Dear clients and readers:

We are pleased to present our annual survey report of retirement programs sponsored by companies in the S&P 1500: How Does Your Retirement Program Stack Up? – 2010.

This report provides a comprehensive review of total and industry group benchmark data from a broad range of perspectives and financial effects. We aim to provide a deeper understanding of the competitive landscape of retirement benefits while also offering insights to help companies manage these programs using the three policy levers of Mercer’s Integrated Retirement Financial Management framework – design, contributions and investment. For additional information or a customized analysis, you can contact your local Mercer office.

As our report illustrates, the aftermath of the severe market downturn that began in 2008 continues to dominate the landscape for retirement benefits. Managing these challenges in a way that harmonizes with your broader business and workforce objectives will require integrating all of the policy levers into the decision-making process.

This year, we have expanded the coverage of our survey to the full S&P 1500, instead of covering only the S&P 500 (as we did in previous years). We have also made all of the information available in an environmentally friendly, convenient and easy to use interactive electronic format that puts the specific details right at your fingertips.

We thank you for your sustained interest in our benchmarking report over the past several years, and we hope that it continues to provide you with interesting insights and helpful analysis for your retirement program planning and management needs.

As always, we welcome your comments and encourage you to contact us.

Sincerely,

Asghar Alam
US Retirement, Risk and Finance Leader

Jeff Schutes
US Investment Consulting Leader
About the authors

This report was written by Steve Alpert, Debra Nice, Mary Stone and Gordon Young, with the help of Mercer consultants and analysts across the United States.

Steve Alpert is a Principal and member of Mercer’s National Retirement Group and of the editorial board for the publication series Mercer Perspective on Retirement. He also serves in the firm’s Actuarial Resource Network and Global Accounting Standards Group, where he works with consultants worldwide on retirement plan accounting issues, pension plan design and financial risk management. He currently chairs the American Academy of Actuaries’ Pension Accounting Committee and is a member of its Pension Practice Council, Financial Reporting Committee and Public Interest Committee. Steve is an Enrolled Actuary (EA), a Fellow of the Society of Actuaries (FSA) and of the Conference of Consulting Actuaries, and a member of the American Academy of Actuaries (MAAA).

Debra Nice, a Principal, is a senior actuary and investment consultant in Mercer’s Financial Strategy Group. Her main focus is asset/liability modeling for defined benefit pension plans, enabling plan sponsors to manage their risks in an integrated framework that considers both the assets and the liabilities. Prior to joining the Financial Strategy Group, Debra was a retirement consultant and actuary working with Mercer’s pension clients. She is a Fellow of the Society of Actuaries (FSA), an Enrolled Actuary (EA) and a CFA Charterholder. Debra holds a bachelor’s degree in actuarial science from Butler University. She is based in Mercer’s Atlanta office.

Mary Stone is a Principal and Senior Retirement Consultant in Mercer’s Detroit office. Her experience includes plan design for all retirement programs; executive benefits; mergers, acquisitions and divestiture due diligence and benefit integration assistance; financial management; and plan administration. Mary has a bachelor’s degree with highest distinction and a master’s degree in mathematics – actuarial science from the University of Michigan, and she is a Fellow of the Society of Actuaries (FSA), an Enrolled Actuary (EA) and a Member of the American Academy of Actuaries (MAAA).

Gordon Young is a Principal and the Retirement Business Market Leader in Mercer’s Charlotte office, where he manages the consulting practice that provides solutions to clients’ retirement plan needs in the Carolinas. Gordon assists clients with plan design, annual actuarial valuations, determination of contribution requirements and accounting costs, plan governance issues, compliance with government regulation and plan financial management reporting as they relate to the pension plans sponsored by our clients. He has also been a member of Mercer’s Financial Strategy Group, which focuses on integrated retirement financial management (iRFM) solutions, since its inception in 2007 and was recently appointed US iRFM Leader for Mercer. Gordon has a bachelor’s degree in economics from Yale University, and he is a Fellow of the Society of Actuaries (FSA), an Enrolled Actuary (EA) and a Member of the American Academy of Actuaries (MAAA).
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**About the survey**
Mercer has completed its annual survey and analysis of the retirement programs sponsored by companies in the S&P 1500, primarily using information reported in 10-K filings for fiscal years ending in 2009. We expanded the survey this year to include the full S&P 1500. Corresponding information for the S&P 500 is also included for comparability with prior surveys.

We benchmark corporate retirement programs in five key dimensions – pension health, materiality, volatility, sustainability and management assumptions/decisions – to help employers evaluate and compare their retirement programs against those of the companies in the S&P 1500 as a whole or in various economic sectors. Employers can use the three policy levers of Mercer’s Integrated Retirement Financial Management (iRFM) framework – design, contributions and investment – to manage the financial performance of their pension plans against these benchmarks. These policy levers, which should be managed and governed as a coordinated strategy, allow a business to link its retirement financial objectives and constraints to its business financial outcomes.

The survey covers information on each company’s entire retirement program, including defined benefit (DB), defined contribution (DC), postretirement medical and life insurance (PRM), multiemployer, qualified, nonqualified, US and non-US plans. This report summarizes the data and key findings of our survey and includes commentary and insights on emerging trends.

The data included in this survey come from the following sources:

- Data from 10-K filings for the S&P 1500 companies for fiscal years ending February 2009 through January 2010 and provided by Capital IQ, a Standard & Poor’s business
- Information on assumptions and methods from an internal survey of Mercer clients
- DC participant data from Mercer’s Outsourcing business

Throughout the report, “2009” refers to the fiscal years ending from February 2009 through January 2010, which captures the most recent information for retail companies, many of which have fiscal years ending in January. Similar conventions apply for earlier years. Market capitalization, wherever used, is as of the end of March 2010 (2009 data) and the end of January of the year following earlier data years.

This report summarizes the key findings of the full electronic, interactive report, which is available at [www.mercer.com/retirementbenchmarking](http://www.mercer.com/retirementbenchmarking).
The report contains summaries and analyses of information gathered from 10-K filings for S&P 1500 companies for fiscal years ending through January 2010. Of the 1,500 companies included in our survey:

- 749 sponsor a DB pension plan with:
  - $1.54 trillion reported pension obligations as of fiscal year end
  - $1.26 trillion reported pension assets as of fiscal year end
- 567 sponsor a PRM or life insurance plan
- 1,365 sponsor a DC plan
  - 628 companies sponsor only a DC plan
  - 737 others sponsor a DC plan in conjunction with either a DB or PRM plan, or both

About iRFM

Throughout this survey, we report corporate pension plan financial results over the past year from a variety of perspectives. Plan sponsors have three policy levers for managing these financial results: design, contributions and investment, as illustrated in the graphic above.

Each of these policy levers can independently affect the immediate and ultimate cost and risks of providing benefits. However, each policy lever also interacts with the other two. For example, sponsors must consider the implications for investment strategy (investment lever) if they decide to seek a more stable future contribution stream (contributions lever) or to offer a more generous lump sum provision (design lever). Optimizing plan financial and risk management policies to achieve the sponsor’s ultimate objectives thus involves an integrated examination of these policy levers in the overall context of plan and corporate governance.

Summary of survey companies and sponsored plan types

<table>
<thead>
<tr>
<th>Type of plan</th>
<th>Companies with DB plans 2008</th>
<th>Companies with DB plans 2009</th>
<th>Companies with DC plans 2008</th>
<th>Companies with DC plans 2009</th>
<th>Companies with PRM plans 2008</th>
<th>Companies with PRM plans 2009</th>
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<td>DC only</td>
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Companies participating in a multiemployer arrangement of each type

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### Summary of survey companies and sponsored plan types by economic sector

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*Note: Data for missing companies were not reported in time to be included in the study.*
We benchmarked corporate retirement programs in five key dimensions – pension health, materiality, volatility, sustainability and assumptions/management decisions – to help employers evaluate and compare their retirement programs against those of the companies in the S&P 1500 as a whole or in various economic sectors.

