

Milliman Analysis: Funded status drops by \$3 billion in August

The Milliman 100 PFI funded ratio decreases to 93.3% due to a drop in interest rates in August

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The funded status of the 100 largest corporate defined benefit pension plans fell by \$3 billion in August as measured by the Milliman 100 Pension Funding Index (PFI). The deficit widened to \$110 billion from \$107 billion due to a decrease in the benchmark corporate bond interest rates used to value pension liabilities. The funded status decline was partially offset by August's robust investment gain of 0.85%. As of August 31, the funded ratio dipped slightly to 93.3%, down from 93.5% at the end of July. Funding ratios have remained over 90% for all eight months of 2018, a phenomenon last seen about a decade ago, just prior to the insolvency of Lehman Brothers and the financial market collapse.

The market value of assets rose by \$9 billion as a result of August's investment gain. The Milliman 100 PFI asset value increased to \$1,547 trillion from \$1,538 trillion at the end of July. By comparison, the 2018 Milliman Pension Funding Study reported that the monthly median expected investment return during 2017 was 0.55% (6.8% annualized).

The projected benefit obligation (PBO) increased by \$12 billion during August, raising the Milliman 100 PFI value to \$1,657 trillion from \$1,645 trillion at the end of July. The change resulted from a

HIGHLIGHTS

	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
JULY	1,538	1,645	(107)	93.5%
AUGUST	1,547	1,657	(110)	93.3%
MONTHLY CHANGE	+9	+12	(3)	-0.2%
YTD CHANGE	(8)	(119)	+111	5.7%

Note: Numbers may not add up precisely due to rounding

six-basis-point decrease in the monthly discount rate, dropping to 4.05% in August from 4.11% in July.

Over the last 12 months (September 2017–August 2018), the cumulative asset return for these pensions has been 5.5% and the Milliman 100 PFI funded status deficit has improved by \$148 billion. The primary reason for the improvement in the funded status deficit has been discount rate gains over the past 12 months. Discount rates have risen from 3.60% as of August 31, 2017 to 4.05% a year later. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 93.3% from 85.3%.

