

Milliman analysis: Funded status improves in April by \$20 billion

The Milliman 100 PFI funded ratio increases to 91.6%, discount rates rise, investment performance declines

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The funded status of the 100 largest corporate defined benefit pension plans increased by \$20 billion during April as measured by the Milliman 100 Pension Funding Index (PFI). The deficit fell to \$140 billion from \$159 billion at the end of March due to an increase in the benchmark corporate bond interest rates used to value pension liabilities. The funded status improvement was partially offset by investment losses during April. As of April 30, the funded ratio rose to 91.6%, up from 90.6% at the end of March.

April's 0.11% investment loss decreased Milliman 100 PFI asset values by \$6 billion to \$1.523 trillion at the end of April. 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 Milliman 100 PFI projected benefit obligation (PBO) decreased by \$26 billion during April to \$1.663 trillion. The change resulted from an increase of 12 basis points in the monthly discount rate to 4.03% for April from 3.91% in March.

HIGHLIGHTS

	\$ BILLION			FUNDED PERCENTAGE
	MV	PBO	FUNDED STATUS	
MAR 2018	1,530	1,689	(159)	90.6%
APR 2018	1,523	1,663	(140)	91.6%
MONTHLY CHANGE	(6)	(26)	+20	1.0%
YTD CHANGE	(32)	(113)	+81	4.0%

Note: Numbers may not add up precisely due to rounding

Over the last 12 months (May 2017–April 2018), the cumulative asset gain for these pensions has been 6.17% and the Milliman 100 PFI funded status deficit has improved by \$107 billion. The primary reason for the increase in the funded status deficit has been a moderate uptick in discount rates over the past 12 months. Discount rates experienced an increase over the last 12 months moving from 3.88% as of April 30, 2017, to 4.03% a year later. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 91.6% from 85.5%.

