Milliman analysis: February investment gains propel corporate pension funded ratio to 92.6%

Milliman 100 PFI sheds \$20 billion in deficit

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The funded status of the 100 largest corporate defined benefit pension plans improved by \$20 billion during February as measured by the Milliman 100 Pension Funding Index (PFI). The funded status deficit narrowed to \$122 billion from \$142 billion at the end of January due to investment gains incurred during February. Liability decreases resulting from an increase in the benchmark corporate bond interest rates used to value pension liabilities also contributed to the funded status improvement during February. As of February 28, the funded ratio rose to 92.6%, up from 91.4% at the end of January. The Milliman 100 deficit is \$45 billion lower than it was at the end of 2018, indicating pension plans are off to a good start so far in 2019.

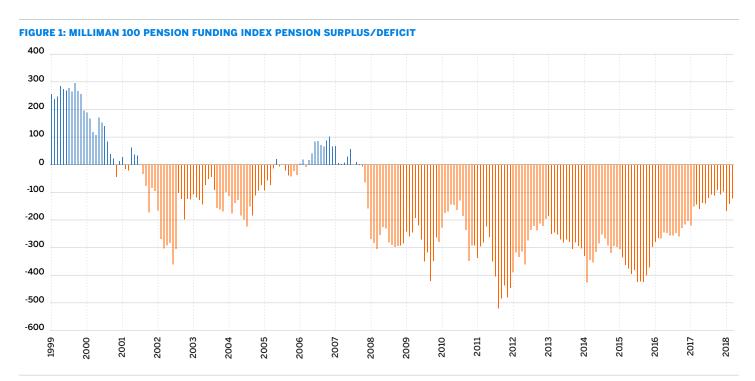
The market value of assets rose by \$15 billion as a result of February's robust investment gain of 1.24%. The Milliman 100 PFI asset value increased to \$1.525 trillion from \$1.510 trillion at the end of January. By comparison, the 2018 Milliman Pension Funding Study reported that the monthly median expected investment return during 2017 was 0.55% (6.8% annualized). The expected rate of return for 2018 will be updated in the 2019 Milliman Pension Funding Study (PFS), which is due out in April.

HIGHLIGHTS				
		\$ BILLIC	N	
	MV	РВО	FUNDED STATUS	FUNDED PERCENTAGE
JANUARY	1,510	1,653	(142)	91.4%
FEBRUARY	1,525	1,648	(122)	92.6%
MONTHLY CHANGE	+15	(5)	+20	1.2%
YTD CHANGE	+66	+21	+45	2.9%

Note: Numbers may not add up precisely due to rounding

The projected benefit obligation (PBO), or pension liabilities, fell to \$1.648 trillion at the end of February. The change resulted from an increase of two basis points in the monthly discount rate, to 4.08% for February from 4.06% for January.

Over the last 12 months (March 2018–February 2019), the cumulative asset return for these pensions has been 2.6% and the Milliman 100 PFI funded status deficit improved by \$22 billion. The funded status gain is the result of the general



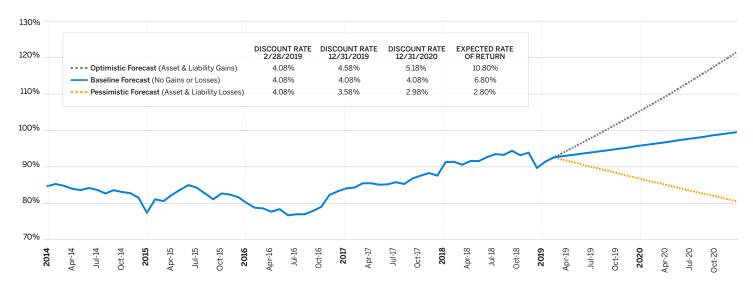


FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX — PENSION FUNDED RATIO

upward trend in discount rates during most of 2018. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 92.6% from 91.4%.

The projected asset and liability figures presented in this analysis will be adjusted as part of our annual 2019 Pension Funding Study where pension settlement and annuity purchase activities that occurred during 2018 will be reflected. De-risking transactions generally results in reductions in pension funded status because the assets paid to the participants or assumed by the insurance companies as part of the risk transfer are larger than the corresponding liabilities that are extinguished from the balance sheets. To offset this decrease effect, many companies engaging in de-risking transactions make additional cash contributions to their pension plans to improve the plan's funded status.

Pension plan accounting information disclosed in the footnotes of the Milliman 100 companies' annual reports for the 2018 fiscal year is expected to be available during the first quarter of 2019 as part of the 2019PFS. We expect to publish our comprehensive recap during April as part of the 2019PFS.

2019-2020 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 4.08% were maintained during years 2019 through 2020, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$71 billion (funded ratio of 95.7%) by the end of 2019 and a projected pension deficit of \$7 billion (funded ratio of 99.5%) by the end of 2020. For purposes of this forecast, we have assumed 2019 and 2020 aggregate annual contributions of \$52 billion.

Under an optimistic forecast with rising interest rates (reaching 4.58% by the end of 2019 and 5.18% by the end of 2020) and

asset gains (10.8% annual returns), the funded ratio would climb to 105% by the end of 2019 and 121% by the end of 2020. Under a pessimistic forecast with similar interest rate and asset movements (3.58% discount rate at the end of 2019 and 2.98% by the end of 2020 and 2.8% annual returns), the funded ratio would decline to 87% by the end of 2019 and 81% by the end of 2020.

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.

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2 MARCH 2019

MILLIMAN 100 PENSION FUNDING INDEX — FEBRUARY 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
FEBRUARY	2018	1,536,732	1,680,622	(143,890)	N/A	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	1,537,759	1,645,155	(107,396)	13,288	93.5%
AUGUST	2018	1,546,237	1,657,345	(111,108)	(3,712)	93.3%
SEPTEMBER	2018	1,538,976	1,629,977	(91,001)	20,107	94.4%
OCTOBER	2018	1,478,921	1,586,232	(107,311)	(16,310)	93.2%
NOVEMBER	2018	1,488,074	1,584,851	(96,777)	10,534	93.9%
DECEMBER	2018	1,459,104	1,626,426	(167,322)	(70,545)	89.7%
JANUARY	2019	1,510,377	1,652,782	(142,405)	24,917	91.4%
FEBRUARY	2019	1,525,493	1,647,740	(122,247)	20,158	92.6%

PENSION ASSET AND LIABILITY RETURNS

END OF MONTH		ASSET RETURNS		_	LIABILITY RETURNS	
	YEAR	MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
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%	1.48%	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	3.77%	3.77%	4.06%	1.98%	1.98%
FEBRUARY	2019	1.24%	5.06%	4.08%	0.05%	2.03%

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