged over 90 business days) for high quality corporate bonds (i.e., bonds rated AA) with varying maturities. **Figure 1** illustrates a yield curve.

**Figure 1. Spot Yield Curve — Corporate AA Bonds 12/30/04,  
Percent**



**Source:** Department of the Treasury, *Creating a Corporate Bond Spot Yield Curve for Pension Discounting*, from website [[http://www.treas.gov/offices/economic-policy/reports/pension\\_yield\\_curve\\_020705.pdf](http://www.treas.gov/offices/economic-policy/reports/pension_yield_curve_020705.pdf)].

We have provided below a simple example to illustrate the use of a yield curve for discounting. Consider a pension plan that covers four employees currently aged 25, 35, 45, and 55 which expects to make lump sum payments of \$1,600,000, \$800,000, \$400,000, and \$200,000 to these employees respectively when each reaches the retirement age of 65. **Table 1** shows the calculation of the present value of lump sum payments using spot rates from the yield curve in **Figure 1**. The total present value of lump sum payments using spot rates is \$503,484.60.

Under prevalent actuarial practice, a single interest rate is used to discount future benefits. If a single rate of 6% was used to discount the same lump sum payments, the present value would be \$531,244.50.<sup>20</sup>

<sup>20</sup>  $1,600,000 * (1/1.06)^{40} + 800,000 * (1/1.06)^{30} + 400,000 * (1/1.06)^{20} + 200,000 * (1/1.06)^{10}$ .

**Table 1. Present Value Calculation Using Spot Yield Curve, Corporate AA Bonds**

Employee current age	(a) Years to retirement	(b) Spot rate	(c) Lump sum payment at age 65	(d) = (c)*(1/(1+(b)^(a)) Present value of lump sum payment
55	10	5.02%	\$200,000	\$122,549.0
45	20	5.96%	\$400,000	\$125,666.9
35	30	6.33%	\$800,000	\$126,886.5
25	40	6.51%	\$1,600,000	\$128,382.1
<b>Total</b>				\$503,484.60

**Source:** Department of the Treasury, Spot rates from Appendix 2 of *Creating a Corporate Bond Spot Yield Curve for Pension Discounting*, [[http://www.treas.gov/offices/economic-policy/reports/pension\\_yieldcurve\\_020705.pdf](http://www.treas.gov/offices/economic-policy/reports/pension_yieldcurve_020705.pdf)]. Calculations by the Congressional Research Service (CRS).

**Note:** December 30, 2004 average of 90 business days.

The typical pension plan pays benefits as a stream of payments starting at retirement age, so that determining the present value of benefits using a yield curve is more complicated. However, large pension plans use sophisticated computer models to perform pension valuations and modification of these models to accommodate the yield curve should not be difficult.

**Table 2** shows the values of life annuities payable at age 65 for different current ages using a single corporate bond rate versus a yield curve based on corporate bonds. The RP-2000 mortality table with 50% males and 50% females is used. In column (1) of **Table 2**, a single long-term corporate interest rate is used equal to the average yield on the Merrill Lynch U.S. Corporate Bond Index with AA ratings and time to maturity longer than 15 years. The average redemption yield on this index was 5.737% as of March 3, 2004, the date as of which the life annuity values in **Table 2** were determined. Column (2) uses a corporate bond yield curve computed using AA-rated financial bonds.

As **Table 2** illustrates, the present value of a life annuity starting at age 65 is higher for individuals aged 65 and 60 when a corporate bond yield curve is used instead of a single corporate bond rate. However, for individuals aged 50, 40, or 30, the use of a corporate bond yield curve for discounting instead of a single corporate bond rate reduces the value of the annuity.

The mechanism used to construct the corporate bond yield curve for the example in **Table 2** is somewhat different than the one proposed by Treasury. However, the message of **Table 2** applies just as much to the Treasury proposal. Use of a yield curve for discounting instead of a single interest rate, will generally increase the pension liabilities for older employees while it will reduce them for younger employees. The one exception is for situations when the yield curve is

inverted, i.e., spot interest rates for longer durations are lower than spot interest rates for shorter durations. This has happened in the past but only on rare occasions.

**Table 2. Life Annuity Values Starting at Age 65**

Age	(1) Single corp. bond rate	(2) Corp. bond yield curve	Change (2)-(1)
65	11.22	11.73	4.55%
60	8.10	8.25	1.85%
50	4.42	3.89	-11.99%
40	2.46	1.94	-21.14%
30	1.38	1.01	-26.81%

**Source:** The Pension Forum, *Understanding the Corporate Bond Yield Curve*, by Höfling, Kiesel, and Löffler, Dec. 2004.

As a result, use of the yield curve will generally raise the contribution for a plan consisting of older participants as compared to an approach under which a single interest rate is used. Manufacturing companies such as the auto makers and auto suppliers tend to be comprised of older employees and will generally be required to make higher contributions under the yield curve proposal.

