

# Milliman analysis: Funded status declines by \$13 billion in October

The Milliman 100 PFI funded ratio decreases to 93.4% due to October's 3.42% investment loss

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The funded status of the 100 largest corporate defined benefit pension plans declined by \$13 billion during October as measured by the Milliman 100 Pension Funding Index (PFI). The deficit expanded back to a triple-digit value of \$104 billion primarily due to a 3.42% investment loss. An increase in the benchmark corporate bond interest rates used to value pension liabilities helped to offset the full extent of the 1.0% decline in funded status in October. As of October 31, the funded ratio moved to 93.4% from 94.4% reported at the end of September. October's significant investment loss brings the year-to-date investment performance to a loss of 1.99%. Pension liabilities have fallen by 7.28% year-to-date as discount rates have risen, resulting in an overall funded status improvement of \$117 billion so far in 2018.

The market value of assets declined by \$57 billion as a result of October's 3.42% investment loss, the largest monthly loss seen in 2018 and the biggest one-month investment loss since January 2008's 3.57% loss. By comparison, the 2018 Milliman Pension Funding Study reported that the monthly median

## HIGHLIGHTS

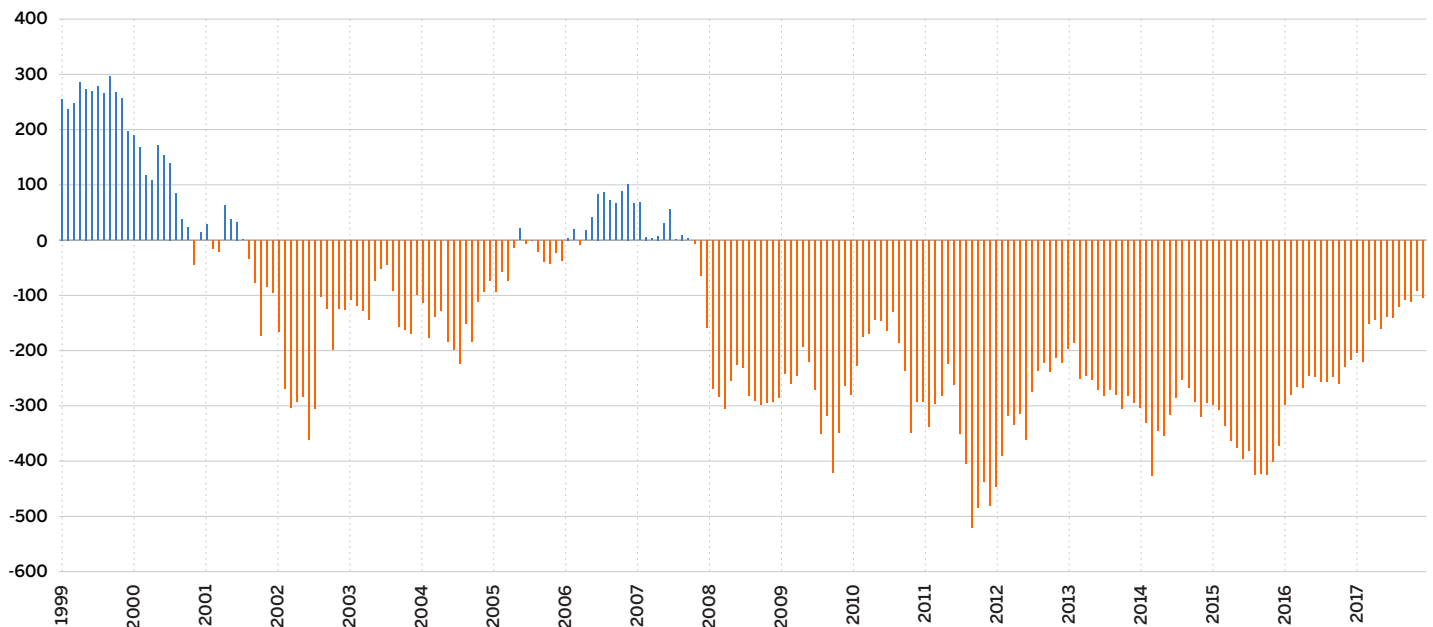
	\$ BILLION			FUNDED PERCENTAGE
	MV	PBO	FUNDED STATUS	
SEPTEMBER	1,539	1,630	(91)	94.4%
OCTOBER	1,482	1,586	(104)	93.4%
MONTHLY CHANGE	(57)	(44)	(13)	-1.0%
YTD CHANGE	(73)	(190)	+117	5.8%

