

## **Part III --- Administrative, Miscellaneous, and Procedural**

### Update for Weighted Average Interest Rates, Yield Curves, and Segment Rates

Notice 2016-78

This notice provides guidance on the corporate bond monthly yield curve, the corresponding spot segment rates used under § 417(e)(3), and the 24-month average segment rates under § 430(h)(2) of the Internal Revenue Code. In addition, this notice provides guidance as to the interest rate on 30-year Treasury securities under § 417(e)(3)(A)(ii)(II) as in effect for plan years beginning before 2008 and the 30-year Treasury weighted average rate under § 431(c)(6)(E)(ii)(I).

#### **YIELD CURVE AND SEGMENT RATES**

Generally, except for certain plans under sections 104 and 105 of the Pension Protection Act of 2006 and CSEC plans under § 414(y), § 430 of the Code specifies the minimum funding requirements that apply to single-employer plans pursuant to § 412. Section 430(h)(2) specifies the interest rates that must be used to determine a plan's target normal cost and funding target. Under this provision, present value is generally determined using three 24-month average interest rates ("segment rates"), each of which applies to cash flows during specified periods. To the extent provided under § 430(h)(2)(C)(iv), these segment rates are adjusted by the applicable percentage of the 25-year average segment rates for the period ending September 30 of the year preceding the calendar year in which the plan year begins.<sup>1</sup> However, an election may be made under § 430(h)(2)(D)(ii) to use the monthly yield curve in place of the segment rates.

Notice 2007-81, 2007-44 I.R.B. 899, provides guidelines for determining the monthly corporate bond yield curve, and the 24-month average corporate bond segment rates used to compute the target normal cost and the funding target. Consistent with the methodology specified in Notice 2007-81, the monthly corporate bond yield curve derived from November 2016 data is in Table I at the end of this notice. The spot first, second, and third segment rates for the month of November 2016 are, respectively, 1.79, 3.80, and 4.71.

The 24-month average segment rates determined under § 430(h)(2)(C)(i) through (iii) must be adjusted pursuant to § 430(h)(2)(C)(iv) to be within the applicable minimum and maximum percentages of the corresponding 25-year average segment rates. For plan years beginning before 2021, the applicable minimum percentage is 90% and the applicable maximum percentage is 110%. The 25-year average segment rates for plan years beginning in 2015, 2016, and 2017 were published in Notice 2014-50, 2014-40 I.R.B. 590, Notice 2015-61, 2015-39 I.R.B. 408, and Notice 2016-54, 2016-40 I.R.B. 429, respectively.

#### **24-MONTH AVERAGE CORPORATE BOND SEGMENT RATES**

The three 24-month average corporate bond segment rates applicable for December 2016 without adjustment for the 25-year average segment rate limits are as follows:

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<sup>1</sup> Pursuant to § 433(h)(3)(A), the 3<sup>rd</sup> segment rate determined under § 430(h)(2)(C) is used to determine the current liability of a CSEC plan (which is used to calculate the minimum amount of the full funding limitation under § 433(c)(7)(C)).

Applicable Month	First Segment	Second Segment	Third Segment
December 2016	1.55	3.76	4.73

Based on § 430(h)(2)(C)(iv), the 24-month averages applicable for December 2016 adjusted to be within the applicable minimum and maximum percentages of the corresponding 25-year average segment rates, are as follows:

For Plan Years Beginning In	Adjusted 24-Month Average Segment Rates				
	Applicable Month	First Segment	Second Segment	Third Segment	Third Segment
2015	December 2016	4.72	6.11	6.81	6.81
2016	December 2016	4.43	5.91	6.65	6.65
2017	December 2016	4.16	5.72	6.48	6.48

### 30-YEAR TREASURY SECURITIES INTEREST RATES

Generally for plan years beginning after 2007, § 431 specifies the minimum funding requirements that apply to multiemployer plans pursuant to § 412. Section 431(c)(6)(B) specifies a minimum amount for the full-funding limitation described in § 431(c)(6)(A), based on the plan's current liability. Section 431(c)(6)(E)(ii)(I) provides that the interest rate used to calculate current liability for this purpose must be no more than 5 percent above and no more than 10 percent below the weighted average of the rates of interest on 30-year Treasury securities during the four-year period ending on the last day before the beginning of the plan year. Notice 88-73, 1988-2 C.B. 383, provides guidelines for determining the weighted average interest rate. The rate of interest on 30-year Treasury securities for November 2016 is 2.86 percent. The Service determined this rate as the average of the daily determinations of yield on the 30-year Treasury bond maturing in August 2046 determined each day through November 9, 2016 and the yield on the 30-year Treasury bond maturing in November 2046 determined each day for the balance of the month. For plan years beginning in the month shown below, the weighted average of the rates of interest on 30-year Treasury securities and the permissible range of rate used to calculate current liability are as follows:

For Plan Years Beginning in		30-Year Treasury Weighted Average	Permissible Range	
<i>Month</i>	<i>Year</i>		90%	to 105%
December	2016	2.91	2.61	3.05

#### MINIMUM PRESENT VALUE SEGMENT RATES

In general, the applicable interest rates under § 417(e)(3)(D) are segment rates computed without regard to a 24-month average. Notice 2007-81 provides guidelines for determining the minimum present value segment rates. Pursuant to that notice, the minimum present value segment rates determined for November 2016 are as follows:

First Segment	Second Segment	Third Segment
1.79	3.80	4.71

#### DRAFTING INFORMATION

The principal author of this notice is Tom Morgan of the Office of the Associate Chief Counsel (Tax Exempt and Government Entities). However, other personnel from the IRS participated in the development of this guidance. For further information regarding this notice, contact Mr. Morgan at 202-317-6700 or Tony Montanaro at 202-317-8698 (not toll-free calls).

