

Southwest Ohio Regional Council of Carpenters Pension Plan
Checklist Item #7

Does the application include the plan actuary's certification that the plan is projected to avoid insolvency if the suspension takes effect and the supporting illustrations, including:

- the year-by-year projections demonstrating projected solvency during the relevant period;
- a description of the assumptions used, including the new entrant profile, the total contribution base units, and the average contribution rates; and
- separately identifying the available resources (and the market value of assets and changes in cash flow) during each of those years?

See Section 3.02.

The Plan actuary's certification that the Plan is projected to avoid insolvency if the suspension takes effect and the supporting illustrations, including:

- the year-by-year projections demonstrating projected solvency during the relevant period;
- a description of the assumptions used, including the new entrant profile, the total contribution base units, and the average contribution rates; and
- separately identifying the available resources (and the market value of assets and changes in cash flow) during each of those years:

is attached as Document 7.1. The assumptions on which the certification is based are described in Exhibit XI of the Supplemental Actuarial Information document attached as Document 7.1. Attached as document 7.2 is the most recent Asset Allocation Analysis performed by the Plan's Investment Consultant Marquette Associates, Inc

**Southwest Ohio Regional Council of Carpenters Pension Plan
Document 7.1**

Supplemental Actuarial Information of the Southwest Ohio Regional Council of Carpenters Pension Plan,
Suspension of Benefits Under the Multiemployer Pension Reform of Act of 2014, Effective as of
December 31, 2017.

**Southwest Ohio Regional Council of Carpenters
Pension Plan**

***Supplemental Actuarial Information
Suspension of Benefits Under the Multiemployer Pension Reform Act of 2014
Effective as of December 31, 2017***

CUNI, RUST & STRENK
ACTUARIAL CONSULTING

March 29, 2017

Board of Trustees
Southwest Ohio Regional Council of Carpenters Pension Plan

Dear Trustees:

As requested, this Report provides the Supplemental Actuarial Information required for submission of an application to suspend benefits under the Multiemployer Pension Reform Act of 2014 (MPRA). This information has been prepared based on our understanding of the Trustees' Pension Recovery Plan effective December 31, 2017 submitted on behalf of the Southwest Ohio Regional Council of Carpenters Pension Plan ("Plan").

The methods employed and the results developed are intended solely for the purpose of demonstrating that the proposed benefit suspensions outlined in the application are reasonably estimated to enable the Plan to avoid insolvency. Determinations for purposes other than those expressly stated may be significantly different from the results shown in this Report.

The information presented in this Report is based on the Plan's participant data as of January 1, 2016 and unaudited financials as of December 31, 2016. In preparing these exhibits, we have relied on the Plan Administrator's representations that the information that they have supplied is both accurate and complete. The expected contribution base units have been developed based on information provided by the Board of Trustees. If any of this information is inaccurate or incomplete, the results shown in this Report could materially change. A summary of the participant data can be found in the Plan's January 1, 2016 Actuarial Valuation Report.

Based on the information available, the proposed benefit suspensions effective December 31, 2017 outlined in the Trustee's Pension Recovery Plan are reasonably estimated to enable the Plan to avoid insolvency within the meaning of IRC §418E assuming the proposed suspensions continue indefinitely.

I hereby certify that the Plan's most recent Actuarial Valuation and Actuarial Certification of Plan Status fairly present the actuarial position of the Plan. In my opinion, the assumptions used to determine Plan liabilities and costs are individually reasonable based on Plan experience and represent my best estimate of anticipated future experience under the Plan. The projections and calculations shown in this Report have been performed in accordance with generally accepted actuarial principles and practices and the undersigned meets the qualification standards of the American Academy of Actuaries necessary to render an actuarial opinion.

Respectfully submitted,

CUNI, RUST & STRENK

Redacted by the U.S. Department
of the Treasury

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Table of Contents
Southwest Ohio Regional Council of Carpenters Pension Plan

Exhibit I	Past Experience for Certain Critical Assumptions
Exhibit II	Projected Total Contribution Base Units and Average Contribution Rates
Exhibit III	Deterministic Projection of Current Plan without Proposed Suspension
Exhibit IV	Deterministic Projection of Proposed Suspension
Exhibit V	Deterministic Projection of Similar but Smaller Proposed Suspension
Exhibit VI	Deterministic Projection of Proposed Suspension: Assuming 1.00% Lower Annual Rate of Return (5.34%)
Exhibit VII	Deterministic Projection of Proposed Suspension: Assuming 2.00% Lower Annual Rate of Return (4.34%)
Exhibit VIII	Deterministic Projection of Proposed Suspension: Assuming Negative 3.39% Trend in Annual Contribution Base Units
Exhibit IX	Deterministic Projection of Proposed Suspension: Assuming Negative 4.39% Trend in Annual Contribution Base Units
Exhibit X	Deterministic Projection of Funded Percentage of Proposed Suspension
Exhibit XI	Assumptions, Methods & Plan Provisions

Exhibit I - Past Experience for Certain Critical Assumptions
Southwest Ohio Regional Council of Carpenters Pension Plan

1/1 Plan Year	Total Contributions	Total Contribution Base Units	Average Contribution Rate	Withdrawal Liability Payments	Rate of Return on Plan Assets
2007	\$16,543,224	3,198,440	\$5.09	\$259,860	6.6%
2008	\$18,925,867	2,928,547	\$5.98	\$1,402,501	(25.9%)
2009	\$12,225,138	2,423,298	\$4.79	\$607,864	14.9%
2010	\$11,205,337	1,966,833	\$5.57	\$247,051	10.6%
2011	\$13,040,000	2,092,816	\$5.80	\$894,188	0.8%
2012	\$14,614,870	2,305,944	\$6.18	\$357,833	10.1%
2013	\$13,712,995	2,091,252	\$6.34	\$458,286	14.2%
2014	\$15,436,128	2,239,505	\$6.76	\$301,582	7.2%
2015	\$17,760,186	2,544,244	\$6.88	\$263,450	2.8%
2016	\$16,544,336	2,344,007*	\$6.88	\$424,628	10.3%

Average Base Unit Trend (2007-2016):	(3.4%)
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* Estimated based on contributions from the unaudited financials as of December 31, 2016.

Exhibit II - Projected Total Contribution Base Units and Average Contribution Rates
Southwest Ohio Regional Council of Carpenters Pension Plan

1/1 Plan Year	Total Contributions	Total Contribution Base Units	Average Contribution Rate	1/1 Plan Year	Total Contributions	Total Contribution Base Units	Average Contribution Rate
2016	\$16,119,708*	2,344,007**	\$6.88	2035	\$14,785,525	2,150,000	\$6.88
2017	\$14,785,525	2,150,000	\$6.88	2036	\$14,785,525	2,150,000	\$6.88
2018	\$14,785,525	2,150,000	\$6.88	2037	\$14,785,525	2,150,000	\$6.88
2019	\$14,785,525	2,150,000	\$6.88	2038	\$14,785,525	2,150,000	\$6.88
2020	\$14,785,525	2,150,000	\$6.88	2039	\$14,785,525	2,150,000	\$6.88
2021	\$14,785,525	2,150,000	\$6.88	2040	\$14,785,525	2,150,000	\$6.88
2022	\$14,785,525	2,150,000	\$6.88	2041	\$14,785,525	2,150,000	\$6.88
2023	\$14,785,525	2,150,000	\$6.88	2042	\$14,785,525	2,150,000	\$6.88
2024	\$14,785,525	2,150,000	\$6.88	2043	\$14,785,525	2,150,000	\$6.88
2025	\$14,785,525	2,150,000	\$6.88	2044	\$14,785,525	2,150,000	\$6.88
2026	\$14,785,525	2,150,000	\$6.88	2045	\$14,785,525	2,150,000	\$6.88
2027	\$14,785,525	2,150,000	\$6.88	2046	\$14,785,525	2,150,000	\$6.88
2028	\$14,785,525	2,150,000	\$6.88	2047	\$14,785,525	2,150,000	\$6.88
2029	\$14,785,525	2,150,000	\$6.88	2048	\$14,785,525	2,150,000	\$6.88
2030	\$14,785,525	2,150,000	\$6.88	2049	\$14,785,525	2,150,000	\$6.88
2031	\$14,785,525	2,150,000	\$6.88	2050	\$14,785,525	2,150,000	\$6.88
2032	\$14,785,525	2,150,000	\$6.88	2051	\$14,785,525	2,150,000	\$6.88
2033	\$14,785,525	2,150,000	\$6.88	2052	\$14,785,525	2,150,000	\$6.88
2034	\$14,785,525	2,150,000	\$6.88				

* Contributions from the unaudited financials as of December 31, 2016.

** Estimated based on contributions from the unaudited financials as of December 31, 2016.

Exhibit III - Deterministic Projection of Current Plan without Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2033.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$211,585,793	\$205,669,308	\$198,957,928
2. Contributions	16,119,708	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	32,515,683	32,911,009	33,525,886
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>13,174,375</u>	<u>12,829,425</u>	<u>12,441,614</u>	<u>11,996,550</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$211,585,793	\$205,669,308	\$198,957,928	\$191,174,731
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$243,855,682	\$238,184,991	\$231,868,937	\$224,700,617
9. Solvency Ratio: (8)÷(4)	7.59	7.56	7.33	7.05	6.70
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$191,174,731	\$182,455,690	\$172,709,031	\$161,986,555	\$150,267,640
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	33,942,890	34,353,266	34,663,345	34,958,037	35,386,316
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>11,489,705</u>	<u>10,922,545</u>	<u>10,293,775</u>	<u>9,604,386</u>	<u>8,847,649</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$182,455,690	\$172,709,031	\$161,986,555	\$150,267,640	\$137,351,227
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$216,398,580	\$207,062,297	\$196,649,900	\$185,225,677	\$172,737,543
9. Solvency Ratio: (8)÷(4)	6.38	6.03	5.67	5.30	4.88
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$137,351,227	\$123,400,627	\$108,310,794	\$92,216,550	\$75,069,044
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	35,582,480	35,816,802	35,850,213	35,869,117	35,921,075
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>8,022,232</u>	<u>7,130,053</u>	<u>6,171,913</u>	<u>5,150,543</u>	<u>4,061,360</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$123,400,627	\$108,310,794	\$92,216,550	\$75,069,044	\$56,767,279
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$158,983,107	\$144,127,596	\$128,066,763	\$110,938,161	\$92,688,354
9. Solvency Ratio: (8)÷(4)	4.47	4.02	3.57	3.09	2.58

* Based on unaudited December 31, 2016 Financials

Exhibit III (continued) - Deterministic Projection of Current Plan without Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2033.

