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Dear Mark, Vicki, and Andy:

This letter is submitted on behalf of the American Benefits Council and the technical actuarial leadership at five national firms providing pension actuarial services.

With respect to the recently enacted funding stabilization legislation, all of the undersigned believe that there is an urgent need for the 25-year averages of the segment rates to be published as soon as possible, and well in advance of September 15, 2012 (the deadline for calendar year plans to make contributions for 2011). In order to further that goal, we offer the information below.

Set forth in an appendix to this letter are descriptions of the methodologies being used by the five national firms to provide estimates to their clients of the effects of funding stabilization. As a group, we are not endorsing any particular methodology. Our purpose in submitting this material is to outline the thinking that the firms have done to provide their estimates of what the 25-year averages will be. Obviously, the firms have an incentive to be as close to the official rates as possible (without understating possible contributions) when providing estimates to their clients.

Set forth below are ranges of the 25-year segment rate averages produced by the different methodologies. It is important to note that the averages from the five firms fell within a relatively narrow range (46 basis points or less) for each of the three segments. In fact, the differences among the firms' results are in a real sense even smaller because the ranges below take into account, in the case of two firms, both a designated conservative (low) estimate of the averages and a higher estimate.

Ranges of 25-year averages.

1st segment rate: 5.74%-6.20%
2nd segment rate: 7.27%-7.68%
3rd segment rate: 8.00%-8.35%

To expedite delivery of this material, we are only providing brief outlines of the different methodologies. These outlines were produced by Aon Hewitt, Buck, Mercer, Principal Financial Group, and Towers Watson. We would be very pleased to meet with you as soon as possible to provide additional detail on the different methodologies, answer any questions, and provide any further information that would help you in your task.

We thank you for your consideration of the material presented here and will be contacting you very soon to discuss a good time to meet to review this material.

Sincerely,

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METHODOLOGIES

(Presented in a random order)

Methodology #1.

Decision points for developing estimated PPA spot rate curves prior to October 2003:

1. Treasury spot rates + credit risk spread, or corporate bond universe specified by PPA?
 - a. We used the former, not being able to find published yield curves or spot rates back to October 1984 for the latter.
2. Source of Treasury spot rates?
 - a. <http://www.federalreserve.gov/pubs/feds/2006/200628/200628pap.pdf> and <http://www.federalreserve.gov/econresdata/researchdata/feds200628.xls>
3. No Treasury spot rates after 20 years for October 1984 through October 1985
 - a. Held year 20 rate constant
4. No Treasury spot rates at ½ year intervals
 - a. Linear interpolation (average of the surrounding whole year rates)
 - b. For $t = \frac{1}{2}$, extrapolated from rates at $t=1, 2$ and 3 using Excel's GROWTH function
5. Monthly PPA curves are averages of daily curves
 - a. Ignored, used end-of-month data. Could average with end of prior month instead.
6. Estimate spreads, varied by duration
 - a. Calculated monthly spread by duration using monthly published PPA spot curves October 2003 through September 2011
 - b. Used low point (October 2003) and averages by duration for the entire period (96 months) to develop "Low" and "High" estimates for spread, by duration
 - i. Average by duration for the entire period deemed to be High because of very high spreads mid-2008 to mid-2009
 - c. For the "Low" estimate, October 2003 spreads by duration are assumed to apply to all prior months, back to October 1984
 - d. For the "High" estimate, extrapolate October 2003 actual spreads linearly back through October 1995 (96 months) to reach the ultimate spreads at that point. Spreads by duration held constant prior to that point.
7. Estimate monthly yield curves 10/1984 through 9/2003, equal to estimated Treasury spot rates + approximate Spreads for that month, by duration
8. Extrapolate durations 30.5 through 60 for calculation of 3rd segment rate
 - a. The spot rate for time t is the rate for time $t-.5$, plus the average over the succeeding 96 months of the change in spot rate from time $t-.5$ to time t .

Methodology #2.

We utilized a relatively simple, transparent methodology based on readily available data published by the Federal Reserve (publication H.15). We used Moody's seasoned corporate bond yields for AAA and BAA bonds to develop an estimate of credit spreads. We assumed that the spread between Treasury and corporate bond yields would correlate with the spread between the

AAA and BAA yields. The estimated segment rate for each month is a linear function of Treasury Constant Maturity rates and the AAA / BAA spread.