Note: Numbers may not add up precisely due to rounding

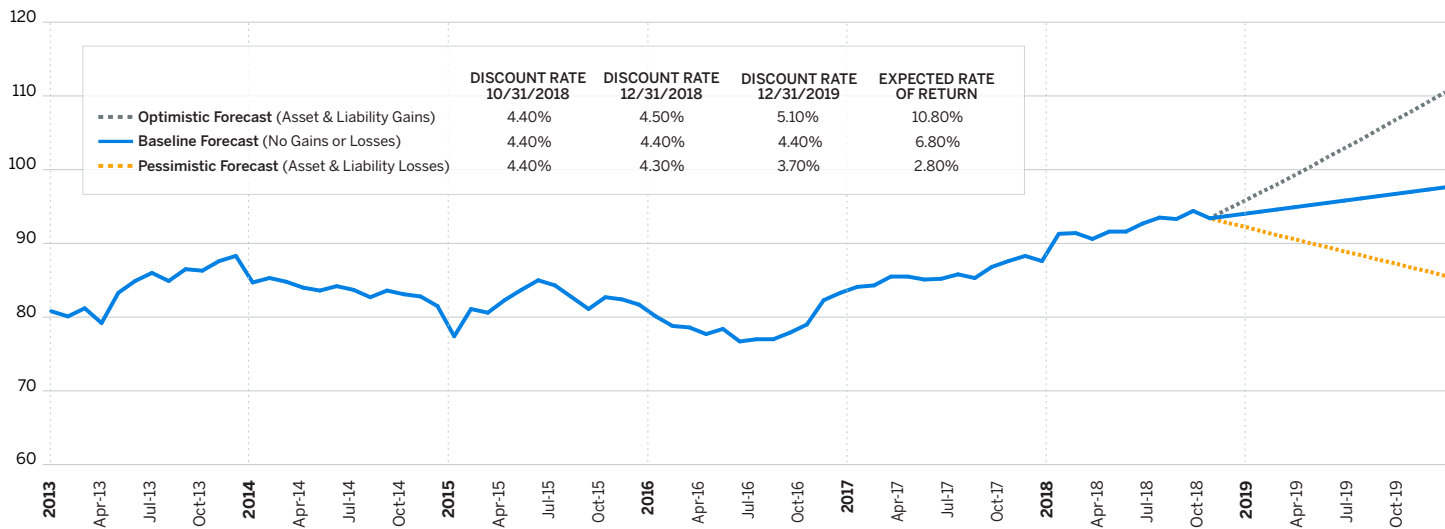
expected investment return during 2017 was 0.55% (6.8% annualized). The Milliman 100 PFI asset value decreased to \$1.482 trillion from \$1.539 trillion at the end of September.

The projected benefit obligation (PBO) decreased by \$44 billion during October, lowering the Milliman 100 PFI value to \$1.586 trillion from \$1.630 trillion at the end of September. The change resulted from an increase of 22 basis points in

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



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



the monthly discount rate to 4.40% for October from 4.18% in September. October’s 22 basis point discount increase was the largest discount rate swing experienced in 2018.

Over the last 12 months (November 2017–October 2018), the cumulative asset return for these pensions has been 0.9% and the Milliman 100 PFI funded status deficit has improved by \$112 billion. The primary reason for the improvement in the funded status deficit has been discount rate gains over the past 12 months. Discount rates have risen from 3.66% as of October 31, 2017, to 4.40% a year later. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 93.4% from 87.6%. We will continue to closely monitor the movement of the financial markets and the interest rate environment as year-end approaches.