## Proposed Legislation

There are currently several comprehensive retirement security bills that include major provisions affecting defined benefit pension plans: S. 219, the National Employee Savings and Trust Equity Guarantee Act of 2005 (NESTEG), introduced on January 31, 2005 by Senators Grassley and Baucus, H.R. 1960, and H.R. 1961, each titled the Pension Preservation and Savings Expansion Act of 2005 (PPSE), and each introduced on April 28, 2005 by Representatives Portman and Cardin respectively, and H.R. 2830, the Pension Protection Act of 2005, introduced on June 9, 2005 by Representative Boehner.<sup>21</sup> H.R. 2830 was ordered to be reported by the House Education and Workforce Committee on June 30. It is now under consideration by the House Ways and Means Committee where it may be folded into a larger retirement security bill. Other bills have also been introduced that would affect defined benefit plans and/or the PBGC. In April 2005, the House and Senate adopted a joint Budget Resolution that is likely to influence the direction of pension reform.

### Replacement of Interest Rate on 30-Year Treasury Securities.

Without legislative action, the interest rate used to value the current liability under current law would revert in 2006 to a rate based on yields of 30-year Treasury bonds.

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<sup>21</sup> For more on H.R. 2830 see CRS Report RS22179, *H.R. 2830: The Pension Protection Act of 2005*, by Patrick Purcell.

**S. 219:** Under NESTEG, the 30-year Treasury rate would be replaced for 2006 by a permissible range that is not more than 10% below the weighted average of conservative long-term corporate bond rates during the four-year period ending on the last day before the beginning of the plan year. For the next five years, the yield curve method would be phased into the calculation at a rate of 20% per year until it is fully established in 2011. One or more simplified methods would be established by the Secretary of the Treasury for plans with no more than 100 participants. One of these simplified methods would also be permitted in calculating unfunded current liability for purposes of paying the variable rate premium to the PBGC in years after 2006. For plan years beginning in 2006, the interest rate would be the conservative long-term bond rate for the month before the plan year begins.

Under NESTEG, the yield curve method would also be phased in over five years to replace the 30-year Treasury rate in calculations to determine the present value of accrued benefits by those plans that offer the option of a lump-sum distribution. The interest rate used to determine maximum permissible benefits under a defined benefit plan would be the same 5.5% rate that was put in place for 2004 and 2005 by P.L. 108-218.

**H.R. 2830:** The Pension Protection Act includes a modified “yield curve” approach. The modified yield curve approach would incorporate the use of three separate interest rates based on the future date at which a pension plan’s benefit obligations come due, as defined in three broad categories: liabilities due within five years, liabilities due in between five and 20 years, and liabilities due after 20 years and until the estimated end of the plan’s obligations. The Pension Protection Act would require employers to use the three appropriate interest rates under the modified yield curve to also calculate lump sum distributions for participants. Under current law, interest rates used to calculate pension liabilities are “smoothed,” or averaged, over four years. The Pension Protection Act would reduce the smoothing of interest rates for funding purposes to the maximum of the most recent three plan years using a weighted average (50% of the most recent plan year, 35% from the second year, and 15% in the third year). For determination of lump sums, the rates would be based on current bond yields rather than a three-year weighted average.

**Other Funding Requirements. H.R. 2830:** The Pension Protection Act would require employers to make sufficient and consistent contributions to ensure that a plan meets its funding target. For a plan above the 60% funded status, its funding target would be phased in from a 90% level at a rate of 2% per year to a 100% level after five years. If an employer’s plan falls below a 60% funded status, its funding target would be based on the assumption that all participants would elect lump sums at the earliest opportunity and would include a loading factor. If a plan has a funding shortfall based on its funding target, the bill would require employers to make additional contributions to erase the shortfall over a seven-year period.

Under current law, a plan sponsor may “smooth” or average the appreciation or depreciation in plan assets over a period of up to five years. The Pension Protection Act would reduce the extent of allowed smoothing for assets to the maximum of the most recent three plan years using a weighted average (50% of the most recent plan year, 35% from the second year, and 15% in the third year). The smoothed value would be required to fall between 90% to 110% of the plan’s fair market value.

The Pension Protection Act would prohibit employers from using credit balances to reduce plan contributions if their pension plans are funded at less than 80%.

**Deduction Rules. S. 219:** Under NESTEG, the maximum threshold for a deductible contribution to a plan would be raised to 130% of the plan's current liability. The overall limitation on deductions for contributions to a defined contribution plan by an employer who also sponsors a defined benefit plan would only apply in a case where such contributions exceed 6% of the amount otherwise paid to or accrued by the beneficiaries for that year. In determining the excise tax on nondeductible contributions, matching contributions would not be counted if they are nondeductible only because of the overall limitation.

**H.R. 1960 and H.R. 1961:** Under PPSE, the overall limitation on deductions for contributions to combined plans would be repealed. These bills would also deduct from the gross income of employees in the private sector any contributions they were required to make to a defined benefit plan. Most single-employer defined benefit pension plans do not require or permit contributions to the plan. Employee contributions for the few plans that allow such contributions are made on an after-tax basis under current law.

**H.R. 2830:** The Pension Protection Act would permit employers to make additional contributions up to a new higher maximum deductible of up to 150% of the plan's funding target (equivalent to the plan's current liability).

