

# 2007 Gains Reversed in First Quarter of 2008



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**Significant gains in pension funded status during 2007.** Building on the gains of 2006, pension funded status improved again during 2007, though for different reasons than in 2006. For the first time in this century, liabilities decreased (from \$1,249 billion to \$1,243 billion) as the result of increases in interest rates (5.75% to 6.20%). Asset gains (actual returns of 9.9% versus expected returns of 8.3%) contributed to an increase in funded status from 99% at the end of 2006 to almost 106% at the end of 2007.

**2007 gains lost during first quarter of 2008.** Asset losses coupled with decreasing interest rates during January 2008 reversed almost all of the 2007 gains, leaving funded status just slightly below 100% at the end of the first quarter. Funded status improved by \$85 billion during 2007 but decreased by an estimated \$62 billion during the first quarter of 2008. These 2008 estimates are based on the new Milliman 100 Monthly Pension Funding Index, which projects the pension funded status from this study. This index reflects the impact of market returns and interest rate changes on pension funded status, utilizing actual reported asset values, liabilities, and asset allocation.

**Pension expense decreases significantly.** With the asset losses of the *perfect storm* of 1999 to 2002 mostly reflected in prior years, pension expense decreased in 2007 to \$19.3 billion (from \$27.3 billion in 2006), increasing the earnings of the companies in our study by \$8 billion. There were 16 companies with *pension income* (i.e., negative expense) in 2007, up from eight in 2006. Pension expense is expected to continue to decline into 2008.

**Fifth straight year of asset gains.** Actual asset returns (9.9%) exceeded expected returns (8.3%) during 2007, the fifth straight year of asset gains. Expected returns have leveled off (8.3% in 2006 and 2007) after declines in prior years. With equity allocations dropping, we expect to see future declines in expected returns.

**Shift in asset allocation away from equities.** The percentage of pension plan assets invested in equities declined from 60% to 55% during 2007, a shift of almost \$60 billion of assets from equities into fixed-income and other investments. This represents the impact of companies adopting various types of liability-driven investment (LDI) strategies, which usually result

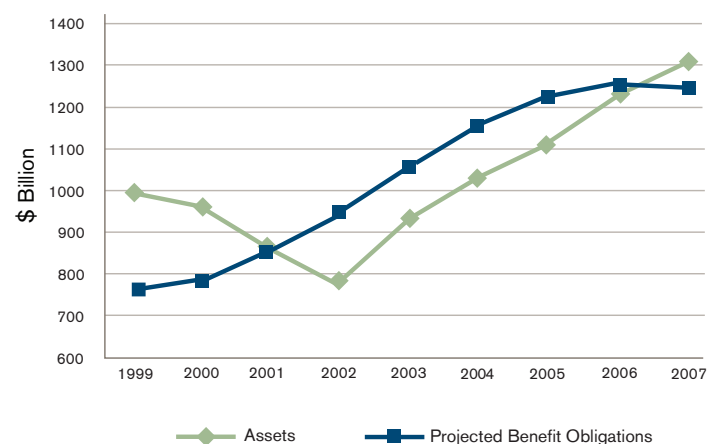
in more fixed-income investments with durations similar to the pension liabilities, with the goal of reducing the future volatility of funded status. We expect this trend to continue into 2008.

**WHO ARE THE MILLIMAN 100 COMPANIES?**  
Our study includes the 100 U.S. public companies with the largest defined benefit pension assets whose 2007 annual reports were released by March 15, 2008.

Milliman has completed its eighth annual study of the financial reports of the 100 largest U.S. public corporations that sponsor defined benefit pension plans. As a group, these companies had pension plan assets of more than \$1.3 trillion and annual pension costs of \$19.3 billion.