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

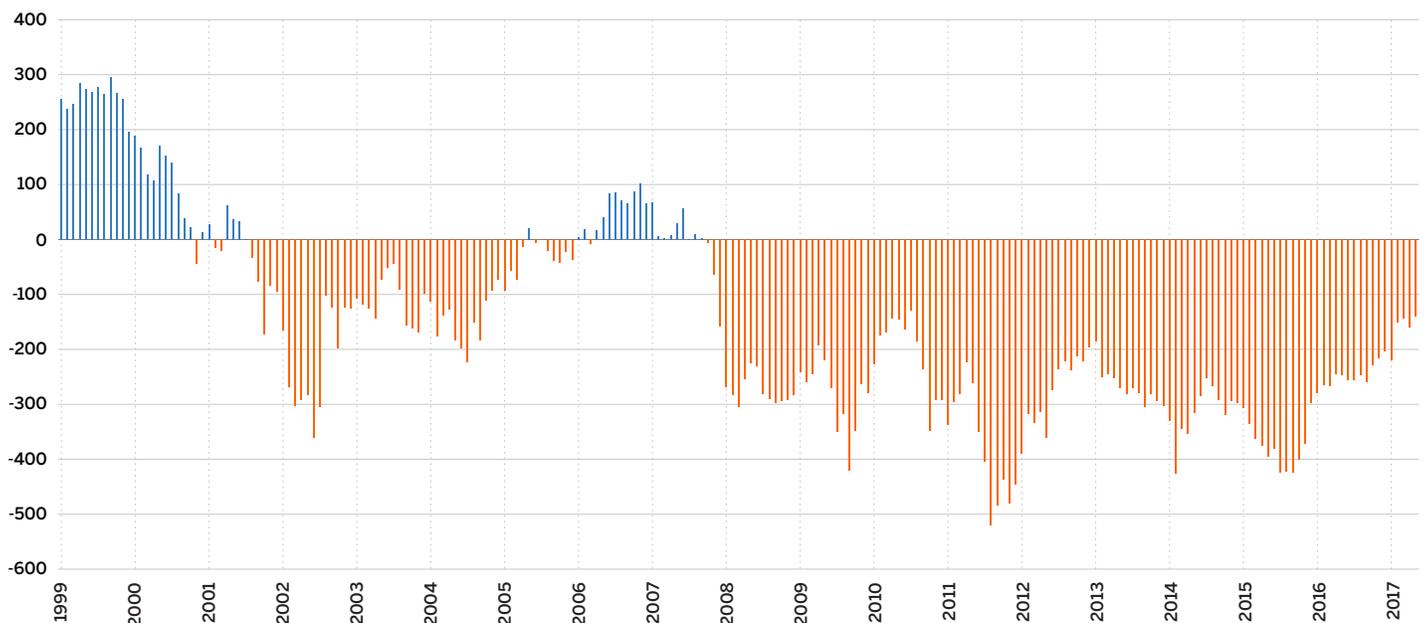
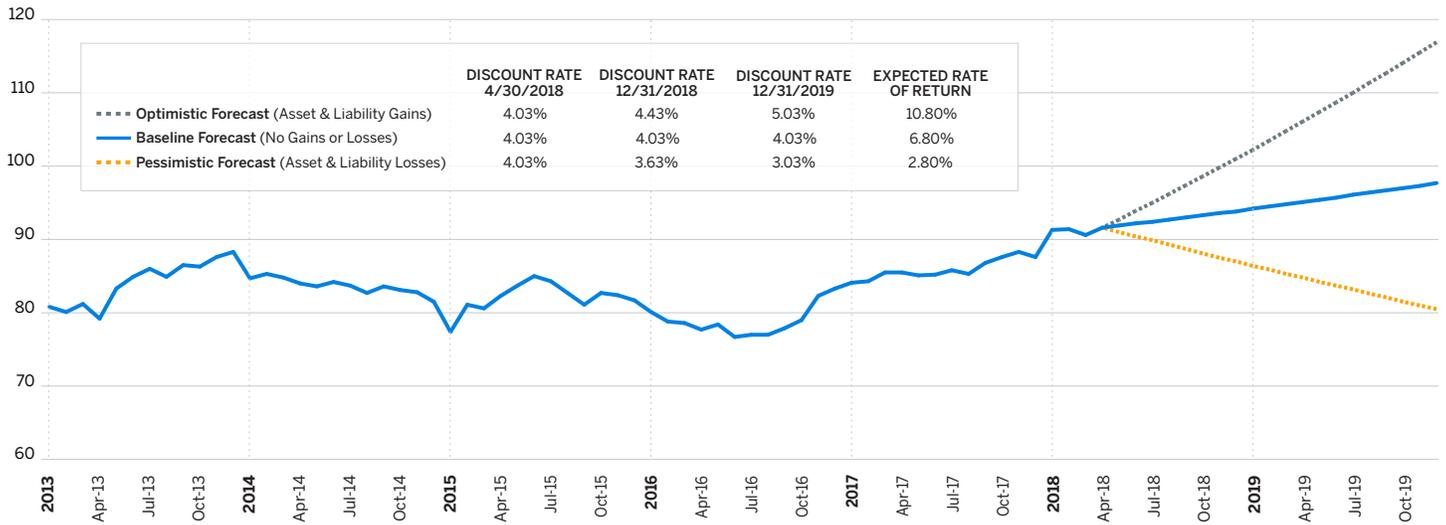


FIGURE 2: MILLIMAN 100 PENSION FUNDING INDEX — PENSION FUNDED RATIO



PFI Reconciliation

This May PFI publication reflects the annual update of the Milliman 100 companies and their 2017 financial figures included in the Milliman 2018 Pension Funding Study. The revised December 31, 2017, pension obligation was \$3 billion lower than we previously projected after accounting for lump-sum window settlements and pension risk transfers (de-risking activities) and updated mortality assumptions as of year-end 2017.

The actual PFI asset value was \$64 billion higher than projected due to actual contributions for 2017, which were higher than expected. In fact, as reported by the 2018 Milliman Pension Funding Study, 2017 fiscal year contributions were \$62 billion, and this represented a 45% increase over the prior year. The higher plan sponsor contributions may have been in response to tax reform, which lowered the corporate tax deductibility for contributions for future plan years beyond 2017, and may also reflect the desire by many plan sponsors to reduce PBGC premiums applicable to pension plan underfunding. Higher contributions along with better-than-expected investment returns in 2017 led to a large gain in the PFI asset value.