**Limits on Benefits. S. 219:** If a plan sponsor has debt rated below investment grade for two of the previous five years and if the plan assets have a fair market value that is less than 50% of current liability for vested benefits, then NESTEG would prohibit the plan from improving benefits or paying lump-sum distributions and no further benefits would accrue from additional service, age or salary growth. These prohibitions would be effective at the beginning of the next plan year (or of the next collective bargaining agreement). They would continue until the first day of the plan year in which the company's bond rating has been investment grade or the assets have exceeded 50% of the current liability for vested benefits for five years, as long as the assets will continue to exceed the 50% threshold after any increases are considered. Participants and beneficiaries, as well as the PBGC, would be notified at least 45 days before the start of the plan year that the plan is financially distressed, why it is so classified, and what restrictions would be in effect because of that.

**H.R. 1960 and H.R. 1961:** PPSE would apply a 50% golden parachute excise tax to any remuneration paid to an executive in excess of \$1 million during a company's bankruptcy period defined as beginning on the date two years before the company declares bankruptcy and ending when it emerges from bankruptcy.

**H.R. 2233 and S. 991:** H.R. 2233 was introduced by Representative George Miller on May 10, 2005, while S. 991 was introduced by Senator Kennedy also on May 10, 2005. The Pension Fairness and Full Disclosure (PFFD) Act of 2005 would make a company's ability to provide nonqualified deferred compensation to its

executives dependent on its providing adequate funding for its qualified plans for other workers.

**H.R. 2830:** The Pension Protection Act would prohibit employers and union leaders from increasing benefits or providing lump sum distributions if a pension plan is less than 80% funded unless the plan sponsor immediately makes the necessary contribution to fund the entire increase or payout. It would also prohibit further benefit accruals for plans with assets less than 60% funded status, which would effectively freeze the plan. The act would restrict the use of executive compensation arrangements if an employer has a severely underfunded plan. It would eliminate limitations on benefit increases to a pension plan if that plan meets the 100% funding threshold or more, including assets and existing credit balances.

The Pension Protection Act would require plans that become subject to these limitations to notify affected workers and retirees. In addition to letting workers know about the limits, this notice must alert workers when funding levels deteriorate and benefits already earned are in jeopardy.

**PBGC Premiums. S. 219:** With the goal of encouraging the establishment of defined benefit pension plans by small employers (100 or fewer participants), NESTEG would establish a lower PBGC premium structure for insuring new defined benefit plans of such employers. The annual PBGC flat-rate premium would be \$5 per participant for the first five years of new plans sponsored by employers with no more than 100 employees on the first day of the plan year. A reduced variable-rate premium would be available for the first five years for all new plans. The percentage of the otherwise applicable rate to be paid by the new plan would be zero in the first year, 20% in the second year, 40% in the third year, 60% in the fourth year, and 80% in the fifth year. The variable-rate premium for plans sponsored by employers with no more than 25 employees on the first day of the plan year would be capped at \$5 multiplied by the number of participants at the end of the preceding plan year.

**H.R. 2830:** The Pension Protection Act would raise flat-rate premiums employers pay to the PBGC but phase the increases in over time. For pension plans that are less than 80% funded, the bill would raise the flat per-participant rate premium from the current \$19 to \$30 over three years. For plans funded at more than 80%, the premium increase would be phased in over five years. The bill would index the flat-rate premium annually to worker wage growth thereafter. It would index the variable-rate premium, currently \$9 per participant per \$1,000 of underfunding, annually to worker wage growth.

**Other Provisions Affecting the PBGC. S. 219:** Under NESTEG, the 60-month phase-in of PBGC's guarantee of recent benefit increases in the case of a terminated plan would be extended to substantial owners (those who control more than 10% of the stock of a corporation) who are not majority owners (those who control 50% or more). The phase-in period for majority owners would be 10 years rather than the 30 years that it is for all substantial owners under current law. The rules regarding allocation of assets that apply to other participants would also be extended to substantial owners who are not majority owners.

Another provision of the NESTEG bill would accelerate the computation and payment of benefits attributable to recoveries the PBGC makes on its claims for unfunded benefit liabilities by moving back two years the five-year period it uses in determining its average recovery ratio. This ratio that in turn determines the portion of the recovered amounts to be allocated to participants would also be calculated for the amounts recovered from an employer for contributions owed to the plan. This provision would not take effect for large plans in which the loss of participants' benefits exceeds \$20 million.

**H.R. 2327 and S. 1158:** H.R. 2327 was introduced by Representative George Miller on May 12, 2005 while S. 1158 was introduced by Senator Kennedy on May 26, 2005. These bills would impose a six-month moratorium beginning May 1, 2005 on terminations of plans in cases where the plan sponsor of a plan with unfunded termination liabilities of at least \$1 billion is seeking reorganization in bankruptcy or insolvency proceedings. If enacted into law during this six-month period, they would also require the PBGC to cease any termination activities and restore the plan to its status prior to the proceedings. The Labor Appropriations bill H.R. 3010 was passed by the House on June 24, 2005. It would prohibit funds appropriated by the bill from being used by the PBGC to enforce or implement the settlement agreement dated April 22, 2005 between UAL Corporation and the PBGC related to the takeover by the PBGC of United's pension plans.

**S. 685:** S. 685 was introduced by Senator Akaka on March 17, 2005. It would require the PBGC to raise the amount of the guaranty for pilots required to retire at 60 by calculating the monthly benefit in the form of a life annuity beginning at that age instead of 65.

