# Milliman Analysis: Funded status deficit increases by \$35 billion in February, has ballooned by \$68 billion so far in 2016

Milliman 100 PFI funded ratio falls below 80% for the first time in the last 12 months to 79.1%

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

The funded status of the 100 largest corporate defined benefit pension plans dropped by \$35 billion during February as measured by the Milliman 100 Pension Funding Index (PFI). The funded status deficit widened to \$364 billion from \$329 billion at the end of January, primarily due to the drop in the benchmark corporate bond interest rates used to value pension liabilities. Adding to the funded status deficit was February's investment losses. As of February 29, the funded ratio dropped to 79.1%, down from 80.8% at the end of January.

The market value of assets fell by \$5 billion as a result of February's investment loss of 0.02%. The Milliman 100 PFI asset value decreased to \$1.376 trillion from \$1.381 trillion at the end of January. By comparison, the 2015 Milliman Pension Funding Study reported that the monthly median expected investment return during 2014 was 0.59% (7.3% annualized). The expected rate of return for 2015 will be updated in the 2016 Milliman Pension Funding Study, due out later in the first quarter of 2016.

The projected benefit obligation (PBO), or pension liabilities, increased to \$1.740 trillion at the end of February. The change resulted from a decrease of 13 basis points in the monthly discount rate to 4.06% for February from 4.19% for January.

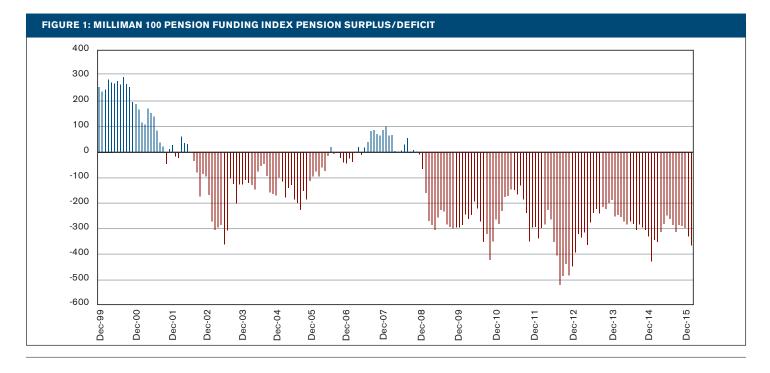
HIGHLIGHTS				
		\$ BILLION		
	MV	РВО	FUNDED STATUS	FUNDED PERCENTAGE
JAN 2016	1,381	1,710	(329)	80.8%
FEB 2016	1,376	1,740	(364)	<b>79.1</b> %
MONTHLY CHANGE	(5)	+30	(35)	-1.7%
YTD CHANGE	(33)	+35	(68)	-3.6%

🕻 Milliman

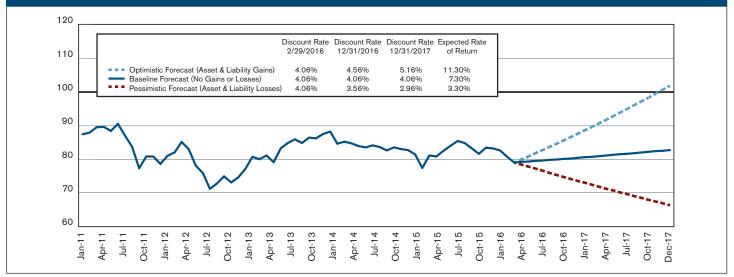
Note: Numbers may not add up precisely due to rounding

Over the last 12 months (March 2015 – February 2016), the cumulative asset return for these pensions has been -3.27% and the Milliman 100 PFI funded status deficit has worsened by \$20 billion. The funded ratio of the Milliman 100 companies has decreased over the past 12 months to 79.1% from 81.2%.

The projected asset and liability figures presented in this analysis will be adjusted as part of our annual 2016 Pension Funding Study where pension settlement and annuity purchase activities that occurred during 2015 will be reflected. De-risking transactions generally result in reductions in pension funded status since



#### FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX - PENSION FUNDED RATIO



the assets paid to the participants or assumed by the insurance companies as part of the risk transfer are larger than the corresponding liabilities that are extinguished from the balance sheets. To offset this decrease effect, many companies engaging in de-risking transactions make additional cash contributions to their pension plans to improve the plan's funded status.