**The funded status of the pension plans improved significantly during 2007, exceeding 105%, as increases in discount rates decreased liabilities for the first time in the eight-year history of the Milliman Pension Funding Study. Actual investment returns exceeded expectations, further improving funded status.**

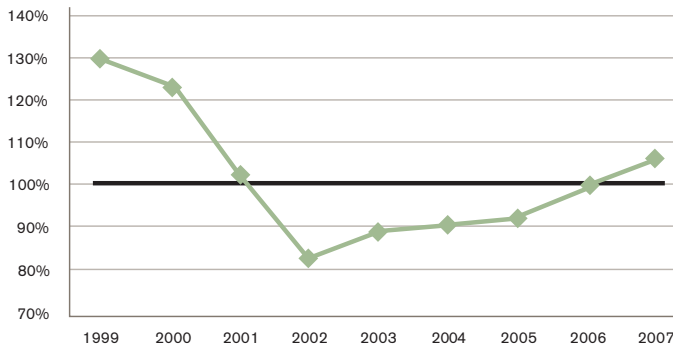
PLAN ASSETS AND LIABILITIES



The results of the Milliman 2008 Pension Funding Study were based on the pension plan accounting information disclosed in the footnotes to the companies' annual reports for the 2007 fiscal year and for previous fiscal years. These figures represent the GAAP accounting information public companies are required to report under Statements of Financial Accounting Standards 87, 88, 106, 132, and 158. In addition to providing the financial information on the funded status of their U.S. qualified pension plans, the footnotes may also include figures for the companies' non-qualified and foreign plans, both of which are often unfunded or subject to different funding standards of those for U.S. qualified pension plans. They do not represent the funded status of the companies' U.S. qualified pension plans under ERISA.

- The aggregate pension deficit (i.e., unfunded projected benefit obligation (PBO)) decreased by \$85.3 billion during 2007, resulting in an aggregate pension surplus of \$70.0 billion for the 100 companies.
- The balance sheets of the companies improved by more than \$100 billion during 2007 when the \$15.5 billion gain in funded status for other post-employment benefit plans (OPEBs) is added to the pension gains.
- Fifty-eight out of the 100 companies reported their PBO funded status in a surplus position at the end of 2007, while only 41 reported a surplus in 2006. These numbers are still moderate compared with the 90 that had surplus assets at the end of 1999 and the 12 that had a surplus at the end of 2002.
- For 2007, PBO funded ratios ranged from the lowest, at 66%, to the greatest, at 216%. For the group, the funded ratio marked its fifth consecutive year of improvement, increasing to an average of 105.6% from the prior year's 98.8%, but still far below the funded ratio of 130.4% for 1999.
- For 95 of the companies, the PBO funded ratio increased during 2007, as compared with 94 that saw their funded ratio increase the previous year.

FUNDED RATIO - ASSETS / PROJECTED BENEFIT OBLIGATION

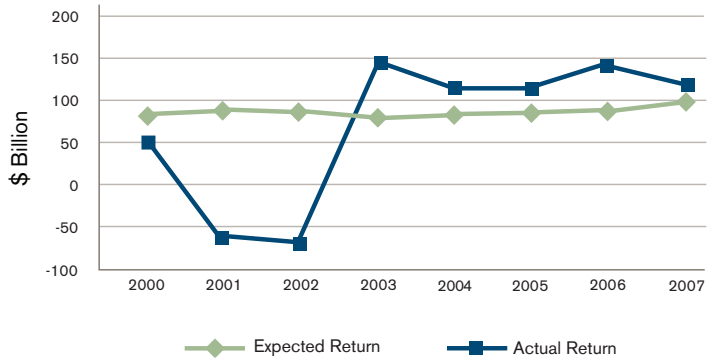


The average actual investment return on pension assets for 2007 was 9.9%, which exceeded expected rates of return for the fifth consecutive year.

- During 2007, the plans earned \$119.0 billion, \$23.8 billion more than the expected return on the assets of the plans, which had an average expected rate of return of 8.3%. Over the past five years, the pension funds have averaged a 13.1% annual rate of return.
- Even with the positive investment results of 2003 through 2007, asset experience still significantly lags the expected return over the past eight years. Since the end of 1999, the plans have earned, on average, an annual investment return of only 6.5%.

