Analysis shows multiemployer pension funded status has been steady so far in 2016

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Welcome to Milliman's Fall 2016 Multiemployer Pension Funding Study. This study reports on the estimated funded status of all U.S. multiemployer plans as of June 30, 2016, and shows the change in funding levels from December 31, 2015.

Key findings

- The aggregate funded percentage for multiemployer plans is estimated to be 76% as of June 30, 2016, compared with 75% as of December 31, 2015.
- For most multiemployer pension plans, estimated 2016 investment experience through June 30, 2016, was over 3%, just slightly below expected returns.
- About one-half of the total underfunding for multiemployer plans continues to be attributable to plans that are less than 65% funded.
- Of the 300+ critical plans, about 40% are projected to be insolvent at some point. Can these plans be helped by benefit suspension provisions of the Multiemployer Pension Reform Act of 2014 (MPRA)?

Current funded percentage

Figure 1 shows that the overall funding shortfall for all plans declined by about \$1 billion for the six-month period ending June 30, 2016, while the aggregate funded percentage increased slightly from 75% to 76%.

FIGURE 1:	FUNDED PERCENTAGE, ALL MULTIEMPLOYER PLANS* (IN \$ BILLIONS)			
		12/31/2015	6/30/2016	CHANGE
LIABILITY FOR ACCRUED BENEFITS		\$612	\$621	\$9
MARKET VALUE OF ASSETS		<u>461</u>	<u>471</u>	<u>10</u>
SHORTFALL		\$151	\$150	(\$1)
FUNDED PERCENTAGE		75%	76%	1%

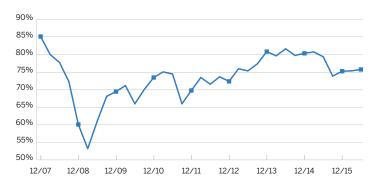
*Based on plans with complete IRS Form 5500 filings. Includes 1,286 plans as of December 31, 2015, and 1,291 plans as of June 30, 2016.

The key assumption here is the discount rate used to measure liabilities, with each plan using its actuary's assumed return on assets assumption. Assumed returns are generally between 6% and 8%, with a weighted average assumption for all plans of just below 7.5%. It is noteworthy that about 200 plans have decreased their assumed rate of return over the last several years, which contributes to an increase in the shortfall.

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. Since the end of 2013, however, plans have not been able to make additional progress in the wake of less-than-favorable investment returns in 2014, 2015, and the first half of 2016. In general, 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



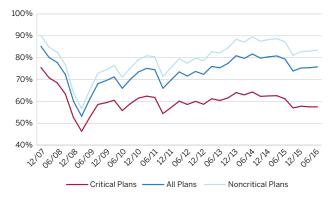


Results vary by plan

Aggregate funding levels of multiemployer plans have declined over the past two years, but as might be expected, 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). We see that the gap between the funded percentage of critical versus noncritical plans has widened considerably since the market crash, which left both groups of plans less than 60% funded. The aggregate funded percentage of critical plans remains under 60% as of June 30, 2016, while the funded percentage of noncritical plans is in excess of 80%. Although critical plans have crawled above the 60% threshold several times since 2009, cash flow needs have made it difficult for these plans to build any momentum. even after experiencing periods with more favorable market conditions. Since 2015, the estimated funded percentage projection for critical plans has leveled off while the line for the non-critical projection plans has increased slightly.

FIGURE 3: HISTORICAL FUNDED PERCENTAGE - MULTIEMPLOYER PLANS SINCE 12/31/2007



Can the most poorly funded plans recover?

Since our first study as of December 31, 2013, the percentage of plans in critical status has remained consistent at about 25% of all plans. The number of plans that are less than 65% funded showed little change and continues to account for more than half of the aggregate deficit for all multiemployer plans of \$150 billion. Starting with 2014 Internal Revenue Service (IRS) Form 5500 filings, new information is provided for critical plans. We have reviewed the new statistics for the 320 critical plans in our study for which this information is available. Of these, 40% are projected to become insolvent at some point, while the remainder are projected to emerge from critical status in the future. Figure 4 shows the aggregate funding shortfall for the plans that are in critical status and projected to become insolvent, broken down by the year of projected insolvency.

