

# Milliman analysis: Funded status improves in July by \$4 billion

The Milliman 100 PFI increases to 83.7% as solid investment gains overcome discount rate declines (again!)

Zorast Wadia, CFA, FSA, MAAA, EA  
Charles Clark, ASA, MAAA, EA



The funded status of the 100 largest corporate defined benefit pension plans increased by \$4 billion during July as measured by the Milliman 100 Pension Funding Index (PFI). The funded status deficit declined to \$282 billion from \$286 billion at the end of June due to strong July investment gains. The funded status improvement came as the benchmark corporate bond interest rates used to value pension liabilities continue a decline that began in April. As of July 31, the funded ratio rose to 83.7%, up from 83.5% at the end of June. The funded ratio has been teetering between 83% and 84% over the first seven months of the year.

July's 0.93% investment gain raised the Milliman 100 PFI asset value to \$1.450 trillion from \$1.442 trillion at the end of June. The cumulative 2017 investment gain is a healthy 6.50%. By comparison, the 2017 Milliman Pension Funding Study reported that the monthly median expected investment gain during 2016 was 0.57% (7.0% annualized). As Congress has adjourned for August, we continue to wait for any details that could emerge for "tax reform" and how that could affect the funded ratio of these large DB plans.

The projected benefit obligation (PBO) increased by \$4 billion during July, raising the Milliman 100 PFI value to \$1.732 trillion

## HIGHLIGHTS

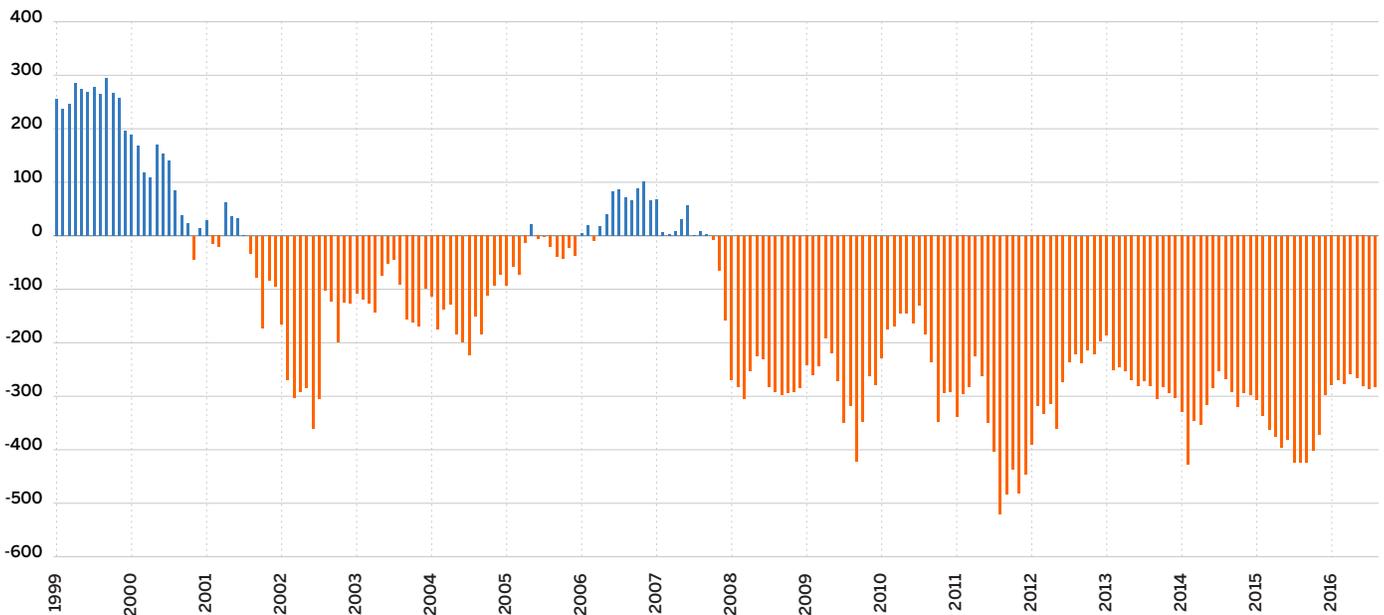
	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
JUN 2017	1,442	1,728	(286)	83.5%
JUL 2017	1,450	1,732	(282)	83.7%
MONTHLY CHANGE	+8	+4	+4	0.2%
YTD CHANGE	+54	+56	(2)	0.4%

