

# Milliman Analysis: Funded status plummets in June, was Brexit to blame?

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



Discount rates fell 23 basis points in June, the U.K. filed for divorce from the EU, pension trusts' fixed income investments reaped a gain but funded status eroded by \$45.6 billion. The funded status deficit for the Milliman 100 plans settled at \$447 billion at the end of June, having risen by \$140 billion so far in 2016.

The funded status of the 100 largest corporate defined benefit pension plans dropped by \$46 billion during June as measured by the Milliman 100 Pension Funding Index (PFI). The deficit rose to \$447 billion at the end of June, primarily due to a decrease in the benchmark corporate bond interest rates used to value pension liabilities. As of June 30, the funded ratio decreased to 75.7%, down from 77.5% at the end of May.

The decision of the U.K. to separate themselves from the other 27 European Union countries will cause the most damage (compared to expectations) to the balance sheet of employers with a fiscal year that ends on June 30, 2016, and collateral damage to pension

## HIGHLIGHTS

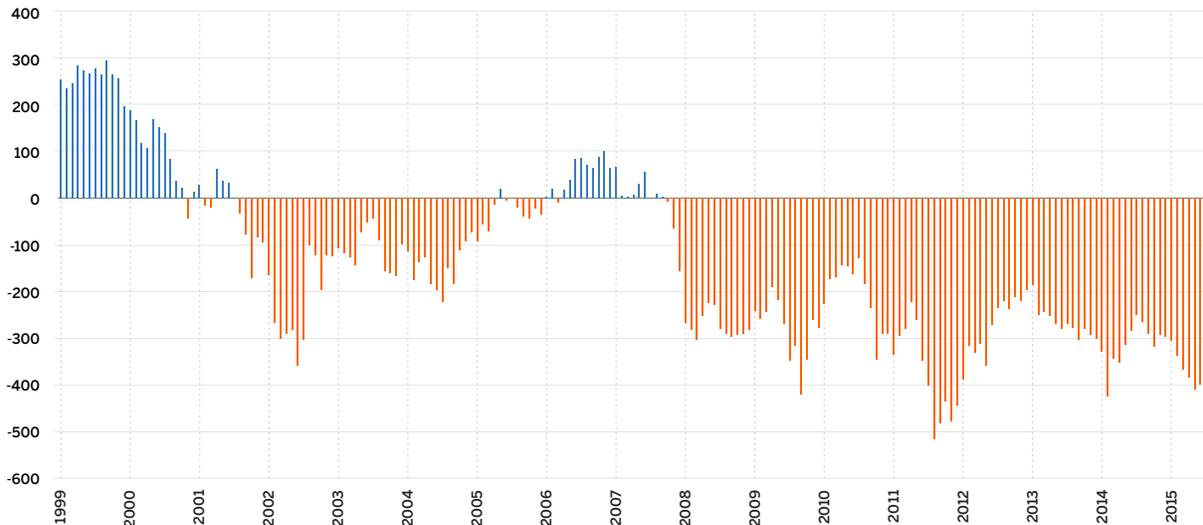
	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
MAY 2016	1,384	1,785	(401)	77.5%
JUN 2016	1,393	1,839	(447)	75.7%
MONTHLY CHANGE	+9	+54	(46)	-1.8%
YTD CHANGE	+18	+158	(140)	-6.0%

Note: Numbers may not add up precisely due to rounding

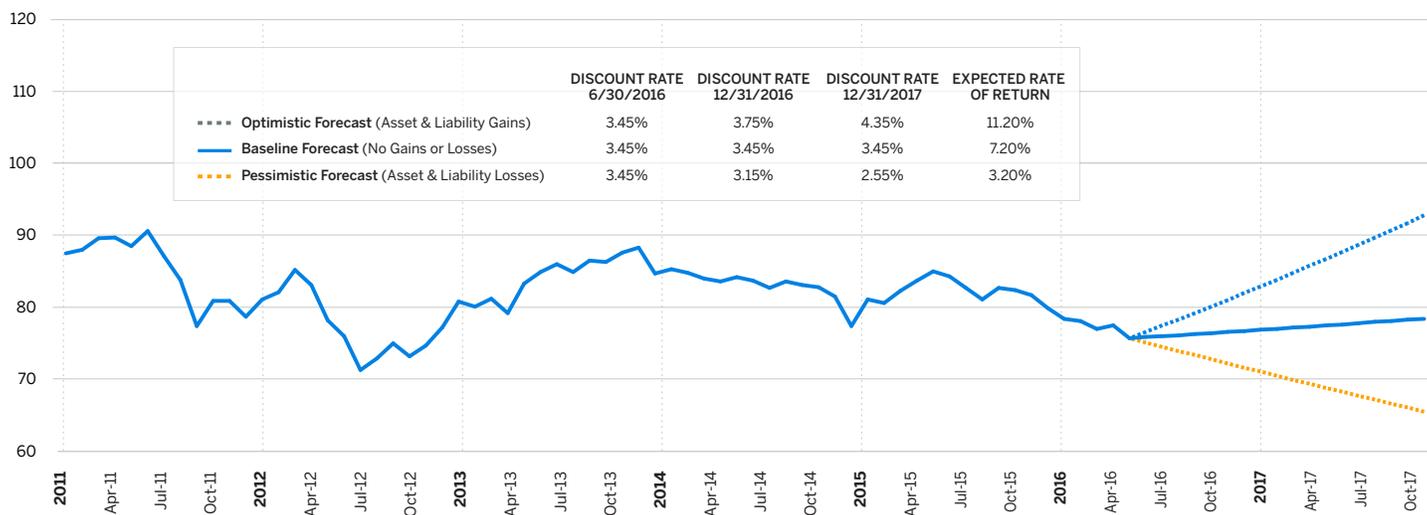
cost for fiscal years starting on July 1, 2016. The impact on pension cost could vary depending on the selection of a mark-to-market methodology or smoothing of gains and losses.