The pension health and materiality sections describe the current state of pension and other postretirement medical programs; we found modest improvements in funded status and reductions in the level of materiality.

The volatility section describes employers’ risk management posture with regard to benefits that have already been earned and the assets that have been set aside to cover them. Risk postures did not change significantly during 2009 – some employers accepted higher levels of risk in return for the reward of potentially closing pension deficits or reducing reported costs. However, the stresses of the 2008 market downturn and 2008–2009 recession have caused other plan sponsors to reevaluate the risk/reward tradeoff and take actions to reduce or mitigate risks going forward.

The sustainability section focuses primarily on how employers are delivering future benefits and whether plans are in the “accumulation” or “spend-down” phase. While we see some evidence that existing plans are maturing, most are still growing – through interest or benefit accruals, or both. The long-running trend toward defined contribution plans playing a bigger role in future retirement benefits continues and poses new risks and challenges for human resource managers.

The management assumptions/decisions section outlines the key management-driven factors that influence balance sheet and income statement measures. Auditors are increasingly asking plan sponsors to support and document their “best estimate” of assumptions.

Employers can use the three policy levers of Mercer’s Integrated Retirement Financial Management (iRFM) framework – design, contributions and investment – to manage the financial performance of their pension plans against these benchmarks. These policy levers, which should be managed and governed as a coordinated strategy, allow a business to link its retirement financial objectives and constraints to its business financial outcomes.

### Pension health

**Modest improvements despite strong asset returns and significant contributions**

The financial health of pension plans improved modestly during 2009, with the median funded ratio increasing four percentage points, to 75%, and the median unfunded total retirement obligations decreasing to 2.0% of market capitalization (a decrease of 1.1 percentage points). This improvement was primarily driven by contribution increases in the least funded plans (a result of the accelerated funding required under the Pension Protection Act of 2006). Even though funded status might have been expected to improve because of strong asset performance, falling discount rates caused plan liabilities to grow even faster than pension assets, resulting in a net increase in pension deficits due to market factors.

### Key statistics

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<thead>
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<th>2009 median</th>
<th>2009 change</th>
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<tr>
<td><strong>Funded ratio</strong></td>
<td>75%</td>
<td>+4%</td>
</tr>
<tr>
<td><strong>Unfunded total retirement obligations as a percentage of market capitalization</strong></td>
<td>2.0%</td>
<td>-1.1%</td>
</tr>
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</table>
Materiality

Rising market capitalization shrinks pension leverage, but deficits present cash flow challenges

Rising stock prices and market capitalizations helped reduce the overall size of retirement benefit obligations relative to plan sponsor size, with the median at 10% of market capitalization in 2009, a decrease of seven percentage points from 2008. Despite the modest improvement in pension deficits noted previously, the 2008–2009 recession stressed corporate earnings and cash flows, resulting in no change in the multiple of operating cash flow to after-tax pension deficits, suggesting that pension deficits – and the related funding needs – may present significant challenges for cash flow and corporate financial planning. A significant minority (9%) of companies have plans in the most serious condition. These plans are both large (obligations that are more than 40% of market capitalization) and poorly funded (assets that are less than 75% of obligations).

Volatility

Assets underperform liabilities on a dollar basis; current asset allocation leads to significant potential volatility in funded status

In 2009, equity markets and discount rates moved in opposite directions, resulting in a median pension asset return of 18.6% and a median pension liability return of 12.2%. However, because most plans were underfunded at the beginning of 2009, dollar asset returns were not as large as dollar liability returns, and there was a median decrease in funded ratio due to market factors of 1.6% in 2009. The mismatch between asset and liability returns was driven by two primary factors – there were significant allocations to assets other than fixed income (“risky” assets), and investments in fixed income assets might have had shorter maturities or different credit quality than the types of bonds used to determine pension discount rates. To manage funded status volatility most effectively, sponsors would need to invest primarily in fixed income assets that parallel the types of bonds used to set pension discount rates; company asset allocations are currently more heavily tilted toward risky assets, taking on more risk (volatility) in the expectation of higher returns to help close the funding deficits. As a result, 90% of simulated year-end 2010 aggregate funded statuses are expected to fall between a $582 billion deficit and a $98 billion surplus – a $680 billion potential swing.

<table>
<thead>
<tr>
<th>Key statistics</th>
<th>2009 median</th>
<th>2009 change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension asset return</td>
<td>18.6%</td>
<td>+ 43.8%</td>
</tr>
<tr>
<td>Pension liability return</td>
<td>12.2%</td>
<td>+8.7%</td>
</tr>
<tr>
<td>Pension asset return – pension liability return, as a percentage of PBO*</td>
<td>-1.6%</td>
<td>+22.2%</td>
</tr>
<tr>
<td>5th to 95th percentile range of simulated 2010 year-end funded status</td>
<td>-$582 billion to +$98 billion</td>
<td>NA</td>
</tr>
</tbody>
</table>

* Projected benefit obligation

Sustainability

Legacy deficits in maturing plans; rising importance of DC plans poses new risks and challenges for retirement security

Pension contributions increased significantly in 2009, as a result of the requirements under the Pension Protection Act of 2006 to accelerate funding of pension deficits, with the median contribution toward the deficit increasing from 0.64% to 2.33% of PBO in 2009. On an ongoing basis, the mix of current-year benefits continues its long-term trend toward defined contribution (DC) plans, with the median DC cost (0.39% of revenue) exceeding the median cost of benefit accruals (0.35% of revenue) for the second consecutive year. Even so, the liabilities for most defined benefit (DB) plans are still growing with interest in excess of benefit payments, although at a decreasing rate. For about one-fifth to one-quarter of companies, the DB
Highlights and principal conclusions

Plan liability may be shrinking as benefit payments outpace the growth in liabilities due to benefit accruals and interest.

This shift toward DC plans means that employees need to shoulder a greater share of the burden for their own retirement – and bear more of the risks for achieving financial security. However, as the recession unfolded in 2008 and 2009, employees reduced their own contributions to DC plans and had poorer overall investment performance than pension plans, despite having similar asset allocations. Employers that can recognize and address these emerging issues may have a competitive advantage in the labor market.

Hypothetically, if the US were to adopt recent pension accounting proposals from the International Accounting Standards Board, the effect would have been relatively minor historically, although individual company circumstances could vary significantly.

