Milliman analysis: Funded status improves by \$21 billion in October

The Milliman 100 PFI funded ratio increases to 85.1% as discount rates rise during October

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The funded status of the 100 largest corporate defined benefit pension plans increased by \$21 billion during October as measured by the Milliman 100 Pension Funding Index (PFI). The deficit declined to \$285 billion primarily due to liability gains resulting from an increase in the benchmark corporate bond interest rates used to value those pension liabilities. This is the lowest PFI pension deficit since March, when it was \$243 billion. As of October 31, the funded ratio improved to 85.1%, from 84.4% at the end of September.

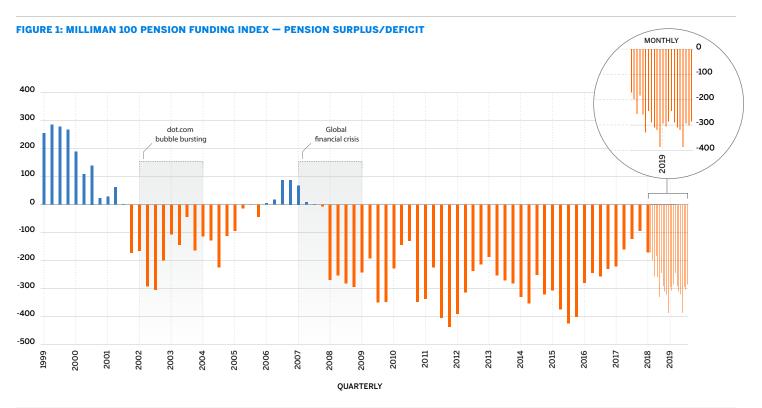
The market value of assets fell by \$20 billion as a result of October's 0.93% investment loss. The Milliman 100 PFI asset value decreased to \$1.629 trillion at the end of October. By comparison, the 2020 Milliman Pension Funding Study reported that the monthly median expected investment return during 2019 was 0.53% (6.5% annualized). The full results of the annual 2020 study can be found at milliman.com/pfs. October's asset decline is now the second consecutive month of negative investment returns.

HIGHLIGHTS				
		\$ BILLIC	N	_
	MV	РВО	FUNDED STATUS	FUNDED PERCENTAGE
SEPTEMBER	1,650	1,955	(306)	84.4%
OCTOBER	1,629	1,915	(285)	85.1%
MONTHLY CHANGE	(20)	(41)	+21	0.7%
YTD CHANGE	+7	+108	(102)	-4.7%

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Note: Numbers may not add up precisely due to rounding

The projected benefit obligation (PBO) decreased by \$41 billion during October, moving the Milliman 100 PFI liability value to \$1.915 trillion. The PBO improvement was the result of a 14 basis point increase in the monthly discount rate, to 2.71% for October from 2.57% in September. Discount rates have now been on the rise for the last three months.



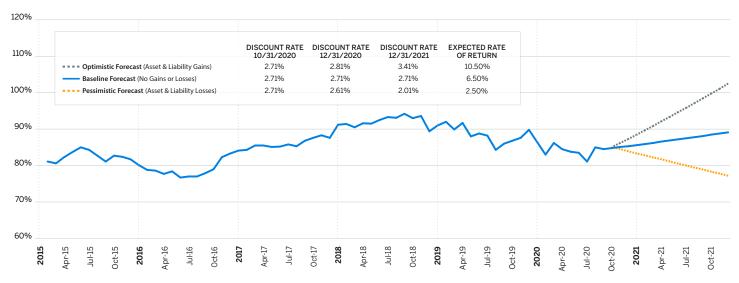


FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX - PENSION FUNDED RATIO

Over the last 12 months (November 2019–October 2020), the cumulative asset return for these pensions has been 5.75% and the Milliman 100 PFI funded status deficit has worsened by \$42 billion. The primary reason for this widening of the funded status deficit has been discount rate declines over the past 12 months. Discount rates eroded, falling from 3.08% as of October 31, 2019 to 2.71% a year later. During the same time period the funded ratio of the Milliman 100 companies has decreased to 85.1% from 86.8%. We will continue to closely monitor the movement of the financial markets and the interest rate environment as year-end approaches.