	2031	2032	2033
1. Market Value at beginning of year	\$56,767,279	\$37,503,994	\$17,005,066
2. Contributions	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	8,114
4. Benefit payments	35,715,032	35,715,566	35,612,409
5. Administrative expenses	1,338,192	1,351,574	1,365,090
6. Investment earnings	<u>2,907,046</u>	<u>1,685,319</u>	<u>385,699</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$37,503,994	\$17,005,066	Insolvent
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$73,219,026	\$52,720,632	\$30,819,314
9. Solvency Ratio: (8)÷(4)	2.05	1.48	0.87

Exhibit IV - Deterministic Projection of Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$211,585,793	\$213,045,161	\$214,288,648
2. Contributions	16,119,708	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	25,363,084	25,650,396	26,125,931
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>13,174,375</u>	<u>13,052,679</u>	<u>13,135,868</u>	<u>13,199,491</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$211,585,793	\$213,045,161	\$214,288,648	\$215,108,347
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$243,855,682	\$238,408,245	\$239,939,044	\$241,234,278
9. Solvency Ratio: (8)÷(4)	7.59	7.56	9.40	9.35	9.23
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$215,108,347	\$215,646,644	\$215,844,533	\$215,778,318	\$215,464,665
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	26,437,217	26,750,334	26,981,643	27,205,162	27,550,767
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>13,241,370</u>	<u>13,264,161</u>	<u>13,268,334</u>	<u>13,256,773</u>	<u>13,225,711</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$215,646,644	\$215,844,533	\$215,778,318	\$215,464,665	\$214,761,863
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$242,083,861	\$242,594,867	\$242,759,961	\$242,669,827	\$242,312,630
9. Solvency Ratio: (8)÷(4)	9.16	9.07	9.00	8.92	8.80
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$214,761,863	\$213,829,686	\$212,617,329	\$211,271,708	\$209,784,409
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	27,717,384	27,919,040	27,960,874	28,002,545	28,075,519
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>13,175,559</u>	<u>13,109,767</u>	<u>13,031,197</u>	<u>12,944,178</u>	<u>12,847,196</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$213,829,686	\$212,617,329	\$211,271,708	\$209,784,409	\$208,114,036
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$241,547,070	\$240,536,369	\$239,232,582	\$237,786,954	\$236,189,555
9. Solvency Ratio: (8)÷(4)	8.71	8.62	8.56	8.49	8.41

* Based on unaudited December 31, 2016 Financials

Exhibit IV (continued) - Deterministic Projection of Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$208,114,036	\$206,456,829	\$204,616,051	\$202,570,388	\$200,527,844
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	8,114	0	0
4. Benefit payments	27,946,807	28,009,553	27,992,293	27,841,734	27,780,796
5. Administrative expenses	1,338,192	1,351,574	1,365,090	1,378,741	1,392,528
6. Investment earnings	<u>12,744,899</u>	<u>12,637,456</u>	<u>12,518,081</u>	<u>12,392,406</u>	<u>12,264,381</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$206,456,829	\$204,616,051	\$202,570,388	\$200,527,844	\$198,404,426
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$234,403,636	\$232,625,604	\$230,562,681	\$228,369,578	\$226,185,222
9. Solvency Ratio: (8)÷(4)	8.39	8.31	8.24	8.20	8.14
	2036	2037	2038	2039	2040
1. Market Value at beginning of year	\$198,404,426	\$196,431,427	\$194,544,711	\$192,830,139	\$191,248,825
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	27,490,455	27,271,416	26,974,281	26,725,296	26,363,190
5. Administrative expenses	1,406,453	1,420,518	1,434,723	1,449,070	1,463,561
6. Investment earnings	<u>12,138,384</u>	<u>12,019,693</u>	<u>11,908,907</u>	<u>11,807,527</u>	<u>11,718,121</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$196,431,427	\$194,544,711	\$192,830,139	\$191,248,825	\$189,925,720
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$223,921,882	\$221,816,127	\$219,804,420	\$217,974,121	\$216,288,910
9. Solvency Ratio: (8)÷(4)	8.15	8.13	8.15	8.16	8.20
	2041	2042	2043	2044	2045
1. Market Value at beginning of year	\$189,925,720	\$188,709,794	\$187,771,792	\$187,161,811	\$186,896,493
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	26,163,274	25,804,223	25,413,532	25,026,720	24,594,370
5. Administrative expenses	1,478,197	1,492,979	1,507,909	1,522,988	1,538,218
6. Investment earnings	<u>11,640,020</u>	<u>11,573,675</u>	<u>11,525,935</u>	<u>11,498,865</u>	<u>11,495,063</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$188,709,794	\$187,771,792	\$187,161,811	\$186,896,493	\$187,044,493
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$214,873,068	\$213,576,015	\$212,575,343	\$211,923,213	\$211,638,863
9. Solvency Ratio: (8)÷(4)	8.21	8.28	8.36	8.47	8.61

Exhibit IV (continued) - Deterministic Projection of Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2046	2047	2048	2049	2050
1. Market Value at beginning of year	\$187,044,493	\$187,589,634	\$188,485,997	\$189,832,189	\$191,672,647
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	24,202,967	23,880,356	23,483,560	23,071,172	22,653,310
5. Administrative expenses	1,553,600	1,569,136	1,584,827	1,600,675	1,616,682
6. Investment earnings	<u>11,516,183</u>	<u>11,560,330</u>	<u>11,629,054</u>	<u>11,726,780</u>	<u>11,856,008</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$187,589,634	\$188,485,997	\$189,832,189	\$191,672,647	\$194,044,188
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$211,792,601	\$212,366,353	\$213,315,749	\$214,743,819	\$216,697,498
9. Solvency Ratio: (8)÷(4)	8.75	8.89	9.08	9.31	9.57
	2051	2052			
1. Market Value at beginning of year	\$194,044,188	\$196,922,791			
2. Contributions	14,785,525	14,785,525			
3. Withdrawal liability payments	0	0			
4. Benefit payments	22,291,234	21,956,575			
5. Administrative expenses	1,632,849	1,649,177			
6. Investment earnings	<u>12,017,161</u>	<u>12,209,600</u>			
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$196,922,791	\$200,312,164			
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$219,214,025	\$222,268,739			
9. Solvency Ratio: (8)÷(4)	9.83	10.12			

**Exhibit V - Deterministic Projection of Similar but Smaller Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan**

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$211,585,793	\$212,764,906	\$213,690,409
2. Contributions	16,119,708	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	25,634,856	25,941,525	26,440,649
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>13,174,375</u>	<u>13,044,196</u>	<u>13,109,013</u>	<u>13,151,740</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$211,585,793	\$212,764,906	\$213,690,409	\$214,147,639
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$243,855,682	\$238,399,762	\$239,631,934	\$240,588,288
9. Solvency Ratio: (8)÷(4)	7.59	7.56	9.30	9.24	9.10
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$214,147,639	\$214,280,294	\$214,026,309	\$213,461,699	\$212,600,828
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	26,771,515	27,104,526	27,353,166	27,593,389	27,958,112
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>13,170,026</u>	<u>13,166,479</u>	<u>13,141,462</u>	<u>13,097,782</u>	<u>13,031,429</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$214,280,294	\$214,026,309	\$213,461,699	\$212,600,828	\$211,296,399
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$241,051,809	\$241,130,835	\$240,814,865	\$240,194,217	\$239,254,511
9. Solvency Ratio: (8)÷(4)	9.00	8.90	8.80	8.70	8.56
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$211,296,399	\$209,709,483	\$207,785,549	\$205,672,082	\$203,357,582
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	28,139,245	28,355,765	28,408,416	28,460,438	28,544,008
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>12,942,681</u>	<u>12,834,915</u>	<u>12,710,893</u>	<u>12,574,870</u>	<u>12,425,113</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$209,709,483	\$207,785,549	\$205,672,082	\$203,357,582	\$200,796,637
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$237,848,728	\$236,141,314	\$234,080,498	\$231,818,020	\$229,340,645
9. Solvency Ratio: (8)÷(4)	8.45	8.33	8.24	8.15	8.03

* Based on unaudited December 31, 2016 Financials

Exhibit V (continued) - Deterministic Projection of Similar but Smaller Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$200,796,637	\$198,188,123	\$195,327,933	\$192,192,587	\$188,989,254
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	8,114	0	0
4. Benefit payments	28,419,438	28,489,741	28,477,951	28,329,351	28,271,132
5. Administrative expenses	1,338,192	1,351,574	1,365,090	1,378,741	1,392,528
6. Investment earnings	<u>12,266,223</u>	<u>12,098,232</u>	<u>11,914,056</u>	<u>11,719,234</u>	<u>11,517,529</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$198,188,123	\$195,327,933	\$192,192,587	\$188,989,254	\$185,628,648
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$226,607,561	\$223,817,674	\$220,670,538	\$217,318,605	\$213,899,780
9. Solvency Ratio: (8)÷(4)	7.97	7.86	7.75	7.67	7.57
	2036	2037	2038	2039	2040
1. Market Value at beginning of year	\$185,628,648	\$182,343,777	\$179,064,526	\$175,874,716	\$172,729,648
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	27,977,151	27,755,679	27,453,129	27,199,281	26,829,400
5. Administrative expenses	1,406,453	1,420,518	1,434,723	1,449,070	1,463,561
6. Investment earnings	<u>11,313,208</u>	<u>11,111,421</u>	<u>10,912,517</u>	<u>10,717,758</u>	<u>10,529,454</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$182,343,777	\$179,064,526	\$175,874,716	\$172,729,648	\$169,751,666
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$210,320,928	\$206,820,205	\$203,327,845	\$199,928,929	\$196,581,066
9. Solvency Ratio: (8)÷(4)	7.52	7.45	7.41	7.35	7.33
	2041	2042	2043	2044	2045
1. Market Value at beginning of year	\$169,751,666	\$166,783,238	\$163,992,560	\$161,424,615	\$159,089,606
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	26,622,410	26,252,756	25,850,261	25,451,417	25,006,102
5. Administrative expenses	1,478,197	1,492,979	1,507,909	1,522,988	1,538,218
6. Investment earnings	<u>10,346,654</u>	<u>10,169,532</u>	<u>10,004,700</u>	<u>9,853,871</u>	<u>9,719,255</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$166,783,238	\$163,992,560	\$161,424,615	\$159,089,606	\$157,050,066
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$193,405,648	\$190,245,316	\$187,274,876	\$184,541,023	\$182,056,168
9. Solvency Ratio: (8)÷(4)	7.26	7.25	7.24	7.25	7.28

