# Multiemployer plans' investments performed well in 2013, but the impact of negative returns in 2008 continues to haunt. Why are so many plans still stuck in the mud?

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Welcome to Milliman's inaugural Multiemployer Pension Funding Study. This study reports on the estimated funded status of all U.S. multiemployer plans as of December 31, 2013, plus the change in funding levels from December 31, 2012. We also dig deeper to find out why many plans continue to struggle from the effects of the 2008 financial crisis despite recent favorable investment returns.

## KEY FINDINGS

- Favorable 2013 investment performance led to significant improvements in multiemployer plan funding levels.
- With the combination of favorable investment experience, contribution increases, and benefit reductions, funding levels for multiemployer plans on an aggregated basis have nearly returned to pre-crash funding levels.
- More mature plans have struggled to recover from the financial crisis.
- Multiemployer plans have been and will continue to be heavily dependent on asset performance.

## CURRENT FUNDED PERCENTAGE

Strong investment performance during 2013 triggered a notable improvement in the aggregate funded status of multiemployer plans over the past year. Figure 1 shows that the overall funding shortfall for all plans declined by $45 billion for the year ending December 31, 2013, and the aggregate funded percentage increased by 9% from 72% to 81%.

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

| | 12/31/2012 | 12/31/2013 | CHANGE |
|---|---|---|---|
| LIABILTY FOR ACCRUED BENEFITS | $571 | $585 | $14 |
| MARKET VALUE OF ASSETS | 414 | 473 | 59 |
| SHORTFALL | 157 | 112 | (45) |
| FUNDED PERCENTAGE | 72% | 81% | 9% |

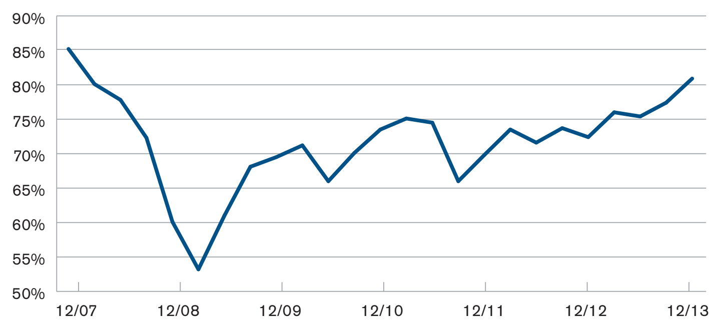
*Based on plans with complete IRS Form 5500 filings. Includes 1,287 plans as of December 31, 2012, and 1,294 plans as of December 31, 2013.

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 7.5%.

## 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 were more than 85% funded prior to the 2008 financial crash, recovering from an unfavorable investment environment in the early 2000s and funding rules that did not allow plans to build large surpluses. The graph in Figure 2 shows that these plans were subject to the same market forces in 2008 and early 2009 that affected all retirement plans, including 401(k) plans and other similar savings vehicles as well as the personal savings of millions of Americans. While there has been significant recovery from the low point in 2009, the aggregate funded percentage has not yet returned to pre-2008 levels. However, even with the unprecedented market collapse in 2008, multiemployer plan funding levels have steadily improved and are once again over 80% funded.

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




The significant improvement in aggregate funded status since early 2009 reflects not only favorable investment returns, but also contribution increases (including withdrawal liability collections) and benefit reductions enacted by plans as they responded to the financial crisis. One common misconception is that plans should be back on their feet because the stock market has surpassed its levels from before the financial crisis. However, liabilities have been growing at 7.5% per year on average, so market prices would need to be about 50% higher today to have kept pace with liability growth.

## NOT ALL PLANS ARE IN THE SAME BOAT

While aggregate funding levels of multiemployer plans have nearly returned to pre-crash levels, the financial crisis has affected individual plans in different ways. Figure 3 looks at the funded percentage distribution of individual plans.