### Key statistics

<table>
<thead>
<tr>
<th>Key statistics</th>
<th>2009 median</th>
<th>2009 change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions toward the deficit, as a percentage of PBO</td>
<td>2.33%</td>
<td>+1.69%</td>
</tr>
<tr>
<td>DB plan accruals, as a percentage of revenue</td>
<td>0.35%</td>
<td>+0.03%</td>
</tr>
<tr>
<td>DC plan costs, as a percentage of revenue</td>
<td>0.39%</td>
<td>+0.02%</td>
</tr>
<tr>
<td>DC participant, average contribution rate (% of pay)</td>
<td>6.86%</td>
<td>-0.10%</td>
</tr>
<tr>
<td>Average DC account asset return minus median DB asset return</td>
<td>-4.4%</td>
<td>+4.3%</td>
</tr>
<tr>
<td>Service cost as a percentage of PBO</td>
<td>2.2%</td>
<td>NA</td>
</tr>
<tr>
<td>Median discount rate minus benefit payments as a percentage of PBO</td>
<td>0.83%</td>
<td>-0.22%</td>
</tr>
</tbody>
</table>

### Management assumptions and decisions

**No significant change in asset allocation; modest changes in expected return on assets and retiree medical trend assumptions**

- 2009 discount rates were down 0.42% from 2008, although results were highly dependent on the fiscal year-end date. Most plan sponsors use some form of cash flow matching or bond model to determine the discount rate.
- The median expected return on assets assumption is 8%, with some variation depending on the allocation to risky assets in the portfolio.
- Most companies made no significant changes to their allocations to risky assets during 2009: 13% reduced risk allocations and 19% increased risk allocations during 2009.
- Most companies assume that mortality rates will improve past the valuation date, and approximately one-third assume that mortality rates will continue to improve for the long term (seven years or longer).
- The median initial retiree medical trend decreased by 0.35 percentage points, to 8.25%, and the year in which the ultimate trend (5% in nearly all cases) would be reached was extended to 2016, an increase of one year.

<table>
<thead>
<tr>
<th>Key statistics</th>
<th>2009 actual</th>
<th>2009 change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rate (median)</td>
<td>5.83%</td>
<td>-0.42%</td>
</tr>
<tr>
<td>Expected return on assets (median)</td>
<td>8.00%</td>
<td>-0.25%</td>
</tr>
<tr>
<td>Weighted average allocation to risky assets</td>
<td>62%</td>
<td>+3%</td>
</tr>
<tr>
<td>Projected mortality improvement for 1–7 years</td>
<td>45%</td>
<td>NA</td>
</tr>
<tr>
<td>Projected mortality improvement for 8+ years</td>
<td>32%</td>
<td>NA</td>
</tr>
<tr>
<td>Initial retiree medical trend rate (median)</td>
<td>8.25%</td>
<td>-0.35%</td>
</tr>
<tr>
<td>Ultimate retiree medical trend rate (median)</td>
<td>5.00%</td>
<td>No change</td>
</tr>
<tr>
<td>Year of ultimate trend rate (median)</td>
<td>2016</td>
<td>+1</td>
</tr>
</tbody>
</table>
The financial health of pension and other postretirement medical and life insurance plans showed small improvements in 2009. Asset returns and employer contributions helped improve funded status, offset by the value of benefits earned during the year and liability losses (primarily driven by decreases in discount rates). In addition, rising stock prices helped shrink the size of retirement benefit deficits relative to market capitalization. Overall, companies with less well-funded plans in 2008 showed the biggest improvements in 2009, possibly due to the additional funding required for plans with larger deficits.

Summary
- Aggregate pension deficits improved by $14 billion during 2009, from $305 billion to $291 billion.
- Benefits earned, other employer actions and net market forces consumed $61 billion of the total $75 billion in aggregate contributions during 2009.
- Net market forces turned positive for the first quarter of 2010, creating an estimated improvement in funded status of $39 billion.

Analysis
The aggregate reported funded status (plan assets minus projected benefit obligation) of pension plans sponsored by the companies in the S&P 1500 improved by $14 billion during 2009. This improvement was primarily due to sponsor contributions in excess of the cost of additional benefit accruals and the net effect of market forces, defined as the difference between investment returns on the asset side and changes in discount rates and losses on the liability side. Asset returns were generally positive during 2009. However, in aggregate, positive asset returns were more than offset by the effect of declining discount rates and other losses, which served to increase the value of the liabilities. During the first quarter of 2010, discount rates were generally stable while assets earned positive returns, thereby creating an estimated improvement of $39 billion in funded status.
Summary

- The median funded ratio improved from 71% at year-end 2008 to 75% at year-end 2009 and is estimated to have improved to 78% at March 31, 2010.

- Funded ratios improved more for plans that were less well-funded in 2008.

Analysis

The projected benefit obligation (PBO) funded ratio – pension assets divided by pension liabilities – for companies in the S&P 1500 improved from 71% to 75% at the median. The dollar difference between assets and liabilities (PBO funded status) is recorded as an asset or liability on corporate balance sheets and is a primary measure of pension health. The improvement in the funded ratio was more pronounced for more poorly funded plans, as compared to plans with higher funded ratios (funded ratios of the top 25% of pension plans were relatively unchanged). Improvements in 2009 are attributable to employer contributions and positive asset returns, offset by benefits earned and losses on liabilities (primarily due to a decrease in discount rates). The median funded ratio was estimated to have improved in the first quarter of 2010 to 78%, based primarily on improved equity returns and relatively stable discount rates.

The large-cap S&P 500 showed similar improvement, although the funded ratios for the S&P 500 were a few percentage points higher than for the S&P 1500 as a whole. The funded ratios were generally consistent across all economic sectors (72%–77%), except for the higher funded status for the financial sector (84%).
The median ABO funded ratio improved from 78% at year-end 2008 to 82% at year-end 2009.

Funded ratios improved more for plans that were less well-funded in 2008.

Analysis
During 2009, the median accumulated benefit obligation (ABO) funded ratio increased from 78% to 82%. The ABO measure differs from that used in corporate balance sheets – the projected benefit obligation, or PBO – discussed in the “Change in Funded Status” and “PBO Funded Status” analyses on pages 7 and 8, respectively. Some analysts believe that the ABO funded status is a more appropriate measure of pension health, as it reflects only those benefits accrued at the end of the fiscal year (that is, the “contractual” benefit promises) without projected future salary increases. The ABO improvements in 2009 are attributable to employer contributions and positive asset returns, offset by benefits earned and losses on liabilities (primarily due to a decrease in discount rates).

The large-cap S&P 500 showed similar improvement, although the funded ratios for the S&P 500 were a few percentage points higher than for the S&P 1500 as a whole.

The median ABO funded ratios by economic sector ranged from 76% (information technology) to 91% (financials).
Summary
- The median after-tax deficit improved from 2.2% of market capitalization in 2008 to 1.5% in 2009.
- The 2009 distribution for the bottom half of companies narrowed, with significant improvement at the 10th percentile.

Analysis
The median after-tax pension surplus/(deficit) improved from (2.2%) of market capitalization in 2008 to (1.5%) in 2009. To the extent that pension promises are not covered by plan assets, they represent a claim (on an after-tax basis) on shareholder value; this ratio thus measures the financial health of the pension plan from a shareholder perspective. For consistency purposes we assumed a 35% tax rate for all years and plan sponsors. (Actual tax rates vary.) A larger deficit may imply that the cash needed for pension funding may have to come from new borrowing or by postponing other investments in the business – a particularly challenging issue as the economy slowly emerges from recession. The 2009 amounts at the median, 25th and 10th percentiles improved from 2008, with the 10th percentile showing the most significant change. This improvement may have come from a combination of plan contributions (poorly funded plans) and higher market capitalization (higher stock prices).

The improvement pattern for the large-cap S&P 500 was similar. By economic sector, utilities had the largest median deficit relative to market capitalization, and the financial sector had the smallest. The materials and utilities sectors had the widest ranges of variation.
Summary
- The median after-tax deficit of combined pension and postretirement medical plans improved from 3.1% of market capitalization in 2008 to 2.0% in 2009.
- The 2009 distribution for the bottom half of companies narrowed, with significant improvement at the 10th percentile.

