

Analysis shows multiemployer pension funded status improved slightly in 2016

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Welcome to Milliman's Spring 2017 Multiemployer Pension Funding Study. This study reports on the estimated funded status of all U.S. multiemployer plans as of December 31, 2016, and shows the change in funding levels from June 30, 2016.

Key findings

- The aggregate funded percentage for multiemployer plans is estimated to be 77% as of December 31, 2016, compared with 76% as of June 30, 2016.
- The estimated 2016 calendar year investment return for our simplified portfolio was about 7.70%, which would produce a slight gain versus most plans' investment return assumptions.
- Plans facing more severe funding challenges only spend about 38 cents of each contribution dollar on new benefit accruals, while spending about 50 cents of every dollar to pay down existing shortfalls.
- Critical plans will need persistent strong returns to achieve appreciable improvement in their funded status.

Current funded percentage

Figure 1 shows that the overall funding shortfall for all plans declined by about \$4 billion for the six-month period ending December 31, 2016, while the aggregate funded percentage increased slightly, from 76% to 77%.

FIGURE 1: FUNDED PERCENTAGE, ALL MULTIEMPLOYER PLANS* (IN \$ BILLIONS)

	6/30/2016	12/31/2016	CHANGE
LIABILITY FOR ACCRUED BENEFITS	\$621	\$634	\$13
MARKET VALUE OF ASSETS	471	488	17
SHORTFALL	\$150	\$146	(\$4)
FUNDED PERCENTAGE	76%	77%	1%

*Based on plans with complete IRS Form 5500 filings. Includes 1,291 plans as of June 30, 2016, and 1,290 plans as of December 31, 2016.

The key assumption here is the discount rate used to measure liabilities, with each plan using its actuary's assumed return on assets. Assumed returns are generally between 6% and 8%, with a weighted average assumption for all plans equal to 7.43%, down from 7.45% from our prior study.

Historical funded percentage

Figure 2 provides a historical perspective on the aggregate funded percentage of all multiemployer plans since the end of 2007 on a market value basis. Multiemployer plans had made progress through the end of 2013. The aggregate funded percentage had climbed up to an 80% funded level, which reflects favorable investment returns as well as contribution increases (including withdrawal liability collections) and benefit reductions enacted by plans as they responded to the global financial crisis of 2008. In 2014 and 2015, however, plans lost some ground in the wake of less than favorable investment returns. Our simplified portfolio averaged about 3.13% over the two-year period. In general, plans saw slight improvement during 2016, with our simplified portfolio realizing an approximate 7.70% return during the year. The funded status of these plans continues to be driven largely by investment performance.

FIGURE 2: AGGREGATE MULTIEMPLOYER PLAN HISTORICAL FUNDED PERCENTAGE – MARKET VALUE BASIS

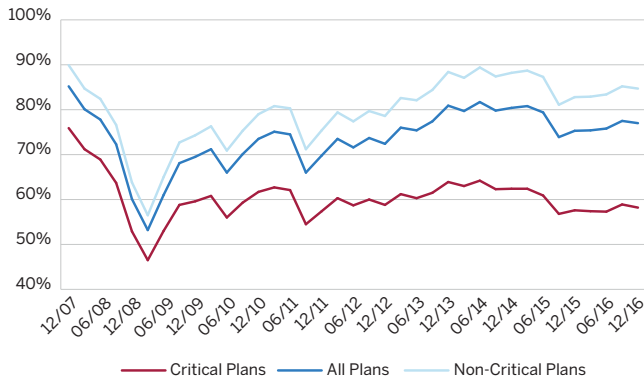


Results vary by plan: The poor get poorer

Aggregate funding levels of multiemployer plans declined over the two-year 2014-2015 period, and saw slight improvement during 2016. As would be expected, however, individual plans are affected in different ways.

