

# Milliman Analysis: August resembles July as record-low interest rates continue to drive the pension funded status deficit

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Discount rates fell by one basis point in August while asset values remained unchanged, resulting in a funded status drop of \$4 billion. The funded status deficit for the Milliman 100 plans settled at \$456 billion at the end of August, having risen by \$149 billion so far in 2016.

The funded status of the 100 largest corporate defined benefit pension plans dropped by \$4 billion during August as measured by the Milliman 100 Pension Funding Index (PFI). The deficit rose to \$456 billion at the end of August due to the dual effect of a decrease in the benchmark corporate bond interest rates used to value pension liabilities and flat investment returns. As of August 31, the funded ratio remained flat at 75.7% compared to 75.8% at the end of July. This makes it three consecutive months where the funded ratio has barely shifted from its low mark in 2016.

The projected benefit obligation (PBO), or pension liabilities, increased to \$1.871 trillion at the end of August from \$1.868 trillion at the end of July. The change resulted from a decrease

**HIGHLIGHTS**

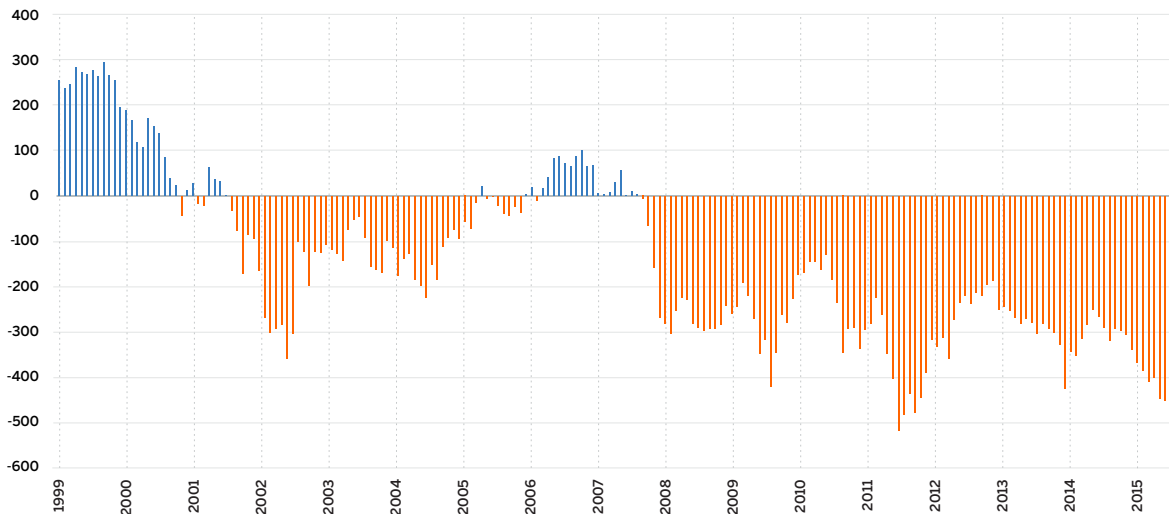
	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
JUL 2016	1,416	1,868	(452)	75.8%
AUG 2016	1,416	1,871	(456)	75.7%
MONTHLY CHANGE	0	+3	(4)	-0.1%
YTD CHANGE	+41	+189	(149)	-6.0%

