

# Milliman Analysis: Funded status improves in May due to rising corporate bond discount rates and investment gains

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Discount rates increase (finally!) by 3 basis points, assets enjoy a modest gain, and the funded status for the Milliman 100 plans rises by \$10 billion during May.

The funded status of the 100 largest corporate defined benefit pension plans improved by \$10 billion during May as measured by the Milliman 100 Pension Funding Index (PFI). The deficit fell to \$401 billion at the end of May, due to an increase in the benchmark corporate bond interest rates used to value pension liabilities and investment gains. As of May 31, the funded ratio increased to 77.5%, up from 77% at the end of April.

The projected benefit obligation (PBO), or pension liabilities, decreased to \$1.785 trillion at the end of May. The change resulted from an increase of three basis points in the monthly discount rate to 3.68% for May, from 3.65% for April. This first

**HIGHLIGHTS**

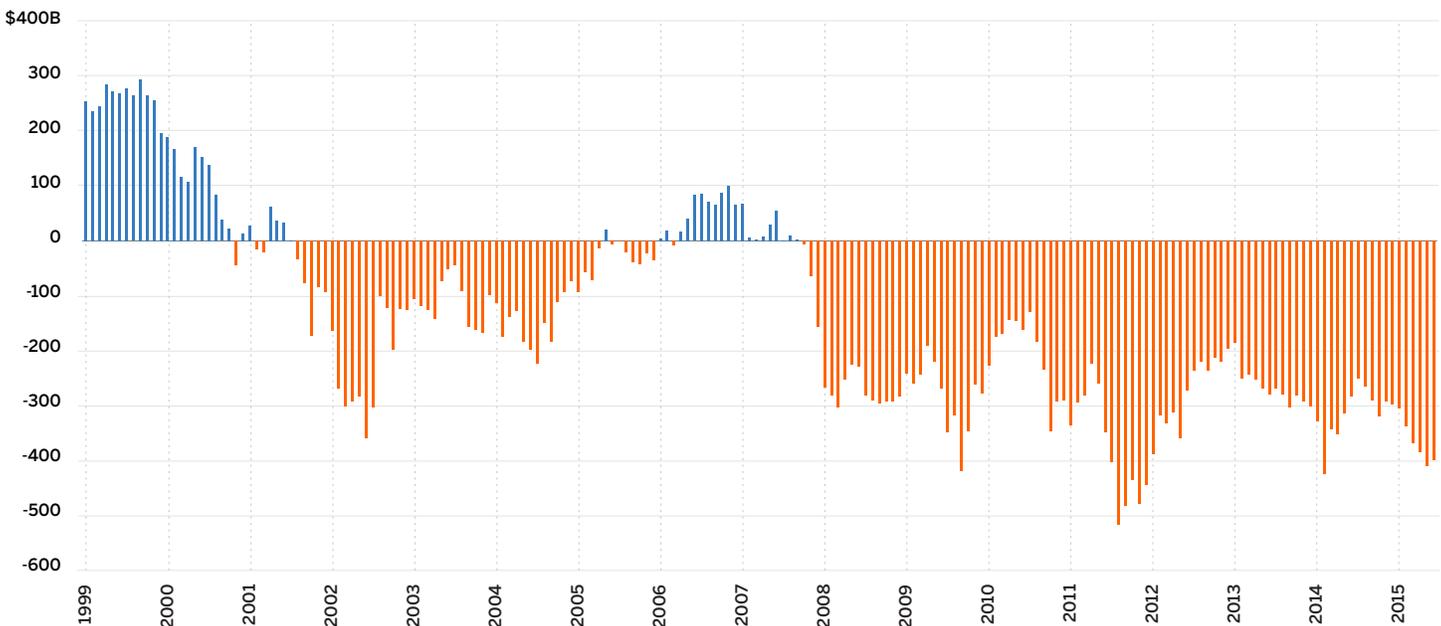
	\$ BILLION			FUNDED PERCENTAGE
	MV	PBO	FUNDED STATUS	
APR 2016	1,381	1,792	(412)	77.0%
MAY 2016	1,384	1,785	(401)	77.5%
MONTHLY CHANGE	+4	(7)	+10	0.5%
YTD CHANGE	+9	+103	(94)	-4.2%

Note: Numbers may not add up precisely due to rounding

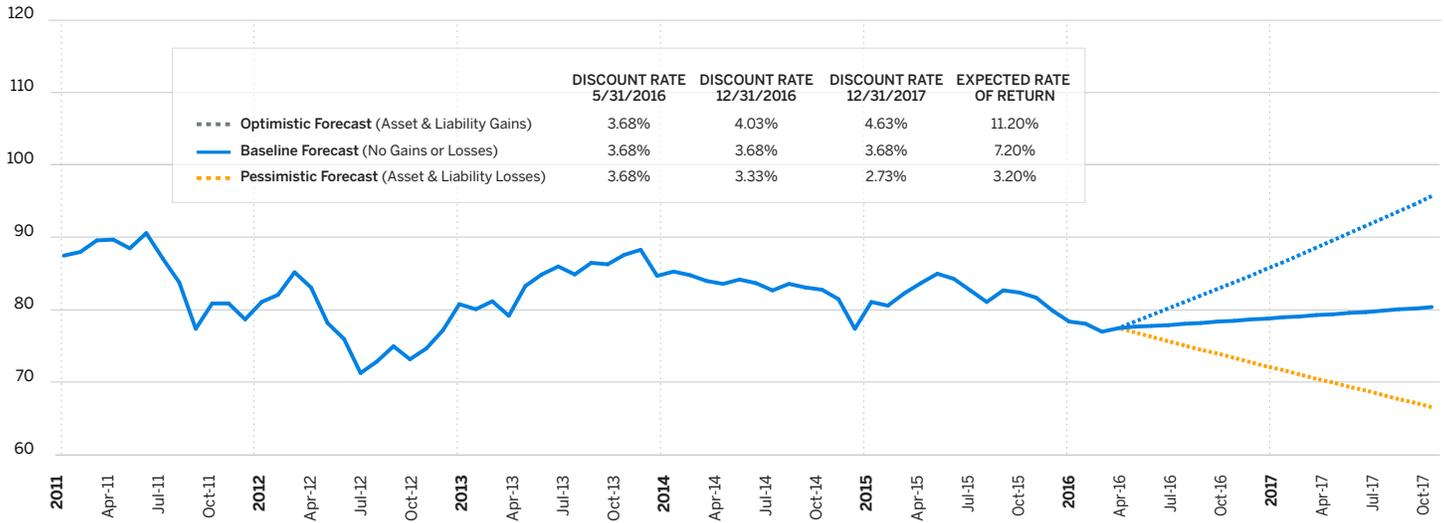
monthly increase in 2016 discount rates still leaves a decline from the rate on Dec. 31, 2015 of 48 basis points.

