

# Milliman analysis: Funded status improves by \$11 billion in October

The Milliman 100 PFI funded ratio increases to 86.1% due to investment gains

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The funded status of the 100 largest corporate defined benefit pension plans increased by \$11 billion during October as measured by the Milliman 100 Pension Funding Index (PFI). The deficit declined to \$258 billion primarily due to investment gains. The benchmark corporate bond interest rates used to value pension liabilities were flat in October. As of October 31, the funded ratio settled at 86.1%, up from 85.4% at the end of September.

The market value of assets improved by \$13 billion as a result of October's 1.08% investment gain. The Milliman 100 PFI asset value increased to \$1,593 trillion from \$1,580 trillion at the end of September. By comparison, the 2019 Milliman Pension Funding Study reported that the monthly median expected investment return during 2018 was 0.53% (6.6% annualized).

The projected benefit obligation (PBO) increased by \$2 billion during October, raising the Milliman 100 PFI value to \$1.851 trillion from \$1.849 trillion at the end of September. The change resulted from a modest decrease of one basis point in the monthly discount rate to 3.08% for October from 3.09% in

## HIGHLIGHTS

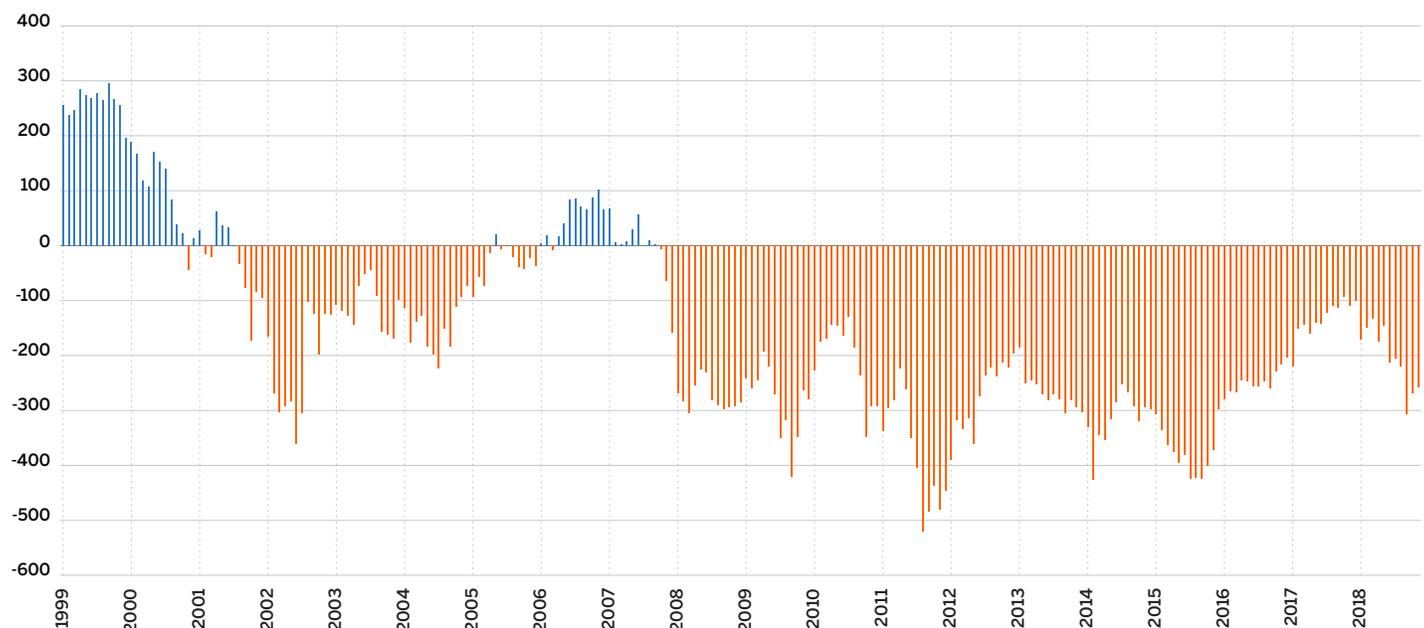
	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
SEPTEMBER	1,580	1,849	(269)	85.4%
OCTOBER	1,593	1,851	(258)	86.1%
MONTHLY CHANGE	+13	+2	+11	0.7%
YTD CHANGE	+148	+236	(88)	-3.3%