FIGURE 4: AGGREGATE FUNDING SHORTFALL FOR PLANS PROJECTED TO BECOME INSOLVENT, BY YEAR OF PROJECTED INSOLVENCY (IN \$ BILLIONS)

YEAR OF INSOLVENCY	NUMBER OF PLANS	FUNDING SHORTFALL
PRIOR TO 2025	47	\$7
2025 – 2034	50	27
2035 AND AFTER	<u>30</u>	<u>7</u>
TOTAL	127	\$41

Looking ahead, the \$41 billion shortfall for plans headed toward insolvency is likely to increase, short of sustained excess returns, significant contributions increases, or benefit suspensions that may be adopted under MPRA. While some plans may become eligible for suspensions and decide to pursue these changes, it is still too early to gauge the impact they might have on the health of those plans or whether they can gain approval from the U.S. Treasury Department first, and then their participants.

Notably, the Central States Teamster Fund application for suspensions was denied by the Treasury; therefore, the fund will not make another application. This fund alone represents almost \$20 billion of underfunding, approximately half of the above \$41 billion.

Figure 5 shows the \$37 billion shortfall for plans that are projected to emerge. If the projection assumptions for these plans are met, we may see a reduction in the shortfall for such plans, especially those that are expected to emerge prior to 2025.

FIGURE 5: AGGREGATE FUNDING SHORTFALL FOR PLANS PROJECTED TO EMERGE FROM CRITICAL STATUS, BY YEAR OF PROJECTED EMERGENCE (IN \$ BILLIONS)

YEAR OF EMERGENCE	NUMBER OF PLANS	FUNDING SHORTFALL
PRIOR TO 2025	118	\$21
2025 – 2034	38	6
2035 AND AFTER	<u>37</u>	<u>10</u>
TOTAL	193	\$37

Note that the information in Figures 4 and 5 is not representative of the status of all critical plans today. These results are largely based on projections from 2014 and thus do not reflect the less-than-favorable investment returns since then.

Where do we go from here?

So what happens if market returns do not improve? Can funds survive without better asset performance? Figure 6 shows the impact of a range of possible asset returns for the year ending December 31, 2016. With a variety of alternative returns, the results look like a rake.

In the aggregate, the return for the rest of 2016 needs to be 3% to remain at the current 76% funded percentage level. A strong 9% return for the second half of the year would result in aggregate funding above 80%, while a poor -3% return would pull it down toward 70%.

The return for our sample portfolio for the third quarter of 2016 was over 3%. That result has the potential to place the aggregate funded percentage on the middle prong at the end of 2016. However, there is still a long way to go and the U.S. presidential election or any other number of world events before the end of the year could impact the outcome of the returns.

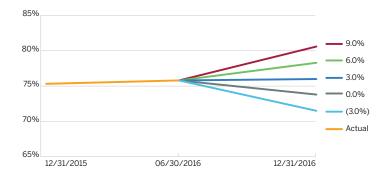
What lies ahead?

The future health of most multiemployer plans very much depends on investment performance. For critical plans, persistent strong returns will likely be needed to recover. For critical and declining plans, prospects for MPRA benefit suspensions and/or partitions may offer some relief. Failing that, such plans may end up relying on assistance from the Pension Benefit Guaranty Corporation (PBGC), which is facing its own financial issues. Healthier plans face the risk of increased PBGC premiums and trustees for these plans need to be vigilant in monitoring the financial trends and risk exposures. Trustees may also want to explore potential plan design changes such as variable annuity plans (e.g., a Sustainable Income Plan™), which could mitigate the negative impact of future market volatility.

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FIGURE 6: IMPACT OF VARIOUS RETURNS FOR JULY 2016 TO DECEMBER 2016 ON AN AGGREGATED BASIS



ABOUT THIS STUDY

The results in this study were derived from publicly available IRS Form 5500 data as of August 2016, 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. Projections of asset values 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.

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