

# Milliman analysis: February's funded status improves as higher discount rates overcome asset investment losses

Milliman 100 PFI funded ratio rises to 87.7%

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The funded status of the 100 largest corporate defined benefit pension plans improved by \$13 billion during February as measured by the Milliman 100 Pension Funding Index (PFI). The funded status deficit narrowed to \$206 billion from \$219 billion at the end of January. February's improvement was due to a higher reduction in plan liabilities (the result of increases in corporate bond interest rates) than plan assets. As of February 28, the funded ratio rose to 87.7%, up from 87.3% at the end of January. Pension plans are off to a good start so far in 2018 with January and February's improvements having reduced the funding deficit by \$75 billion.

Market value of asset losses totaled \$32 billion for February, or 1.82%. The Milliman 100 PFI asset value decreased to \$1.474 trillion from \$1.506 trillion at the end of January. By comparison, the 2017 Milliman Pension Funding Study reported that the monthly median expected investment return during 2016 was 0.57% (7.0% annualized). The expected rate of return for 2017 will be updated in the 2018 Milliman Pension Funding Study, due out in April.

The projected benefit obligation (PBO), or pension liabilities, decreased to \$1.680 trillion at the end of February. The change

## HIGHLIGHTS

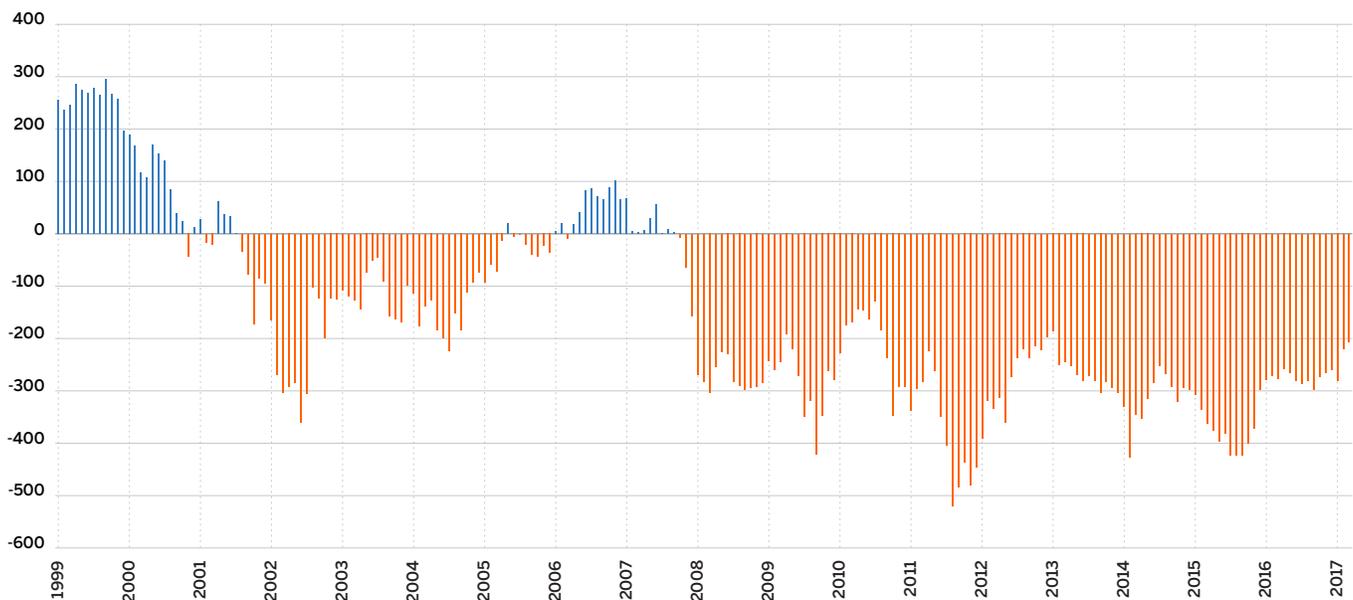
|                | \$ BILLION |       |               |                   |
|----------------|------------|-------|---------------|-------------------|
|                | MV         | PBO   | FUNDED STATUS | FUNDED PERCENTAGE |
| JAN 2018       | 1,506      | 1,725 | (219)         | 87.3%             |
| FEB 2018       | 1,474      | 1,680 | (206)         | 87.7%             |
| MONTHLY CHANGE | (32)       | (46)  | +13           | 0.4%              |
| YTD CHANGE     | (18)       | (93)  | +75           | 3.6%              |