**FIGURE 3: DISTRIBUTION OF PLAN FUNDED PERCENTAGE – MARKET VALUE BASIS**

| | PERCENTAGE OF PLANS | | | |
|---|---|---|---|---|
| FUNDED % OF | 12/31/2007 | 12/31/2008 | 12/31/2012 | 12/31/2013 |
| 100% OR MORE | 26% | 2% | 11% | 22% |
| 80% TO 100% | 45 | 9 | 31 | 41 |
| 65% TO 80% | 20 | 31 | 34 | 22 |
| LESS THAN 65% | 9 | 58 | 24 | 15 |
| MEDIAN FUNDED % | 89% | 63% | 77% | 86% |

Similar to the aggregate funding levels shown in Figure 2, Figure 3 shows that the median multiemployer funded percentage of 86% as of December 31, 2013, has nearly recovered to its pre-crash level of 89%. However, it also shows that the proportion of plans that are under 80% funded has increased from 29% to 37%.

In addition, some plans that have nearly returned to their pre-crash funding levels are finding that their financial outlooks have worsened nonetheless, which is due to other factors such as increasing plan maturity or low employment levels. To understand this dynamic, it is necessary to look beyond funded percentages.

## FACTORS CONTRIBUTING TO FINANCIAL HEALTH

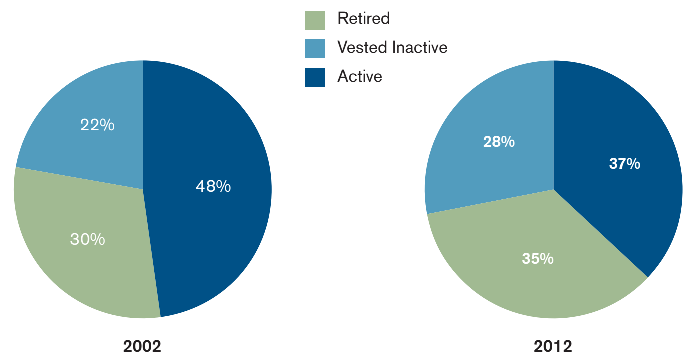
While funded percentage is certainly an important measure, it is not sufficient on its own to gauge financial health. So what does make a plan healthy or unhealthy? What is keeping some plans from recovering to the funding levels trustees and participants would hope for? There is no single definitive measure, so we examined several for this study.

### Plans are becoming more mature

One of the primary challenges facing traditional defined benefit (DB) plans is that they have become more mature and have less ability to recover from poor experience. One of the simplest measures of plan maturity is the distribution of the participant population between those who are still actively working and those who are inactive—either pensioners in pay status or vested inactive participants with a right to a deferred benefit. Figure 4 shows how the distribution of multiemployer plan participants in the aggregate changed from 2002 to 2012.

From 2002 to 2012, the active population has decreased from 48% to 37% with a corresponding increase in the size of the inactive population. As a plan matures there are relatively fewer participants on whose behalf contributions are being made into pension funds, with an ever-growing level of participants entitled to current or future benefits putting a significant financial strain on these funds.

**FIGURE 4: DISTRIBUTION OF MULTIEMPLOYER PARTICIPANTS**




### Mature plans struggle to recover from poor experience

By itself, a relatively small proportion of active participants does not mean a plan is in poor financial health. However, as a plan becomes more mature, contributions become relatively small compared with the size of the plan's assets and liabilities, and so contribution increases are less effective at improving the plan's funded level. Figure 5 compares each plan's zone status to its maturity level as determined by the plan's proportion of active participants. A relatively mature plan would have a lower percentage of active participants while a less mature plan would have a higher level.