The step-by-step methodology is as follows:

We utilized the monthly 3-Year, 10-Year and 30-Year Treasury Constant Maturity yields (hereafter referred to as T3, T10 and T30) as a proxy for the risk-free component of the first, second and third PPA spot segment rates, respectively. During the period where the 30-year Treasury Bond was not issued, we used the yield published by the IRS.

We then used a linear regression technique to develop the linear function that best fits the published PPA spot segment rates from October 2003 through February 2012, as well as the above Treasury Constant Maturities and the Moody's AAA and BAA rates during that period. This technique resulted in the following formulas:

$$\begin{aligned} \text{First segment rate} &= T3 + 1.8999 \times (\text{Moody's BAA} - \text{Moody's AAA}) - 1.00\% \\ \text{Second segment rate} &= T10 + 1.5226 \times (\text{Moody's BAA} - \text{Moody's AAA}) + 0.11\% \\ \text{Third segment rate} &= T30 + 0.7815 \times (\text{Moody's BAA} - \text{Moody's AAA}) + 1.07\% \end{aligned}$$

We tested the regression formulas for the periods that PPA spot segment rates are published, with the following results:

Differences between Modeled and Actual PPA Spot Segment Rates			
	1st Segment	2nd Segment	3rd Segment
Average difference	0.00%	-0.02%	0.01%
Std. deviation of differences	0.40%	0.37%	0.26%
Range of differences	-1.55% to 0.91%	-1.02% to 0.55%	-0.86% to 0.52%

Recognizing that credit spreads were abnormally high from late-2008 through mid-2009, we examined similar formulas developed excluding the one-year period from August 2008 to July 2009. The resulting linear formulas produced a slightly better fit to the remaining data, but the calculated 25-year average segment rates changed only by no more than two basis points. We also looked at different approaches to modeling the estimated spread using the same data. Again, the resulting 25-year average segment rates were within a few basis points of our original estimates. As such, we elected to retain the full period for our regression formulas.

The modeled spot segment rates for October 1984 through September 2003 were merged with the published PPA spot segment rates from October 2003 to September 2011 to develop the 24-month average segment rates as far back as October 1986. The estimated 25-year average segment rate for each segment applicable for 2012 was calculated by averaging the 24-month spot segment rates from October 1986 through September 2011.

Methodology #3.

The method we used to estimate the segment rate history was developed through multiple iterations of regression analysis. Our model (a) starts with corporate bond data, (b) makes adjustments for the term premium using Treasury Constant Maturity (TCM) yields and (c) incorporates an adjustment for credit quality spreads within corporate bonds. The regression analysis determines the weight to be applied to each adjustment.

The model was fit to the actual segment rate history using regression analysis back through October 2003 and then applied to the historical data to estimate the segment rates. Multiple analyses were run with the approach described above providing the best fit. Assuming more complete corporate bond data is unavailable, based upon our experience, multiple approaches will generate consistent results if they incorporate the yield curve, the spread between corporate bonds and Treasury bonds and, to a lesser extent, the quality spread within corporate bonds.

Here is additional information on each data element used:

(a) Corporate bond data – the data must cover the appropriate high quality corporate bonds. We performed the analysis using Merrill Lynch index data and Moody’s index data with consistent results and selected the Merrill Lynch indices based on a review of the index characteristics.

(b) TCM yields – we used the differences between the 3-Year, 10-Year and 30-Year TCM to adjust the corporate bond data to the appropriate time horizon for the segment rate. No attempt was made to convert the yields to spot rates or to explicitly reflect extrapolation to very long maturities, as the regression analysis determined coefficients that best matched the data.

(c) Credit quality spreads – we used the difference between Merrill Lynch AAA-AA and Merrill Lynch AAA-A to estimate this factor. We also examined other proxies and derived very similar results.

