

# Milliman Analysis: Corporate pension funded status improved by \$71 billion in November

November's gain the largest of 2016 and third straight month of deficit reduction

John Ehrhardt, FSA, MAAA, EA  
Zorast Wadia, FSA, MAAA, EA



The funded status of the 100 largest corporate defined benefit pension plans improved by \$71 billion during November as measured by the Milliman 100 Pension Funding Index (PFI).

This month's funded status boost was the largest of 2016. The deficit fell to \$340 billion due to interest rate gains experienced during November and has fallen by \$117 billion since August 31. As of November 30, the funded ratio increased to 80.3% from 77.2% at the end of October. Coincidentally, a funded ratio of at least 80% was last measured on December 31, 2015, at 81.7%.

The market value of assets fell by \$11 billion as a result of November's investment loss of 0.38%. Although equity investments performed well in November, fixed income holdings took a dive due to rising interest rates. The Milliman 100 PFI asset value decreased to \$1.381 trillion at the end of November from \$1.392 trillion at the end of October. By comparison, the 2016 Milliman Pension Funding Study reported that the monthly median expected investment return during 2015 was 0.58% (7.2% annualized). December's investment return would need to be about 2.2% in order to conclude 2016 at the 7.2% median expectation.

## HIGHLIGHTS

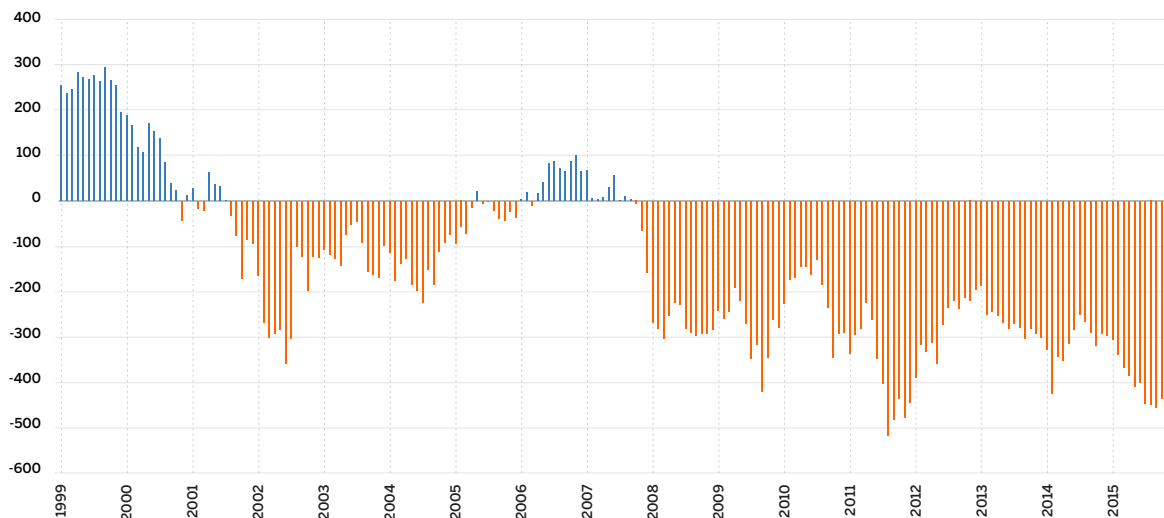
	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
OCT 2016	1,392	1,803	(411)	77.2%
NOV 2016	1,381	1,721	(340)	80.3%
MONTHLY CHANGE	(11)	(82)	+71	3.1%
YTD CHANGE	+6	+39	(33)	-1.4%