The net adjustments introduced by the Milliman 2018 Pension Funding Study led to a funded status pickup of \$67 billion and a corresponding increase to the funded ratio, bringing it from 84.1% to 87.6% as of December 31, 2017.

2018-2019 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 4.03% were maintained during years 2018 through 2019, we forecast the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$102 billion (funded ratio of 93.8%) by the end of 2018 and a projected pension deficit of \$38 billion (funded ratio of 97.7%) by the end of 2019. For purposes of this forecast, we have assumed 2018 aggregate contributions of \$48 billion and 2019 aggregate contributions of \$52 billion.

Under an optimistic forecast with rising interest rates (reaching 4.43% by the end of 2018 and 5.03% by the end of 2019) and asset gains (10.8% annual returns), the funded ratio would climb to 101% by the end of 2018 and 117% by the end of 2019. Under a pessimistic forecast with similar interest rate and asset movements (3.63% discount rate at the end of 2018 and 3.03% by the end of 2019 and 2.8% annual returns), the funded ratio would decline to 87% by the end of 2018 and 81% by the end of 2019.

MILLIMAN 100 PENSION FUNDING INDEX — APRIL 2018 (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
APRIL	2017	1,451,729	1,698,556	(246,827)	N/A	85.5%
MAY	2017	1,468,172	1,724,992	(256,820)	(9,993)	85.1%
JUNE	2017	1,472,645	1,729,345	(256,700)	120	85.2%
JULY	2017	1,487,497	1,733,915	(246,418)	10,282	85.8%
AUGUST	2017	1,499,742	1,758,756	(259,014)	(12,596)	85.3%
SEPTEMBER	2017	1,510,476	1,739,278	(228,802)	30,212	86.8%
OCTOBER	2017	1,528,861	1,744,652	(215,791)	13,011	87.6%
NOVEMBER	2017	1,540,004	1,744,398	(204,394)	11,397	88.3%
DECEMBER	2017	1,555,287	1,775,721	(220,434)	(16,040)	87.6%
JANUARY	2018	1,576,412	1,727,191	(150,779)	69,655	91.3%
FEBRUARY	2018	1,536,700	1,680,622	(143,922)	6,857	91.4%
MARCH	2018	1,529,506	1,688,946	(159,440)	(15,518)	90.6%
APRIL	2018	1,523,464	1,663,183	(139,719)	19,721	91.6%

PENSION ASSET AND LIABILITY RETURNS

END OF MONTH	YEAR	ASSET RETURNS		DISCOUNT RATE	LIABILITY RETURNS	
		MONTHLY	YEAR-TO-DATE		MONTHLY	YEAR-TO-DATE
APRIL	2017	1.04%	4.01%	3.88%	1.35%	2.68%
MAY	2017	1.14%	5.20%	3.76%	1.88%	4.61%
JUNE	2017	0.31%	5.53%	3.74%	0.57%	5.21%
JULY	2017	1.02%	6.60%	3.71%	0.58%	5.82%
AUGUST	2017	0.83%	7.49%	3.60%	1.74%	7.66%
SEPTEMBER	2017	0.72%	8.26%	3.69%	-0.80%	6.80%
OCTOBER	2017	1.22%	9.58%	3.66%	0.62%	7.46%
NOVEMBER	2017	0.73%	10.38%	3.67%	0.29%	7.78%
DECEMBER	2017	0.99%	11.48%	3.53%	2.10%	10.04%
JANUARY	2018	1.64%	1.64%	3.74%	-2.39%	-2.39%
FEBRUARY	2018	-2.25%	-0.65%	3.96%	-2.34%	-4.67%
MARCH	2018	-0.19%	-0.83%	3.91%	0.86%	-3.85%
APRIL	2018	-0.11%	-0.94%	4.03%	-1.16%	-4.96%

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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