**FIGURE 5: MOST RECENT ZONE STATUS BY ACTIVE PROPORTION OF PARTICIPANTS**

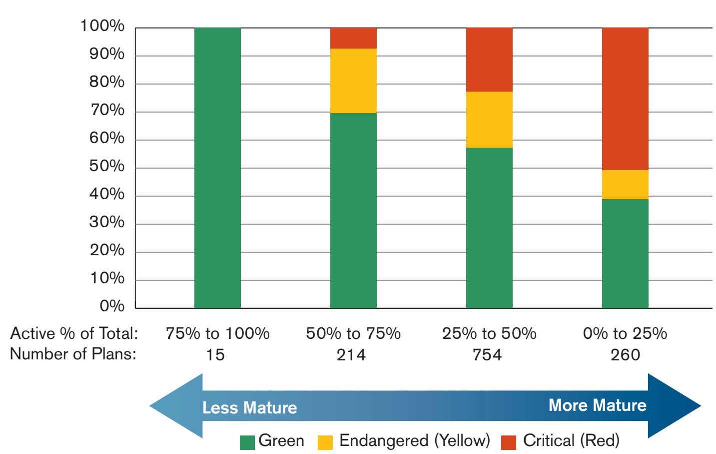



Figure 5 shows that more mature plans are more likely to be in the yellow or red zone than less mature plans are. For more mature plans, the corrective tools available such as contribution increases and benefit reductions for non-retired participants are not as effective, so these plans have had more trouble avoiding the yellow or red zones.

### Negative cash flow aggravates funding problems

One of the primary reasons why more mature plans struggle to recover from poor experience is that benefit payments and plan expenses increasingly outweigh contributions. This "negative cash flow" is expected in the life of all pension plans and is precisely why ERISA required that pension plans be pre-funded. However, negative cash flow magnifies the impact of investment volatility and makes it harder for plans to recover from an underfunded status, as they are forced to liquidate assets to meet obligations before asset values can recover. For all plans in general, and underfunded plans in particular, this situation puts more pressure on investment performance because the net cash outflows deplete the assets available to experience good investment returns.

**FIGURE 6: APPROXIMATE ANNUAL CASH FLOW, ALL PLANS IN AGGREGATE (IN $ BILLIONS)**

| | |
|---|---|
| CONTRIBUTIONS | $24 |
| BENEFIT PAYMENTS | (37) |
| EXPENSES | (3) |
| NET CASH FLOW | ($16) |
| **NET CASH FLOW AS % OF ASSETS** | **3.4%** |

Figure 6 shows that benefit payments plus expenses of multiemployer plans are well in excess of contributions.

### Returns in excess of assumed levels needed to reduce funding shortfalls

For plans in need of financial recovery, the biggest driver is investment performance. To quantify the level of asset performance that plans will need, we have calculated an illustrative "recovery return" for each plan, which approximates the constant rate of return needed over the next 10 years for a plan to reach 100% funding.

Figure 7 shows that while the recovery returns have improved during 2013, more than half of all plans would still need to earn 8% or more over the next 10 years to reach 100% funding. For all plans in aggregate, returns of 8.75% as of December 31, 2013, are needed over the next 10 years as compared with 10.30% as of December 31, 2012. Importantly, even if a plan recovers to 100% funding, the assumed return (7.5% on average) is still needed to stay fully funded.

**FIGURE 7: DISTRIBUTION OF PLAN RECOVERY RETURNS**

| % OF PLANS WITH RECOVERY RETURN OF | 12/31/2012 | 12/31/2013 |
|---|---|---|
| 6% OR LESS | 14% | 25% |
| 6%-8% | 17 | 24 |
| 8%-10% | 25 | 23 |
| 10% OR MORE | 44 | 28 |
| **RECOVERY RETURN, ALL PLANS IN AGGREGATE** | **10.30%** | **8.75%** |

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### ABOUT THE MILLIMAN MULTIEMPLOYER PENSION FUNDING STUDY

The results in this study were derived from publicly available Form 5500 data as of May 2014 for all multiemployer plans, numbering between 1,200 and 1,300, depending on the measurement date used. Data was modified slightly for a limited number of plans 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 60% U.S. equities and 40% 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.