Year	2000	2001	2002	2003	2004	2005	2006	2007
Expected Return	9.3%	9.4%	9.2%	8.5%	8.4%	8.4%	8.3%	8.3%
Actual Return	4.3%	(6.3%)	(8.7%)	19.3%	12.4%	11.3%	12.9%	9.9%

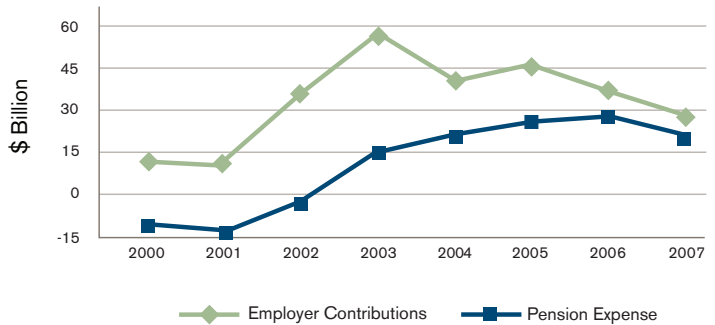
INVESTMENT RETURN ON PLAN ASSETS



Pension expense decreased by \$8 billion during 2007, producing an aggregate pension expense of \$19.3 billion. Prior to this decrease, pension expense had steadily increased for five consecutive years from a net pension income of \$14.3 billion in 2001.

- Only 16 companies reported pension income during 2007, an increase from the nine that reported pension income during 2006. However, this is down from 24 companies in 2003, 43 in 2002, and 61 in 2001.
- Liability gains during 2007 combined with investment gains over recent years to reduce pension expense for the group during 2007.

PENSION EXPENSE/(INCOME) AND CONTRIBUTIONS



- Employer contributions decreased to \$27 billion for 2007, the lowest amount since 2001. By comparison, contributions averaged \$45 billion for the four prior years.

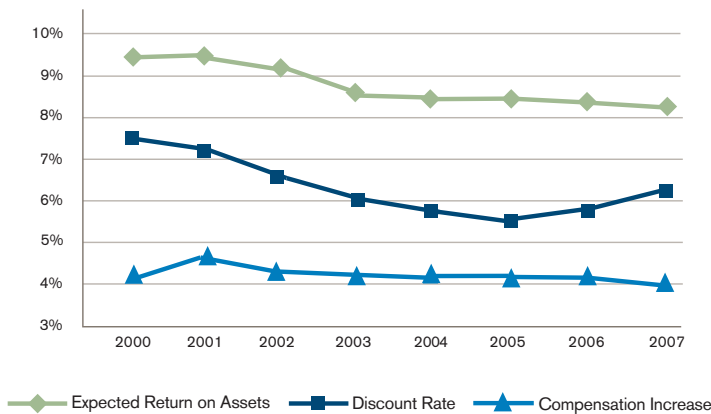
**Discount rates used to measure plan liabilities increased at the end of 2007. This continues the trend started in 2006 after declines in each of the prior six years. The higher discount rates reduced pension liabilities, combining with asset gains during 2007 to make the year a win-win situation for pension funded status.**

- Discount rates increased to a median of 6.2% at the end of 2007 from the low of 5.5% in 2005, after declining incrementally each year from 7.5% at the end of 1999.
- Aided largely by measurement at higher discount rates, pension liabilities actually decreased 0.5% in 2006. This is the first decrease since 1999, compared with an increase of 2.6% in 2006 and the peak increase of 11.5% registered during 2003.

**Overall, companies maintained the same expected rate of return for 2007 (8.3%) as for 2006, after steady declines from the median expected rate of return of 9.5% during 2001.**

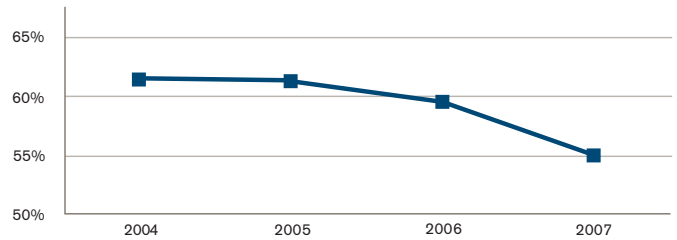
- Only 10 companies in the group continued to use an expected rate of return for 2007 that was at least 9%, down from 12 companies in 2006, 14 in 2005, 17 in 2004, 28 in 2003, 63 in 2002, and 79 in 2001.