Exhibit V (continued) - Deterministic Projection of Similar but Smaller Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2046	2047	2048	2049	2050
1. Market Value at beginning of year	\$157,050,066	\$155,283,660	\$153,736,014	\$152,498,707	\$151,607,706
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	24,600,460	24,264,186	23,852,398	23,424,655	22,991,082
5. Administrative expenses	1,553,600	1,569,136	1,584,827	1,600,675	1,616,682
6. Investment earnings	<u>9,602,129</u>	<u>9,500,151</u>	<u>9,414,393</u>	<u>9,348,804</u>	<u>9,305,348</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$155,283,660	\$153,736,014	\$152,498,707	\$151,607,706	\$151,090,815
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$179,884,120	\$178,000,200	\$176,351,105	\$175,032,361	\$174,081,897
9. Solvency Ratio: (8)÷(4)	7.31	7.34	7.39	7.47	7.57
	2051	2052			
1. Market Value at beginning of year	\$151,090,815	\$150,914,400			
2. Contributions	14,785,525	14,785,525			
3. Withdrawal liability payments	0	0			
4. Benefit payments	22,612,966	22,262,573			
5. Administrative expenses	1,632,849	1,649,177			
6. Investment earnings	<u>9,283,875</u>	<u>9,283,117</u>			
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$150,914,400	\$151,071,292			
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$173,527,366	\$173,333,865			
9. Solvency Ratio: (8)÷(4)	7.67	7.79			

Exhibit VI - Deterministic Projection of Proposed Suspension: Assuming 1.00% Lower Annual Rate of Return (5.34%)**Southwest Ohio Regional Council of Carpenters Pension Plan**

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$209,506,650	\$208,795,478	\$207,739,378
2. Contributions	16,119,708	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	25,363,084	25,650,396	26,125,931
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>11,095,232</u>	<u>10,882,139</u>	<u>10,836,281</u>	<u>10,767,041</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$209,506,650	\$208,795,478	\$207,739,378	\$206,126,627
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$241,776,539	\$234,158,562	\$233,389,774	\$232,252,558
9. Solvency Ratio: (8)÷(4)	7.59	7.49	9.23	9.10	8.89
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$206,126,627	\$204,095,955	\$201,584,075	\$198,662,713	\$195,343,258
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	26,437,217	26,750,334	26,981,643	27,205,162	27,550,767
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>10,672,401</u>	<u>10,554,392</u>	<u>10,413,187</u>	<u>10,250,971</u>	<u>10,064,275</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$204,095,955	\$201,584,075	\$198,662,713	\$195,343,258	\$191,479,020
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$230,533,172	\$228,334,409	\$225,644,356	\$222,548,420	\$219,029,787
9. Solvency Ratio: (8)÷(4)	8.72	8.54	8.36	8.18	7.95
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$191,479,020	\$187,224,486	\$182,522,722	\$177,513,748	\$172,181,196
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	27,717,384	27,919,040	27,960,874	28,002,545	28,075,519
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>9,853,202</u>	<u>9,620,360</u>	<u>9,367,844</u>	<u>9,098,925</u>	<u>8,811,898</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$187,224,486	\$182,522,722	\$177,513,748	\$172,181,196	\$166,475,525
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$214,941,870	\$210,441,762	\$205,474,622	\$200,183,741	\$194,551,044
9. Solvency Ratio: (8)÷(4)	7.75	7.54	7.35	7.15	6.93

* Based on unaudited December 31, 2016 Financials

Exhibit VI (continued) - Deterministic Projection of Proposed Suspension: Assuming 1.00% Lower Annual Rate of Return (5.34%)
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$166,475,525	\$160,583,677	\$154,299,070	\$147,591,101	\$140,657,115
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	8,114	0	0
4. Benefit payments	27,946,807	28,009,553	27,992,293	27,841,734	27,780,796
5. Administrative expenses	1,338,192	1,351,574	1,365,090	1,378,741	1,392,528
6. Investment earnings	<u>8,510,258</u>	<u>8,193,627</u>	<u>7,855,775</u>	<u>7,500,964</u>	<u>7,131,932</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$160,583,677	\$154,299,070	\$147,591,101	\$140,657,115	\$133,401,248
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$188,530,484	\$182,308,623	\$175,583,394	\$168,498,849	\$161,182,044
9. Solvency Ratio: (8)÷(4)	6.75	6.51	6.27	6.05	5.80
	2036	2037	2038	2039	2040
1. Market Value at beginning of year	\$133,401,248	\$126,041,618	\$118,499,359	\$110,844,729	\$103,022,164
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	27,490,455	27,271,416	26,974,281	26,725,296	26,363,190
5. Administrative expenses	1,406,453	1,420,518	1,434,723	1,449,070	1,463,561
6. Investment earnings	<u>6,751,753</u>	<u>6,364,150</u>	<u>5,968,849</u>	<u>5,566,276</u>	<u>5,157,711</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$126,041,618	\$118,499,359	\$110,844,729	\$103,022,164	\$95,138,649
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$153,532,073	\$145,770,775	\$137,819,010	\$129,747,460	\$121,501,839
9. Solvency Ratio: (8)÷(4)	5.58	5.35	5.11	4.85	4.61
	2041	2042	2043	2044	2045
1. Market Value at beginning of year	\$95,138,649	\$87,024,317	\$78,830,021	\$70,583,813	\$62,278,787
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	26,163,274	25,804,223	25,413,532	25,026,720	24,594,370
5. Administrative expenses	1,478,197	1,492,979	1,507,909	1,522,988	1,538,218
6. Investment earnings	<u>4,741,614</u>	<u>4,317,381</u>	<u>3,889,708</u>	<u>3,459,157</u>	<u>3,026,661</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$87,024,317	\$78,830,021	\$70,583,813	\$62,278,787	\$53,958,385
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$113,187,591	\$104,634,244	\$95,997,345	\$87,305,507	\$78,552,755
9. Solvency Ratio: (8)÷(4)	4.33	4.05	3.78	3.49	3.19

Exhibit VI (continued) - Deterministic Projection of Proposed Suspension: Assuming a 1.00% Lower Annual Rate of Return (5.34%)**Southwest Ohio Regional Council of Carpenters Pension Plan**

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2046	2047	2048	2049	2050
1. Market Value at beginning of year	\$53,958,385	\$45,579,603	\$37,068,562	\$28,494,179	\$19,868,914
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	24,202,967	23,880,356	23,483,560	23,071,172	22,653,310
5. Administrative expenses	1,553,600	1,569,136	1,584,827	1,600,675	1,616,682
6. Investment earnings	<u>2,592,260</u>	<u>2,152,926</u>	<u>1,708,479</u>	<u>1,261,057</u>	<u>811,058</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$45,579,603	\$37,068,562	\$28,494,179	\$19,868,914	\$11,195,505
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$69,782,570	\$60,948,918	\$51,977,739	\$42,940,086	\$33,848,815
9. Solvency Ratio: (8)÷(4)	2.88	2.55	2.21	1.86	1.49
	2051	2052			
1. Market Value at beginning of year	\$11,195,505	\$2,413,961			
2. Contributions	14,785,525	14,785,525			
3. Withdrawal liability payments	0	0			
4. Benefit payments	22,291,234	21,956,575			
5. Administrative expenses	1,632,849	1,649,177			
6. Investment earnings	<u>357,014</u>	<u>N/A</u>			
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$2,413,961	Insolvent			
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$24,705,195				
9. Solvency Ratio: (8)÷(4)	1.11				

Exhibit VII - Deterministic Projection of Proposed Suspension: Assuming 2.00% Lower Annual Rate of Return (4.34%)
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2042.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$207,427,934	\$204,588,092	\$201,319,510
2. Contributions	16,119,708	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	25,363,084	25,650,396	26,125,931
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>9,016,516</u>	<u>8,753,469</u>	<u>8,623,799</u>	<u>8,471,478</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$207,427,934	\$204,588,092	\$201,319,510	\$197,411,196
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$239,697,823	\$229,951,176	\$226,969,906	\$223,537,127
9. Solvency Ratio: (8)÷(4)	7.59	7.43	9.07	8.85	8.56
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$197,411,196	\$193,003,040	\$188,032,573	\$182,572,351	\$176,634,214
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	26,437,217	26,750,334	26,981,643	27,205,162	27,550,767
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>8,294,917</u>	<u>8,095,805</u>	<u>7,874,327</u>	<u>7,632,289</u>	<u>7,366,886</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$193,003,040	\$188,032,573	\$182,572,351	\$176,634,214	\$170,072,587
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$219,440,257	\$214,782,907	\$209,553,994	\$203,839,376	\$197,623,354
9. Solvency Ratio: (8)÷(4)	8.30	8.03	7.77	7.49	7.17
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$170,072,587	\$163,043,115	\$155,489,573	\$147,552,339	\$139,214,796
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	27,717,384	27,919,040	27,960,874	28,002,545	28,075,519
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>7,078,264</u>	<u>6,768,582</u>	<u>6,439,584</u>	<u>6,093,934</u>	<u>5,730,237</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$163,043,115	\$155,489,573	\$147,552,339	\$139,214,796	\$130,427,464
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$190,760,499	\$183,408,613	\$175,513,213	\$167,217,341	\$158,502,983
9. Solvency Ratio: (8)÷(4)	6.88	6.57	6.28	5.97	5.65

* Based on unaudited December 31, 2016 Financials

Exhibit VII (continued) - Deterministic Projection of Proposed Suspension: Assuming 2.00% Lower Annual Rate of Return (4.34%)
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2042.