Note: Numbers may not add up precisely due to rounding

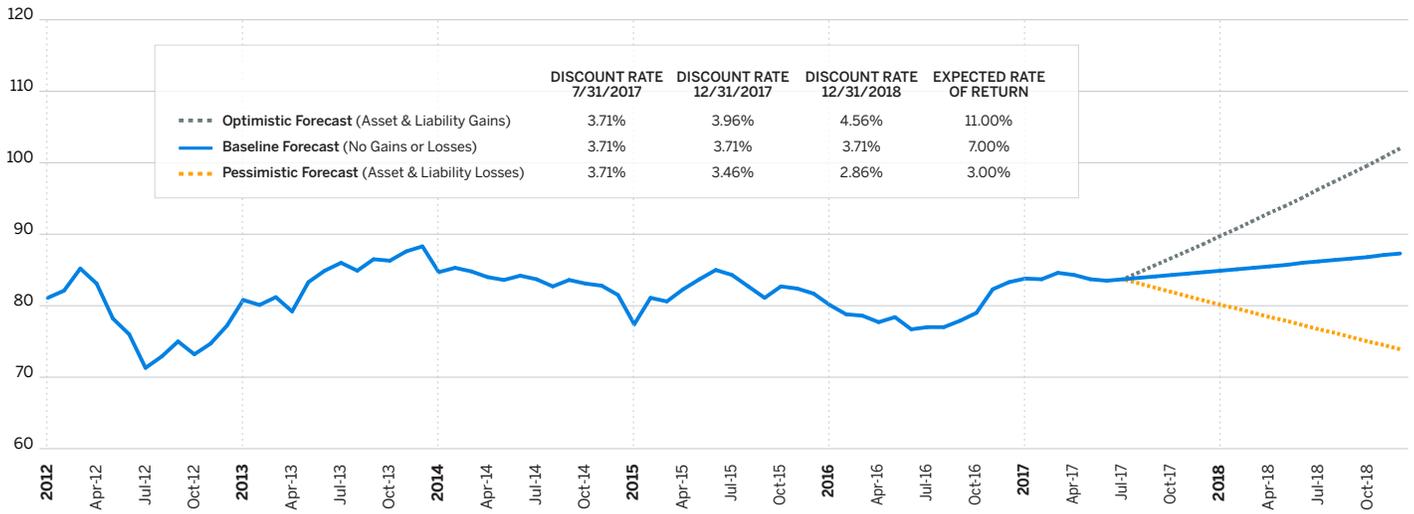
from \$1.728 trillion at the end of June. The change resulted from a three basis point decrease in the monthly discount rate to 3.71% for July, from 3.74% in June.

Over the last 12 months (August 2016 – July 2017), the cumulative asset return for these pensions has been 6.80% and the Milliman 100 PFI funded status deficit has improved by \$141 billion. Discount rates experienced an increase over the last 12 months, moving from 3.33% as of July 31, 2016, to 3.71% a year later. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 77.0% from 83.7%.

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



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



## 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 3.71% 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 \$265 billion (funded ratio of 84.7%) by the end of 2017 and a projected pension deficit of \$220 billion (funded ratio of 87.3%) 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 3.96% by the end of 2017 and 4.56% by the end of 2018) and asset gains (11.0% annual returns), the funded ratio would climb to 89% by the end of 2017 and 102% by the end of 2018. Under a pessimistic forecast with similar interest rate and asset movements (3.46% discount rate at the end of 2017 and 2.86% by the end of 2018 and 3.0% annual returns), the funded ratio would decline to 81% by the end of 2017 and 74% 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

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

**MILLIMAN 100 PENSION FUNDING INDEX — JULY 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
JULY	2016	1,418,462	1,841,411	(422,949)	N/A	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	1,403,106	1,673,506	(270,400)	9,121	83.8%
FEBRUARY	2017	1,421,420	1,697,625	(276,205)	(5,805)	83.7%
MARCH	2017	1,422,044	1,680,752	(258,708)	17,497	84.6%
APRIL	2017	1,431,678	1,697,629	(265,951)	(7,243)	84.3%
MAY	2017	1,442,861	1,723,815	(280,954)	(15,003)	83.7%
JUNE	2017	1,442,030	1,727,929	(285,899)	(4,945)	83.5%
JULY	2017	1,450,247	1,732,259	(282,012)	3,887	83.7%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
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	0.83%	0.83%	4.00%	0.19%	0.19%
FEBRUARY	2017	1.68%	2.52%	3.88%	1.79%	1.98%
MARCH	2017	0.41%	2.94%	3.96%	-0.65%	1.32%
APRIL	2017	1.04%	4.01%	3.88%	1.35%	2.68%
MAY	2017	1.14%	5.20%	3.76%	1.88%	4.61%
JUNE	2017	0.30%	5.52%	3.74%	0.57%	5.21%
JULY	2017	0.93%	6.50%	3.71%	0.58%	5.82%