Note: Numbers may not add up precisely due to rounding

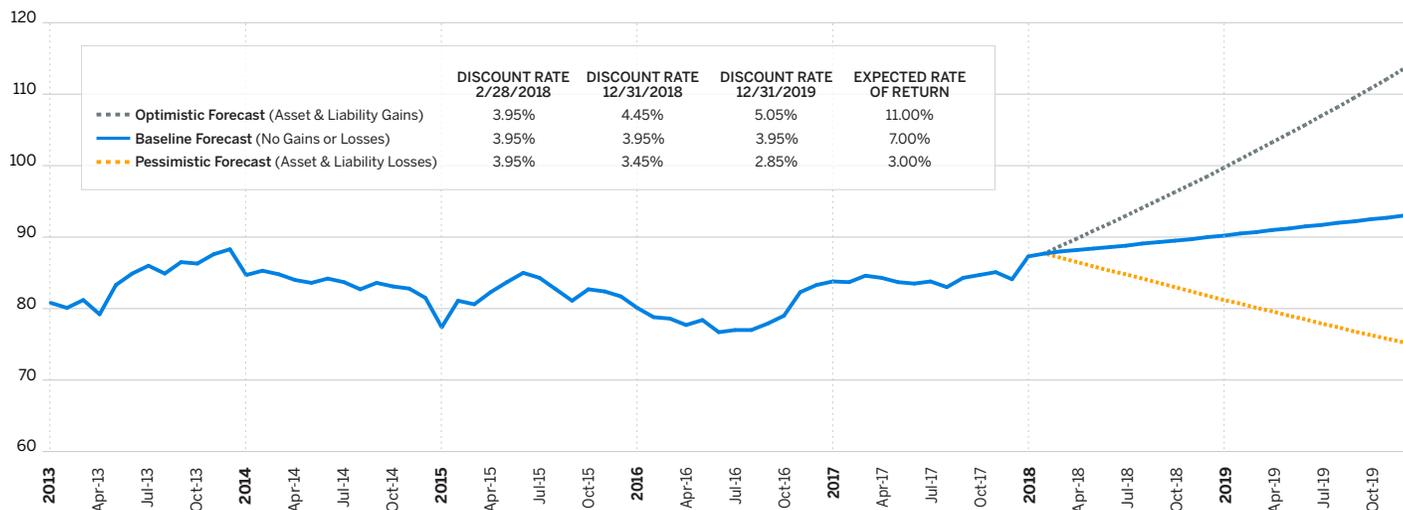
resulted from a 21 basis point increase in the monthly discount rate, to 3.95% for February from 3.74% for January. Coincidentally, the monthly discount rate increase during January was also 21 basis points.

Over the last 12 months (March 2017 – February 2018), the cumulative asset return for these pensions has been 8.14% and the Milliman 100 PFI funded status deficit improved by \$70 billion. The funded ratio of the Milliman 100 companies has increased over the past 12 months to 87.7% from 83.7%.

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



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



The projected asset and liability figures presented in this analysis will be adjusted as part of our annual 2018 Pension Funding Study where pension settlement and annuity purchase activities that occurred during 2017 will be reflected. De-risking transactions generally result in reductions in pension funded status since 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 2017 fiscal year is expected to be available during April of 2018 as part of the 2018 Milliman Pension Funding Study.