	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$130,427,464	\$121,376,703	\$111,855,377	\$101,833,480	\$91,508,191
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	97,368	97,368	8,114	0	0
4. Benefit payments	27,946,807	28,009,553	27,992,293	27,841,734	27,780,796
5. Administrative expenses	1,338,192	1,351,574	1,365,090	1,378,741	1,392,528
6. Investment earnings	<u>5,351,345</u>	<u>4,956,908</u>	<u>4,541,847</u>	<u>4,109,661</u>	<u>3,662,556</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$121,376,703	\$111,855,377	\$101,833,480	\$91,508,191	\$80,782,948
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$149,323,510	\$139,864,930	\$129,825,773	\$119,349,925	\$108,563,744
9. Solvency Ratio: (8)÷(4)	5.34	4.99	4.64	4.29	3.91
	2036	2037	2038	2039	2040
1. Market Value at beginning of year	\$80,782,948	\$69,874,580	\$58,702,164	\$47,333,869	\$35,711,866
2. Contributions	14,785,525	14,785,525	14,785,525	14,785,525	14,785,525
3. Withdrawal liability payments	0	0	0	0	0
4. Benefit payments	27,490,455	27,271,416	26,974,281	26,725,296	26,363,190
5. Administrative expenses	1,406,453	1,420,518	1,434,723	1,449,070	1,463,561
6. Investment earnings	<u>3,203,015</u>	<u>2,733,993</u>	<u>2,255,184</u>	<u>1,766,838</u>	<u>1,269,906</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$69,874,580	\$58,702,164	\$47,333,869	\$35,711,866	\$23,940,546
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$97,365,035	\$85,973,580	\$74,308,150	\$62,437,162	\$50,303,736
9. Solvency Ratio: (8)÷(4)	3.54	3.15	2.75	2.34	1.91
	2041	2042			
1. Market Value at beginning of year	\$23,940,546	\$11,847,609			
2. Contributions	14,785,525	14,785,525			
3. Withdrawal liability payments	0	0			
4. Benefit payments	26,163,274	25,804,223			
5. Administrative expenses	1,478,197	1,492,979			
6. Investment earnings	<u>763,009</u>	<u>245,566</u>			
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$11,847,609	Insolvent			
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$38,010,883	\$25,385,721			
9. Solvency Ratio: (8)÷(4)	1.45	0.98			

Exhibit VIII - Deterministic Projection of Proposed Suspension: Assuming Negative 3.39% Trend in Annual Contribution Base Units
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2039.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$211,068,919	\$211,479,291	\$211,124,851
2. Contributions	16,119,708	14,284,296	13,800,058	13,332,236	12,880,273
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	25,363,084	25,650,396	26,125,931
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>13,158,730</u>	<u>12,989,150</u>	<u>12,991,230</u>	<u>12,939,438</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$211,068,919	\$211,479,291	\$211,124,851	\$209,779,245
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$243,338,808	\$236,842,375	\$236,775,247	\$235,905,176
9. Solvency Ratio: (8)÷(4)	7.59	7.54	9.34	9.23	9.03
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$209,779,245	\$207,564,686	\$204,400,183	\$200,338,140	\$195,369,312
2. Contributions	12,443,632	12,021,793	11,614,254	11,220,531	10,840,155
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	26,437,217	26,750,334	26,981,643	27,205,162	27,550,767
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>12,830,407</u>	<u>12,665,501</u>	<u>12,443,777</u>	<u>12,166,592</u>	<u>11,828,519</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$207,564,686	\$204,400,183	\$200,338,140	\$195,369,312	\$189,323,948
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$234,001,903	\$231,150,517	\$227,319,783	\$222,574,474	\$216,874,715
9. Solvency Ratio: (8)÷(4)	8.85	8.64	8.42	8.18	7.87
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$189,323,948	\$182,331,540	\$174,308,628	\$165,366,969	\$155,460,340
2. Contributions	10,472,674	10,117,650	9,774,662	9,443,301	9,123,173
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	27,717,384	27,919,040	27,960,874	28,002,545	28,075,519
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>11,428,179</u>	<u>10,967,087</u>	<u>10,446,022</u>	<u>9,867,072</u>	<u>9,226,312</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$182,331,540	\$174,308,628	\$165,366,969	\$155,460,340	\$144,506,731
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$210,048,924	\$202,227,668	\$193,327,843	\$183,462,885	\$172,582,250
9. Solvency Ratio: (8)÷(4)	7.58	7.24	6.91	6.55	6.15

* Based on unaudited December 31, 2016 Financials

**Exhibit VIII (continued) - Deterministic Projection of Proposed Suspension: Assuming Negative 3.39% Trend in Annual Contribution Base Units
Southwest Ohio Regional Council of Carpenters Pension Plan**

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2039.

	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$144,506,731	\$132,658,801	\$119,673,091	\$105,478,236	\$90,228,661
2. Contributions	8,813,897	8,515,106	8,226,444	7,947,568	7,678,145
3. Withdrawal liability payments	97,368	97,368	8,114	0	0
4. Benefit payments	27,946,807	28,009,553	27,992,293	27,841,734	27,780,796
5. Administrative expenses	1,338,192	1,351,574	1,365,090	1,378,741	1,392,528
6. Investment earnings	<u>8,525,804</u>	<u>7,762,943</u>	<u>6,927,970</u>	<u>6,023,332</u>	<u>5,049,571</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$132,658,801	\$119,673,091	\$105,478,236	\$90,228,661	\$73,783,053
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$160,605,608	\$147,682,644	\$133,470,529	\$118,070,395	\$101,563,849
9. Solvency Ratio: (8)÷(4)	5.75	5.27	4.77	4.24	3.66
	2036	2037	2038	2039	
1. Market Value at beginning of year	\$73,783,053	\$56,311,424	\$37,684,151	\$17,917,146	
2. Contributions	7,417,856	7,166,391	6,923,450	6,688,745	
3. Withdrawal liability payments	0	0	0	0	
4. Benefit payments	27,490,455	27,271,416	26,974,281	26,725,296	
5. Administrative expenses	1,406,453	1,420,518	1,434,723	1,449,070	
6. Investment earnings	<u>4,007,423</u>	<u>2,898,270</u>	<u>1,718,549</u>	<u>465,319</u>	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$56,311,424	\$37,684,151	\$17,917,146	Insolvent	
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$83,801,879	\$64,955,567	\$44,891,427	\$23,622,140	
9. Solvency Ratio: (8)÷(4)	3.05	2.38	1.66	0.88	

Exhibit IX - Deterministic Projection of Proposed Suspension: Assuming Negative 4.39% Trend in Annual Contribution Base Units
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2038.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$210,916,448	\$211,024,075	\$210,218,255
2. Contributions	16,119,708	14,136,440	13,515,851	12,922,505	12,355,207
3. Withdrawal liability payments	424,628	160,068	160,068	160,068	160,068
4. Benefit payments	32,920,900	32,269,889	25,363,084	25,650,396	26,125,931
5. Administrative expenses	1,152,651	1,164,178	1,175,820	1,187,578	1,199,454
6. Investment earnings	<u>21,176,465</u>	<u>13,154,115</u>	<u>12,970,612</u>	<u>12,949,581</u>	<u>12,865,571</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$216,899,892	\$210,916,448	\$211,024,075	\$210,218,255	\$208,273,716
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$249,820,792	\$243,186,337	\$236,387,159	\$235,868,651	\$234,399,647
9. Solvency Ratio: (8)÷(4)	7.59	7.54	9.32	9.20	8.97
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$208,273,716	\$205,313,198	\$201,255,679	\$196,152,970	\$189,994,664
2. Contributions	11,812,813	11,294,231	10,798,414	10,324,364	9,871,124
3. Withdrawal liability payments	160,068	122,100	97,368	97,368	97,368
4. Benefit payments	26,437,217	26,750,334	26,981,643	27,205,162	27,550,767
5. Administrative expenses	1,211,449	1,223,563	1,235,799	1,248,157	1,260,639
6. Investment earnings	<u>12,715,267</u>	<u>12,500,047</u>	<u>12,218,951</u>	<u>11,873,281</u>	<u>11,457,520</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$205,313,198	\$201,255,679	\$196,152,970	\$189,994,664	\$182,609,270
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$231,750,415	\$228,006,013	\$223,134,613	\$217,199,826	\$210,160,037
9. Solvency Ratio: (8)÷(4)	8.77	8.52	8.27	7.98	7.63
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$182,609,270	\$174,123,957	\$164,452,345	\$153,702,657	\$141,824,512
2. Contributions	9,437,782	9,023,463	8,627,333	8,248,593	7,886,480
3. Withdrawal liability payments	97,368	97,368	97,368	97,368	97,368
4. Benefit payments	27,717,384	27,919,040	27,960,874	28,002,545	28,075,519
5. Administrative expenses	1,273,245	1,285,977	1,298,837	1,311,825	1,324,943
6. Investment earnings	<u>10,970,166</u>	<u>10,412,574</u>	<u>9,785,322</u>	<u>9,090,264</u>	<u>8,323,200</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$174,123,957	\$164,452,345	\$153,702,657	\$141,824,512	\$128,731,098
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$201,841,341	\$192,371,385	\$181,663,531	\$169,827,057	\$156,806,617
9. Solvency Ratio: (8)÷(4)	7.28	6.89	6.50	6.06	5.59

* Based on unaudited December 31, 2016 Financials

**Exhibit IX (continued) - Deterministic Projection of Proposed Suspension: Assuming Negative 4.39% Trend in Annual Contribution Base Units
Southwest Ohio Regional Council of Carpenters Pension Plan**

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2038.

	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$128,731,098	\$114,569,605	\$99,090,420	\$82,215,311	\$64,091,098
2. Contributions	7,540,263	7,209,246	6,892,760	6,590,168	6,300,860
3. Withdrawal liability payments	97,368	97,368	8,114	0	0
4. Benefit payments	27,946,807	28,009,553	27,992,293	27,841,734	27,780,796
5. Administrative expenses	1,338,192	1,351,574	1,365,090	1,378,741	1,392,528
6. Investment earnings	<u>7,485,875</u>	<u>6,575,328</u>	<u>5,581,400</u>	<u>4,506,094</u>	<u>3,349,460</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$114,569,605	\$99,090,420	\$82,215,311	\$64,091,098	\$44,568,094
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$142,516,412	\$127,099,973	\$110,207,604	\$91,932,832	\$72,348,890
9. Solvency Ratio: (8)÷(4)	5.10	4.54	3.94	3.30	2.60

	2036	2037	2038
1. Market Value at beginning of year	\$44,568,094	\$23,807,134	\$1,668,581
2. Contributions	6,024,252	5,759,787	5,506,932
3. Withdrawal liability payments	0	0	0
4. Benefit payments	27,490,455	27,271,416	26,974,281
5. Administrative expenses	1,406,453	1,420,518	1,434,723
6. Investment earnings	<u>2,111,696</u>	<u>793,594</u>	<u>N/A</u>
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$23,807,134	\$1,668,581	Insolvent
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$51,297,589	\$28,939,997	
9. Solvency Ratio: (8)÷(4)	1.87	1.06	

Exhibit X - Deterministic Projection of Funded Percentage of Proposed Suspension
Southwest Ohio Regional Council of Carpenters Pension Plan

Projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2052.

