Milliman analysis: Funded status improves by \$12 billion in November

The Milliman 100 PFI funded ratio increases to 86.2% primarily due to investment gains

Zorast Wadia, CFA, FSA, MAAA, EA Charles Clark, ASA, MAAA, EA



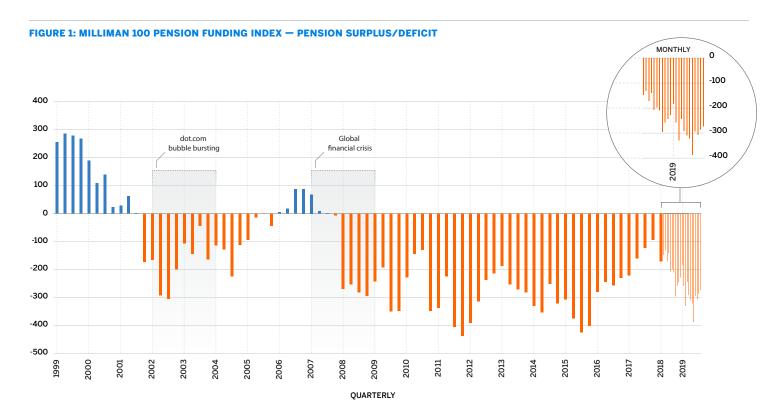
The funded status of the 100 largest corporate defined benefit pension plans increased by \$12 billion during November as measured by the Milliman 100 Pension Funding Index (PFI). The deficit lessened to \$272 billion primarily due to investment gains. Benchmark corporate bond interest rates used to value pension liabilities fell 24 basis points in November after seeing increases in the prior three months. As of November 30, the funded ratio increased to 86.2% from 85.2% reported at the end of October. Pensions are still down for the year with an overall decline in funded status of \$89 billion.

The market value of assets improved by \$77 billion as a result of November's 5.03% investment gain. This massive investment gain tops the whopping 4.68% return of April, putting 2020 in the record books for having two of the top 10 highest return months in the same year. Also noteworthy for 2020 was March's investment loss of 5.37%, which ranks among the

HIGHLIGHTS						
	\$ BILLION					
	MV	РВО	FUNDED STATUS	FUNDED PERCENTAGE		
OCTOBER	1,631	1,915	(284)	85.2%		
NOVEMBER	1,707	1,980	(272)	86.2%		
MONTHLY CHANGE	+77	+65	+12	1.0%		
YTD CHANGE	+85	+173	(89)	-3.6%		

Note: Numbers may not add up precisely due to rounding

highest historical monthly losses. The Milliman 100 PFI asset value increased to \$1.707 trillion at the end of November. 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.



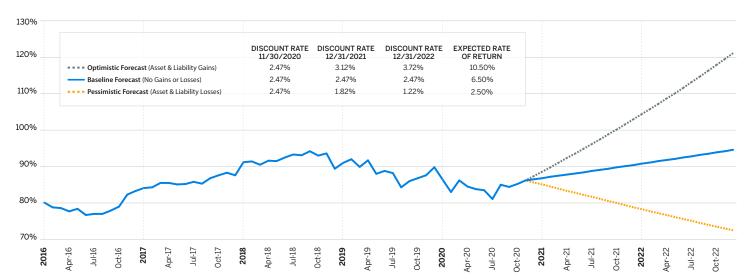


FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX — PENSION FUNDED RATIO

The projected benefit obligation (PBO) increased by \$65 billion during November, raising the Milliman 100 PFI value to \$1.980 trillion from \$1.915 trillion at the end of October. The change was the result of a 24 basis point decrease in the monthly discount rate to 2.47% for November from 2.71% in October. In spite of increases in the three months prior to November, current discount rates continue to rank among the lowest ever recorded in the 20-year history of the Milliman 100 PFI.

Over the last 12 months (December 2019–November 2020), the cumulative asset return for these pensions has been 11.15% and yet the Milliman 100 PFI funded status deficit has worsened by \$45 billion. The primary reason for the widening of the funded status deficit during this time period has been discount rate declines. Discount rates fell from 3.09% as of November 30, 2019, to 2.47% a year later. The funded ratio of the Milliman 100 companies has decreased over the past 12 months to 86.2% from 87.6%. We will continue to closely monitor the movement of the financial markets and the interest rate environment as year-end approaches.

2020-2022 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 2.47% were maintained during the remaining month of 2020 through the end of 2022, we forecast that the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$188 billion (funded ratio of 90.4%) by the end of 2021 and a projected pension deficit of \$105 billion (funded ratio of 94.6%) by the end of 2022. For purposes of this forecast, we have assumed 2021 and 2022 aggregate annual contributions of \$50 billion.

Under an optimistic forecast with rising interest rates (reaching 3.12% by the end of 2021 and 3.72% by the end of 2022) and asset gains (10.5% annual returns), the funded ratio would climb to 103% by the end of 2021 and 121% by the end of 2022. Under a pessimistic forecast with similar interest rate and asset movements (1.82% discount rate at the end of 2021 and 1.22% by the end of 2022 and 2.5% annual returns), the funded ratio would decline to 79% by the end of 2021 and 73% by the end of 2022.

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.

2 NOVEMBER 2020

MILLIMAN 100 PENSION FUNDING INDEX - NOVEMBER 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
NOVEMBER	2019	1,608,203	1,835,329	(227,126)	N/A	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	1,618,274	1,938,415	(320,141)	(10,398)	83.5%
JULY	2020	1,660,410	2,047,070	(386,660)	(66,519)	81.1%
AUGUST	2020	1,670,560	1,964,217	(293,657)	93,003	85.0%
SEPTEMBER	2020	1,649,612	1,955,391	(305,779)	(12,122)	84.4%
OCTOBER	2020	1,630,503	1,914,613	(284,110)	21,669	85.2%
NOVEMBER	2020	1,707,437	1,979,722	(272,285)	11,825	86.2%

PENSION ASSET AND LIABILITY RETURNS

END OF MONTH		ASSET RETURNS			LIABILITY RETURNS	
	YEAR	MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
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	1.37%	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	-0.96%	4.53%	2.57%	-0.15%	11.27%
OCTOBER	2020	-0.86%	3.64%	2.71%	-1.78%	9.29%
NOVEMBER	2020	5.03%	8.85%	2.47%	3.70%	13.33%

Milliman Milliman

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

CONTACT
Zorast Wadia
zorast.wadia@milliman.com

milliman.com

©2020 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.