

# Milliman analysis: Funded status plummets in May by \$65 billion

The Milliman 100 PFI funded ratio dropped to 87.9% due to precipitous declines in discount rates and equity markets

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The funded status of the 100 largest corporate defined benefit pension plans decreased by \$65 billion during May as measured by the Milliman 100 Pension Funding Index (PFI). The deficit widened to \$210 billion from \$145 billion at the end of April due to a sharp decrease in the benchmark corporate bond interest rates used to value pension liabilities. The funded status deterioration was also due to investment losses, particularly in equity markets, during May. As of May 31, the funded ratio fell to 87.9%, down from 91.4% at the end of April. This is the third largest monthly decline in dollars in the past five years. Only January 2015 (\$97 billion) and December 2018 (\$70 billion) had worse outcomes.

May's negative 0.74% investment return decreased Milliman 100 PFI asset values by \$15 billion to \$1,521 trillion at the end of May. 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 full results of the annual 2019 study can be found at [milliman.com/pfs](http://milliman.com/pfs).

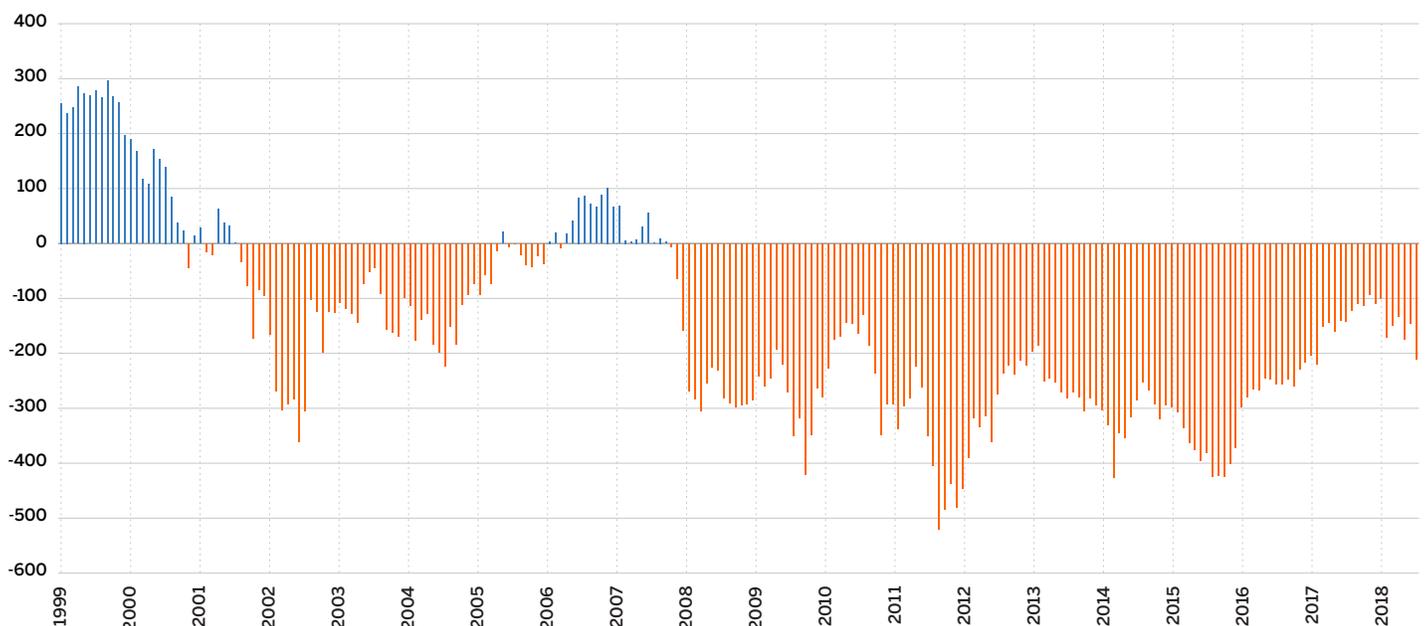
## HIGHLIGHTS

	\$ BILLION			
	MV	PBO	FUNDED STATUS	FUNDED PERCENTAGE
APRIL	1,536	1,681	(145)	91.4%
MAY	1,521	1,731	(210)	87.9%
MONTHLY CHANGE	(15)	+50	(65)	-3.5%
YTD CHANGE	+76	+116	(40)	-1.5%