Pension plan accounting information disclosed in the footnotes of the Milliman 100 companies' annual reports for the 2015 fiscal year is expected to be available during the first quarter of 2016 as part of the 2016 Milliman Pension Funding Study.

#### 2016-2017 PROJECTIONS

If the Milliman 100 PFI companies were to achieve the expected 7.3% (as per the 2015 pension funding study) median asset return for their pension plan portfolios and the current discount rate of 4.06% 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 \$338 billion (funded ratio of 80.7%) by the end of 2016 and a projected pension deficit of \$302 billion (funded ratio of 82.8%) by the end of 2017. For purposes of this forecast, we have assumed 2016 aggregate contributions of \$36 billion and 2017 aggregate contributions of \$39 billion.

Under an optimistic forecast with rising interest rates (reaching 4.56% by the end of 2016 and 5.16% by the end of 2017) and asset gains (11.3% annual returns), the funded ratio would climb to 89% by the end of 2016 and 102% by the end of 2017. Under a pessimistic forecast with similar interest rate and asset movements (3.56% discount rate at the end of 2016 and 2.96% by the end of 2017 and 3.3% annual returns), the funded ratio would decline to 73% by the end of 2016 and 66% by the end of 2017.

# ABOUT THE MILLIMAN 100 MONTHLY PENSION FUNDING INDEX

For the past 15 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 2014 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2015 Pension Funding Study, which was published on April 2, 2015. 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.

Zorast Wadia is a principal and consulting actuary with the New York office of Milliman. John Ehrhardt is a principal and consulting actuary with the New York office of Milliman. Contact them at zorast.wadia@milliman.com or at 646.473.3000.

# MILLIMAN 100 PENSION FUNDING INDEX - FEBRUARY 2016 (ALL DOLLAR AMOUNTS IN MILLIONS)

		MARKET VALUE	PROJECTED BENEFIT		CHANGE IN	
END OF MONTH	YEAR	OF ASSETS	<b>OBLIGATION (PBO)</b>	FUNDED STATUS	FUNDED STATUS	FUNDED RATIO
FEBRUARY	2015	1,484,594	1,827,742	(343,148)	N/A	81.2%
MARCH	2015	1,481,729	1,832,227	(350,498)	(7,350)	80.9%
APRIL	2015	1,479,378	1,790,601	(311,223)	39,275	82.6%
MAY	2015	1,476,896	1,756,407	(279,511)	31,712	84.1%
JUNE	2015	1,446,951	1,692,416	(245,465)	34,046	85.5%
JULY	2015	1,458,824	1,718,461	(259,637)	(14,172)	84.9%
AUGUST	2015	1,414,699	1,698,809	(284,110)	(24,473)	83.3%
SEPTEMBER	2015	1,395,904	1,707,660	(311,756)	(27,646)	81.7%
OCTOBER	2015	1,432,153	1,715,849	(283,696)	28,060	83.5%
NOVEMBER	2015	1,428,690	1,715,749	(287,059)	(3,363)	83.3%
DECEMBER	2015	1,409,348	1,704,667	(295,319)	(8,260)	82.7%
JANUARY	2016	1,381,289	1,710,045	(328,756)	(33,437)	80.8%
FEBRUARY	2016	1,376,074	1,739,708	(363,634)	(34,878)	79.1%

### PENSION ASSET AND LIABILTY RETURNS

		ASSET RETURNS			LIABILITY RETURNS	
END OF MONTH	YEAR	MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
FEBRUARY	2015	1.57%	2.74%	3.67%	-3.15%	2.97%
MARCH	2015	0.15%	2.90%	3.65%	0.52%	3.51%
APRIL	2015	0.19%	3.10%	3.82%	-1.99%	1.45%
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%	4.22%	-0.33%	-0.98%
JANUARY	2016	-1.65%	-1.65%	4.19%	0.63%	0.63%
FEBRUARY	2016	-0.02%	-1.67%	4.06%	2.04%	2.68%

The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.

Copyright © 2016 Milliman, Inc. All Rights Reserved.