Analysis
The median after-tax combined pension and other postretirement medical (PRM) / life insurance surplus/(deficit) improved from (3.1%) of market capitalization in 2008 to (2.0%) in 2009. To the extent that pension and PRM promises are not covered by plan assets, they represent a claim (on an after-tax basis) on shareholder value; this ratio thus measures the combined financial health of the pension and PRM plans from a shareholder perspective. Since PRM plans tend to be unfunded, these values are higher than the corresponding values for pension plans only; otherwise, the analysis is similar to the pension-only analysis.

When total pension and PRM benefits are taken into account, the largest median deficit as a percentage of market capitalization was in the utilities sector (which also had the greatest prevalence of PRM plans); the smallest deficits were in the financial, health care and information technology sectors (in which PRM plans are among the least prevalent).

The widest distribution of results was in the materials and telecommunications services sectors, compared to materials and utilities when considering pension plans only.
Materiality

Rising stock prices in 2009 had a positive effect on market capitalization, reducing the relative size of retirement plan obligations compared to company size, although there is significant variation by economic sector. However, pension deficits would still require a significant portion of corporate cash flows if companies were to choose to fully fund their plans. More than half of the pension plans reported either are less than 100% funded or have liabilities that are more than 10% of market capitalization; a small subset of these companies have plans that are both poorly funded (less than 75%) and large (greater than 40%) relative to market capitalization.

Summary
- The median ratio of PBO to market capitalization decreased from 16% in 2008 to 10% in 2009, largely due to increasing stock prices.
- No sector had a ratio exceeding 100% at the 90th percentile.

Analysis
At the end of the 2009 fiscal year, the median ratio of projected benefit obligation (PBO) to market capitalization was 10% for companies in the S&P 1500 with pension plans, as compared to a median ratio of 16% (not shown) for companies in the large-cap S&P 500 in 2008. This ratio measures how material the pension plans are, relative to the size of the company as a whole. A higher percentage could be the result of a relatively large PBO, a relatively small market capitalization, or both. A higher percentage indicates that pension plan liabilities can be important drivers of business performance. Stock prices rallied in 2009, increasing market capitalization and decreasing many of these ratios. The health care sector had the lowest median ratio at 3%, and the telecommunications services sector had the highest median ratio at 27%.

In 2008 (not shown), the consumer discretionary and materials sectors had 90th percentile ratios above 100%, indicating that the value of PBO exceeded the market value of the company. In 2009, the 90th percentile ratios for these sectors were 58% and 80%, respectively; the highest 90th percentile ratio for the other sectors was 73% (industrials).
Summary

- The median ratio of total benefit obligation (pension plus postretirement medical and life insurance) to market capitalization decreased from 17% in 2008 to 10% in 2009, largely due to rising stock prices.

- No sector had a ratio exceeding 100% at the 90th percentile.

Analysis

At the end of the 2009 fiscal year, the median ratio of total benefit obligation to market capitalization was 10% for companies in the S&P 1500 with pension or postretirement medical (PRM) plans, as compared to a median ratio of 17% (not shown) for companies in the large-cap S&P 500 in 2008. The total benefit obligation includes both pension and PRM liabilities and measures how material the combined plans are, relative to the size of the company as a whole. Larger percentages indicate that these plans can be important drivers of business performance. Much of the decrease in 2009 ratios can be attributed to rising stock prices and market capitalizations.

The health care sector had the lowest median ratio at 3%, and the utilities sector had the highest median ratio at 33%.

No economic sector had a 90th percentile ratio above 100%, which would indicate that the value of the pension and retiree medical plans exceeded the market value of the company; three sectors were in this situation in 2008 (not shown).

Comparing these ratios to the pension-only ratios in “PBO/Market Capitalization By Economic Sector” on page 12 provides a rough idea of the relative size of the PRM plans. By this measure, the utilities sector, which had the greatest prevalence of PRM plans, also showed the largest difference, at 7% of market capitalization at the median.
Summary

The median ratio of pension assets to market capitalization decreased from 12% in 2008 to 9% in 2009, largely due to rising stock prices.

Analysis

At fiscal year-end 2009 in the S&P 1500, the median company’s pension assets were approximately 9% of its market capitalization. In comparison, median assets were 12% of market capitalization in the S&P 500 in 2008 (not shown). This ratio measures how material the pension plan assets are, relative to the size of the company as a whole. A larger percentage indicates that pension plan asset performance can be an important driver of business performance. After sharp declines in 2008, 2009 saw a rally in both pension asset and stock values, with the influence of the latter being predominant. The health care sector had the lowest median ratio at 3%, and the telecommunications services sector had the highest median ratio at 26%.

No economic sector had a 90th percentile ratio above 100%, which would indicate that the value of the assets exceeded the market value of the company; the consumer discretionary and materials sectors were in this situation in 2008 (not shown).
Summary

There was little change from 2008; cash flow multiples remained at recent lows, significantly below 2007 levels, suggesting that pension deficits – and the related funding needs – may present significant challenges for cash flow and corporate financial planning.

Analysis

The median cash flow multiple in 2009 was seven times the after-tax pension deficit, unchanged from 2008. This measure indicates how quickly a company could fully fund its pension deficit should it choose to, assuming it had no other competing uses for the cash.

Dividing 52 by the cash flow multiple produces the average number of weeks of cash flow needed to completely fund the deficit on an after-tax basis. For example, the 2009 median cash flow multiple of 7x would require roughly 7½ (that is, 52 ÷ 7) weeks of a company’s average operating cash flow to cover the deficit. At the 10th percentile, the multiple of 1x cash flow means that approximately one full year’s cash flow would be needed to fully fund the pension deficit.

Although this multiple remained stable in 2009, it remains much weaker than its 2007 level at all percentiles, reflecting the significant decline in funded status in 2008 and suggesting that pension deficits – and the related funding needs – may present significant challenges for cash flow and corporate financial planning.

There is considerable variation among industries. The lowest multiples were found in the materials and utilities sectors, while the highest multiples were found in the energy sector.
Summary

- 9% of companies have plans that are in the most serious condition – poorly funded and large, relative to the size of the company.
- 45% of companies have plans that may be of some concern – not fully funded and significant, relative to the size of the company.
- 46% of companies have plans that are of less concern – either fully funded or a low level of materiality.

Analysis

This chart compares the primary health measure (the PBO funded ratio) with a key materiality measure (PBO/market capitalization). Companies for which pension issues are likely to be the most serious (9% of companies) are closest to the lower left corner, in the red-shaded region of the chart. These plans are poorly funded and are very material compared to the size of the corporation. These companies may have the greatest need to finance the pension deficit but the fewest resources to do so.

The yellow-shaded area (45% of companies) includes plans that are somewhat better funded and/or smaller in size relative to the red region. The unshaded area (46% of companies) represents plans of less concern, because they are either better funded or smaller relative to the size of the company, or both.

Roughly half of this latter group (accounting for about 21% of all companies) fall in the lower right section. Although plans are poorly funded for these companies, they are also small in size relative to the size of the corporation, indicating that making up the deficit would likely not be particularly burdensome for these companies should they choose to use cash to fund their pension shortfalls.
Volatility

Equity markets and plan assets partially rebounded in 2009, following a steep decline in 2008. However, declining interest rates and other losses drove up liabilities and the net effect of market factors on funded ratios was slightly negative. Due to strong equity performance, market factors resulted in a smaller decline in funded ratios for plans that were more heavily invested in risky assets than for plans with a significant investment in fixed income assets. However, funded status declined even for plans with significant allocations to fixed income assets, possibly due to a mismatch between those fixed income investments and the bonds used to determine pension discount rates. S&P 1500 companies are maintaining significant allocations to risky assets (see the section “Management Assumptions and Decisions,” beginning on page 35) resulting in projected year-end 2010 funded ratios ranging from 66% to 107% at the 5th and 95th percentiles, respectively. Ninety-five percent of companies have underfunded plans; approximately one-quarter of them are expecting the significant allocation to risky assets to generate asset returns that will exceed the expected growth in plan liabilities due to interest and benefit accruals. In other words, these companies are expecting to be able to close the pension deficit solely on the basis of investment performance. The remaining companies, by contrast, will need to make contributions to prevent pension deficits from worsening.