	2016 *	2017	2018	2019	2020
1. Market Value at beginning of year	\$213,252,642	\$216,899,892	\$211,585,793	\$213,045,161	\$214,288,648
2. Unit Credit Accrued Liability	\$470,229,784	\$471,323,560	\$368,165,472	\$369,074,552	\$369,651,494
3. Funded Percentage: (1) ÷ (2)	45.4%	46.0%	57.5%	57.7%	58.0%
	2021	2022	2023	2024	2025
1. Market Value at beginning of year	\$215,108,347	\$215,646,644	\$215,844,533	\$215,778,318	\$215,464,665
2. Unit Credit Accrued Liability	\$369,686,103	\$369,330,031	\$368,580,911	\$367,502,522	\$366,066,611
3. Funded Percentage: (1) ÷ (2)	58.2%	58.4%	58.6%	58.7%	58.9%
	2026	2027	2028	2029	2030
1. Market Value at beginning of year	\$214,761,863	\$213,829,686	\$212,617,329	\$211,271,708	\$209,784,409
2. Unit Credit Accrued Liability	\$364,132,232	\$361,868,667	\$359,225,203	\$356,361,342	\$353,269,806
3. Funded Percentage: (1) ÷ (2)	59.0%	59.1%	59.2%	59.3%	59.4%
	2031	2032	2033	2034	2035
1. Market Value at beginning of year	\$208,114,036	\$206,456,829	\$204,616,051	\$202,570,388	\$200,527,844
2. Unit Credit Accrued Liability	\$349,902,071	\$346,438,869	\$342,675,518	\$338,682,497	\$334,597,289
3. Funded Percentage: (1) ÷ (2)	59.5%	59.6%	59.7%	59.8%	59.9%
	2036	2037	2038	2039	2040
1. Market Value at beginning of year	\$198,404,426	\$196,431,427	\$194,544,711	\$192,830,139	\$191,248,825
2. Unit Credit Accrued Liability	\$330,315,584	\$326,063,657	\$321,772,041	\$317,519,310	\$313,253,682
3. Funded Percentage: (1) ÷ (2)	60.1%	60.2%	60.5%	60.7%	61.1%
	2041	2042	2043	2044	2045
1. Market Value at beginning of year	\$189,925,720	\$188,709,794	\$187,771,792	\$187,161,811	\$186,896,493
2. Unit Credit Accrued Liability	\$309,096,233	\$304,877,777	\$300,763,895	\$296,796,681	\$292,980,277
3. Funded Percentage: (1) ÷ (2)	61.4%	61.9%	62.4%	63.1%	63.8%
	2046	2047	2048	2049	2050
1. Market Value at beginning of year	\$187,044,493	\$187,589,634	\$188,485,997	\$189,832,189	\$191,672,647
2. Unit Credit Accrued Liability	\$289,372,257	\$285,941,151	\$282,627,014	\$279,515,860	\$276,636,348
3. Funded Percentage: (1) ÷ (2)	64.6%	65.6%	66.7%	67.9%	69.3%
	2051	2052			
1. Market Value at beginning of year	\$194,044,188	\$196,922,791			
2. Unit Credit Accrued Liability	\$274,009,061	\$271,591,409			
3. Funded Percentage: (1) ÷ (2)	70.8%	72.5%			

* Actual from January 1, 2016 Actuarial Valuation

Exhibit XI - Assumptions, Methods and Plan Provisions
Southwest Ohio Regional Council of Carpenters Pension Plan ("Plan")

Data Requirements

In performing the Actuarial Solvency certification, we have relied on the participant data supplied by the Plan Administrator as of January 1, 2016 that is summarized in the January 1, 2016 Actuarial Valuation Report. Additional data was required to calculate the impact of benefit suspensions and to calculate PBGC Guaranteed Benefits. Although we cannot certify this information, we have reviewed it for reasonableness and have no reason to believe that it is not accurate. If this information is inaccurate or incomplete, the results presented could materially change.

Projected Contribution Base Units

Anticipated future Contribution Base Units are based on 2,150,000 hours worked per year. Development of the projected contributions assumption is shown in Exhibit I. This assumption was developed based on guidance from the Board of Trustees regarding anticipated future industry activity and is reasonable when compared to historic averages and experience.

New Entrants

In order to maintain constant Contribution Base Units in the future, it is assumed that the participants exiting the Plan will be replaced by new entrants. A description of the new entrant profiles used to approximate these new entrants is shown below. These profiles were developed based on the historic experience of new entrants into the Plan.

Illustration of New Entrant Profiles

Entry Age	Sex	Entry Age Accrued Benefit	Entry Age Service	Weighted Percentage of New Entrants
19.0	M	\$253.84	0.879	2%
22.5	M	\$355.54	0.859	14%
27.5	M	\$399.22	0.884	13%
32.5	M	\$483.84	0.906	17%
37.5	M	\$574.94	0.871	16%
42.5	M	\$534.78	0.859	12%
47.5	M	\$674.49	0.834	12%
55.0	M	\$663.11	0.902	14%

Exhibit XI (continued) - Assumptions, Methods and Plan Provisions
Southwest Ohio Regional Council of Carpenters Pension Plan ("Plan")

Financial Information

Audited financial information is used where available, namely on or prior to January 1, 2016. We have relied on the unaudited financial statements prepared by the Plan Administrator as of December 31, 2016 where applicable.

Annual administrative expenses for the 2016 Plan Year were based on the Plan's unaudited December 31, 2016 financial statements. Administrative expenses are assumed to increase by 1% per year thereafter.

The net investment return of 6.34% was determined based on an average 10-year annualized return developed in the Asset Allocation Analysis Report prepared November 14, 2016 by Marquette Associates, the Plan's investment consultant. The Asset Allocation Analysis Report provides documentation as to how this net investment return assumption was developed.

Proposed Benefit Suspension

For purposes of the projections used to demonstrate solvency, the Proposed Suspensions defined in Checklist Item 2 is effective December 31, 2017 and is applied to payments beginning January 1, 2018. Where applicable, age, guarantee and disability-based limitations have been applied as defined in the Final Regulations for Suspension of Benefits under the Multiemployer Pension Reform Act of 2014.

In the case of the test of similar but smaller suspensions, the amount has been calculated using the floor to the five-percent margin of two percent of the periodic payment determined without regard to the proposed reduction.

Other Actuarial Assumptions and Plan Provisions

The plan provisions are unchanged from those summarized in the Plan's January 1, 2016 Actuarial Valuation Report (attached as Item 40 on the checklist).

All other assumptions not expressly defined here or in the description of the exhibit are unchanged from and summarized in the January 1, 2016 Actuarial Valuation Report.

**Southwest Ohio Regional Council of Carpenters Pension Plan
Document 7.2**

Asset Allocation Analysis by Marquette Associates, Inc

**SW Ohio Regional Council of
Carpenters - Pension Fund**

**Asset Allocation Analysis
November 14, 2016**

Summary of Study Assumptions and Data Inputs

Number of Runs Evaluated	1,000
Holding Period	120
Most Recent Data Inputs	June 30, 2016

Monte Carlo Type	75% 10 Yr. Treasury & 25% BBB Spread
Market Value (\$000,000)	\$214.8
Client Type	Taft-Hartley
Fund Type	Defined Benefit
Target Rate of Return	6.40%

Re-Balancing Rules	Monthly Rebalance
Cash Flow Rules	Liquid Pro Rata

Illiquid Asset Classes:

Funding Asset Class

1) S&P 500

Illiquid Asset Class

1) Private Equity FOF

Illiquid Asset Class Funding Rules	Level
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Number of Vintage Years Modeled	6
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Portfolio Options

The chart below outlines the allocation of the current portfolio and the proposed portfolio options.

Asset Class	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Broad Fixed Income	24.0%					
High Yield	5.0%					
91 Day T-Bills	2.0%					
Total Fixed Income	31.0%					
U.S. Large-Cap Core	25.0%					
U.S. Mid-Cap Growth	6.0%					
U.S. Small-Cap Value	5.0%					
Low Volatility	6.0%					
Total U.S. Equity	42.0%					
Developed Large-Cap	3.0%					
Emerging Market	1.0%					
Total Non-U.S. Equity	4.0%					
Commodities	2.0%					
Real Estate - Core	15.0%					
Total Real Assets	17.0%					
Private Equity - FOF	6.0%					
Total Private Equity	6.0%					
Total	100.0%					

Summary of Portfolio Characteristics

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Avg. Annualized 10 Yr. Return	6.34%					
Avg. Annualized 10 Yr. Volatility	8.70%					
Downside Probability (Return < 6.4%)	49.70%					
Downside Risk (Return < 6.4%)	3.30%					
% of Portfolio in Illiquid Assets	6.00%					

Risk Scorecard

The following Risk Scorecard quantitatively ranks the Current Portfolio and proposed portfolios on various risk factors between 0 and 10. Then, the scorecard calculates and proposes a "Risk Optimal" portfolio based on the following weighting: 30% Volatility, 40% Downside Risk, 5% Peer Risk, 5% Interest Rate Risk, 5% Credit Quality Risk, 5% Equity Style Risk, 5% Valuation Risk, and 5% Liquidity Risk. The higher score indicates either more attractive risk/return characteristics or lower risk.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Volatility-Related Score	3.64					
Downside Risk-Related Score	3.84					
Peer Risk-Related Score	9.03					
Interest Rate-Related Score	2.67					
Credit Quality-Related Score	2.66					
Equity Style-Related Score	5.08					
Equity Valuation-Related Score	3.81					
Liquidity-Related Score	7.90					
Total Score	4.19					

The Risk Scorecard recommends Current .

Risk Factors

Eight risk factors are evaluated in the decision process when analyzing different portfolios. Each of the following eight risk factors are quantitatively ranked on a scale between 0 and 10 where 0 represents the greatest amount of risk and 10 represents the least amount of risk. The risk factors are aggregated into a proprietary Risk Scorecard using a multi-factor approach to determine the most appropriate portfolio for achieving the fund's goals.

Volatility-Related Score: A measure of possible risk-adjusted returns where risk is assessed as portfolio volatility. The score is based on the ratio of average simulated annualized 10 year return over the average simulated 10 year volatility of each portfolio option. The higher the Volatility-Related Score the better potential risk-adjusted returns.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Avg. Return/Avg. Volatility	0.73					
Volatility-Related Score	3.64					

Downside Risk-Related Score: A measure of possible risk-adjusted returns where risk is assessed as portfolio downside risk. The score is based on the ratio of average simulated annualized 10 year return over the simulated downside risk of each portfolio option. The higher the Downside Risk-Related Score the better potential risk-adjusted returns.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Avg. Return/Downside Risk	1.92					
Downside Risk-Related Score	3.84					

Peer Risk-Related Score: A measure of variance of the target allocation of each portfolio option from an industry average. The score is based on the variance of the fixed income and domestic equity allocations from the industry averages according to the following formula:

$$\text{Peer Variance} = 1 - \text{ABS}(E_i - E_i) - \text{ABS}(F_i - F_i)$$

where E_i is the domestic equity target allocation of the portfolio option

E_i is the industry average allocation to domestic equity

F_i is the fixed income target allocation of the portfolio option

F_i is the industry average allocation to fixed income

The lower the Peer Risk-Related Score the greater the variance of the target allocation from the industry average.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Peer Variance	0.90					
Peer Risk-Related Score	9.03					

Interest Rate-Related Score: A measure of risk-adjusted yield-to-worst ("YTW") of the fixed income portion of each portfolio option where risk is assessed as duration. The score is based on the ratio of YTW over duration of each portfolio option. The higher the Interest Rate-Related Score the better the risk-adjusted YTW.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
YTW/Duration	0.53					
Interest Rate-Related Score	2.67					

Credit Quality-Related Score: A measure of risk-adjusted yield-to-worst ("YTW") of the fixed income portion of each portfolio option where risk is assessed as credit score. The score is based on the ratio of YTW over the credit score of each portfolio option. The higher the Credit Quality-Related Score the better the risk-adjusted YTW.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
YTW/Credit Score	0.53					
Credit Quality-Related Score	2.66					

Equity Style-Related Score: A measure of size and style variance of the domestic equity portion of each portfolio option relative to the Wilshire 5000. The score is based on the variance of the Wilshire Style Metrics for size and style. The higher the Equity Style-Related Score the more similar the domestic equity portfolio to the broad market.

$$(\text{Style Variance})^2 = (S_i - S_1)^2 - (C_i - C_1)^2$$

where S_i is the Wilshire Style Metric for the equity portion of the portfolio option
 S_1 is the Wilshire Style Metric for the Wilshire 5000
 C_i is the Wilshire Size Metric for the equity portion of the portfolio option
 C_1 is the Wilshire Size Metric for the Wilshire 5000

The lower the Equity Style-Related Score the greater the variance of the style relative to the Wilshire 5000.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
Style Variance	49.23					
Equity Style-Related Score	5.08					

Equity Valuation-Related Score: A measure of valuation-adjusted 5 years earnings growth of the domestic equity portion of each portfolio option where valuation is assessed as the price-to-earnings ratio ("P/E"). The higher the Equity Valuation-Related Score the better the valuation-adjusted 5 years earnings growth.