FIGURE 1: MILLIMAN 100 PENSION FUNDING INDEX PENSION SURPLUS/DEFICIT

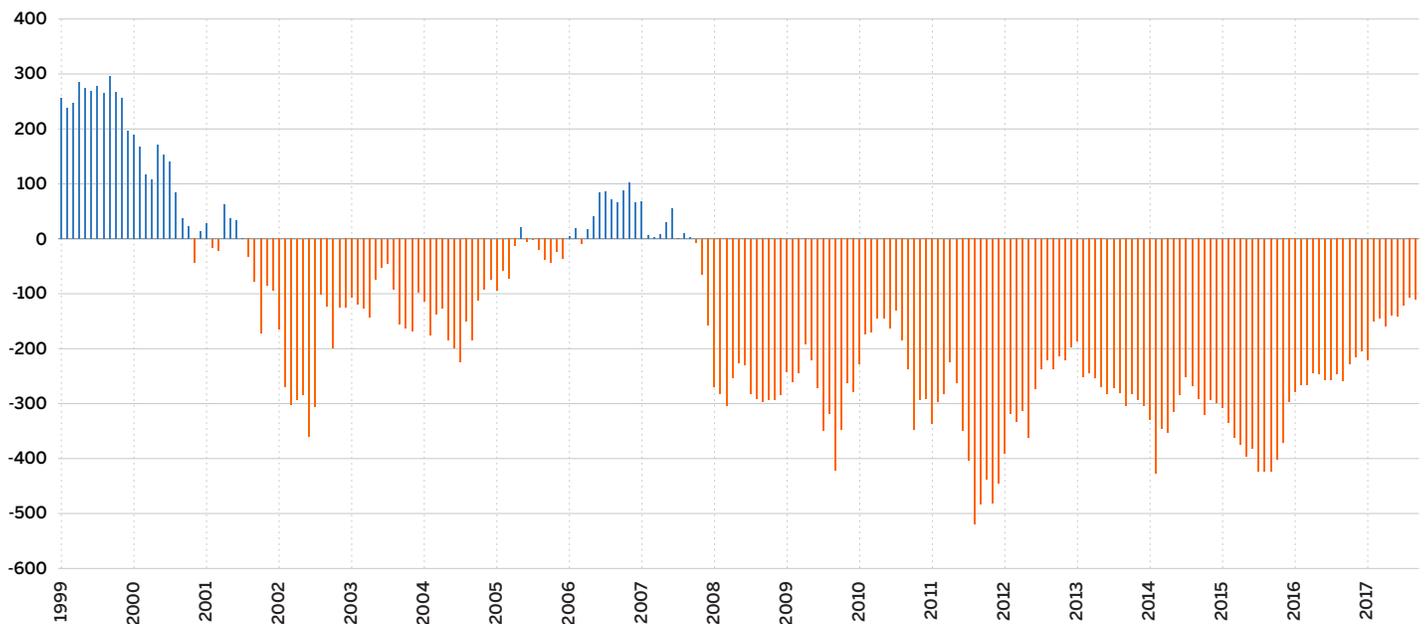
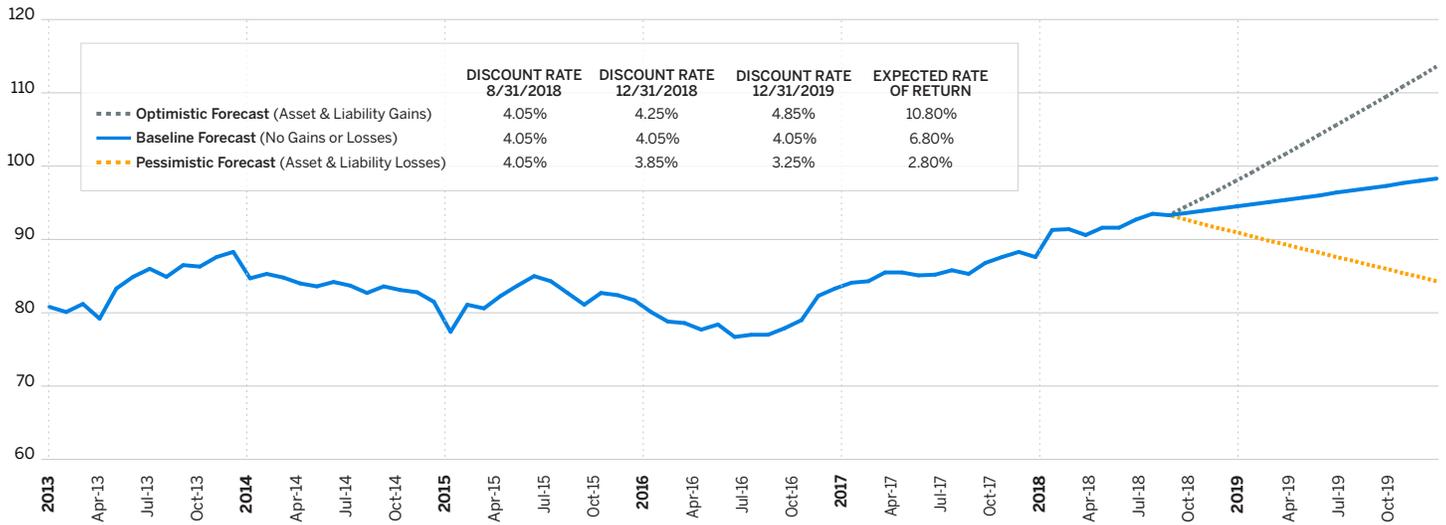


FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX — PENSION FUNDED RATIO



2018-2019 Projections

If the Milliman 100 PFI companies were to achieve the expected 6.8% median asset return (as per the 2018 Pension Funding Study), and if the current discount rate of 4.05% were maintained during years 2018 through 2019, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$92 billion (funded ratio of 94.5%) by the end of 2018 and a projected pension deficit of \$28 billion (funded ratio of 98.3%) by the end of 2019. For purposes of this forecast, we have assumed 2018 aggregate contributions of \$48 billion and 2019 aggregate contributions of \$52 billion.

