

# Milliman analysis: Corporate pension funded status improves by \$7 billion in November

The funded status for the Milliman 100 plans has shown improvements in each of the last three months with a total gain of \$41 billion

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The funded status of the 100 largest corporate defined benefit pension plans improved by \$7 billion during November as measured by the Milliman 100 Pension Funding Index (PFI). The deficit fell to \$258 billion primarily due to a robust investment gain of 0.82% during November. Pension plan liabilities remained stagnant during November as the benchmark corporate bond interest rates used to value those liabilities remained flat. As of November 30, the funded ratio increased to 85.2%, up from 84.8% at the end of October. The funded status has improved by \$41 billion since August 31, making the last three months the strongest performing period of 2017.

The market value of assets rose by \$7 billion as a result of November's investment gain of 0.82%. The Milliman 100 PFI asset value increased to \$1.484 trillion at the end of November. Cumulative investment gains in 2017 are 10.53% year-to-date. By comparison, the 2017 Milliman Pension Funding Study reported that the monthly median expected investment return during 2016 was 0.57% (7.0% annualized).

The projected benefit obligation (PBO), or pension liabilities, remained unchanged at \$1.742 trillion at the end of November. There was a meager increase in the monthly discount rate of one basis point, settling in at 3.67% for November, from 3.66% for October.

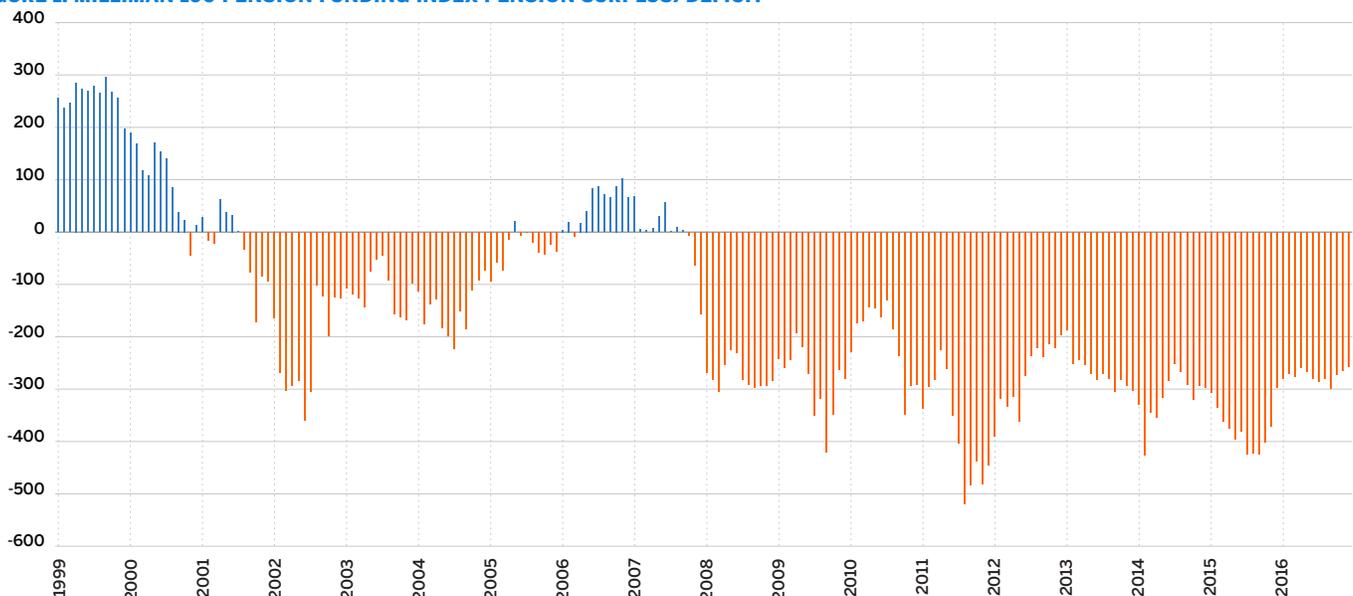
## HIGHLIGHTS

	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
OCT 2017	1,477	1,742	(265)	84.8%
NOV 2017	1,484	1,742	(258)	85.2%
MONTHLY CHANGE	+7	0	+7	0.4%
YTD CHANGE	+88	+66	+22	1.9%