	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
(5 Yr. Earnings Growth)/(P/E)	0.38					
Equity Valuation-Related Score	3.81					

Liquidity-Related Score: A measure of liquidity of each portfolio. The score is based on the target allocation of each portfolio option to illiquid asset classes (i.e. infrastructure, real estate - opportunistic, real estate - mezzanine, timber, private equity - mezzanine, private equity - venture capital, private equity - LBO, private equity - special situation, and private equity fund-of-funds). The lower the Liquidity-Related Score the greater exposure to illiquid asset classes.

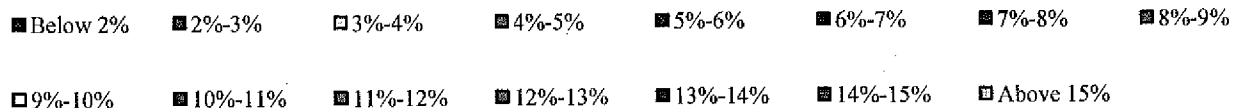
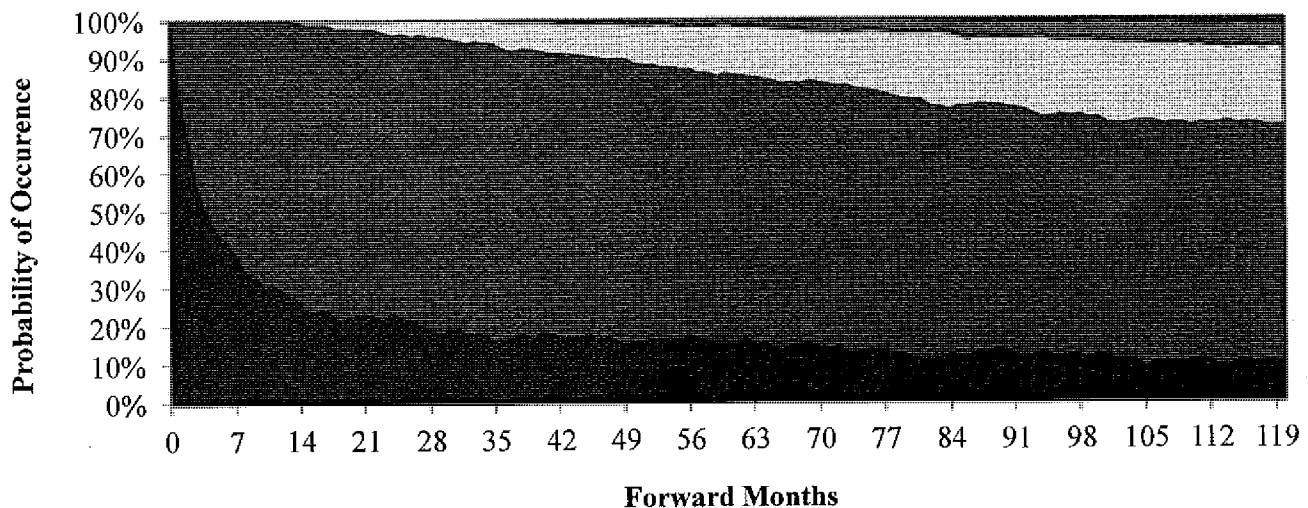
	Current	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Portfolio E
% of Target that is Liquid	0.79					
Liquidity-Related Score	7.90					

Simulated 10 Year Treasury Movement

As of June 30, 2016, the yield of the 10 Yr. Treasury was 1.5%. The Monte Carlo begins by simulating the possible monthly movements of the 10 Yr. Treasury yield over the course of the designated time period.

<u>State of the 10 Yr. Treasury</u>	<u>Probability of the State of the 10 Yr. Treasury Yield in 10 Yrs.</u>
Below 2%	9.9%
2 - 3%	62.1%
3 - 4%	20.0%
4 - 5%	6.1%
5 - 6%	1.5%
6 - 7%	0.1%
7 - 8%	0.3%
8 - 9%	0.0%
9 - 10%	0.0%
10 - 11%	0.0%
11 - 12%	0.0%
12 - 13%	0.0%
13 - 14%	0.0%
14 - 15%	0.0%
Above 15%	0.0%

Average Simulated Variation of 10 Yr Treasury

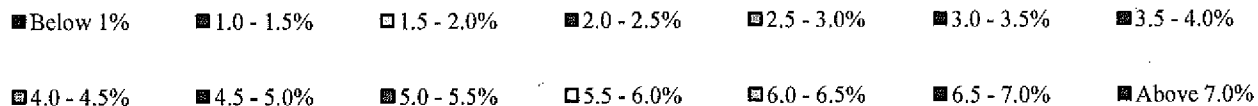
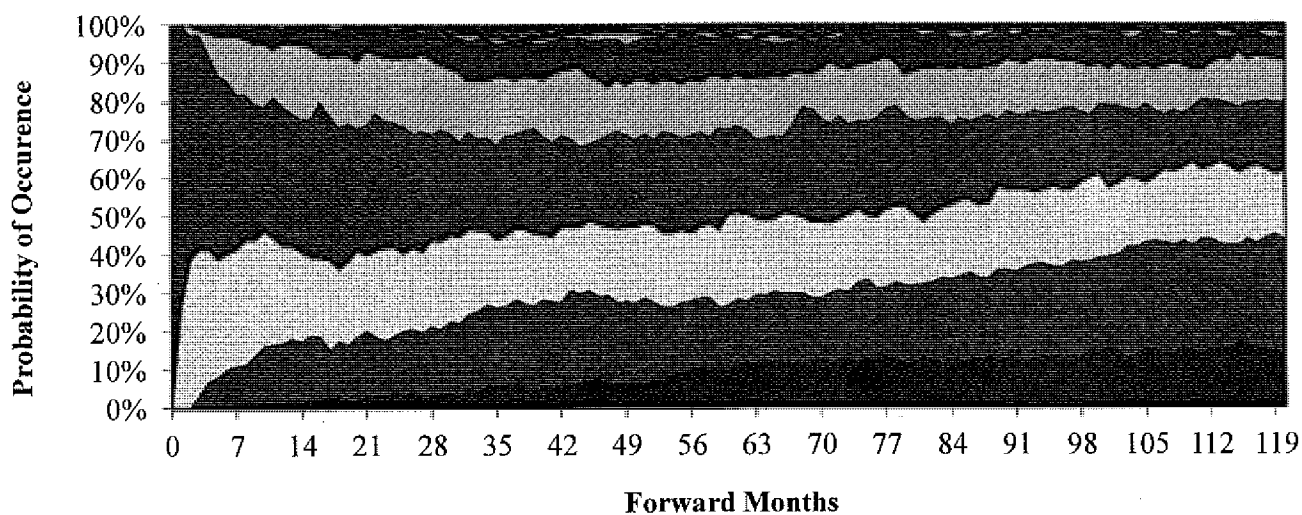


Simulated BBB Spread Movement

As of June 30, 2016, the BBB spread over Treasuries was 2.0%. The Monte Carlo begins by simulating the possible monthly movements of the BBB spread over Treasuries over the course of the designated time period.

<u>State of the BBB Spread</u>	<u>Probability of the State of the BBB Spread</u>
Below 1%	12.0%
1.0 - 1.5%	31.2%
1.5 - 2.0%	18.4%
2.0 - 2.5%	17.6%
2.5 - 3.0%	11.2%
3.0 - 3.5%	5.2%
3.5 - 4.0%	0.8%
4.0 - 4.5%	0.8%
4.5 - 5.0%	1.6%
5.0 - 5.5%	0.8%
5.5 - 6.0%	0.0%
6.0 - 6.5%	0.0%
6.5 - 7.0%	0.0%
Above 7.0%	0.4%

Average Simulated Variation of BBB Spread

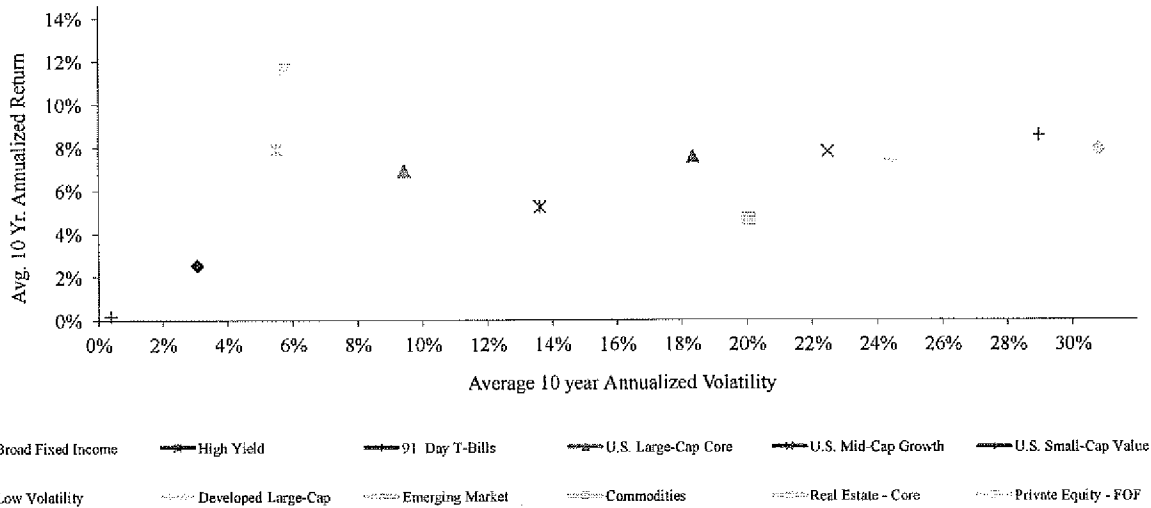


Simulated Asset Class Characteristics

The results of the simulated capital market returns are shown below. It is important to note the data below represents output from the simulations generated by the software, and not deterministic views of future capital market performance. The first column is the average annualized 10 year return of all the simulations. The second column is the average annualized 10 year volatility of all the simulations. Note that this is not the same as the standard deviation of the distribution of the possible annualized 10 year returns. The last three columns indicate the annualized 10 year return for the 25th, 50th, and 75th percentile; the higher the percentile, the better the performance.