**Table I**

Monthly Yield Curve for November 2016  
Derived from November 2016 Data

<i>Maturity</i>	<i>Yield</i>	<i>Maturity</i>	<i>Yield</i>	<i>Maturity</i>	<i>Yield</i>	<i>Maturity</i>	<i>Yield</i>	<i>Maturity</i>	<i>Yield</i>
0.5	0.97	20.5	4.46	40.5	4.74	60.5	4.84	80.5	4.89
1.0	1.24	21.0	4.47	41.0	4.74	61.0	4.84	81.0	4.89
1.5	1.48	21.5	4.48	41.5	4.75	61.5	4.84	81.5	4.89
2.0	1.67	22.0	4.50	42.0	4.75	62.0	4.84	82.0	4.89
2.5	1.82	22.5	4.51	42.5	4.75	62.5	4.85	82.5	4.89
3.0	1.94	23.0	4.52	43.0	4.76	63.0	4.85	83.0	4.89
3.5	2.04	23.5	4.53	43.5	4.76	63.5	4.85	83.5	4.89
4.0	2.14	24.0	4.54	44.0	4.76	64.0	4.85	84.0	4.90
4.5	2.25	24.5	4.55	44.5	4.77	64.5	4.85	84.5	4.90
5.0	2.36	25.0	4.55	45.0	4.77	65.0	4.85	85.0	4.90
5.5	2.48	25.5	4.56	45.5	4.77	65.5	4.85	85.5	4.90
6.0	2.60	26.0	4.57	46.0	4.77	66.0	4.86	86.0	4.90
6.5	2.73	26.5	4.58	46.5	4.78	66.5	4.86	86.5	4.90
7.0	2.87	27.0	4.59	47.0	4.78	67.0	4.86	87.0	4.90
7.5	3.00	27.5	4.60	47.5	4.78	67.5	4.86	87.5	4.90
8.0	3.13	28.0	4.60	48.0	4.79	68.0	4.86	88.0	4.90
8.5	3.25	28.5	4.61	48.5	4.79	68.5	4.86	88.5	4.90
9.0	3.37	29.0	4.62	49.0	4.79	69.0	4.86	89.0	4.90
9.5	3.48	29.5	4.63	49.5	4.79	69.5	4.86	89.5	4.90
10.0	3.58	30.0	4.63	50.0	4.80	70.0	4.87	90.0	4.91
10.5	3.67	30.5	4.64	50.5	4.80	70.5	4.87	90.5	4.91
11.0	3.76	31.0	4.65	51.0	4.80	71.0	4.87	91.0	4.91
11.5	3.84	31.5	4.65	51.5	4.80	71.5	4.87	91.5	4.91
12.0	3.92	32.0	4.66	52.0	4.81	72.0	4.87	92.0	4.91
12.5	3.98	32.5	4.66	52.5	4.81	72.5	4.87	92.5	4.91
13.0	4.04	33.0	4.67	53.0	4.81	73.0	4.87	93.0	4.91
13.5	4.10	33.5	4.68	53.5	4.81	73.5	4.87	93.5	4.91
14.0	4.14	34.0	4.68	54.0	4.81	74.0	4.88	94.0	4.91
14.5	4.19	34.5	4.69	54.5	4.82	74.5	4.88	94.5	4.91
15.0	4.22	35.0	4.69	55.0	4.82	75.0	4.88	95.0	4.91
15.5	4.26	35.5	4.70	55.5	4.82	75.5	4.88	95.5	4.91
16.0	4.29	36.0	4.70	56.0	4.82	76.0	4.88	96.0	4.91
16.5	4.32	36.5	4.71	56.5	4.82	76.5	4.88	96.5	4.91
17.0	4.34	37.0	4.71	57.0	4.83	77.0	4.88	97.0	4.91
17.5	4.36	37.5	4.71	57.5	4.83	77.5	4.88	97.5	4.92
18.0	4.38	38.0	4.72	58.0	4.83	78.0	4.88	98.0	4.92
18.5	4.40	38.5	4.72	58.5	4.83	78.5	4.89	98.5	4.92
19.0	4.42	39.0	4.73	59.0	4.83	79.0	4.89	99.0	4.92
19.5	4.43	39.5	4.73	59.5	4.84	79.5	4.89	99.5	4.92
20.0	4.45	40.0	4.73	60.0	4.84	80.0	4.89	100.0	4.92