The projected benefit obligation (PBO), or pension liabilities, increased to \$1.839 trillion at the end of June from \$1.785 trillion at the end of May. The change resulted from a decrease of 23 basis points in the monthly discount rate to 3.45% for June, from 3.68% for May. The discount rate at the end of June is the lowest it has been in 2016 and is the second lowest in the 16-year history of the Milliman 100 PFI. Only January 2015 discount rate of 3.41% was lower. We note that the funded status deficit in January 2015 was \$427 billion. The highest funded status deficit in dollars was \$480 billion in October 2012.

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



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



June’s discount rate decline was not all bad news for those plan sponsors with heavy allocations towards fixed income. The market value of assets of the Milliman 100 plans increased by \$9 billion as a result of June’s investment gain of 1.01%. The Milliman 100 PFI asset value increased to \$1.393 trillion at the end of June. By comparison, the 2016 Milliman Pension Funding Study reported that the monthly median expected investment return during 2015 was 0.58% (7.2% annualized).

Discount rates had been steadily falling for the past 12 months and Brexit appropriately closed fiscal years ending June 30, 2016, with a resounding thud. U.S. discount rates and equity holdings certainly weren’t immune to the Brexit pain. As a proxy to measure the impact of the decline in funded status over the past 12 months ending June 30, 2016, we estimate that pension expense for the fiscal year ending June 30, 2017, would increase by approximately \$24 billion if the all Milliman 100 companies had June 30 fiscal year ends. Compared to the aggregate pension expense figure of \$33.7 billion recorded at the end of 2015 for the Milliman 100 companies as noted in the 2016 Milliman Pension Funding Study, this would represent an increase of roughly 71% in pension expense. This disposition is significantly worse compared to where we started the year when discount rates were 4.16% and the funded status deficit was \$307 billion as of January 1.

## Second Quarter 2016 Summary

For the quarter ending June 30, 2016, assets experienced a net investment gain of 2.37% with returns ahead of expectations. However, discount rates fell by 33 basis points in that same quarter negating any hopes of an improvement in funded status. The funded status deficit ballooned to \$447 billion by the end of the second quarter from \$387 billion at the end of March.

The funded ratio of the Milliman 100 companies decreased to 75.7% at the end of June from 78.1% at the end of March primarily due to interest rate decreases during this period.

Over the last 12 months (July 2015 – June 2016), the cumulative asset return for these pensions has been 3.26% and the Milliman 100 PFI funded status deficit has deteriorated by \$195 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 75.7% from 85.0%.

## 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 3.45% 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 \$431 billion (funded ratio of 76.6%) by the end of 2016 and a projected pension deficit of \$397 billion (funded ratio of 78.4%) 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 3.75% by the end of 2016 and 4.35% by the end of 2017) and asset gains (11.2% annual returns), the funded ratio would climb to 81% by the end of 2016 and 93% by the end of 2017. Under a pessimistic forecast with similar interest rate and asset movements (3.15% discount rate at the end of 2016 and 2.55% by the end of 2017 and 3.2% annual returns), the funded ratio would decline to 72% by the end of 2016 and 66% by the end of 2017.

**MILLIMAN 100 PENSION FUNDING INDEX — JUNE 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
JUNE	2015	1,429,208	1,681,119	(251,911)	N/A	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	1,384,221	1,785,396	(401,175)	10,559	77.5%
JUNE	2016	1,392,733	1,839,493	(446,760)	(45,585)	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
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	0.66%	2.70%	3.68%	-0.08%	7.81%
JUNE	2016	1.01%	3.74%	3.45%	3.32%	11.39%

## 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)