## 2018-2019 Projections

If the Milliman 100 PFI companies were to achieve the expected 6.8% median asset return (as per the 2018 Pension Funding Study) and if the current discount rate of 4.40% were maintained during the remaining months of 2018 and throughout 2019, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$96 billion (funded ratio of 94.0%) by the end of 2018 and a projected pension deficit of \$37 billion (funded ratio of 97.6%) by the end of 2019. For purposes of this forecast, we have assumed 2018 aggregate contributions of \$48 billion and 2019 aggregate contributions of \$52 billion.

Under an optimistic forecast with rising interest rates (reaching 4.50% by the end of 2018 and 5.10% by the end of 2019) and asset gains (10.8% annual returns), the funded ratio would climb to 96% by the end of 2018 and 111% by the end of 2019. Under a pessimistic forecast with similar interest rate and asset movements (4.30% discount rate at the end of 2018

and 3.70% by the end of 2019 and 2.8% annual returns), the funded ratio would decline to 92% by the end of 2018 and 86% by the end of 2019.

## About the Milliman 100 Monthly Pension Funding Index

For the past 18 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 2017 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2018 Pension Funding Study, which was published on April 19, 2018. 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

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**MILLIMAN 100 PENSION FUNDING INDEX — OCTOBER 2018 (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
OCTOBER	2017	1,528,863	1,744,652	(215,789)	N/A	87.6%
NOVEMBER	2017	1,540,006	1,744,398	(204,392)	11,397	88.3%
DECEMBER	2017	1,555,289	1,775,721	(220,432)	(16,040)	87.6%
JANUARY	2018	1,576,415	1,727,191	(150,776)	69,656	91.3%
FEBRUARY	2018	1,536,732	1,680,622	(143,890)	6,886	91.4%
MARCH	2018	1,529,451	1,688,946	(159,495)	(15,605)	90.6%
APRIL	2018	1,524,230	1,663,183	(138,953)	20,542	91.6%
MAY	2018	1,531,432	1,672,278	(140,846)	(1,893)	91.6%
JUNE	2018	1,523,684	1,644,368	(120,684)	20,162	92.7%
JULY	2018	1,537,818	1,645,155	(107,337)	13,347	93.5%
AUGUST	2018	1,546,296	1,657,345	(111,049)	(3,712)	93.3%
SEPTEMBER	2018	1,539,035	1,629,977	(90,942)	20,107	94.4%
OCTOBER	2018	1,482,087	1,586,232	(104,145)	(13,203)	93.4%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS		DISCOUNT RATE	LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE		MONTHLY	YEAR-TO-DATE
OCTOBER	2017	1.22%	9.58%	3.66%	0.62%	7.46%
NOVEMBER	2017	0.73%	10.38%	3.67%	0.29%	7.78%
DECEMBER	2017	0.99%	11.48%	3.53%	2.10%	10.04%
JANUARY	2018	1.64%	1.64%	3.74%	-2.39%	-2.39%
FEBRUARY	2018	-2.25%	-0.64%	3.96%	-2.34%	-4.67%
MARCH	2018	-0.19%	-0.84%	3.91%	0.86%	-3.85%
APRIL	2018	-0.06%	-0.89%	4.03%	-1.16%	-4.96%
MAY	2018	0.76%	-0.14%	3.99%	0.92%	-4.09%
JUNE	2018	-0.22%	-0.37%	4.12%	-1.30%	-5.34%
JULY	2018	1.21%	0.84%	4.11%	0.42%	-4.94%
AUGUST	2018	0.83%	1.68%	4.05%	1.11%	-3.88%
SEPTEMBER	2018	-0.19%	1.49%	4.18%	-1.28%	-5.10%
OCTOBER	2018	-3.42%	-1.99%	4.40%	-2.30%	-7.28%