**H.R. 2106 and S. 861:** H.R. 2106 was introduced by Representative Tom Price on May 4, 2005 while S. 861 was introduced by Senator Isakson on April 20, 2005. The Employee Pension Preservation Act of 2005 would allow airlines to spread their deficit reduction payments over 25 years while freezing benefits at the current levels with no additional accruals. If the plan is subsequently terminated, the PBGC's liability would be capped at the level it would have been on the first day of the plan year in which the special funding was put into effect.

**Reporting and Disclosure. S. 219, H.R. 1960 and H.R. 1961:** At least once every three years pension plan administrators would be required by both NESTEG and PPSE to furnish to each participant working for the plan sponsor a statement that is written in a manner that can be understood by the average plan participant. The statement shall include the total benefits accrued and any nonforfeitable benefits that have accrued, or the earliest date on which benefits will become nonforfeitable. Such a statement shall also be made available to participants once a year upon written request, and annual notice of this availability can serve as an alternative to the full report. The Secretary of Labor would be directed to provide one or more model benefit statements including the appropriate information in an understandable manner.

**H.R. 2830:** The Pension Protection Act would require plan sponsors to file Form 5500 within 275 days after the end of the plan year and would require plans to include more information on their Form 5500 filings. A plan's enrolled actuary must



explain the basis for all plan retirement assumptions on the Schedule B of Form 5500. The Pension Protection Act would enhance Section 4010 disclosure requirements and make all Form 4010 information filed with the PBGC available to the public, except for sensitive corporate proprietary information. Specifically, the bill would require employers to provide certain additional information to workers and retirees within 90 days after Form 4010 is due, including notifying them (1) that a plan has made a Form 4010 filing for the year; (2) the aggregate amount of assets, liabilities, and funded ratio of the plan; (3) the number of plans maintained by the employer that are less than 75% funded; and (4) the assets, liabilities, and funded ratio for those plans that are 75% funded or less.

Within 90 days after the close of the plan year, the Pension Protection Act would require plans to notify workers and retirees of the actuarial value of assets and liabilities and the funded percentage of their plan. Such notice must also include the plan's funding policy and asset allocations based on percentage of overall plan assets. The bill would also require plans to provide the Summary Annual Report to workers and retirees within 15 days following the Form 5500 filing deadline.

**H.R. 2233 and S. 991:** PFFD would require a plan sponsor who eliminates or reduces future benefit accruals under a defined benefit plan or reduces future employer contributions under a defined contribution plan to fully disclose the details of the sponsor's executive compensation plans.

**Studies. S. 219** calls for a study by the Secretary of the Treasury, the Secretary of Labor, and the Executive Director of the PBGC on ways to revitalize interest in defined benefit plans among employers with a report due in two years containing recommendations for legislative changes.

**Age Discrimination and Cash-Balance Plan Provisions. H.R. 2830** would establish an age discrimination standard for all defined benefit plans that clarifies current law with respect to age discrimination requirements under ERISA on a prospective basis. It would prevent employers from reducing or eliminating vested benefits an employee has earned when converting to a cash-balance plan. It would eliminate age discrimination questions for plans where older workers' benefits are equal to or greater than those of similarly situated younger plan members.

**Budget Reconciliation Process and Implications.** At the end of April 2005, the House and the Senate adopted a joint Budget Resolution that assumed an increase in revenues from PBGC premiums of \$6.6 billion over five years. This number is somewhat higher than the original Senate proposal of \$5.3 billion, but considerably lower than the original House proposal of \$18.1 billion.

Budget resolutions guide the budget reconciliation process by determining how much revenue congressional committees must raise from the federal programs they control, and how much lawmakers must reduce program spending. For the federal program budgets overseen by the House Education and the Workforce and the Senate HELP committees, the PBGC is a major source of revenue.

If the revenue required is not raised through higher PBGC premiums, the committees would be required to raise revenues or reduce outlays from other

mandatory programs in their jurisdictions. Budget reconciliation bills are moved in a streamlined process.

## Analysis of Form 5500 Data

An exhaustive analysis of the impact of reform proposals is beyond the scope of this report. However, in this section, we provide an assessment of the number of plans that might be affected by provisions of the Administration proposal related to the credit balance in the Funding Standard Account and the actuarial value of plan assets. We analyzed Form 5500 Schedule B filings for years 2001 and 2002 for plans covered by the PBGC in order to conduct our analysis. These are the latest years for which such data are available. We used data provided by the PBGC for our analysis. Our analysis indicated 29,315 plans for 2001 and 28,265 plans for 2002.<sup>22</sup> The PBGC as well as the Government Accountability Office (GAO) have conducted other analyses using large plans only.<sup>23</sup>

**Credit Balance.** Under the Administration proposal, use of the credit balance to reduce the minimum required contribution would be prohibited for all plans while under the Pension Protection Act, use of the credit balance would be banned for plans that are funded at less than 80%. We analyzed Form 5500 Schedule B data for years 2001 and 2002 to evaluate the prevalence of positive credit balances for pension plans and the extent to which positive credit balances contributed to the plan sponsor making no contributions to the plan. We did our analysis for all plans and also separately for underfunded plans.