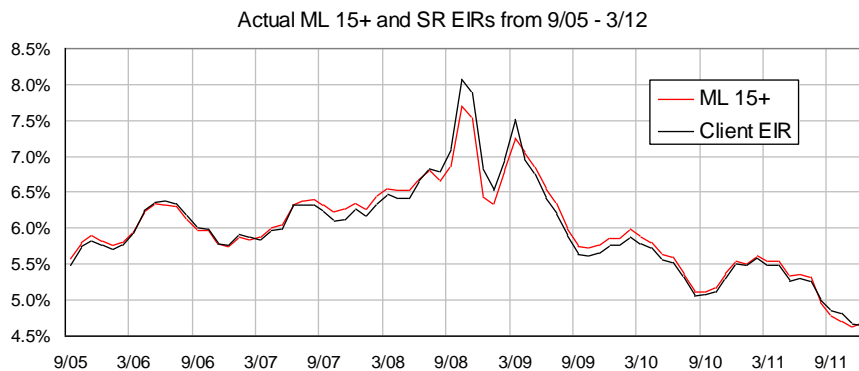
Methodology #4.

1. Three segment spot rates used differ by time periods
 - a. October 1984 to March 1995, April 1995, May 1995: Treasury yields for 1-year, 10-year and 30-year Treasury plus estimated credit spreads by segment.
 - b. March 1995, June 1995 to October 2003: Citigroup Pension Discount Curve (segment rates calculated using IRS methodology) plus spreads to adjust for lower rating criteria (A-AAA instead of AA-AAA) by segment
 - c. October 2003 to current time: IRS spot rates
2. Source of data
 - a. US 1 year, 10 year and 30 year Treasury Yields from Wilshire Compass database
 - b. Citigroup Pension Discount Curve: SOA website
<http://www.soa.org/professional-interests/pension/resources/pen-resources-pension.aspx>

- c. IRS spot yield curves <http://www.irs.gov/retirement/article/0,,id=123231,00.html>
- 3. Monthly PPA curves are averages of daily curves – ignored when using the Citigroup rates or Treasury yields, or calculating spreads
- 4. Citigroup Pension Discount Yield Curve converted to 3-segment curves and spread to adjust for lower rated corporate bonds used in IRS curve (compared to the Citigroup Curve) calculated by segment. For this calculation, all available data from October 2003 to May 2012 (105 months) was used. Averages calculated by segment.
- 5. Credit spreads calculated by segment (using 1-year Treasury yields as first segment rates, 10-year Treasury yields as second segment rates and 30-year Treasury yield as third segment) between the Citigroup Curve (in 3-segments) and Treasury yields using full period of available data (March 1995, June 1995, September 1995-May 2012 – 203 months)
 - a. Lower estimate used spread averages excluding period mid-2008 to mid-2009 of credit crisis
 - b. Upper estimate average over the full period of 203 months

Methodology #5.

In order to estimate the impact of funding stabilization on the 24-month average segment rates, we first analyzed the historical relationship between: (1) the Effective Interest Rate (EIR) for a sample plan using the 24-month average segment rates; and (2) the 24-month average of the Merrill Lynch AA/AAA 15-year+ bond index (ML15). We found a very high degree of correlation between the EIR for the sample plan and the 24-month average of the ML15, as shown below.



We hypothesized that this high degree of correlation would continue to appear if a 25-year history of the segment rates were available for comparison. We then estimated the increase in EIR that would result from using a 25-year average of the segment rates by measuring the difference between the 25-year average of the ML15 and the 24-month average of the ML15. Finally, we determined three hypothetical 25-year average segment rates that would produce this increased EIR.

We hypothesized that the spread between the 25-year average third segment rate and the 25-year average second segment rate would be consistent with the 25-year average spread between: (1) the third segment rate and the second segment rate, for periods where historical segment rate data is available; and (2) long-term U.S. Treasuries and intermediate-term U.S. Treasuries, for periods where segment rate data is not available. Similarly, we hypothesized that the spread between the 25-year average second segment rate and the 25-year average first segment rate would be consistent with the 25-year average spread between: (1) the second segment rate and the first segment rate, for periods where historical segment rate data is available; and (2) intermediate-term U.S. Treasuries and short-term U.S. Treasuries, for periods where historical segment rate data is not available.