Summary

- Asset returns rebounded significantly in 2009, contributing to improvements in funded status.
- The spread between good performance (90th percentile) and median performance (50th percentile) was considerably narrower than in the previous year.

Analysis

In 2009, the median actual asset return increased to 18.6% from the prior year’s return of -25.2%. Excluding the lowest 10% of companies (which may be those with fiscal years ending in early 2009), actual returns at all distribution levels were the highest during the period shown. The distribution of actual returns is not symmetrical, with a spread between the 50th and 90th percentiles of 7.7%, while the spread between the 50th and 10th percentiles was more than four times as large at 32.3%. Returns by economic sector were generally similar at the median, with exceptions at the low end (11.1% to 12.7% in consumer staples and information technology) and at the high end (20% to 22% in energy and utilities). The range of returns was very wide for the consumer discretionary, consumer staples and information technology sectors. Some of these differences among sectors may be linked to the proportion of companies with non-calendar fiscal years, since investment returns were generally poor in the first few months of 2009 and began to rebound as the year progressed. Results for the S&P 500 are similar to those presented for the S&P 1500.
Volatility

Summary
- The actual return on plan liabilities rose sharply in 2009, from 3.5% to 12.2% at the median, mainly driven by a drop in discount rates.
- Liability returns varied widely, based on individual plan circumstances.

Analysis
Liability return is composed of interest growth (discount rate multiplied by the liability at the beginning of the year), valuation changes due to changes in discount and currency exchange rates, demographic experience differing from the actuarial assumptions, and changes in actuarial assumptions. The median liability return increased from 3.5% in 2008 to 12.2% in 2009. The majority of companies decreased discount rates in 2009, causing an increase in liability return. The large range of liability returns may reflect the effect of different fiscal year-end dates, as interest rates remained relatively high in early 2009 and began to decline in April/May.

The return on plan liabilities was consistent in the S&P 500 and across economic sectors, ranging from 10.6% (financials) to 14.6% (energy).
Summary
- At the median, pension funded ratios fell by 1.6% due to market changes. However, the 2009 median was markedly improved over the median 23.8% net decrease in 2008.
- The median net return varied considerably by economic sector, with a low of -11.2% (consumer staples) to a high of +3.2% (financials).

Analysis
The difference between asset return and liability return shows funded status changes due to market factors. (Funded status also changes because of benefit accruals, contributions and employer decisions such as plan amendments). Many sponsors have explored strategies to control market fluctuations in funded status through “liability-driven investing” and other variations aimed at improving the correlation of asset and liability returns. (For additional analysis, see “Asset Return Minus Liability Return, By Investment Strategy” on page 20.)

The median net rate of return was -1.6% in 2009, meaning that market factors reduced funded ratios by that amount. The wide variation in net return between the 10th and 50th percentiles was driven by the wide variation in asset return. Asset return was also a key factor behind the variation by economic sector. The consumer staples sector had net returns considerably below those of other sectors (-11.2% versus -3.5% to +3.2% for all other sectors).
Summary
- Strong equity returns during 2009 helped boost the relative performance of plans that were more heavily invested in risky assets.
- However, plans that had significant investments in fixed income assets fared worse than average, reflecting a mismatch between invested assets and liability performance.

Analysis
The difference between asset return and liability return shows funded ratio changes due to market factors. This chart focuses on the relationship of these changes to investment strategy, based on how large a percentage of assets was invested in “risky” (other than fixed income) assets. Risky assets include mostly equities, as well as other assets with equity-like characteristics.

At the median, plans with the lowest exposure to risky assets performed worse than average in 2009, with market factors causing funded ratios to fall by 5.5% and 5.6% for the two lowest exposures to risky assets, compared to a decrease of 1.6% for the S&P 1500 as a whole and an increase of 0.1% for the plans with the largest exposure to equities.

The underperformance of plans with smaller allocations to risky assets indicates that plan investments might have shorter maturities or different credit quality than the types of bonds that determine pension discount rates. For example, the return on the Barclays Long Government Index was -12.18% for 2009, compared to the return on the Barclay’s Long Credit Index of +16.83%.

In addition to the effects of specific plan investments, variations in funded status can also affect the difference between asset and liability returns. An asset return of 10% would improve the funded ratio by only 8% in a plan that is 80% funded, but would improve the funded ratio by 10% in a plan that’s 100% funded. If the liability return were 9%, the first plan would show a net change in funded ratio of -1%; the second would show a net change of +1%.
Summary

- The aggregate funded status for the S&P 1500 at Dec. 31, 2010, is expected to range from a deficit of $582 billion (66% funded ratio) to a surplus of $98 billion (107% funded ratio) at the 5th and 95th percentiles, respectively.

- The middle 50% of results (25th to 75th percentile) are expected to range between a deficit of $381 billion (76% funded ratio) and a deficit of $102 billion (93% funded ratio).

Analysis

At March 31, 2010, plans in the S&P 1500 had an estimated aggregate funding deficit (PBO minus assets) of $252 billion. Collectively, their funded status (PBO divided by assets) stood at 84%.

The aggregate funded status for the S&P 1500 at Dec. 31, 2010, is expected to range from a deficit of $582 billion (66% funded ratio) to a surplus of $98 billion (107% funded ratio) at the 5th and 95th percentiles of simulated results (the top and bottom areas), respectively.

The middle 50% of simulated results (25th to 75th percentile, or the inner two areas) are expected to range between a deficit of $381 billion (76% funded ratio) and a deficit of $102 billion (93% funded ratio).

The difference between the median ending funded status (84%, $242 billion deficit) and the fifth percentile result (66% funded, $582 billion deficit) is called the Value-at-Risk at the 5% level (VaR5). The relatively large magnitude of this risk for the S&P 1500 is due to a significant allocation to risky assets; individual companies can use investment policy to manage this risk (in return for less of a potential upside reward) by better matching the investments to the interest rate risks embedded in the liabilities.
Summary

■ 72% of companies have underfunded plans and expect to have liabilities grow faster than assets (72% of plans)
■ 23% of companies have underfunded plans but expect assets to grow faster than liabilities

Analysis

Expected excess return measures the degree to which a plan’s asset return is expected to cover the growth in plan liabilities. An overfunded plan may run the risk of generating a “trapped surplus” – more assets than needed to provide participant benefits but that are not available for more productive uses. Plans in this position have little upside benefit from investing in risky assets and may need to reconsider the risk-reward tradeoffs of their asset allocations.

For an underfunded plan, however, if expected excess return is realized, it can help reduce the contributions needed to close the deficit.

The majority of companies (72%, lower-left quadrant) have pension deficits and expect liabilities to grow faster than assets. These companies may have an incentive to take investment risk to close the funding gap, provided that the associated risk is affordable.

The next largest group of companies (23%, upper-left quadrant) has underfunded plans but expects the assets to grow faster than the liabilities. These companies may wish to “lock in” funded status gains by gradually de-risking as funded status improves.