**Table 3. Prevalence of Positive Credit Balance for Single-Employer Plans**

Category of plans	Number of plans	
	2001	2002
All	29,315	28,265
Positive credit balance at beginning of year (BOY)	18,175 (62%)	17,455 (62%)
No employer contribution for year	8,988 (31%)	6,689 (24%)
No employer contribution for year and positive credit balance at BOY	5,998	4,274

**Source:** The Congressional Research Service (CRS) analysis of Form 5500 Schedule B data.

**Note:** Only plans covered by the PBGC and that had filed the Schedule B were considered.

As **Table 3** illustrates, for years 2001 as well as 2002, a substantial proportion (62%) of single-employer pension plans had a positive credit balance at the beginning

<sup>22</sup> Table S-31 of PBGC's *Pension Insurance Data Book 2004* shows the number of single-employer plans covered by the PBGC to be 32,954 for 2001 and 31,229 for 2002. However, not all of these are required to file Schedule B forms.

<sup>23</sup> Analysis of the 100 largest single-employer defined benefit pension plans is available in the transcript of GAO's testimony before the Committee on the Budget, House of Representatives, *Private Pensions: The Pension Benefit Guaranty Corporation and Long-Term Budgetary Challenges*, GAO-05-772T.

of the plan year.<sup>24</sup> The proportion of plans with no employer contribution was 31% in 2001 and dropped somewhat to 24% in 2002. Of the plans with zero employer contribution, 67% had a positive credit balance at the beginning of 2001 while 64% had a positive credit balance at the beginning of 2002. The remaining plans would have been exempt from making a contribution on account of other reasons such as the application of the Full Funding Limit.

The rationale behind the proposal for the elimination of the credit balance is that a plan may be underfunded and yet not receive an employer contribution on account of application of a positive credit balance. **Table 4** examines the prevalence of underfunded pension plans with a positive credit balance. For purposes of **Table 4**, underfunded pension plans were defined as those plans for which the fair market value of plan assets was lower than the Current Liability as of the beginning of the plan year.

**Table 4. Prevalence of Positive Credit Balance for Underfunded Single-Employer Plans**

Category of plans	Number of plans	
	2001	2002
All	29,315	28,265
Current liability > Market value of assets	15,299 (52%)	16,253 (58%)
Current liability > Market value of assets but no employer contribution for year	2,579	2,074
Current liability > Market value of assets, no employer contribution for year and positive credit balance at BOY	1,829	1,417

**Source:** The Congressional Research Service (CRS) analysis of Form 5500 Schedule B data.

**Note:** Only plans covered by the PBGC and that had filed the Schedule B were considered.

As **Table 4** illustrates, the proportion of underfunded pension plans was 52% at the beginning of the 2001 plan year, and increased to 58% at the beginning of the 2002 plan year. The proportion of underfunded plans that received no employer contributions for the year was 17% for 2001 and a somewhat lower 13% for 2002. Of the underfunded plans with no employer contribution, 71% had a positive credit balance at the beginning of 2001 while 68% had a positive credit balance at the

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<sup>24</sup> If only large plans are considered the proportion of plans with a positive credit balance at the beginning of the 2002 plan year would be even larger. According to the PBGC, of all plans considered for their PIMS Model, 86% had a positive credit balance at the beginning of the 2002 plan year. The 1998 Pension Insurance Data Book states that the PIMS data base has approximately 400 pension plans, sponsored by about 250 firms, which represent about 50% of liabilities and underfunding in the defined benefit plan system. These are among the largest plans in the defined benefit system.

beginning of 2002, which presumably was the major reason for the plan not receiving an employer contribution for the year.<sup>25</sup>

Interest on the credit balance is credited at the rate assumed by the plan actuary for funding purposes. **Table 5** shows the variation in the assumed interest rate for the plan year 2001.

The average interest rate assumed was 7.1% for plan year 2001 and 7.0% for plan year 2002. According to the PBGC, the average assumed interest rate tends to be higher for larger plans. For the 2001 and 2002 plan years, for example, PBGC analysis indicates that the average assumed interest rate for plans with 100 or more participants was 8.0%. A typical pension plan invested 60% in large-cap stocks and 40% in long-term corporate bonds would have earned -3.75 % in 2001 and -9.16% in 2002.<sup>26</sup>

**Table 5. Funding Interest Assumption for Single-Employer Pension Plans**

Interest rate	Percent of plans	
	2001	2002
<6%	13%	17%
> or = 6%, < 7%	26%	24%
> or = 7%, < 8%	26%	25%
> or = 8%, < 9%	30%	30%
> or = 9%	5%	4%

**Source:** The Congressional Research Service (CRS) analysis of Form 5500 Schedule B data.

**Note:** Only plans covered by the PBGC and that had filed the Schedule B were considered.

Some have suggested the following alternatives to the elimination of the credit balance:

- (1) Allow use of the credit balance in the FSA but accrue interest on it at the actual rate earned by the pension trust for the year rather than the long-term interest rate assumed by the plan's actuary.
- (2) Allow use of the credit balance in the FSA but do not accrue interest on it.

**Appendix 2** illustrates the effect of these alternate approaches on a hypothetical plan's minimum required contribution and funded status. The illustration in the Appendix shows that the change in the minimum required contribution on account of the above two approaches is small compared to the impact of disallowing use of the credit balance.

<sup>25</sup> Some of the plans may not have received an employer contribution for other reasons such as the application of the Full Funding Limitation.

