

Milliman analysis: Funded status improves in March by \$28 billion

Investment gains and increasing interest rates drive funded ratio to 85.3%

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The funded status of the 100 largest corporate defined benefit pension plans increased by \$28 billion during March as measured by the Milliman 100 Pension Funding Index (PFI). The deficit decreased to \$247 billion from \$275 billion at the end of February due to robust asset returns and an increase in the benchmark corporate bond interest rates used to value pension liabilities. As of March 31, the funded ratio improved to 85.3%, up from 83.8% at the end of February. This March 31 PFI publication reflects the annual update of the Milliman 100 companies included in the Milliman 2017 Pension Funding Study, published on April 6, 2017.

March's 1.13% investment return increased Milliman 100 PFI asset values by \$11 billion to \$1.434 trillion. By comparison, the 2017 Milliman Pension Funding Study reported that the monthly median expected investment return during 2015 was 0.57% (7.0% annualized).

The projected benefit obligation (PBO) decreased by \$17 billion during March, lowering the Milliman 100 PFI value to \$1.681 trillion. The change resulted from an increase of eight basis points in the monthly discount rate to 3.96% for March, from 3.88% in February. Discount rates inched closer to the mark of 3.99% at the start of 2017.

For the quarter ended March 31, 2017, there was a net investment gain of 3.80%. Since the start of 2017, Milliman 100 PFI asset values have risen by \$37 billion due to strong returns each month.

HIGHLIGHTS

	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
FEB 2017	1,423	1,698	(275)	83.8%
MAR 2017	1,434	1,681	(247)	85.3%
MONTHLY CHANGE	+11	(17)	+28	1.5%
YTD CHANGE	+37	+5	+33	2.0%

Note: Numbers may not add up precisely due to rounding

Discount rates have fluctuated in the quarter with a net decrease of three basis points since the start of the year resulting in an overall increase in pension liabilities. Overall, the funded ratio of the Milliman 100 companies increased to 85.3% at the end of March 2017 from 83.3% at the end of December 2016.

Over the last 12 months (Apr. 2016 – Mar. 2017), the cumulative asset return for these pensions has been 8.78% and the Milliman 100 PFI funded status deficit has improved by \$128 billion. The primary reason for the increase in the funded status deficit has been investment returns above expectations. Discount rates experienced an increase over the last 12 months as well moving from 3.78% as of March 31, 2016 to 3.96% a year later. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 85.3% from 78.6%.

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

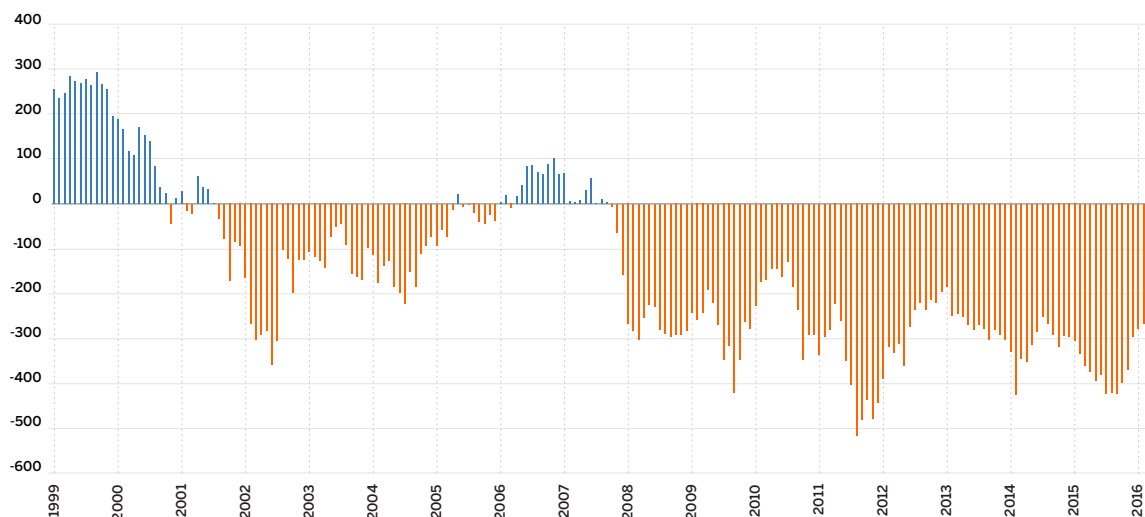
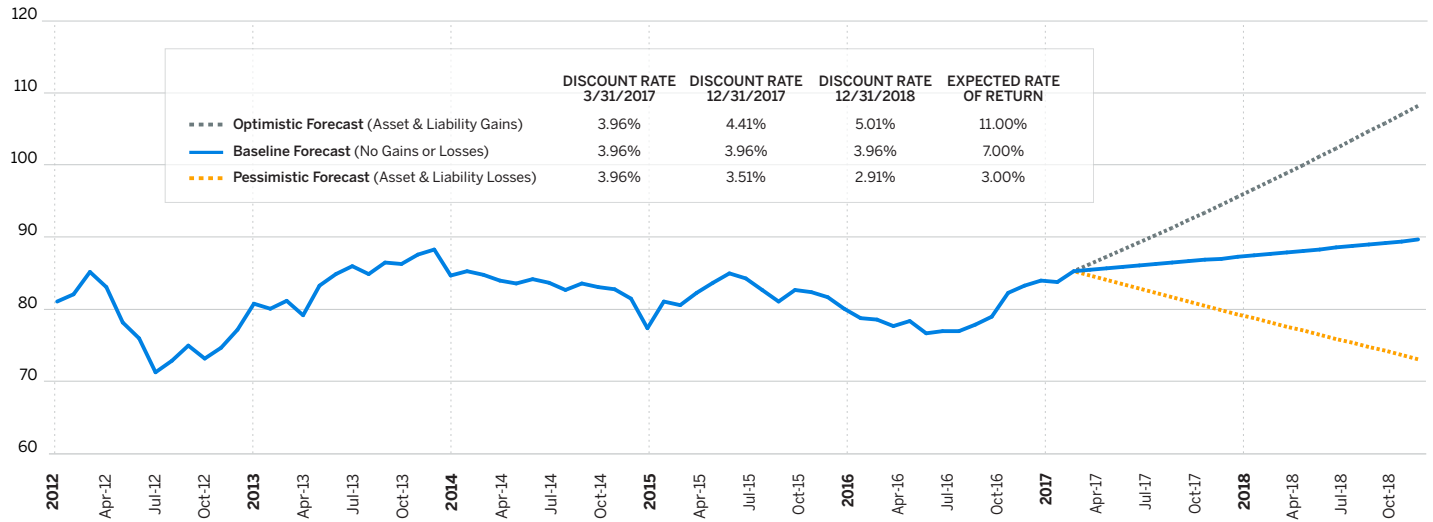


FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX – PENSION FUNDED RATIO



PFI Reconciliation

This March 31 PFI publication reflects the annual update of the Milliman 100 companies and their 2016 financial figures included in the Milliman 2017 Pension Funding Study. The actual December 31, 2016 pension obligation was \$42 billion lower than projected after accounting for lump sum window settlements, pension risk transfer (de-risking) activities and reflection of updated mortality assumptions as of year-end 2016.

The actual PFI asset value was \$4 billion higher than projected due to actual contributions for 2016 which were higher than expected. The higher plan sponsor contributions could be reflective of the desire to reduce PBGC premiums applicable to pension plan underfunding.

The net adjustments introduced by the Milliman 2017 Pension Funding Study led to a funded status pickup of \$46 billion and a corresponding increase to the funded ratio, bringing it from 81.1% to 83.3% as of December 31, 2016.

2017-2018 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 3.96% was maintained during years 2017 and 2018, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$217 billion (funded ratio of 87.0%) by the end of 2017 and a projected pension deficit of \$173 billion (funded ratio of 89.7%) by the end of 2018. For purposes of this forecast, we have assumed 2017 aggregate contributions of \$36 billion and 2018 aggregate contributions of \$39 billion.

Under an optimistic forecast with rising interest rates (reaching 4.41% by the end of 2017 and 5.01% by the end of 2018) and asset gains (11.0% annual returns), the funded ratio would

climb to 95% by the end of 2017 and 108% by the end of 2018. Under a pessimistic forecast with similar interest rate and asset movements (3.51% discount rate at the end of 2017 and 2.91% by the end of 2018 and 3.0% annual returns), the funded ratio would decline to 80% by the end of 2017 and 73% by the end of 2018.

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 — MARCH 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
MARCH	2016	1,377,651	1,752,501	(374,850)	N/A	78.6%
APRIL	2016	1,381,814	1,777,563	(395,749)	(20,899)	77.7%
MAY	2016	1,385,737	1,767,104	(381,367)	14,382	78.4%
JUNE	2016	1,393,332	1,816,901	(423,569)	(42,202)	76.7%
JULY	2016	1,418,462	1,841,411	(422,949)	620	77.0%
AUGUST	2016	1,417,124	1,840,697	(423,573)	(624)	77.0%
SEPTEMBER	2016	1,412,760	1,813,686	(400,926)	22,647	77.9%
OCTOBER	2016	1,394,862	1,765,970	(371,108)	29,818	79.0%
NOVEMBER	2016	1,384,985	1,682,326	(297,341)	73,767	82.3%
DECEMBER	2016	1,396,661	1,676,182	(279,521)	17,820	83.3%
JANUARY	2017	1,406,432	1,673,506	(267,074)	12,447	84.0%
FEBRUARY	2017	1,422,986	1,697,625	(274,639)	(7,565)	83.8%
MARCH	2017	1,433,923	1,680,752	(246,829)	27,810	85.3%

PENSION ASSET AND LIABILITY RETURNS

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
MARCH	2016	2.86%	1.34%	3.78%	3.22%	5.85%
APRIL	2016	0.68%	2.03%	3.65%	1.94%	7.90%
MAY	2016	0.66%	2.70%	3.68%	-0.08%	7.81%
JUNE	2016	0.92%	3.65%	3.45%	3.32%	11.39%
JULY	2016	2.18%	5.90%	3.33%	1.84%	13.43%
AUGUST	2016	0.27%	6.19%	3.32%	0.44%	13.93%
SEPTEMBER	2016	0.06%	6.25%	3.42%	-0.99%	12.81%
OCTOBER	2016	-0.90%	5.29%	3.61%	-2.14%	10.39%
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	1.07%	1.07%	4.00%	0.19%	0.19%
FEBRUARY	2017	1.55%	2.63%	3.88%	1.79%	1.98%
MARCH	2017	1.13%	3.80%	3.96%	-0.65%	1.32%

The March 31 report (published in April) of the Milliman 100 Pension Funding Index (Milliman 100 PFI) reflects the annual update of the Milliman 100 companies and their 2016 financial figures included in the Milliman 2017 Pension Funding Study published on April 6, 2017. The March 31 Milliman 100 PFI replaces previously published results for January and February 2017 and adjusts the monthly projections for 2016 to reflect actual gains and losses for 2016. Go to milliman.com to view the Milliman 2017 Pension Funding Study.