Only about 5% of companies (right half) have plans in a surplus position, and most of those expect assets to grow faster than liabilities. These companies need to be aware of the potential for trapped surplus, especially if the nature of the growth rate of liabilities were to change (for example, by a plan closure or freeze).
In 2009, companies contributed significantly more than the cost of benefits earned during the year, as the requirements to fund year-end 2008 deficits began to kick in. Contributions to the total retirement program (including pensions) did not increase as much as pension contributions, reflecting the broader availability of defined contribution (DC), 401(k) or other plans for which contributions did not change significantly and, to a lesser extent, retiree medical claims that did not increase as fast as defined benefit (DB) contributions. For the second consecutive year, “operational” expense (service cost) for DB plans was less than the cost for DC plans, reflecting a long-running shift toward providing benefits through DC plans.

DC plan participants have been reducing their contribution rates over the past two years, and although their overall asset allocations are similar to pension plan asset allocations, the actual performance of DC plan accounts has significantly lagged behind that of DB plans in the past several years. This underperformance may be due to participants exchanging out of equities near the market bottom and not exchanging back into equities until after equities had already rallied significantly.

On April 29, 2010, the International Accounting Standards Board proposed revisions to pension accounting for companies that report under international standards. If these proposals had applied to companies reporting under US GAAP, the effect on historical pension expense calculations would have been relatively minor on average, although individual company circumstances could vary considerably.

Most pension plans are still in the “growth” phase – either providing significant additional accruals relative to the obligation or having liabilities that grow faster from interest than they are drawn down through benefit payments. However, a significant portion of companies – between one-fifth and one-quarter of plans surveyed – may be entering a more mature or “spend down” phase, with plans that do not provide either significant benefit accruals or benefit payments that would eat into principal of a fully funded plan. Since 2007, plans have shown a gradual trend toward a more mature status.

In general, total expenditures on retirement benefits seem to be greater when there is a DB pension plan than when there is not. Employees in DC-only arrangements need to shoulder a greater share of the burden for their own retirement and must also bear more of the risks associated with achieving financial security. Employers that recognize and address these emerging issues will have a competitive advantage in the labor market.
Summary

- Median contributions in excess of the cost of benefit accruals rose significantly between 2008 and 2009, from 0.64% to 2.33% of PBO.
- And 75% of plan sponsors contributed more than the cost of benefit accruals.

Analysis

To the extent that contributions exceed the value of benefits earned by participants during the year, the excess reduces the deficit or increases the surplus in the plan. Expressed as a percentage of the projected benefit obligation (PBO), this amount shows the approximate improvement in the funded ratio, all other things being equal. During 2009, the median plan sponsor contribution improved the funded ratio by 2.33% – representing contributions in excess of the value of benefits earned by participants. In fact, 75% of plan sponsors made such deficit-reducing contributions.

The funding rules under the Pension Protection Act (PPA), which became effective in 2008, require sponsors to fund pension deficits (as measured on the basis of PPA rules) over a seven-year period. In addition, some plan sponsors are making additional contributions to avoid benefit restrictions under PPA rules.

Results for the large-cap S&P 500 were similar. However, the results by economic sector varied considerably, with median excess contributions ranging from -0.08% of PBO (less than the value of benefits earned) in the telecommunications sector to +3.62% in the energy sector. At the 90th percentile, plan sponsors made significant additional contributions, reaching as high as 12.48% of PBO within the financials sector.
Summary

- Median pension contributions increased significantly from 0.29% to 0.55% of revenue.

- Median total retirement program contributions showed a smaller increase, from 0.62% to 0.68% of revenue.

Analysis

Median pension contributions (left side) increased significantly, from 0.29% to 0.55% of revenue, as employers began funding the deficits appearing at the end of 2008. At the same time, median contributions to the total retirement program (defined benefit, defined contribution, postretirement medical and multiemployer, shown on the right) increased by a lesser amount, from 0.62% to 0.68% of revenue. Contributions to the more broadly available defined contribution or 401(k) plans did not change significantly and retiree medical claims did not increase as fast as defined benefit contributions. These factors combined to mitigate the effects of rising pension contributions and a 6.5% decline in median revenue from 2008.

For the large-cap S&P 500 companies, pension plans were more prevalent and a larger driver of total contributions, with median pension contributions increasing by 0.31% of revenue, from 0.35% to 0.76%, and median total contributions increasing by 0.27% of revenue, from 0.81% to 1.01%.

Although some companies cut back on defined contribution plan contributions in 2009 in response to the recession, an almost equal number increased their contributions to these plans, resulting in little change to aggregate and median amounts.

The range and mix of pension and total contributions vary considerably by economic sector, as might be expected.
Summary

- Operational expense for DC plans again exceeded that of DB plans.
- Median DB operational expense increased from 0.32% to 0.35% of revenue.
- Median DC operational expense increased from 0.37% to 0.39% of revenue.

Analysis

The operational component of plan costs includes service cost for pension and postretirement medical (PRM) plans, as well as contributions to defined contribution (DC) and multiemployer plans. For the second consecutive year, median spending on DC plans (0.39% of revenue) exceeded that of defined benefit (DB) plans (0.35%), confirming that the balance of retirement benefits continues to tilt toward DC plans. Operational expense for DB plans rose from 0.32% of revenue in 2008 to 0.35% in 2009, likely reflecting both lower discount rates as well as reduced corporate revenue due to the economic downturn. The lower revenue also contributed to the higher operational expense for DC plans (0.39% in 2009, up from 0.37% in 2008), offsetting the impact of suspension of contributions to DC plans by some employers. Operational expense for PRM plans held steady at 0.04%, significantly smaller than the other two major retirement programs.

The large-cap S&P 500 companies showed similar trends. By economic sector, utilities had the largest relative DB operational costs, and the financial sector had both the largest relative DC costs and the largest variation in both DB and DC costs.
Summary

- In the past year, participants have reduced their asset allocations to capital preservation funds from 30% to 22%.
- Most of this reduction went toward equity (increased from 43% to 49%) and balanced funds (increased from 14% to 17%).

Analysis

In the past year, we have seen defined contribution balances shift away from capital preservation funds and toward equities and age-based pre-diversified funds. Since March 2009, the types of funds showing the biggest changes include age-based (+40%), money market (-38%), stable value (-25%), loans (-19%), equity (+23%) and international (+26%). To some degree, the shift from “safe” assets to riskier assets may reflect either strong equity returns during the period (with no rebalancing) or the beginning of a reversal of the “flight to quality” that prevailed at the height of the credit crisis.

Source: DC plans serviced by Mercer’s Outsourcing business.
Summary

- Average contribution rates declined slightly in 2009, from 6.96% to 6.86%, following the large drop in contributions during 2008 in response to the economic crisis.

- Participants who are closer to retirement consistently contribute at greater rates than younger participants.

Analysis

There is a clear relationship between age and contribution rates, with participants who are closer to retirement consistently contributing at greater rates than younger participants. That said, contribution rates at all ages have dropped somewhat in the past two years.

While we are seeing more people increase their contribution rates and fewer people reduce their contribution rates to zero, the overall average contribution rate dropped from 7.46% of pay at the end of 2007 to 6.86% at the end of 2009. Perhaps this drop reflects financial pressures that employees and their families are facing due to the economic downturn.

The under-30 age group had the biggest decrease in contribution rates – from 4.86% at the end of 2007 to 4.04% at the end of 2009.

Source: DC plans serviced by Mercer’s Outsourcing business.
Summary
- Despite having an asset allocation similar to DB plans, DC plan participants have consistently achieved lower investment returns than DB plans, with 2009 returns 4.4% below the median return for DB plans.
- Similar to DB plans, positive returns in 2009 partially recovered some of 2008’s losses.

