Employers that sponsor defined benefit (DB) pension plans are required to make annual contributions to the plans to ensure that there are sufficient funds from which to pay all of the future benefits. Each year, an employer that sponsors a DB pension plan must contribute an amount to the plan to pay for the value of the benefits earned by the plan's participants in that year plus a portion of previous years' shortfall, if any.

The Employee Retirement Income Security Act of 1974 (ERISA; P.L. 93-406) contains the funding rules that plans use to determine the amount of employer contributions to the DB plans that they sponsor. When these provisions change, the amount of these contributions may change. Because employer contributions to DB pension plans are a tax-deductible expense, changes to the amount of employer contributions to their pension plans affect the revenue to U.S. Treasury. Recent changes to ERISA that have lowered employer annual contributions have been used as spending offsets in legislation.

Pension Plan Benefit Calculations

A pension plan's benefits expressed in current dollars (or its present value) are equal to the plan's liability spread out over many years in the future. Benefits that are expected to be paid in a particular year in the future are calculated so they can be expressed as a current value. This process is called discounting.

The formula for calculating a current value is

\[
\text{Current Value} = \frac{\text{Dollar Value of Future Benefit}}{(\text{Discount Rate}) \times \text{Number of Years in the Future}}
\]

The present value of a dollar amount is inversely related to both the discount rate (also called the interest rate used to determine the present value of future cash flows) and number of years in the future used in the calculation. As the discount rate rises, the present value of future benefit obligations decreases, and DB pension plan sponsors' contributions can decrease to maintain a plan's current value.
Pension Plan Segment Rates

The Pension Protection Act of 2006 (PPA; P.L. 109-280) specified that pension plans discount their future benefit obligations using three different discount rates. The rates to be used in the calculation, called a segment rate, depend on the date on which the benefit obligation is expected to be paid and the corresponding rates on the corporate bond yield curve. The segment rates are calculated as the average of the corporate bond yields within the segment for the preceding 24 months.

The first segment is for benefits payable within 5 years. The first segment rate is calculated as the average of short-term bond yields (with a maturity less than 5 years) for the preceding 24 months. Likewise, the second and third segments are for benefits payable in 5 years to 15 years and in 15 years or later. The second and third segment rates are calculated similarly to the first segment rates, using bonds of appropriate maturities. The IRS publishes the segment rates on a monthly basis.

Segment Rate Stabilization Provisions in MAP-21, H.R. 5021, and the Proposed Budget bill

The Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141) allowed for the segment rates to be adjusted if they are below or above specified minimum and maximum percentages of the rate average for the preceding 25 years. Segment rates that are lower (or higher) than the applicable minimum (or maximum) percentage of the average of the corporate bond yields for the preceding 25 years will be set to the applicable minimum (or maximum) percentage of the average. MAP-21 called for different rate adjustments to be made between 2012 and 2016. H.R. 5021, the Highway and Transportation Funding Act of 2014 (HTF), delayed the implementation of the scheduled different minimum and maximum percentages by five years, holding the percentages constant at the 2012 level until 2018. The proposed Bipartisan Budget Act of 2015, as posted on the House Rules Committee website on October 27, would extend the schedule by two years. Current segment rates are lower than the current minimum; therefore, pension plan discount rates would be higher through 2022 under the proposal than under the HTF, effectively creating a spending offset.

Table 1 shows the applicable minimum and maximum percentages under the MAP-21, the HTF, and the proposed budget bill.

Table 1. Applicable Minimum and Maximum Interest Rate Percentages of 25-Year Averages for Pension Funding in MAP-21 (P.L. 112-141), HTF (H.R. 5021), and the Bipartisan Budget Act of 2015

<table>
<thead>
<tr>
<th>Applicable Minimum Percentage</th>
<th>Applicable Maximum Percentage</th>
<th>Calendar Year in MAP-21</th>
<th>Calendar Year in HTF</th>
<th>Calendar Year in the Bipartisan Budget Act of 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%</td>
<td>110%</td>
<td>2012</td>
<td>2012 - 2017</td>
<td>2012 – 2019</td>
</tr>
<tr>
<td>85%</td>
<td>115%</td>
<td>2013</td>
<td>2018</td>
<td>2020</td>
</tr>
<tr>
<td>80%</td>
<td>120%</td>
<td>2014</td>
<td>2019</td>
<td>2021</td>
</tr>
<tr>
<td>75%</td>
<td>125%</td>
<td>2015</td>
<td>2020</td>
<td>2022</td>
</tr>
<tr>
<td>70%</td>
<td>130%</td>
<td>After 2015</td>
<td>After 2020</td>
<td>After 2022</td>
</tr>
</tbody>
</table>

Source: Congressional Research Service (CRS).

Figure 1 shows a hypothetical example of how segment rates are determined under these. The red line shows the
average of a segment's interest rates for the preceding 25 years. The purple and green lines indicate the minimum and maximum rates around the 25-year average under the MAP-21 provisions. The yellow and blue lines indicate the minimum and maximum rates around the 25-year average under the HTF provisions. The light blue and light purple lines are the minimum and maximum rates around the 25-year averages under the proposed Bipartisan Budget Act of 2015 (H.R. 1314).

- If Treasury determines that the segment rate is above the maximum segment rate (point (1) in Figure 2) then Treasury adjusts the segment rate downward until it equals the proposed maximum segment rate.
- If Treasury determines that the segment rate is at or below the maximum segment rate and at or above the minimum segment rate (point (2) in Figure 2, Treasury does not adjust the segment rates.
- If Treasury determines that the segment rate is below the minimum segment rate (point (3) in Figure 3), then Treasury adjusts the interest rate upward until it equals the proposed minimum segment rate.

Figure 1. Hypothetical Application of Segment Rate Stabilization Provision as Found in MAP-21, the HTF, and the Proposed Bipartisan Budget Act of 2015

Source: Congressional Research Service (CRS).