Figure 3 shows the historical funded percentage of all multiemployer plans since the end of 2007 separately for plans that are critical now (red line), plans that are not critical now (light blue line), and all plans (dark blue line). As we have noted in previous studies, the gap between the funded percentages of critical versus noncritical plans has widened considerably since the market crash. The aggregate funded percentage of critical plans remains under 60% as of December 31, 2016, while the funded percentage of noncritical plans is nearly 85%. The substantially lower asset base of critical plans (in relation to their liabilities) requires much stronger asset returns for these plans to see improvement in their funded percentages. That fact, coupled with severe negative cash flow positions, has proven too difficult for critical plans to realize significant recovery in their funded percentages from their low points after the 2008 crash. This is evident when looking at the red line in Figure 3, which shows no appreciable increase since the end of 2009. On the flipside, the funded percentage for noncritical plans continues to increase slightly.

FIGURE 3: HISTORICAL FUNDED PERCENTAGE SINCE 2007



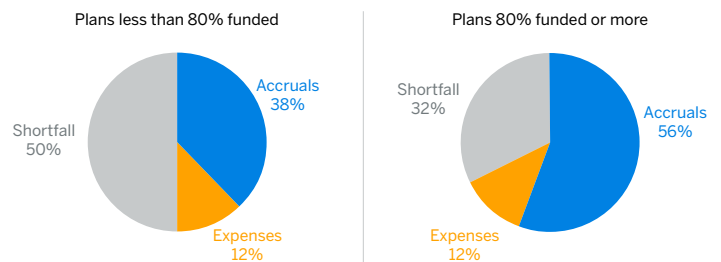
Where are the contributions going?

It's likely no surprise that plans facing more severe funding challenges are not able to provide as large of a benefit accrual as they once did. In addition, these plans may be contributing much higher amounts than they used to. We analyzed the breakdown of contributions for two groups of plans in Figure 4. We grouped all plans under 80% funded because they are currently facing some degree of funding challenge. These plans are likely to be operating under a funding improvement or rehabilitation

plan that has either lowered future benefit accruals for active members, or has increased contributions required from employers. In total, there are about 560 such plans. For comparison purposes, we grouped the remaining plans (those 80% funded or better), of which there were approximately 730.

Figure 4 shows the portion of contributions being applied toward benefit accruals for active members, toward plan operating expenses—which include Pension Benefit Guaranty Corporation (PBGC) premiums—or toward paying down the underfunding of the plan.

FIGURE 4: PERCENTAGE OF CONTRIBUTIONS ALLOCATED TO ACCRUALS, EXPENSES, OR PLAN UNDERFUNDING



As the charts in Figure 4 show, plans facing more severe funding challenges (left pie) currently use less than 40 cents on the dollar toward the purchase of additional accruals for active members, and are spending about half of every contribution dollar to pay down existing shortfalls.

Diving deeper into the numbers, Figure 5 shows that, of the contribution dollars going toward paying down the underfunding, healthier plans are currently paying a substantially larger percentage of the shortfall (19%), which will result in more accelerated payoffs, allowing more contributions in the future to go toward benefit accruals once the underfunding has been completely paid off. On the other side of the story, poorly funded plans are currently struggling to pay down shortfalls. By only paying 6% of the existing balance of underfunding in a given year, the shortfall likely will grow, meaning these plans will need superior asset returns or some combination of higher contributions and/or lower benefits just to be able to maintain the current levels of funding.