Analysis
After being sharply negative in 2008, investment returns turned positive in 2009 for both defined benefit (DB) and defined contribution (DC) plans serviced by Mercer’s Outsourcing business. However, despite asset allocations that are broadly similar to those in DB plans, DC plan participants have consistently achieved lower investment returns than DB plans, lagging the median DB plan by 4.4% in 2009.

One reason for the difference may be the timing of trades. According to transfer data, the majority of fund transfers in the fourth quarter of 2008 were out of equities and into capital preservation funds, locking in market losses. Many of these participants were slow to return to equities as the market recovered, missing out on some of the market’s gains. If this differential in investment returns persists over the long term, employers will need to spend more on DC plans to provide the same level of benefits as could be provided through a DB plan. The level of participant retirement income – and the ability to retire – could also potentially be adversely affected.

Source: DC plans serviced by Mercer’s Outsourcing business.
Summary
- On average, the IASB proposal would not significantly affect US plan sponsors if it were applied to US plans, although individual company circumstances could vary significantly.

- The median 2009 change in expense would be 0.0% of revenue, although the aggregate dollar pension expense for the S&P 1500 would be about 15% higher.

Analysis
The International Accounting Standards Board issued an exposure draft on April 29, 2010, with proposed amendments to “IAS 19 Employee Benefits” to address current problems prior to undertaking a more comprehensive review of pension accounting. If finalized in their current form, the proposals would be effective beginning Jan. 1, 2013, for companies reporting under International Financial Reporting Standards. It is not clear when, or if, the proposals would be effective for companies reporting under US GAAP.

The proposal redefines employee benefit cost as operating cost (service cost plus plan amendments) and financing cost (interest on surplus/[deficit] based on the discount rate). All other changes in surplus due to remeasurements (actuarial gains/losses, settlements, and the impact of the asset ceiling) would be recognized in other comprehensive income outside of earnings (profit or loss). The use of the discount rate in determining the return on assets component of the financing cost is expected to increase employee benefit cost, although the elimination of the loss amortization component of expense would be expected to reduce cost.

If this proposal were applied to the S&P 1500 companies, the effect would be very small, on average, as a percentage of revenue (median near zero) and relatively small in dollar expense terms (aggregate 15% increase). However, the effect could vary considerably by an individual company’s circumstances, including funded status and the size of unrecognized losses that are being amortized into income.
Summary

- The proportion of plans with service cost less than 1% of PBO in the S&P 500 increased from 11% in 2004 to 18% in 2009, suggesting a movement toward plan freezes.

- Including all the companies in the S&P 1500 increases to 22% the proportion of plans with service cost ratios of less than 1%.

Analysis

Pension service cost, as a percentage of projected benefit obligation (PBO), is a measure of the maturity or frozen status of a plan. Plans with significant ongoing benefit accruals would tend to have larger ratios while plans that are closed, frozen, or have a large proportion of inactive or retired participants would show lower (or zero) ratios. (Frozen plans may not be exactly zero if the reported service cost includes administrative costs or aggregates the costs for multiple plans sponsored by the same company.)

The chart shows the ratios computed for 2009 and 2004 for the S&P 500, to show trends in the past five years. In addition, we have expanded the data for 2009 to show the S&P 1500. The proportion of plans with service cost less than 1% of PBO in the S&P 500 increased from 11% in 2004 to 18% in 2009, suggesting a movement toward plan freezes. Including all the companies in the S&P 1500 increases the proportion of these plans to 22% for 2009.

However, among S&P 1500 companies with pension plans in 2009, more than half (56%) provided meaningful benefit accruals in excess of 2% of PBO.
Summary

- The median pension service cost, as a percentage of PBO for the S&P 1500, is 2.2%.
- Median results by economic sector vary from 1.7% (telecommunications) to 2.8% (energy and financials).
- Several sectors (energy, financials, health care and information technology) had a considerably larger than average range of ratios.

Differences among economic sectors reflect differences in workforce composition as well as differences in industry practice, such as the level of retirement benefits relative to compensation or extent to which retirement benefits are delivered through a DB plan.
Summary

- Payout ratios for most plans are less than the typical discount rate, meaning the plan liability is still growing (when ignoring the service cost) and the plan is still in the accumulation phase.

- Approximately one-quarter of plans are in the spend-down phase, where the payout ratio exceeds the typical discount rate.

- Plans are trending toward a spend-down phase.

Analysis

One measure of a pension plan’s maturity is its payout ratio – the benefit payments divided by the projected benefit obligation (PBO). A smaller ratio – for example, one that is less than the discount rate – indicates that plan liabilities are growing with interest faster than they are being drawn down by benefit payments. (Plan liabilities may also grow with benefit accruals, which are ignored here.). Likewise, a larger ratio – for example, one that is more than the discount rate – indicates that a plan that has entered its spend-down phase and would be expected to shrink over time. The median ratio of 5% for 2009 was less than the typical discount rate. However, at the 75th percentile, the payout ratio was approximately 6.5%, which is slightly more than the typical discount rate, indicating that approximately one-quarter of plans might be in the spend-down phase.

Overall, the difference between the median discount rate and the median payout ratio has been falling since 2007 and currently stands at 0.83%, possibly indicating a gradual maturing of plans over that period.

Results for the S&P 500 are similar. The telecommunications sector had the highest median payout ratio (6.3%) and the widest range of variation. All other sectors had median payout ratios ranging between 3.9% and 5.8%.
Summary

- In general, companies with a DB plan spend, on average, more on total retirement benefits than companies without a DB plan.
- However, the correlation is weak and does not take into account other compensation costs or benefits.

Analysis

This chart compares the total operational expense for all retirement benefits with the operational (service) cost of defined benefit (DB) pension benefits, each as a percentage of revenue.

More than half of the companies offer no DB benefit accruals. For these companies, the median total retirement cost is 0.35% of revenue. The median total retirement cost for the companies that have DB accruals is 0.86% of revenue.

The median total cost of retirement benefits is 0.58% of revenue. In the subset of companies with below-median total cost, the median DB cost is 0.00% of revenue. In the subset of companies with above-median total, the median DB cost is 0.29% of revenue.

In general, companies with a DB plan spend, on average, more on total retirement benefits than companies without a DB plan, providing some support for the conventional wisdom that companies may spend less – and therefore provide smaller benefits – when defined contribution plans are the primary retirement vehicle. However, we are cautious about the interpretation of the data – the correlation is weak and does not take into account other compensation costs or benefits, or other factors such as company size or industry.
2009 discount rates were down 0.42% from 2008, although results were highly dependent on the fiscal year-end date. Most plan sponsors use some form of cash flow matching or bond model to determine the discount rate.

The median expected return on assets assumption is 8%, with some variation depending on the allocation to risky assets in the portfolio.

Most companies made no significant changes to their allocations to risky assets during 2009; 13% reduced risk allocations and 19% increased risk allocations during 2009.

Most companies assume that mortality rates will improve past the valuation date, and approximately one-third assume that mortality rates will continue improving for the long term (seven years or longer).

The median initial retiree medical trend decreased by 0.35 percentage points, to 8.25%, and the year in which the ultimate trend (5% in nearly all cases) would be reached was extended to 2016, an increase of one year.
Summary

- Discount rates declined substantially between year-end 2008 and 2009 as the financial crisis subsided; the median discount rate decreased by 42 basis points.

- The dispersion between the highest and lowest discount rates narrowed to pre-crisis levels.

Analysis

After rising through 2008, discount rates declined substantially as the financial crisis subsided and credit spreads contracted. Credit spread is the difference between AAA government bond yields and the yields on AA corporate bonds, typically used for pension discount rates. The discount rate shown is a composite of all pension obligations (US and non-US). US-only discount rates (which may include some non-US plans for companies that did not report them separately) showed a similar pattern.