<sup>26</sup> Common stocks assumed to track the S&P 500 stock index and bonds assumed to track the Lehman Brothers Aggregate Bond Index.

**Use of Fair Market Value instead of Actuarial Value.** Under current law, the minimum required and maximum deductible contribution rules allow use of the actuarial value of assets rather than the fair market value of assets. In years in which the investment return on plan assets is negative, the actuarial value for a plan may be higher than the market value of assets since it may defer the recognition of capital losses. This was the case for many plans in years 2000, 2001, and 2002, when the S&P 500 returns were -9.19%, -11.87%, and -22.10% respectively. The result for such plans was that the funding requirements were lower than would have resulted from use of the fair market value of plan assets.

Under the Administration proposal, the fair market value of assets would be used to determine the funding requirements as well as the unfunded liability for calculation of the variable rate PBGC premiums. Under the Pension Protection Act, an actuarial value of assets based on less smoothing than under current law would be employed. **Table 6** below shows the relationship between actuarial value and fair market value based on data obtained from Form 5500 filings.

**Table 6. Ratio of Actuarial Value to Market Value for Single-Employer Pension Plans**

AV/MV as of valuation date	Percent of plans	
	2001	2002
< 0.9	2%	1%
> or = 0.9, < 1	9%	5%
1	66%	63%
> 1, < or = 1.1	12%	10%
> 1.1, < or = 1.2	5%	17%
MV = 0	5%	5%

**Source:** The Congressional Research Service (CRS) analysis of Form 5500 Schedule B data.

**Note:** Only plans covered by the PBGC and that had filed the Schedule B were considered.

In 2001, there were more plans with an actuarial value greater than the market value (17%) than plans with an actuarial value lower than the market value (11%). This pattern was even more pronounced in 2002. Twenty-seven percent of plans had an actuarial value greater than the market value while 6% of plans had an actuarial value lower than the market value.

## Reactions to Administration Proposal

While some have applauded the Administration proposal for taking a broad, comprehensive approach to pension reform rather than providing temporary solutions, business as well as labor have raised several objections.<sup>27</sup> These include:

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<sup>27</sup> See for example, *Funding Our Future: A Safe and Sound Approach to Defined Benefit Pension Plan Funding Reform* by the American Benefits Council, at [<http://www.americanbenefitscouncil.org/documents/fundingpaper021604.pdf>] and testimony by United Auto Workers before the Senate Committee on Health, Education, (continued...)

- *Volatility* — Elimination of smoothing in the determination of the interest rate and asset value and the ban on use of the credit balance will result in far greater volatility in the minimum required pension contribution.
- *Credit Balance* — Elimination of the credit balance is not fair to employers that have made plan contributions in excess of the minimum required amounts in the past with the expectation that these could be used to reduce future contributions. Also, elimination of the credit balance will create a disincentive for making plan contributions in excess of the minimum required amount.
- *Counter-Cyclical* — Required contributions and PBGC premium increases would be highest for companies experiencing financial difficulty who can least afford them. This could lead to more bankruptcies, plant closings, and layoffs.
- *Access to Surplus Assets* — Although the Administration proposal will raise the maximum deductible contribution ceiling, companies will be reluctant to make higher contributions unless they are allowed to access “super-surpluses” for legitimate purposes such as payment of other employee benefits.
- *Disruption of Capital Markets* — The lack of asset and liability smoothing in the new funding rules may drive employers to move pension investments from stocks to bonds in order to reduce volatility. This is likely to result in a decline in stock prices as well as in interest rates offered on bonds.
- *PBGC Premiums Too High* — Proposed premiums will be too high, especially for a company experiencing financial difficulty. This, combined with higher funding requirements for such companies, could lead to many employers freezing or terminating their defined benefit pension plans.
- *PBGC Powers to Set Premiums* — At a minimum, Congress should set limits on how large the PBGC premium increases can be and how well PBGC should be funded.
- *Transition* — A transition period of three years or more is needed to allow financial markets to accommodate pension funds’ shift from stocks to bonds.
- *Public Policy Does Not Favor Defined Benefit Plans* — With lower tax rates for capital gains and stock dividends, employers have little incentive to provide pension benefits as compared to cash compensation. One suggestion is that the Congress tax pension distributions at the same rates as capital gains and stock dividends in order to provide a level playing field.

The Administration’s response to business and labor objections was included in several testimonies offered on the Hill.<sup>28</sup> The Pension Protection Act (H.R. 2830)

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<sup>27</sup> (...continued)

Labor and Pensions on April 26, 2005, at [[http://help.senate.gov/testimony/t269\\_tes.html](http://help.senate.gov/testimony/t269_tes.html)].

<sup>28</sup> See for example GAO testimony before the House Committee on the Budget, *Private* (continued...)

incorporates several elements of the Administration proposal but in a modified form so that the impact on plan sponsors will generally be lower.

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<sup>28</sup> (...continued)

*Pensions: The Pension Benefit Guaranty Corporation and Long-Term Budgetary Challenges*, June 9, 2005, at [<http://www.gao.gov/new.items/d05772t.pdf>]; PBGC testimony before the House Subcommittee on Transportation and Infrastructure, June 22, 2005, at [[http://www.pbgc.gov/news/speeches/testimony\\_062205.htm](http://www.pbgc.gov/news/speeches/testimony_062205.htm)]; CBO testimony before the Senate Committee on the Budget, *The Pension Benefit Guaranty Corporation: Financial Condition, Potential Risks, and Policy Options*, June 15, 2005, at [<http://www.cbo.gov/ftpdocs/64xx/doc6426/06-15-PBGC.pdf>].