Note: Numbers may not add up precisely due to rounding

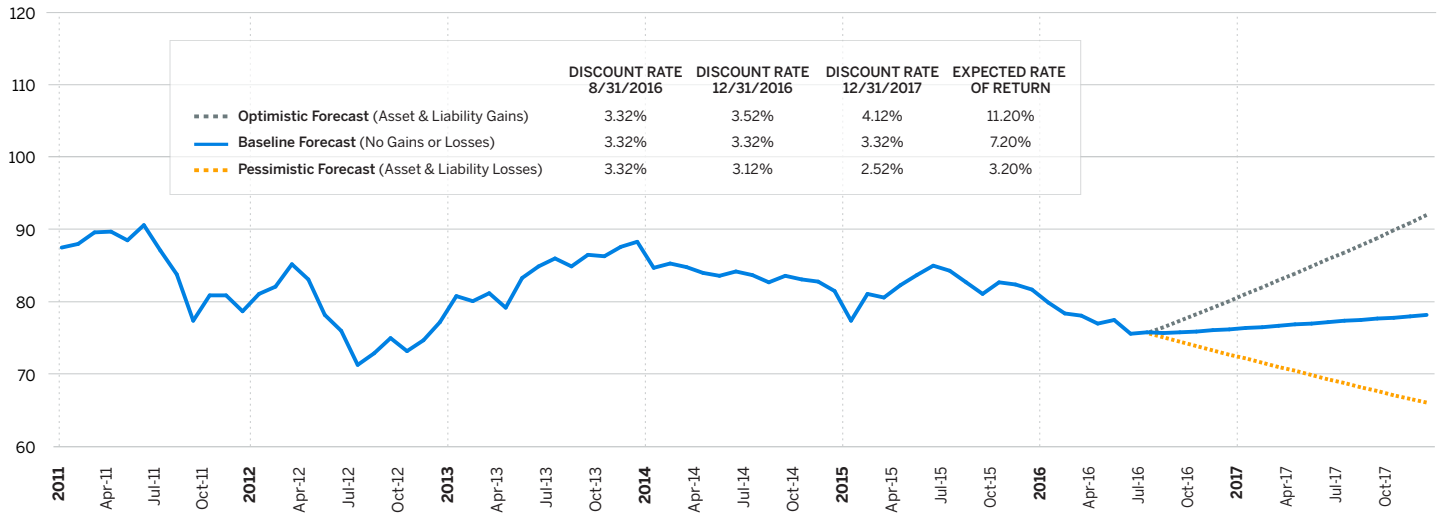
of one basis point in the monthly discount rate to 3.32% for August from 3.33% for July. While the discount rate barely changed in August, we note that it is the lowest discount rate in the 16-year history of the Milliman 100 PFI. The highest funded status deficit in dollars was \$519 billion in July 2012.

The market value of assets of the Milliman 100 plans remained static at \$1.416 trillion as a result of August’s investment gain of 0.35%. This is coming off a particularly strong return month during July where pension assets boasted an investment gain of 2.17%. Assets for the Milliman 100 companies are up 6.27% year-to-date. 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 (September 2015 – August 2016), the cumulative asset return for these pensions has been 7.42%; however, the Milliman 100 PFI funded status has deteriorated by \$164 billion. The rise in the funded status deficit over the past 12 months is primarily due to decreases in discount rates, to the tune of 91 basis points. The funded ratio of the Milliman 100 companies has decreased over the past 12 months to 75.7% from 82.7%.

### 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 3.32% was 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 \$445 billion (funded ratio of 76.2%) by the end of 2016 and a projected pension deficit of \$409 billion (funded ratio of 78.2%) 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 3.52% by the end of 2016 and 4.12% by the end of 2017) and asset gains (11.2% annual returns), the funded ratio would climb to 79% by the end of 2016 and 91% by the end of 2017. Under a pessimistic forecast with similar interest rate and asset movements (3.12% discount rate at the end of 2016, and 2.52% 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 — AUGUST 2016 (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	2015	1,391,617	1,683,706	(292,089)	N/A	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	1,384,221	1,785,396	(401,175)	10,559	77.5%
JUNE	2016	1,391,409	1,839,493	(448,084)	(46,909)	75.6%
JULY	2016	1,416,128	1,868,152	(452,024)	(3,940)	75.8%
AUGUST	2016	1,415,629	1,871,278	(455,649)	(3,625)	75.7%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
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	0.66%	2.70%	3.68%	-0.08%	7.81%
JUNE	2016	0.92%	3.64%	3.45%	3.32%	11.39%
JULY	2016	2.17%	5.90%	3.33%	1.84%	13.43%
AUGUST	2016	0.35%	6.27%	3.32%	0.44%	13.93%