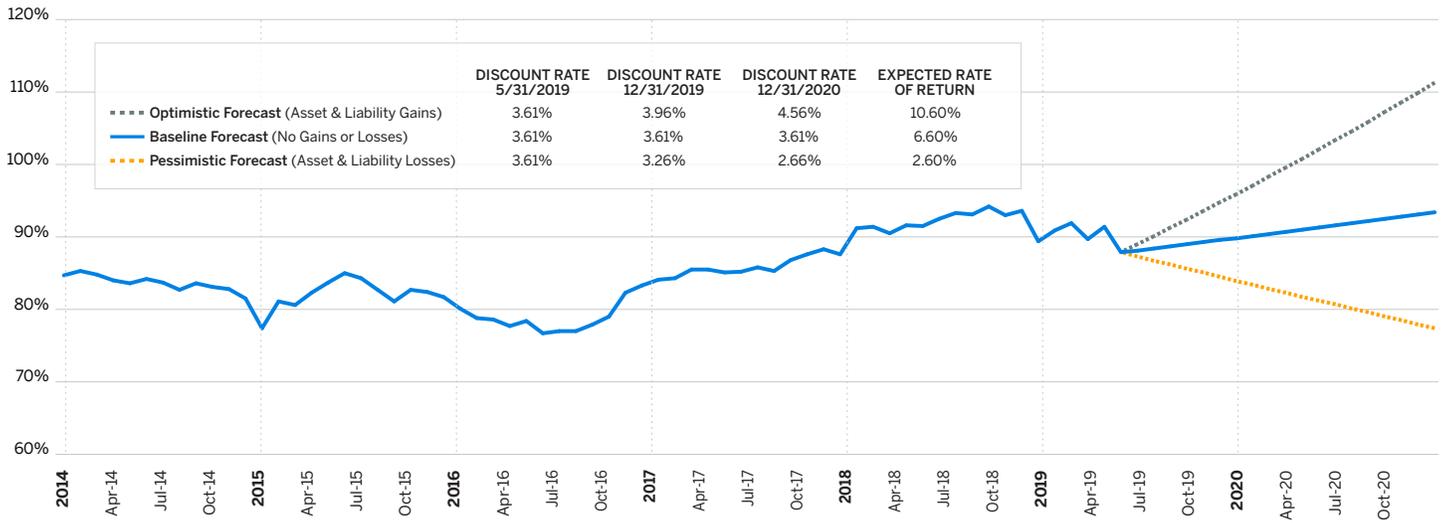
Note: Numbers may not add up precisely due to rounding

The Milliman 100 PFI projected benefit obligation (PBO) increased by \$50 billion during May to \$1.731 trillion. The change resulted from a decrease of 24 basis points in the monthly discount rate to 3.61% for May from 3.85% in April. This is the lowest discount rate since December 2017 (3.53%). While we don't forecast interest rates, the gradual decrease in rates has been quite noticeable in the financial markets in the last few months.

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



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



Over the last 12 months (June 2018–May 2019), the cumulative asset gain for these pensions has been 3.72% and the Milliman 100 PFI funded status deficit has grown by \$68 billion. The primary reason for the worsening of the funded status deficit has been a decline in discount rates over the past 12 months. During that period, discount rates decreased, moving from 3.99% as of May 31, 2018, to 3.61% a year later. The funded ratio of the Milliman 100 companies has decreased over the past 12 months to 87.9% from 91.5%.

### 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 3.61% 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 \$175 billion (funded ratio of 89.8%) by the end of 2019 and a projected pension deficit of \$113 billion (funded ratio of 93.4%) 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 3.96% by the end of 2019 and 4.56% by the end of 2020) and asset gains (10.6% annual returns), the funded ratio would climb to 96% by the end of 2019 and 111% by the end of 2020. Under a pessimistic forecast with similar interest rate and asset movements (3.26% discount rate at the end of 2019 and 2.66% by the end of 2020 and 2.6% annual returns), the funded ratio would decline to 84% by the end of 2019 and 77% 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 — MAY 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
MAY	2018	1,525,102	1,667,428	(142,326)	N/A	91.5%
JUNE	2018	1,516,130	1,638,647	(122,517)	19,809	92.5%
JULY	2018	1,528,868	1,638,479	(109,611)	12,906	93.3%
AUGUST	2018	1,536,024	1,649,661	(113,637)	(4,026)	93.1%
SEPTEMBER	2018	1,527,545	1,621,478	(93,933)	19,704	94.2%
OCTOBER	2018	1,466,721	1,577,044	(110,323)	(16,390)	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	1,523,008	1,697,476	(174,468)	(41,478)	89.7%
APRIL	2019	1,536,084	1,681,005	(144,921)	29,547	91.4%
MAY	2019	1,520,649	1,730,603	(209,954)	(65,033)	87.9%

**PENSION ASSET AND LIABILITY RETURNS**

END OF MONTH	YEAR	ASSET RETURNS			LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
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%	1.48%	4.18%	-1.28%	-5.10%
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	-0.74%	6.71%	3.61%	3.31%	9.16%