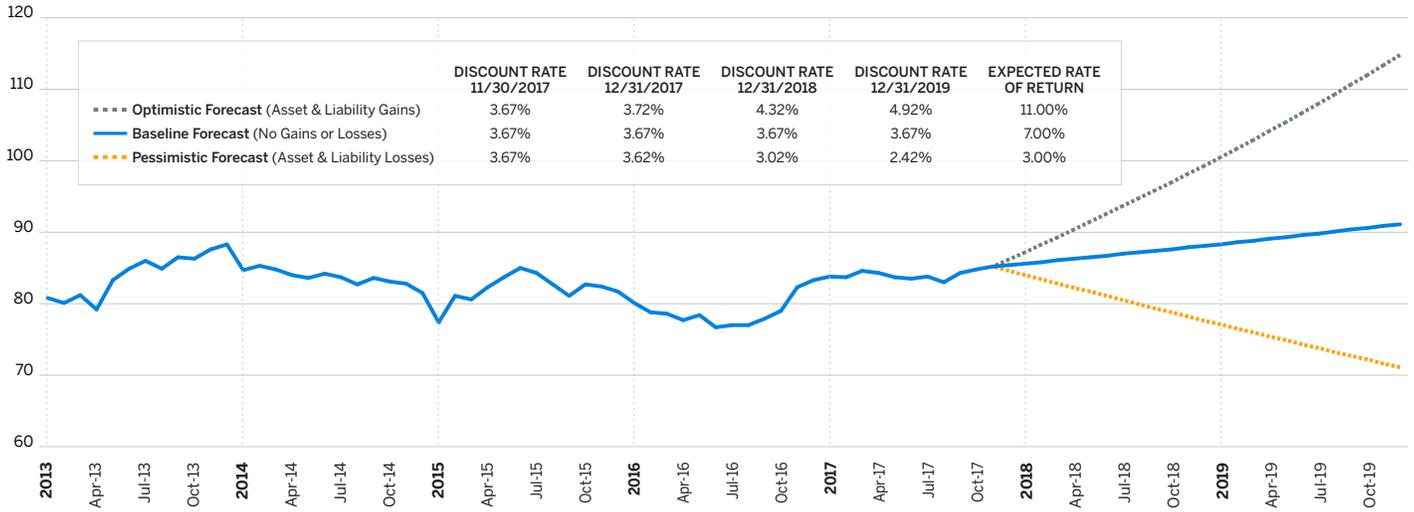
Note: Numbers may not add up precisely due to rounding

Over the last 12 months (December 2016 – November 2017), the cumulative asset return for these pensions has been 11.88% and the Milliman 100 PFI funded status deficit has improved by \$40 billion. Discount rates experienced a decrease over the last 12 months, moving from 3.98% as of November 30, 2016, to 3.67% a year later. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 85.2% from 82.3% due primarily to higher-than-expected investment returns. With only one month left in 2017, the funded ratio for the Milliman 100 plans is on track to exceed that of 2016, with strong double-digit returns for the year (barring an exceptional event).

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



**FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX – PENSION FUNDED RATIO**



## 2017-2019 Projections

If the Milliman 100 PFI companies were to achieve the expected 7.0% median asset return (as per the 2017 Pension Funding Study), and if the current discount rate of 3.67% were maintained during years 2016 through 2018, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$207 billion (funded ratio of 88.1%) by the end of 2018 and a projected pension deficit of \$154 billion (funded ratio of 91.1%) by the end of 2019. For purposes of this forecast, we have assumed 2018 aggregate contributions of \$39 billion and 2019 aggregate contributions of \$43 billion.

Under an optimistic forecast with rising interest rates (reaching 4.32% by the end of 2018 and 4.92% by the end of 2019) and asset gains (11.0% annual returns), the funded ratio would climb to 99% by the end of 2018 and 115% by the end of 2019. Under a pessimistic forecast with similar interest rate and asset movements (3.02% discount rate at the end of 2018 and 2.42% by the end of 2019 and 3.0% annual returns), the funded ratio would decline to 78% by the end of 2018 and 71% by the end of 2019.

## About the Milliman 100 Monthly Pension Funding Index

For the past 17 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 2016 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2017 Pension Funding Study, which was published on April 6, 2017. 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 — NOVEMBER 2017 (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
NOVEMBER	2016	1,384,985	1,682,326	(297,341)	N/A	82.3%
DECEMBER	2016	1,396,661	1,676,182	(279,521)	17,820	83.3%
JANUARY	2017	1,403,106	1,673,506	(270,400)	9,121	83.8%
FEBRUARY	2017	1,421,420	1,697,625	(276,205)	(5,805)	83.7%
MARCH	2017	1,422,044	1,680,752	(258,708)	17,497	84.6%
APRIL	2017	1,431,650	1,697,629	(265,979)	(7,271)	84.3%
MAY	2017	1,442,833	1,723,815	(280,982)	(15,003)	83.7%
JUNE	2017	1,442,198	1,727,929	(285,731)	(4,749)	83.5%
JULY	2017	1,451,680	1,732,259	(280,579)	5,152	83.8%
AUGUST	2017	1,458,542	1,756,836	(298,294)	(17,715)	83.0%
SEPTEMBER	2017	1,464,216	1,737,142	(272,926)	25,368	84.3%
OCTOBER	2017	1,477,257	1,742,272	(265,015)	7,911	84.8%
NOVEMBER	2017	1,484,198	1,741,780	(257,582)	7,433	85.2%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
NOVEMBER	2016	-0.34%	4.93%	3.98%	-4.24%	5.71%
DECEMBER	2016	1.22%	6.21%	3.99%	0.16%	5.88%
JANUARY	2017	0.83%	0.83%	4.00%	0.19%	0.19%
FEBRUARY	2017	1.68%	2.52%	3.88%	1.79%	1.98%
MARCH	2017	0.41%	2.94%	3.96%	-0.65%	1.32%
APRIL	2017	1.04%	4.01%	3.88%	1.35%	2.68%
MAY	2017	1.14%	5.20%	3.76%	1.88%	4.61%
JUNE	2017	0.31%	5.53%	3.74%	0.57%	5.21%
JULY	2017	1.02%	6.60%	3.71%	0.58%	5.82%
AUGUST	2017	0.83%	7.49%	3.60%	1.74%	7.66%
SEPTEMBER	2017	0.74%	8.29%	3.69%	-0.80%	6.80%
OCTOBER	2017	1.25%	9.64%	3.66%	0.62%	7.46%
NOVEMBER	2017	0.82%	10.53%	3.67%	0.29%	7.78%