Note: Numbers may not add up precisely due to rounding

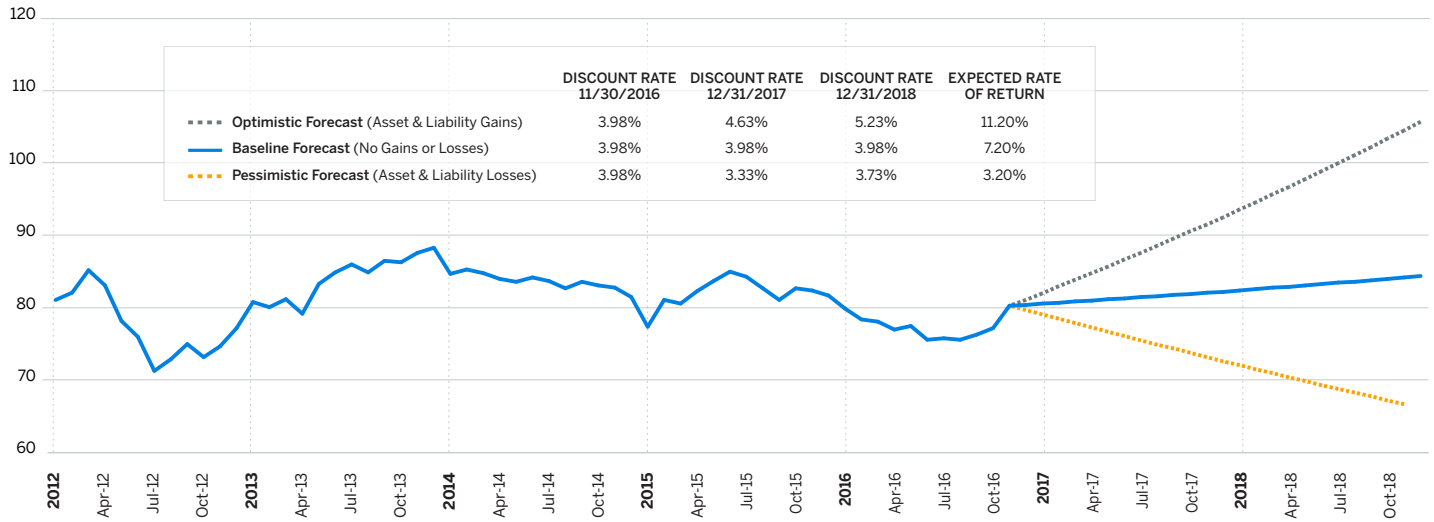
The projected benefit obligation (PBO), or pension liabilities, decreased to \$1.721 trillion at the end of November from \$1.803 trillion at the end of October. The change resulted from an increase of 37 basis points in the monthly discount rate to 3.98% for November from 3.61% for October. Discount rates had reached a record low in August and have climbed 66 basis points since then to help boost funded status. Should discount rates rise by more than 18 basis points during December, the Pension Funding Index discount rate will be ahead of where it was at the beginning of 2016, signaling a robust fourth quarter improvement in pension funding.

Over the last 12 months (December 2015–November 2016), the cumulative asset return for these pensions has been 3.86% and the

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



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



Milliman 100 PFI funded status deficit has worsened by \$42 billion. The rise in the funded status deficit over the past 12 months is due to a combination of decreases in discount rates and lower-than-expected investment returns. The funded ratio of the Milliman 100 companies has decreased over the past 12 months to 80.3% from 82.4%. It remains to be seen whether the funded ratio for the Milliman 100 plans will remain above 80% by year-end.

### 2016-2018 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 3.98% 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 \$306 billion (funded ratio of 82.2%) by the end of 2017 and a projected pension deficit of \$271 billion (funded ratio of 84.4%) by the end of 2018. For purposes of this forecast, we have assumed 2017 aggregate contributions of \$33 billion and 2018 aggregate contributions of \$36 billion.

Under an optimistic forecast with rising interest rates (reaching 4.63% by the end of 2017 and 5.23% by the end of 2018) and asset gains (11.2% annual returns), the funded ratio would climb to 93% by the end of 2017 and 106% by the end of 2018. Under a pessimistic forecast with similar interest rate and asset movements (3.33% discount rate at the end of 2017 and 2.73% by the end of 2018 and 3.2% annual returns), the funded ratio would decline to 73% by the end of 2017 and 66% by the end of 2018.

### 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.

#### CONTACT

Zorast Wadia  
[zorast.wadia@milliman.com](mailto:zorast.wadia@milliman.com)

**MILLIMAN 100 PENSION FUNDING INDEX — NOVEMBER 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
NOVEMBER	2015	1,396,737	1,694,810	(298,073)	N/A	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	1,376,714	1,763,363	(386,649)	(16,891)	78.1%
APRIL	2016	1,380,561	1,792,268	(411,707)	(25,058)	77.0%
MAY	2016	1,384,166	1,785,396	(401,230)	10,477	77.5%
JUNE	2016	1,391,437	1,839,493	(448,056)	(46,826)	75.6%
JULY	2016	1,416,211	1,868,152	(451,941)	(3,885)	75.8%
AUGUST	2016	1,414,554	1,871,278	(456,724)	(4,783)	75.6%
SEPTEMBER	2016	1,410,015	1,847,619	(437,604)	19,120	76.3%
OCTOBER	2016	1,391,949	1,802,720	(410,771)	26,833	77.2%
NOVEMBER	2016	1,381,257	1,720,876	(339,619)	71,152	80.3%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
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	2.86%	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	0.07%	6.26%	3.42%	-0.99%	12.81%
OCTOBER	2016	-0.90%	5.30%	3.61%	-2.14%	10.39%
NOVEMBER	2016	-0.38%	4.91%	3.98%	-4.24%	5.71%