### 2018-2019 Projections

If the Milliman 100 PFI companies were to achieve the expected 7.0% median asset return (as per the 2017 pension funding study), and if the current discount rate of 3.95% was 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 \$168 billion (funded ratio of 90.0%) by the end of 2018 and a projected pension deficit of \$118 billion (funded ratio of 93.0%) by the end of 2019. For purposes of this forecast, we have assumed 2018 aggregate contributions of \$39 billion and 2019 aggregate contributions of \$43 billion.

Under an optimistic forecast with rising interest rates (reaching 4.45% by the end of 2018 and 5.05% by the end of 2019) and asset gains (11.0% annual returns), the funded ratio would climb to 99% by the end of 2018 and 114% by the end of 2019. Under a pessimistic forecast with similar interest rate and asset movements (3.45% discount rate at the end of 2018 and 2.85% by the end of 2019 and 3.0% annual returns), the funded ratio would decline to 82% by the end of 2018 and 75% by the end of 2019.

### About the Milliman 100 Monthly Pension Funding Index

For the past 17 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 2016 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2017 Pension Funding Study, which was published on April 6, 2017. 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.

**CONTACT**

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**MILLIMAN 100 PENSION FUNDING INDEX — FEBRUARY 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 |
|--------------|------|------------------------|------------------------------------|---------------|-------------------------|--------------|
| FEBRUARY     | 2017 | 1,421,420              | 1,697,625                          | (276,205)     | N/A                     | 83.7%        |
| MARCH        | 2017 | 1,422,044              | 1,680,752                          | (258,708)     | 17,497                  | 84.6%        |
| APRIL        | 2017 | 1,431,650              | 1,697,629                          | (265,979)     | (7,271)                 | 84.3%        |
| MAY          | 2017 | 1,442,833              | 1,723,815                          | (280,982)     | (15,003)                | 83.7%        |
| JUNE         | 2017 | 1,442,198              | 1,727,929                          | (285,731)     | (4,749)                 | 83.5%        |
| JULY         | 2017 | 1,451,680              | 1,732,259                          | (280,579)     | 5,152                   | 83.8%        |
| AUGUST       | 2017 | 1,458,542              | 1,756,836                          | (298,294)     | (17,715)                | 83.0%        |
| SEPTEMBER    | 2017 | 1,463,876              | 1,737,142                          | (273,266)     | 25,028                  | 84.3%        |
| OCTOBER      | 2017 | 1,476,543              | 1,742,272                          | (265,729)     | 7,537                   | 84.7%        |
| NOVEMBER     | 2017 | 1,482,135              | 1,741,780                          | (259,645)     | 6,084                   | 85.1%        |
| DECEMBER     | 2017 | 1,491,641              | 1,772,814                          | (281,173)     | (21,528)                | 84.1%        |
| JANUARY      | 2018 | 1,505,998              | 1,725,192                          | (219,194)     | 61,979                  | 87.3%        |
| FEBRUARY     | 2018 | 1,473,817              | 1,679,633                          | (205,816)     | 13,378                  | 87.7%        |

**PENSION ASSET AND LIABILITY RETURNS**

| END OF MONTH | YEAR | ASSET RETURNS |              | DISCOUNT RATE | LIABILITY RETURNS |              |
|--------------|------|---------------|--------------|---------------|-------------------|--------------|
|              |      | MONTHLY       | YEAR-TO-DATE |               | MONTHLY           | YEAR-TO-DATE |
| FEBRUARY     | 2017 | 1.68%         | 2.52%        | 3.88%         | 1.79%             | 1.98%        |
| MARCH        | 2017 | 0.41%         | 2.94%        | 3.96%         | -0.65%            | 1.32%        |
| 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 | 1.29%         | 1.29%        | 3.74%         | -2.37%            | -2.37%       |
| FEBRUARY     | 2018 | -1.82%        | -0.55%       | 3.95%         | -2.31%            | -4.62%       |