The market value of assets increased by \$4 billion as a result of May’s investment gain of 0.65%. The Milliman 100 PFI asset value increased to \$1.384 trillion at the end of May. By comparison, the 2016 Milliman Pension Funding Study reported that the monthly median expected investment return during 2015 was 0.58% (7.2% annualized).

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



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



Over the last 12 months (June 2015 – May 2016), the cumulative asset return for these pensions has been 0.5% and the Milliman 100 PFI funded status deficit has deteriorated by \$116 billion. The rise in the funded status deficit over the past 12 months is due to the dual effect of decreases in discount rates and less-than-expected investment returns. The funded ratio of the Milliman 100 companies has decreased over the past 12 months to 77.5% from 83.7%.

### 2016-2017 Projections

If the Milliman 100 PFI companies were to achieve the expected 7.2% median asset return (as per the 2016 pension funding study), and if the current discount rate of 3.68% were maintained during years 2016 and 2017, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$384 billion (funded ratio of 78.5%) by the end of 2016 and a projected pension deficit of \$351 billion (funded ratio of 80.4%) by the end of 2017. For purposes of this forecast, we have assumed 2016 aggregate contributions of \$33 billion and 2017 aggregate contributions of \$36 billion.

Under an optimistic forecast with rising interest rates (reaching 4.03% by the end of 2016 and 4.63% by the end of 2017) and asset gains (11.2% annual returns), the funded ratio would climb to 84% by the end of 2016 and 96% by the end of 2017. Under a pessimistic forecast with similar interest rate and asset movements (3.33% discount rate at the end of 2016 and 2.73% by the end of 2017 and 3.2% annual returns), the funded ratio would decline to 73% by the end of 2016 and 67% by the end of 2017.

### About the Milliman 100 Monthly Pension Funding Index

For the past 16 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 2015 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2016 Pension Funding Study, which was published on April 6, 2016. 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.

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**MILLIMAN 100 PENSION FUNDING INDEX — MAY 2016 (ALL DOLLAR AMOUNTS IN MILLIONS)**

END OF MONTH	YEAR	MARKET VALUE OF ASSETS	PROJECTED BENEFIT OBLIGATION (PBO)	CHANGE IN FUNDED STATUS	FUNDED STATUS	FUNDED RATIO
MAY	2015	1,461,789	1,746,631	(284,842)	N/A	83.7%
JUNE	2015	1,429,208	1,681,119	(251,911)	32,931	85.0%
JULY	2015	1,437,976	1,705,086	(267,110)	(15,199)	84.3%
AUGUST	2015	1,391,617	1,683,706	(292,089)	(24,979)	82.7%
SEPTEMBER	2015	1,370,308	1,690,590	(320,282)	(28,193)	81.1%
OCTOBER	2015	1,403,004	1,696,802	(293,798)	26,484	82.7%
NOVEMBER	2015	1,396,737	1,694,810	(298,073)	(4,275)	82.4%
DECEMBER	2015	1,374,997	1,681,985	(306,988)	(8,915)	81.7%
JANUARY	2016	1,347,911	1,687,261	(339,350)	(32,362)	79.9%
FEBRUARY	2016	1,343,755	1,713,513	(369,758)	(30,408)	78.4%
MARCH	2016	1,376,742	1,763,363	(386,621)	(16,863)	78.1%
APRIL	2016	1,380,534	1,792,268	(411,734)	(25,113)	77.0%
MAY	2016	1,384,084	1,785,396	(401,312)	10,422	77.5%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
MAY	2015	0.18%	3.28%	3.97%	-1.61%	-0.19%
JUNE	2015	-1.68%	1.55%	4.25%	-3.33%	-3.52%
JULY	2015	1.18%	2.74%	4.14%	1.85%	-1.73%
AUGUST	2015	-2.68%	-0.01%	4.23%	-0.83%	-2.54%
SEPTEMBER	2015	-0.97%	-0.97%	4.19%	0.84%	-1.73%
OCTOBER	2015	2.97%	1.97%	4.16%	0.79%	-0.95%
NOVEMBER	2015	0.12%	2.09%	4.16%	0.30%	-0.65%
DECEMBER	2015	-0.99%	1.08%	4.16%	-0.33%	-0.98%
JANUARY	2016	-1.58%	-1.58%	4.14%	0.65%	0.65%
FEBRUARY	2016	0.10%	-1.48%	4.01%	1.88%	2.54%
MARCH	2016	2.87%	1.34%	3.78%	3.22%	5.85%
APRIL	2016	0.67%	2.03%	3.65%	1.94%	7.90%
MAY	2016	0.65%	2.69%	3.68%	-0.08%	7.81%