<u>Asset Class</u>	<u>Modern Proxy</u>	<u>Avg. 10 Year Ann. Return</u>	<u>Avg. 10 Year Ann. Volatility</u>	<u>25th Percentile 10 Year Ann. Return</u>	<u>50th Percentile 10 Year Ann. Return</u>	<u>75th Percentile 10 Year Ann. Return</u>
Broad Fixed Income	BarCap Aggregate	2.5%	3.1%	1.4%	2.3%	3.1%
High Yield	BarCap High Yield	5.2%	13.6%	2.0%	5.2%	8.4%
91 Day T-Bills	91 Day T-Bills	0.1%	0.4%	0.1%	0.3%	0.6%
U.S. Large-Cap Core	S&P 500	7.6%	18.3%	3.3%	7.7%	11.9%
U.S. Mid-Cap Growth	Russell MC Growth	7.8%	22.5%	2.3%	7.9%	13.0%
U.S. Small-Cap Value	Russell 2000 Value	8.5%	29.0%	1.6%	8.5%	14.7%
Low Volatility	S&P Low Volatility	6.9%	9.4%	4.9%	7.1%	9.2%
Developed Large-Cap	MSCI EAFE	7.4%	24.4%	2.5%	7.4%	10.9%
Emerging Market	MSCI Emerging Market	7.9%	30.8%	2.1%	7.7%	13.0%
Commodities	GSCI	4.6%	20.1%	-0.4%	4.7%	9.4%
Real Estate - Core	NCREIF	7.9%	5.5%	3.6%	8.0%	12.1%
Private Equity - FOF	Simulated	11.6%	5.8%	5.4%	11.6%	18.6%

Average 10 Yr Annualized Risk/Return for Asset Classes



Proposed Portfolio Options

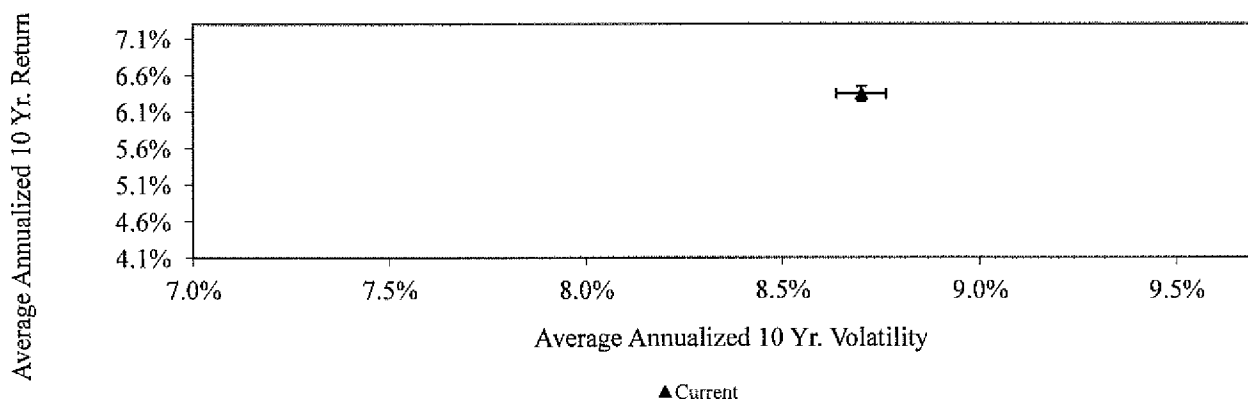
The chart below outlines the allocation of the current portfolio and the proposed portfolio options.

<u>Asset Class</u>	<u>Current</u>	<u>Portfolio A</u>	<u>Portfolio B</u>	<u>Portfolio C</u>	<u>Portfolio D</u>	<u>Portfolio E</u>
Broad Fixed Income	24.0%					
High Yield	5.0%					
91 Day T-Bills	2.0%					
Total Fixed Income	31.0%					
U.S. Large-Cap Core	25.0%					
U.S. Mid-Cap Growth	6.0%					
U.S. Small-Cap Value	5.0%					
Low Volatility	6.0%					
Total U.S. Equity	42.0%					
Developed Large-Cap	3.0%					
Emerging Market	1.0%					
Total Non-U.S. Equity	4.0%					
Commodities	2.0%					
Real Estate - Core	15.0%					
Total Real Assets	17.0%					
Private Equity - FOF	6.0%					
Total Private Equity	6.0%					
Total	100.0%					

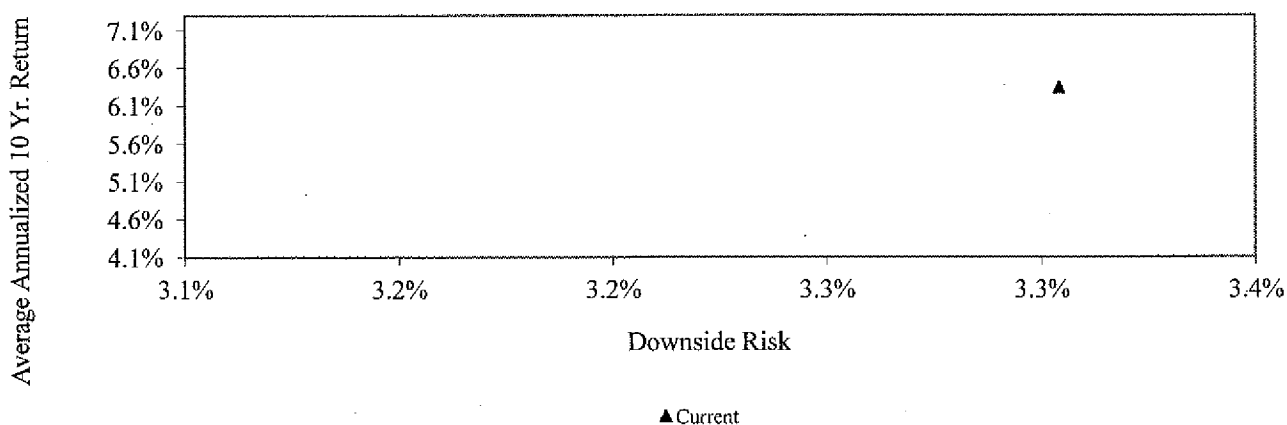
Proposed Portfolio Options

	<u>Current</u>	<u>Portfolio A</u>	<u>Portfolio B</u>	<u>Portfolio C</u>	<u>Portfolio D</u>	<u>Portfolio E</u>
Average Annualized 10 Yr. Return	6.34%					
Average Annualized 10 Yr. Volatility	8.70%					
Average Return/Average Volatility	0.73					
25th Percentile Ann. 10 Yr. Return	4.43%					
50th Percentile Ann. 10 Yr. Return	6.42%					
75th Percentile Ann. 10 Yr. Return	8.26%					
Downside Probability (Return < 6.4%)	49.70%					
Downside Risk (Return < 6.4%)	3.30%					
Avg. Downside Dev. (Return < 6.4%)	2.55%					
Downside Probability (Return < 0.0%)	2.70%					
Downside Risk (Return < 0.0%)	2.24%					
Avg. Downside Dev. (Return < 0.0%)	1.68%					

Average Annualized 10 Yr. Return/Volatility



Average Annualized 10 Yr. Return/Downside Risk



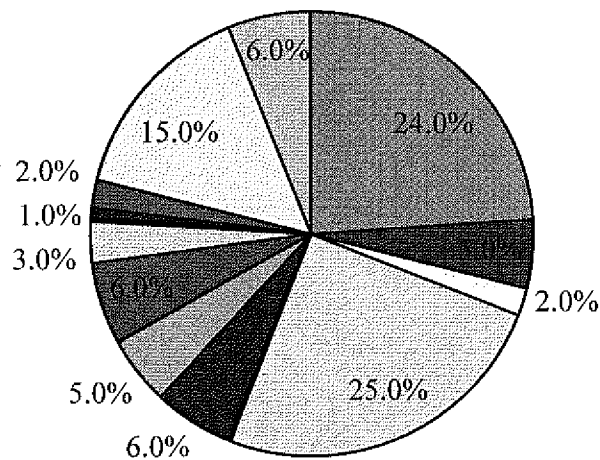
Error bars represent the standard error of the simulated statistic.