**MEASUREMENT ASSUMPTIONS**



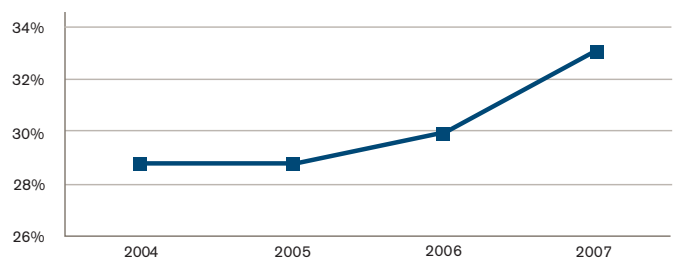
**There were notable changes in asset allocation during 2007. Overall, the companies studied invested 55% of their pension fund assets in equities (down from 60% at the end of 2006), and 33% in fixed-income assets (up from 30% at the end of 2006). The remaining pension assets were invested in other asset classes, including real estate, private equity, hedge funds, and cash equivalents.**

**ASSET ALLOCATION - EQUITIES**



- The changes in asset allocation in 2007 represent a decrease of more than \$59 billion invested in traditional equities and an increase of more than \$41 billion invested in fixed-income assets for this study group. Investments in other asset classes also increased.
- Thirty-one of the 100 companies had notable decreases (i.e., in excess of 5%) in their equity allocations (the primary source of short-term surplus volatility), compared with only 11 that had notable decreases in equity allocations in 2006. We believe that these companies have changed their investment policies to *de-risk* their plans as a result of their improved funded status over the past five years and a greater awareness of the benefits of LDI.
- Of these 31 companies, 11 decreased their equity allocations by more than 10% and 20 decreased their equity allocations by between 5% and 10%. Only three companies increased their equity allocations in excess of 5%.

**ASSET ALLOCATION - FIXED INCOME**



- Equity exposures were reallocated to fixed-income and/or other investments. Twenty-one companies had notable increases in their fixed-income allocations (seven with more than 10%, and 14 between 5% and 10%). Nine companies increased their allocations by at least 5% to other asset classes.
- We believe that many companies have also implemented long-duration fixed-income portfolios to better match the behavioral characteristics of their pension liabilities, thereby helping to reduce surplus volatility and preserve the funded status of their plans.

- Many companies have also started to implement creative *return-generating* investment strategies (e.g., absolute return and portable alpha) to increase excess returns above their pension liability benchmark.

**2007 was a year of reassessment and implementation of new investment policies as pension plan sponsors responded to the new pension funding reform law, new accounting standards, improved funded status, and emerging demographic trends. However, 2008 has started out with losses in funded status. Asset gains or increases in interest rates will be needed to recover the gains realized during 2007.**

- The volatility of pension expense, contribution requirements, and balance sheet amounts remains a significant concern to plan sponsors. The new accounting and funding rules make multiyear projections of funding and LDI strategies a necessary planning tool.
- With another year of investment gains and liability gains in 2007, we expect pension expense to continue to decline in 2008, improving companies' earnings.
- Without increases in interest rates or asset gains during the last three quarters of 2008, pension plans are projected to only slightly surpass 100% funded status by the end of the year, with a projected drop in funded status of more than \$50 billion hitting companies' balance sheets at the end of 2008.
- Under the new funding rules imposed by the Pension Protection Act, plan sponsors may be required to increase pension plan contributions in 2008. However, current accounting rules no longer provide any incentive to *fully fund* the accrued benefit obligation, so contribution increases may be deferred to 2009.
- There is an emerging trend to reduce surplus volatility and preserve funded status by decreasing equity allocations, increasing fixed-income allocations, and implementing long-duration fixed-income portfolios. Companies should conduct comprehensive risk-budgeting studies to quantify the level and sources of investment risk relative to the liability benchmark and to optimize investment portfolio efficiency relative to the liabilities.
- The new pension law and court decisions clarifying the status of cash balance plans may lead to a new wave of conversions of traditional pension plans to hybrid plans.
- The recent trend of freezing defined benefit plans has slowed as companies realize that a defined benefit plan is a valuable tool to attract and retain key employees in a shrinking employment market. Past uncertainties about accounting rule changes, new funding rules, and the legitimacy of cash balance plans have mostly been

resolved. This should continue to lead to increased appreciation for defined benefit pension plans by both employers and employees.

#### ABOUT THE STUDY

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This study includes the 100 U.S. public companies with the largest defined benefit pension assets whose 2007 annual reports were released by March 15, 2008. Private companies, mutual insurance companies, and U.S. subsidiaries of foreign parents were excluded from our study.

#### ABOUT THE AUTHORS

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