Note: Numbers may not add up precisely due to rounding

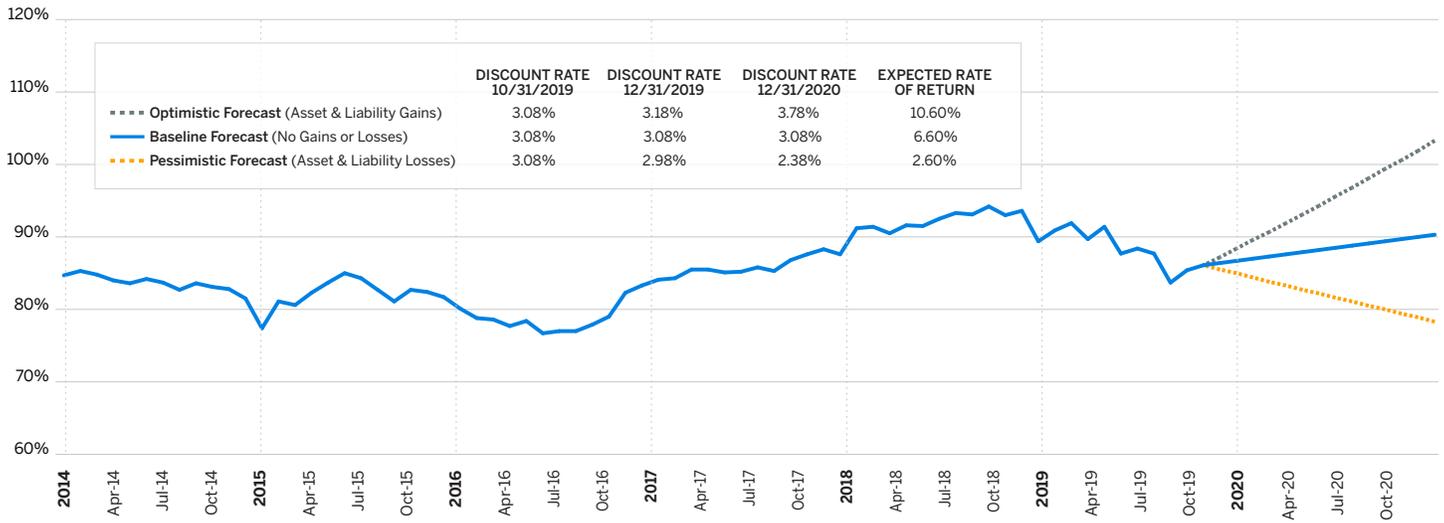
September. October's month end discount rate of 3.08% ranks as the second lowest discount rate recorded in the 19-year history of the Milliman 100 PFI.

Over the last 12 months (November 2018–October 2019), the cumulative asset return for these pensions has been 8.34% and yet the Milliman 100 PFI funded status deficit has worsened by \$147 billion. The primary reason for the widening of the

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



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



funded status deficit has been discount rate declines over the past 12 months. Discount rates eroded, falling from 4.40% as of October 31, 2018, to 3.08% a year later. The funded ratio of the Milliman 100 companies has decreased significantly over the past 12 months to 86.1% from 93.0%. We will continue to closely monitor the movement of the financial markets and the interest rate environment as year-end approaches.

### 2019-2020 Projections

If the Milliman 100 PFI companies were to achieve the expected 6.6% median asset return (as per the 2019 pension funding study), and if the current discount rate of 3.08% were maintained during years 2019 through 2020, we forecast that the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$246 billion (funded ratio of 86.7%) by the end of 2019 and a projected pension deficit of \$179 billion (funded ratio of 90.3%) by the end of 2020. For purposes of this forecast, we have assumed 2019 and 2020 aggregate annual contributions of \$50 billion.

Under an optimistic forecast with rising interest rates (reaching 3.18% by the end of 2019 and 3.78% by the end of 2020) and asset gains (10.6% annual returns), the funded ratio would climb to 88% by the end of 2019 and 103% by the end of 2020. Under a pessimistic forecast with similar interest rate and asset movements (2.98% discount rate at the end of 2019 and 2.38% by the end of 2020 and 2.6% annual returns), the funded ratio would decline to 85% by the end of 2019 and 78% by the end of 2020.

### About the Milliman 100 Monthly Pension Funding Index

For the past 19 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 2018 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2019 Pension Funding Study, which was published on April 16, 2019. 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.

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**MILLIMAN 100 PENSION FUNDING INDEX — OCTOBER 2019 (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	2018	1,466,721	1,577,044	(110,323)	N/A	93.0%
NOVEMBER	2018	1,474,576	1,574,756	(100,180)	10,143	93.6%
DECEMBER	2018	1,444,672	1,615,128	(170,456)	(70,276)	89.4%
JANUARY	2019	1,491,598	1,640,656	(149,058)	21,398	90.9%
FEBRUARY	2019	1,502,098	1,635,088	(132,990)	16,068	91.9%
MARCH	2019	1,523,066	1,697,476	(174,410)	(41,420)	89.7%
APRIL	2019	1,536,084	1,681,005	(144,921)	29,489	91.4%
MAY	2019	1,517,461	1,730,603	(213,142)	(68,221)	87.7%
JUNE	2019	1,562,001	1,767,860	(205,859)	7,283	88.4%
JULY	2019	1,564,400	1,783,382	(218,982)	(13,123)	87.7%
AUGUST	2019	1,579,989	1,886,605	(306,616)	(87,634)	83.7%
SEPTEMBER	2019	1,580,258	1,849,450	(269,192)	37,424	85.4%
OCTOBER	2019	1,593,186	1,850,540	(257,354)	11,838	86.1%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS		DISCOUNT RATE	LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE		MONTHLY	YEAR-TO-DATE
OCTOBER	2018	-3.63%	-2.20%	4.40%	-2.30%	-7.28%
NOVEMBER	2018	0.91%	-1.30%	4.41%	0.31%	-6.99%
DECEMBER	2018	-1.66%	-2.94%	4.19%	3.01%	-4.19%
JANUARY	2019	3.54%	3.54%	4.06%	1.97%	1.97%
FEBRUARY	2019	0.98%	4.56%	4.08%	0.05%	2.02%
MARCH	2019	1.67%	6.30%	3.78%	4.19%	6.30%
APRIL	2019	1.13%	7.50%	3.85%	-0.60%	5.66%
MAY	2019	-0.95%	6.49%	3.61%	3.31%	9.16%
JUNE	2019	3.21%	9.91%	3.45%	2.50%	11.89%
JULY	2019	0.42%	10.37%	3.37%	1.22%	13.26%
AUGUST	2019	1.26%	11.76%	2.95%	6.11%	20.18%
SEPTEMBER	2019	0.28%	12.07%	3.09%	-1.66%	18.19%
OCTOBER	2019	1.08%	13.28%	3.08%	0.38%	18.63%