## Appendix 1. Measures of Pension Liability

Current pension law requires calculation of at least four separate measures of pension liability that are used for different purposes. Not only are these defined differently, but a different interest rate is used for valuing each liability. **Table 7** highlights the differences between these measures of liability.

Two other measures of pension liability are used in accounting disclosure. Publicly traded companies must file annual reports under Securities and Exchange Commission requirements that include disclosure of the funded status of pension plans. The funded status is based on a measure of pension liability called the *Projected Benefit Obligation (PBO)*. The PBO as of a certain date is the actuarial present value of all benefits attributed by the pension benefit formula to employee service rendered prior to that date. The PBO is measured using assumptions as to future compensation levels if the pension benefit formula is based on those future compensation levels. In addition, underfunded pension plans must disclose the *Accumulated Benefit Obligation (ABO)*.<sup>29</sup> The ABO as of a certain date is the actuarial present value of all benefits attributed by the pension benefit formula to employee service rendered prior to that date and based on employee service and compensation prior to that date. The ABO differs from the PBO in that it includes no assumption about future compensation levels. The interest rate used to determine the PBO and ABO is typically the rate on high quality long-term bonds during the period to maturity of pension benefits.

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<sup>29</sup> For more information on the PBO and ABO, see *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions* by the Financial Accounting Standards Board.



**Table 7. Measures of Liability Under Pension Law**

<b>Liability</b>	<b>Definition</b>	<b>Uses</b>	<b>Interest rate</b>	<b>Authorization and rationale</b>
<b>Accrued Liability (AL)</b>	Portion of Present Value (PV) of total benefits associated with the past under the actuarial cost method chosen for funding.	AL less Actuarial Value of assets is spread over a number of years specified by law in calculating the minimum required and maximum deductible pension contribution.	Rate chosen by plan's actuary such that along with other assumptions it represents his best estimate of anticipated plan experience.	ERISA (1974) required systematic funding of the unfunded AL. It provided flexibility in the choice of actuarial cost method and interest rate.
<b>Current Liability (CL)</b>	PV of benefits earned to date by employees based on service and compensation to date. Includes liability for non vested benefits.	Used to determine overrides to minimum required and maximum deductible contributions determined under the plan's funding method.	Interest rate must fall between 90%-100% of four year weighted average of interest rates on long-term corporate bonds (for 2004 and 2005).	Instituted by OBRA 87 to bring more uniformity to determination of minimum required and maximum deductible contributions.
<b>Present Value (PV) of vested benefits</b>	Liability for retiree pension benefits and benefits earned to date by vested active participants based on service and compensation to date.	PV of vested benefits less actuarial value of plan assets used to determine the variable rate PBGC premiums payable by the plan.	85% of interest rate on long-term corporate bonds (for 2004 and 2005).	Variable rate premiums instituted in 1987 in order to charge higher premiums to higher risk plans.
<b>Termination Liability</b>	PV of benefits payable to plan participants if plan were to be terminated. Includes vested as well as unvested benefits.	Must be disclosed to the PBGC by employers with plans that have aggregate unfunded present value of vested benefits greater than \$50 million.	Rate used by private insurers to price immediate annuities for retirees and deferred annuities for active employees. This is usually considerably lower than rates used to determine other types of liabilities.	Authorized by Section 4010 of ERISA. Provides PBGC information for determining its exposure for reasonably possible and probable terminations.

**Source:** The Congressional Research Service (CRS).

## Appendix 2. Illustrative Impact of Alternate Credit Balance Proposals on Minimum Required Contribution and Funded Ratio

We have determined in the example below a hypothetical plan's minimum required contribution under the following alternatives:

- (a) Current law.
- (b) Administration proposal — No credit balance carryover in the Funding Standard Account.
- (c) Allow use of the credit balance in the FSA but accrue interest on it at the actual rate earned by the pension trust for the year rather than the interest rate assumed by the plan's actuary. This approach is used under H.R. 2830 but only for plans that are not underfunded.
- (d) Allow use of the credit balance in the FSA but do not accrue interest on it. This approach would be a possible compromise between current law and the Administration proposal.

In addition, we have illustrated for the four alternatives the effect on the plan assets and the funded ratio, assuming that the employer makes a contribution to the plan equal to the minimum required contribution. For purposes of this Appendix, we have defined the funded ratio as the ratio of the plan's current liability to the market value of plan assets.

The example chosen for this illustration was modeled after airline pension plans that were underfunded in recent years, yet made no pension contribution on account of a high credit balance. We used available information from the 2002 Schedule B of the Form 5500 for certain airline pension plans to guide the use of plan characteristics chosen for the illustration. However we did not exactly match entries from any one airline pension plan's Schedule B in order to keep the illustration simple and protect confidentiality. Consider a plan with the characteristics shown in **Table 8**.