Under an optimistic forecast with rising interest rates (reaching 4.25% by the end of 2018 and 4.85% by the end of 2019) and asset gains (10.8% annual returns), the funded ratio would climb to 98% by the end of 2018 and 114% by the end of 2019. Under a pessimistic forecast with similar interest rate and asset movements (3.85% discount rate at the end of 2018 and 3.25% by the end of 2019 and 2.8% annual returns), the funded ratio would decline to 91% by the end of 2018 and 84% by the end of 2019.

About the Milliman 100 Monthly Pension Funding Index

For the past 18 years, Milliman has conducted an annual study of the 100 largest defined benefit pension plans sponsored by U.S. public companies. The Milliman 100 Pension Funding Index projects the funded status for pension plans included in our study, reflecting the impact of market returns and interest rate changes on pension funded status, utilizing the actual reported asset values, liabilities, and asset allocations of the companies' pension plans.

The results of the Milliman 100 Pension Funding Index were based on the actual pension plan accounting information disclosed in the footnotes to the companies' annual reports for the 2017 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2018 Pension Funding Study, which was published on April 19, 2018. In addition to providing the financial information on the funded status of U.S. qualified pension plans, the footnotes may also include figures for the companies' nonqualified and foreign plans, both of which are often unfunded or subject to different funding standards than those for U.S. qualified pension plans. They do not represent the funded status of the companies' U.S. qualified pension plans under ERISA.

CONTACT

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MILLIMAN 100 PENSION FUNDING INDEX — AUGUST 2018 (ALL DOLLAR AMOUNTS IN MILLIONS)

END OF MONTH	YEAR	MARKET VALUE OF ASSETS	PROJECTED BENEFIT OBLIGATION (PBO)	FUNDED STATUS	CHANGE IN FUNDED STATUS	FUNDED RATIO
AUGUST	2017	1,499,743	1,758,756	(259,013)	N/A	85.3%
SEPTEMBER	2017	1,510,478	1,739,278	(228,800)	30,213	86.8%
OCTOBER	2017	1,528,863	1,744,652	(215,789)	13,011	87.6%
NOVEMBER	2017	1,540,006	1,744,398	(204,392)	11,397	88.3%
DECEMBER	2017	1,555,289	1,775,721	(220,432)	(16,040)	87.6%
JANUARY	2018	1,576,415	1,727,191	(150,776)	69,656	91.3%
FEBRUARY	2018	1,536,732	1,680,622	(143,890)	6,886	91.4%
MARCH	2018	1,529,451	1,688,946	(159,495)	(15,605)	90.6%
APRIL	2018	1,524,260	1,663,183	(138,923)	20,572	91.6%
MAY	2018	1,531,492	1,672,278	(140,786)	(1,863)	91.6%
JUNE	2018	1,523,715	1,644,368	(120,653)	20,133	92.7%
JULY	2018	1,537,849	1,645,155	(107,306)	13,347	93.5%
AUGUST	2018	1,546,506	1,657,345	(110,839)	(3,533)	93.3%

PENSION ASSET AND LIABILITY RETURNS

END OF MONTH	YEAR	ASSET RETURNS		DISCOUNT RATE	LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE		MONTHLY	YEAR-TO-DATE
AUGUST	2017	0.83%	7.49%	3.60%	1.74%	7.66%
SEPTEMBER	2017	0.72%	8.26%	3.69%	-0.80%	6.80%
OCTOBER	2017	1.22%	9.58%	3.66%	0.62%	7.46%
NOVEMBER	2017	0.73%	10.38%	3.67%	0.29%	7.78%
DECEMBER	2017	0.99%	11.48%	3.53%	2.10%	10.04%
JANUARY	2018	1.64%	1.64%	3.74%	-2.39%	-2.39%
FEBRUARY	2018	-2.25%	-0.64%	3.96%	-2.34%	-4.67%
MARCH	2018	-0.19%	-0.84%	3.91%	0.86%	-3.85%
APRIL	2018	-0.06%	-0.89%	4.03%	-1.16%	-4.96%
MAY	2018	0.76%	-0.14%	3.99%	0.92%	-4.09%
JUNE	2018	-0.23%	-0.37%	4.12%	-1.30%	-5.34%
JULY	2018	1.21%	0.84%	4.11%	0.42%	-4.94%
AUGUST	2018	0.85%	1.70%	4.05%	1.11%	-3.88%