Current Portfolio - Characteristics

10 Year Statistics

Average Annualized 10 Yr. Return	6.34%
25th %-tile Avg. Ann. 10 Yr. Return	4.43%
Median Avg. Ann. 10 Yr. Return	6.42%
75th %-tile Avg. Ann. 10 Yr. Return	8.26%
Average Annualized 10 Yr. Volatility	8.70%
25th %-tile Avg. Ann. 10 Yr. Volatility	7.22%
Median Avg. Ann. 10 Yr. Volatility	8.31%
75th %-tile Avg. Ann. 10 Yr. Volatility	9.75%
Average Return / Average Volatility	0.73
Downside Probability (Return < 6.4%)	49.70%

Current Portfolio - Target Allocation

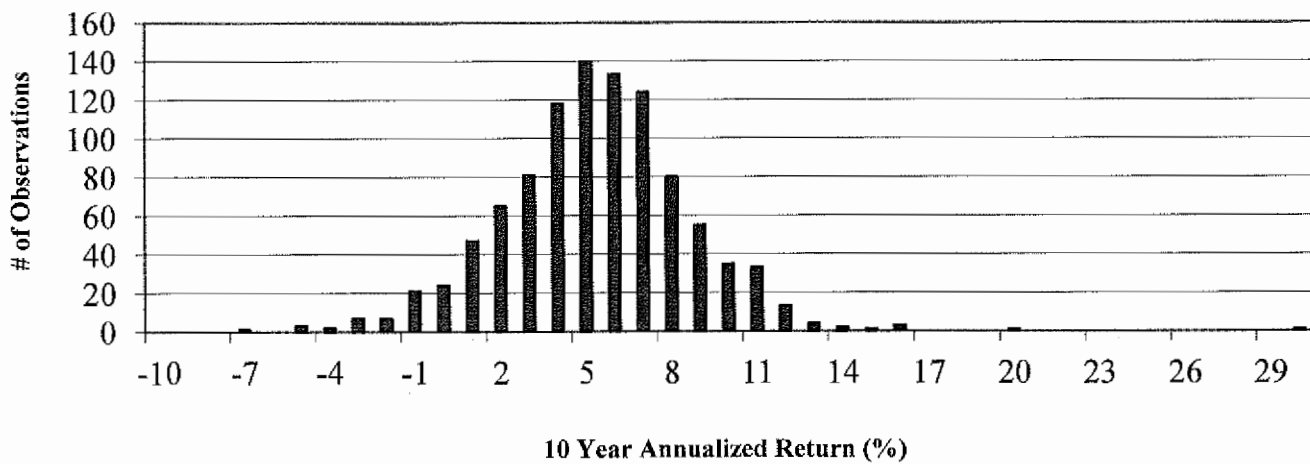


■ Broad Fixed Income	■ High Yield	□ 91 Day T-Bills	□ U.S. Large-Cap Core
■ U.S. Mid-Cap Growth	■ U.S. Small-Cap Value	■ Low Volatility	□ Developed Large-Cap
■ Emerging Market	■ Commodities	□ Real Estate - Core	□ Private Equity - FOF

Current Portfolio - Growth Projections

Year	Projected Market Value (\$ Million)					Projected Net Cash Flow (\$ Million)
	5th %	25th %	50th %	75th %	95th %	
0	\$214.8	\$214.8	\$214.8	\$214.8	\$214.8	
1	\$203.3	\$219.2	\$228.9	\$239.7	\$256.3	\$0.0
2	\$201.7	\$225.7	\$243.4	\$260.8	\$295.6	\$0.0
3	\$203.7	\$237.6	\$260.3	\$285.3	\$327.9	\$0.0
4	\$207.5	\$249.5	\$275.4	\$305.6	\$360.4	\$0.0
5	\$209.7	\$260.7	\$294.1	\$334.0	\$399.0	\$0.0
6	\$211.9	\$274.5	\$314.7	\$359.5	\$449.7	\$0.0
7	\$222.2	\$283.3	\$331.4	\$389.1	\$488.7	\$0.0
8	\$229.1	\$297.9	\$354.7	\$424.1	\$536.5	\$0.0
9	\$237.6	\$317.6	\$381.3	\$449.3	\$584.4	\$0.0
10	\$239.3	\$334.3	\$403.8	\$479.1	\$654.0	\$0.0

Range of Possible 10 Year Annualized Returns



Disclosures to the asset allocation study

Please see the following for important disclosures about the underlying calculations and data included in this study.

General Disclosure

The sources of information used in this study are believed to be reliable. Marquette Associates, Inc. has not independently verified all of the data used in this study and its accuracy cannot be guaranteed. Estimates and projections of financial market performance do not guarantee future performance. Since the model used to create this report relies on market data, results will vary depending on the date of the study. Past study results do not guarantee future results and are subject to change as more data becomes available. As appropriate, Marquette Associates, Inc. reserves the right to adjust the model used to prepare the study to reflect improved accuracy of portfolio modeling techniques. Results may change if the model is adjusted.

Total Portfolio Returns

Total portfolio returns are time weighted and net of fees and carried interest. This assumes that either passive or active management will match or exceed the returns of the indices.

Returns are annualized returns based on the average 10 year returns generated in the 1,000 Monte Carlo simulations.

While re-balancing is incorporated in the construction of each portfolio, the model does not reflect transaction costs associated with re-balancing.

The returns for the total portfolio are calculated by the following formula:

$$Ret_{t-1} = \frac{[(MV_{t-1} - MV_{t-1-1}) - NetCashFlow_{t-1} - Fee_{t-1}]}{[MV_{t-1-1} + NetCashFlow_{t-1}]}$$

Total portfolio net cash flows ("NetCashFlow") are provided by the client or the client's actuary and assumed to occur at the beginning of the month.

Illiquid asset class management fees ("Fee") are assumed to occur at the beginning of the month.

Returns for liquid asset classes:

It should be noted that returns for the liquid classes presented in the asset allocation studies are time weighted and net of management fees.

Returns for illiquid asset classes:

Returns for illiquid asset classes presented in this asset allocation study are time weighted and gross of management fees and net of carried interest. This was done to provide the best risk and return representation of the illiquid asset classes relative to the liquid asset classes.

The returns for the illiquid asset classes are calculated by the following formula:

$$Ret_{t-1} = \frac{[(MV_{t-1} - MV_{t-1-1}) - (Call_{t-1} - Dist_{t-1}) + Cpn_{t-1}]}{[MV_{t-1-1} + Call_{t-1} - Dist_{t-1}]}$$

The formula reflects the amount of capital called ("Call"), the amount of capital returned from the investment ("Dist") and the coupon paid ("Cpn").

For portfolios that have an existing allocation to illiquid asset classes, note the additional items:

The existing exposure ("legacy portfolio") to an illiquid asset class is a simulated portfolio and does not represent the actual investments held by the client.

The legacy portfolio consists of 10 vintage years started 10 years prior to the study.

The legacy portfolio uses a level funding methodology.

The market values and cash flows for the legacy portfolio are normalized to represent the weight of the current portfolio at the start of the study.

It should be noted that the illiquid asset class returns will vary depending on the target allocation of the portfolio options. For the purpose of the study, the illiquid asset class returns are time weighted net of fees and carried interest and are calculated using the cash flows modeled for the current portfolio.

Below are the indices used to simulate monthly returns for each asset class. We have listed the asset class, the index used to model the asset class ("proxy"), and the earliest date for which data is available. All return data is net of fees. Data is updated quarterly.

Asset Class	Proxy	Data Start Date ¹
Bonds - Aggregate	BarCap Aggregate	1926
Bonds - Intermediate Aggregate	BarCap Intermediate Aggregate	1926
Bonds - Govt / Credit	BarCap Govt / Credit	1926
Bonds - Intermediate Govt / Credit	BarCap Intermediate Govt / Credit	1926
Bonds - Long Government	BarCap Long Govt	1926
Bonds - Government	BarCap Govt	1926
Bonds - Intermediate Govt / Credit	BarCap Intermediate Govt	1926
Bonds - Short Govt	BarCap 1 - 3 Yr. Govt	1926
Bonds - MBS	BarCap Mortgages	1976
Bonds - High Yield	BarCap High Yield	1935
Bonds - TIPs	BarCap TIPs	1997
Bonds - Universal	BarCap Universal	1926
Bonds - Global Aggregate	BarCap Global Aggregate	1990
Cash	91 Day T-Bills	1926
Bank Loans	CSFB Leveraged Loan Index	1935
All Cap Core	Wilshire 5000	1926
Large Cap Core	S&P 500	1926
Large Cap Value	Russell 1000 Value	1926
Large Cap Growth	Russell 1000 Growth	1926
Mid Cap Core	Russell Midcap	1926
Mid Cap Value	Russell Midcap Value	1926
Mid Cap Growth	Russell Midcap Growth	1926
Small Cap Core	Russell 2000	1926
Small Cap Value	Russell 2000 Value	1926
Small Cap Growth	Russell 2000 Growth	1926
Microcap	Russell Microcap	1926
World Index	MSCI World	1970
International Large Cap Core	MSCI EAFE	1926
International Large Cap Value	MSCI EAFE Value	1970
International Large Cap Growth	MSCI EAFE Growth	1970
International Small Cap	SB Non US below \$2B	1970
International Emerging Markets	MSCI Emerging Markets	1970
Hedge Funds - Convertible Arbitrage	HFRConA	1990
Hedge Funds - Distressed Securities	HFR Distressed Securities	1990
Hedge Funds - Hedged Equity (Long / Short)	HFR Hedged Equity	1990
Hedge Funds - Market Neutral	HFR Market Neutral	1990
Hedge Funds - Event Driven	HFREvtDvn	1990
Hedge Funds - Multi-Strategy	HFR Fund of Funds	1990
Hedge Funds - Global Macro	HFR Global Macro	1990
Hedge Funds - Merger Arbitrage	HFR Merger Arbitrage	1990
Commodities	Goldman Sachs Commodity Index	1970
Leveraged Bank Loans (1 x leverage)	Bank Loans x1	1935
Leveraged Bank Loans (3 x leverage)	Bank Loans x3	1935
Real Estate - REITs	NAREIT	1930
Real Estate - NCREIF	NCREIF	1930

¹Where appropriate, proxies were used to populate index data prior to inception date.

Illiquid Investment Assumptions by Asset Class

Illiquid asset classes are modeled by simulating the underlying investments for each particular illiquid asset class. Given the complexity and unique characteristics of each illiquid asset class, certain assumptions are necessary to accurately model their performance over the course of the study. The critical assumptions for each illiquid asset class are covered on this page.

Asset Class	Number of Investments per Fund	Coupon Range	Maturity Range (Months)	Profit Participation Range	Follow-On Investments	Number of Industries
Real Estate - Opport.	10	0% - 1%	48 - 108	5% - 50%	4	1
Real Estate - Mezz.	15	9% - 14%	30 - 72	0% - 5%	2	1
Real Estate - Timber	10	2% - 7%	48 - 108	5% - 15%	1	1
Infrastructure	15	2% - 6%	42 - 108	5% - 20%	2	4
Private Equity - Mezz.	15	5% - 11%	30 - 72	5% - 10%	2	4
Private Equity - VC	15	0% - 1%	48 - 78	0% - 18%	4	6
Private Equity - LBO	10	0% - 1%	42 - 78	0% - 12%	3	11
Private Equity - Special	15	0% - 1%	24 - 72	0% - 0%	0	4

Illiquid Fund Assumptions by Asset Class

Asset Class	Investment Period (Months)	Term (Months)	Target IRR	Carried Interest ¹	Management Fee ²
Real Estate - Opport.	60	120	5%	20%	1.75%
Real Estate - Mezz.	60	120	7%	20%	1.50%
Real Estate - Timber	36	120	5%	20%	1.00%
Infrastructure	60	120	5%	20%	1.50%
Private Equity - Mezz.	60	120	7%	20%	1.50%
Private Equity - VC	60	120	5%	20%	2.00%
Private Equity - LBO	60	120	5%	20%	2.00%
Private Equity - Special	60	120	5%	20%	1.75%

¹Calculated Based on All Interest and Profits Made

²Calculated Based on Committed Capital