2020-2021 Projections

If the Milliman 100 PFI companies were to achieve the expected 6.5% median asset return (as per the 2020 pension funding study), and if the current discount rate of 2.71% were maintained during years 2020 through 2021, we forecast that the funded status of the surveyed plans would increase. This

would result in a projected pension deficit of \$275 billion (funded ratio of 85.6%) by the end of 2020 and a projected pension deficit of \$202 billion (funded ratio of 89.3%) by the end of 2021. For purposes of this forecast, we have assumed 2020 and 2021 aggregate annual contributions of \$40 billion and \$50 billion, respectively.

Under an optimistic forecast with rising interest rates (reaching 2.81% by the end of 2020 and 3.41% by the end of 2021) and asset gains (10.5% annual returns), the funded ratio would climb to 87% by the end of 2020 and 103% by the end of 2021. Under a pessimistic forecast with similar interest rate and asset movements (2.61% discount rate at the end of 2020 and 2.01% by the end of 2021 and 2.5% annual returns), the funded ratio would decline to 84% by the end of 2020 and 77% by the end of 2021.

ABOUT THE MILLIMAN 100 MONTHLY PENSION FUNDING INDEX

For the past 20 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 2019 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2020 Pension Funding Study, which was published on April 28, 2020. 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.

MILLIMAN 100 PENSION FUNDING INDEX - OCTOBER 2020 (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	2019	1,596,825	1,840,012	(243,187)	N/A	86.8%
NOVEMBER	2019	1,608,203	1,835,329	(227,126)	16,061	87.6%
DECEMBER	2019	1,622,903	1,806,420	(183,517)	43,609	89.8%
JANUARY	2020	1,634,276	1,892,068	(257,792)	(74,275)	86.4%
FEBRUARY	2020	1,605,039	1,934,508	(329,469)	(71,677)	83.0%
MARCH	2020	1,513,944	1,757,304	(243,360)	86,109	86.2%
APRIL	2020	1,579,719	1,869,878	(290,159)	(46,799)	84.5%
MAY	2020	1,601,435	1,911,178	(309,743)	(19,584)	83.8%
JUNE	2020	1,618,245	1,938,415	(320,170)	(10,427)	83.5%
JULY	2020	1,660,381	2,047,070	(386,689)	(66,519)	81.1%
AUGUST	2020	1,670,532	1,964,217	(293,685)	93,004	85.0%
SEPTEMBER	2020	1,649,728	1,955,391	(305,663)	(11,978)	84.4%
OCTOBER	2020	1,629,466	1,914,613	(285,147)	20,516	85.1%

PENSION ASSET AND LIABILITY RETURNS

		ASSET RETURNS			LIABILITY RETURNS	
END OF MONTH	YEAR	MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
OCTOBER	2019	1.10%	13.27%	3.08%	0.38%	18.63%
NOVEMBER	2019	0.95%	14.35%	3.09%	0.12%	18.77%
DECEMBER	2019	1.15%	15.66%	3.20%	-1.20%	17.35%
JANUARY	2020	1.01%	1.01%	2.85%	5.07%	5.07%
FEBRUARY	2020	-1.48%	-0.49%	2.69%	2.55%	7.75%
MARCH	2020	-5.37%	-5.83%	3.39%	-8.83%	-1.77%
APRIL	2020	4.68%	-1.42%	2.92%	6.74%	4.86%
MAY	2020	1.69%	0.25%	2.76%	2.52%	7.50%
JUNE	2020	1.36%	1.62%	2.65%	1.73%	9.36%
JULY	2020	2.92%	4.58%	2.26%	5.89%	15.80%
AUGUST	2020	0.91%	5.54%	2.54%	-3.76%	11.45%
SEPTEMBER	2020	-0.95%	4.54%	2.57%	-0.15%	11.27%
OCTOBER	2020	-0.93%	3.57%	2.71%	-1.78%	9.29%

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