FIGURE 5: PAYING DOWN THE SHORTFALL

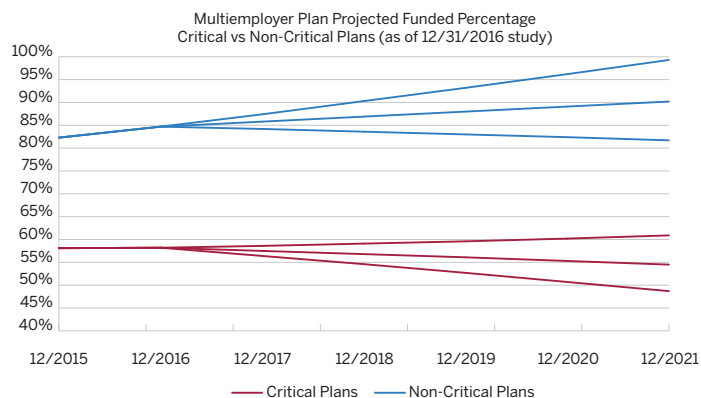
PLANS WITH FUNDED PERCENTAGE	ANNUAL CONTRIBUTION CURRENTLY ALLOCATED TO PAY UNDERFUNDING (\$BILLIONS)	CURRENT BALANCE OF TOTAL UNDERFUNDING (\$BILLIONS)	PERCENTAGE OF UNDERFUNDING CURRENTLY BEING PAID DOWN
UNDER 80%	7.0	122.9	6%
80% OR OVER	4.3	22.8	19%

What lies ahead?

So how can an unhealthy plan improve its outlook? What type of asset performance does it need? Figure 6 shows the impact of a range of possible asset returns for the next five years (years ending December 31, 2017, through December 31, 2021). As we did earlier in Figure 3, we have separated plans that are critical now (red lines) from plans that are not critical now (light blue lines).

For each set of plans, we show three alternative asset returns going forward. The resulting picture looks like two rakes. The baseline return for each set (the middle prong of each rake) assumes that returns are equal to each plan's actuarial assumption. The other two prongs illustrate each plan's assumption plus or minus 2% each year. Consistent with the storyline above, healthier plans are improving their funded status as long as asset returns meet or exceed expectations. However, critical plans show declines if expectations are met, and only minimal improvement when we model consistent 2% excess returns. For critical plans to see noticeable improvement in their funded status, even more excess returns would be needed.

FIGURE 6: IMPACT OF VARIOUS RETURNS FROM JANUARY 2017 TO DECEMBER 2021



ABOUT THIS STUDY

The results in this study were derived from publicly available Internal Revenue Service (IRS) Form 5500 data as of February 2017 for all multiemployer plans, numbering between 1,200 and 1,300, depending on the measurement date used. Data for a limited number of plans that clearly appeared to be erroneous was modified to ensure the results were reasonable and a sufficiently complete representation of the multiemployer universe.

Liability amounts were based on unit credit accrued liabilities reported on Schedule MB, and were adjusted to the relevant measurement dates using standard actuarial approximation techniques. For this purpose, each plan's monthly cash flow, benefit cost, and actuarial assumptions were assumed to be constant throughout the year and in the future. Projections of asset values to the measurement date reflect the use of constant cash flows and monthly index returns for a simplified portfolio comprised of 45% U.S. equities, 20% international equities, and 35% U.S. fixed income investments.

Significant changes to the data and assumptions could lead to much different results for individual plans but would likely not have a significant impact on the aggregate results or the conclusions in this study.

As we often state in these studies, the future health of most multiemployer plans is very much dependent on investment performance. For critical plans, persistent strong returns will likely be needed to recover. For critical and declining plans, prospects for Multiemployer Pension Reform Act (MPRA) benefit suspensions and/or partitions may offer some relief. As of the writing of this study, only one plan has been approved by the U.S. Treasury and its participants to suspend benefits under MPRA. It is still too early to gauge the impact that future MPRA applications and approvals might have on the health of those plans and their prospects for recovery.

The multiemployer pension plan universe continues to face significant pressure, with many of the most troubled plans on track to rely on assistance from the PBGC, which is currently facing its own dire financial issues. Healthier plans face the risk of increased PBGC premiums and trustees for these plans need to be vigilant in monitoring financial trends and risk exposure. Trustees may also want to explore potential plan design changes such as variable annuity plans (e.g., a Milliman Sustainable Income Plan™), which could mitigate the negative impact of future market volatility.

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