**Table 8. Plan Characteristics for Illustration**

Market value of assets — beginning of year (BOY)	\$20,000,000
Current liability	\$22,000,000
Benefit payout for year	\$2,000,000
Current liability — end of year	\$22,000,000
Credit balance at BOY	\$700,000
Interest earned for year	-9.16%
Interest assumed for year	9.0%

**Source:** Congressional Research Service (CRS) assumptions.

**Table 9. Minimum Required Contributions under Alternate Credit Balance Proposals**

	Current law (a)	Administration proposal - No credit balance (b)	Interest on credit balance at earned rate (c)	No interest on credit balance (d)
<b>Charges to funding standard account</b>				
(1) Normal cost as of Jan. 1	\$360,000	\$360,000	\$360,000	\$360,000
(2) Amortization charges as of Jan 1.	\$300,000	\$300,000	\$300,000	\$300,000
(3) Interest = .09 ((1)+(2))	\$59,400	\$59,400	\$59,400	\$59,400
(4) Total charges = (1)+(2)+(3)	\$719,400	\$719,400	\$719,400	\$719,400
<b>Credits to funding standard account</b>				
(5) Prior year credit balance	\$700,000	\$0	\$700,000	\$700,000
(6) Interest	\$63,000	\$0	(\$64,120)	\$0
(7) Total credits = (5)+(6)	\$763,000	\$0	\$635,880	\$700,000
Minimum required contribution = (4)-(7)	\$0	\$719,400	\$83,520	\$19,400

**Source:** Congressional Research Service (CRS) calculations.

**Note:** Interest on Normal Cost and Amortization charges under all four alternatives is calculated at the assumed rate of 9%.

**Table 9** shows the development of the Funding Standard Account and the minimum required contribution under alternatives (a), (b), (c), and (d). Under all four alternatives, lines (1), (2), (3), and (4), which represent charges to the FSA, are identical. However, the values in line (5) are different depending on whether the alternative allows the credit balance to be used as an offset. Also, the values in line (6) are different depending on the rate used to credit interest on the credit balance.

As **Table 9**, Alternative (a) illustrates, under current law, the large credit balance of \$700,000 at the beginning of the plan year leads to no pension contribution being required for the year. Under the Administration proposal — Alternative (b), the credit balance would not be recognized in developing the minimum required contribution. This results in the minimum required contribution increasing from \$0 to \$719,400. If the credit balance is taken into account in the calculations, but interest is accrued on it at the earned rate of -9.16% rather than the assumed rate of 9% — Alternative (c), the minimum required contribution would be a relatively low \$83,520. Finally, if the credit balance is taken into account in the calculations, but no interest is accrued on it — Alternative (d), the minimum required contribution would be an even lower amount of \$19,400.

**Table 10** develops the plan assets at the end of the plan year if the employer makes plan contributions equal to the minimum required contributions under alternatives (a), (b), (c), and (d) respectively as developed in **Table 9**. **Table 10** also shows the effect on the funded ratio under the different alternatives. If no contribution is made as permitted under current law — Alternative (a), the market value of assets would drop from \$20 million at the beginning of the year to \$16.17 million at the end of the year, thereby reducing the funded ratio from 0.91 at the beginning of the year to 0.73 at the end of the year. Under the Administration proposal — Alternative (b), the contribution would be \$719,400. This helps offset some of the asset loss and results in a funded ratio of 0.77 at the end of the year. If the employer makes plan contributions as required under Alternative (c) or Alternative (d), plan assets at the end of the year would be higher than under current law, but lower than under the Administration proposal. As a result, the funded ratio at the end of the year under either Alternative (c) or Alternative (d) is 0.74, somewhat better than under current law and considerably lower than the one produced under the Administration proposal.

**Table 10. Plan Assets and Funded Ratios Under Alternate Credit Balance Proposals**

	Current law (a)	Administration proposal No credit balance (b)	Interest on credit balance at earned rate (c)	No interest on credit balance (d)
(1) Market value of assets — BOY	\$20,000,000	\$20,000,000	\$20,000,000	\$20,000,000
(2) Current liability BOY	\$22,000,000	\$22,000,000	\$22,000,000	\$22,000,000
Funded ratio — BOY = (1)/(2)	0.91	0.91	0.91	0.91
(3) Contribution	\$0	\$719,400	\$83,520	\$19,400
(4) Benefit payout	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
(5) Market value of assets — end of year = (1)*(1-.0916)+(3)-(4)	\$16,168,000	\$16,887,400	\$16,251,520	\$16,187,400
(6) Current liability — end of year	\$22,000,000	\$22,000,000	\$22,000,000	\$22,000,000
Funded ratio — end of year = (5)/(6)	0.73	0.77	0.74	0.74

**Source:** Congressional Research Service (CRS) calculations.

The impact of the alternate credit balance proposals on the minimum required contribution and funded ratio will depend on values of specific variables including the interest rate earned by plan assets, actuarial interest assumption, the credit balance at the beginning of the year, market value of plan assets at the beginning of the year,

and current liability at the beginning and end of the year. This Appendix is intended to illustrate the impact of alternate proposals on a hypothetical plan rather than provide an exhaustive analysis of the impact of alternate proposals on the universe of plans with a wide range of varying characteristics. However, we would expect that the impact on the minimum required contribution of recognizing the credit balance with zero interest or market rate of interest would generally be small relative to disallowing use of the credit balance.