Discount rates varied considerably throughout the year, peaking in April and bottoming out in September.

The dispersion of discount rates at the end of 2009 was considerably narrower than 2008 levels and was broadly similar to the dispersion in rates from 2006 and 2007. The dispersion was unusually wide in 2008, paralleling the wide dispersion of AA bond yields, and reflected increased volatility in interest rates, credit spreads and corporate bond yields as the credit crisis unfolded. The narrower dispersion that existed at the end of 2009 reflects a return to more normal corporate interest rate conditions.
Summary

- Discount rates for fiscal years ending in the early part of the year (January through April) were quite high compared to fiscal years ending later in the year.

- Volatility in the corporate bond market continued through early 2009; high-quality corporate bond yields peaked in the March/April timeframe before beginning to decline in May and bottoming out in September.

Analysis

Accounting standards require that the discount rate must reflect the rates available on high-quality corporate bonds at the fiscal year end.

Corporate bond yields were elevated and rising in the first few months of 2009, reaching a peak in March and remaining quite elevated in April. Credit spreads (the difference between AAA government bond yields and the yields on AA corporate bonds, typically used for pension discount rates) were close to 3.7% in April 2009. By May, the financial crisis was subsiding and corporate yields had begun to decline. Spreads had declined to a more “normal” 1.3% by December and had reached 1.2% by April 2010.
Most large companies now select a discount rate by matching projected cash flows to either the yield curve or a bond model. Only 11% of large companies rely on index rates or some other methodology.

**Summary**
- Most large companies now select a discount rate by matching projected cash flows to either the yield curve or a bond model.
- Only 11% of large companies rely on index rates or some other methodology.

**Analysis**
Most large companies now select a discount rate by matching projected cash flows to either the yield curve or a bond model, according to the results of an internal survey of Mercer clients. As a result of the Sarbanes-Oxley Act, investors and auditors have increasingly demanded a rigorous, objective process for determining the discount rate to be used to measure a plan's liabilities.
Summary
- The median expected return on assets assumption is 8.00%.
- The median varies with the level of risky assets, from a low of 6.50% for plans with less than 40% allocation to risky assets to a high of 8.05% for plans with more than 80% allocation to risky assets.

Analysis
The expected return on asset assumption (EROA) for the S&P 1500 varies by the proportion allocated to “risky” assets (defined here as everything other than fixed income securities). The overall median EROA is 8.00%, but the distribution is more concentrated above the median (difference between 50th and 90th percentiles is 0.5%), whereas there is more dispersion below the median (difference between 50th and 10th percentiles is 1.5%). As expected, there is a positive correlation between the EROA and the allocation to risky assets. Only 6% of plan sponsors allocate less than 40% to risky assets, with a median EROA of 6.50%. The largest concentration of risky assets is between 60% and 80%, which accounted for 56% of plan sponsors. The total distribution spread (10th to 90th percentiles) steadily declines as the allocation to risky assets increases, until reversing when risky assets reach 80%.
Change in asset allocation

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<th>0%–19%</th>
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<th>40%–59%</th>
<th>60%–79%</th>
<th>80%–99%</th>
<th>Insufficient data</th>
<th>Grand Total</th>
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<td>177</td>
<td>365</td>
<td>57</td>
<td>65</td>
<td>704</td>
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</tbody>
</table>

2009 change
- Decrease in allocation to risky assets 90 companies
- No change = 437 companies

Summary
- 437 companies (62%) held approximately the same allocations to risky assets in 2008 and 2009
- 90 companies (13%) reduced their allocations to risky assets from 2008 to 2009
- 134 companies (19%) increased their allocations to risky assets from 2008 to 2009

Analysis
This chart shows how the pension asset allocations of the S&P 1500 companies changed between 2008 and 2009:

- 437 companies (62%) showed no change from the prior year. This included 28 companies (4%) for which asset allocations information was not reported in either 2008 or 2009.

- 90 companies (13%) reduced their allocations to risky assets. This may reflect an emerging trend to adopt a “liability driven investing” (LDI) strategy. LDI strategies typically emphasize fixed income investments that respond to discount rates the same way as plan liabilities, thus reducing the volatility of reported surplus or deficit.

- 134 companies (19%) increased their allocations to risky assets. This may indicate a strategy that either permits strong equity performance to increase the level of risky assets (without rebalancing) or deliberately seeks to take on more risk, with the hope of capturing excess investment returns, to help improve the funded status after the sharp asset declines experienced during 2008.
The average equity allocation increased from 45% in 2008 to 50% in 2009, reversing the prior downward trend.

The average fixed income allocation decreased from 41% in 2008 to 38% in 2009.

Analysis

In aggregate, S&P 1500 companies reporting asset allocation information showed a distinct shift toward equities in 2009, increasing by five percentage points from the 2008 allocation. In some companies, this reflects an intentional increase in the allocation to equities. For others, this may reflect a lack of rebalancing for the upswing in equity values based on strong 2009 returns. The increase in allocation to equities may have been motivated by a desire to improve funded status through excess returns.

Decreased allocations to fixed income (minus three percentage points) and real estate (minus two percentage points) offset the increased allocation to equities. Asset allocations to “other” remained at the same levels as the prior year.
Summary
- 77% of plans project mortality improvements at least to the measurement year, according to an internal survey of Mercer clients
- 45% of plans use a short-term projection (2009–2016), including 17% that projected improvements only to 2009 or 2010
- 32% of plans use a longer-term projection (seven years or longer)

Analysis
Mortality rates have declined (improved) during much of the last century, extending life expectancies and increasing pension and postretirement medical (PRM) plan liabilities as benefits are paid over a longer life span. How much mortality rates and life expectancies will continue to improve in the future is one of the important assumptions underlying company pension and PRM benefit obligations, which may cover participants’ payments 80 or more years from now.

An internal survey of Mercer clients provides an indication of the extent to which companies assume mortality rates will continue to improve when valuing plan benefits. Based on 428 respondents:
- 77% of plans project mortality rate improvements at least to the measurement year
- 45% of plans use a short-term projection (2009–2016), including 17% that projected improvements only to 2009 or 2010
- 32% of plans use a longer-term projection (seven years or longer)

Some plans (8%) use the table mandated by the Internal Revenue Service for funding purposes. The table projects improvements for 15 years for active employees and seven years for retirees. A generational table (used by 17% of plans) assumes that mortality rates will improve each year in the future.
Summary
- Median initial trend rates declined from 8.60% to 8.25%.
- Ultimate trend rates remain largely unchanged at 5%.
- The median year of ultimate trend rate increased one year, to 2016, which is consistent with trends of the recent past, although there may be an emerging trend toward longer grade-down periods.

Analysis
Initial trend rates continue the decline seen in recent years, decreasing from 8.60% to 8.25% at the median, although half of companies remain within the 8% to 9% range. Ultimate trend rates remain steady and concentrated around the median of 5%, although both the upper and lower 10% of companies showed a slight downward drift. In general, the year of ultimate trends continues to increase by one year at each valuation date, yet a marked extension of trend grade-down periods is evident for some companies (at the 10th percentile, the grade-down period was extended by 10 years), perhaps indicating an emerging trend. Recent Securities and Exchange Commission and auditor activity has forced companies to reevaluate whether an annual one-year move in a grade-down period truly reflects a “best estimate”; in addition, recent research and Medicare trustees’ reports have suggested grade-down periods that are significantly longer than six or seven years.
Accumulated benefit obligation (ABO). The present value of pension benefits accrued to the measurement date, excluding the effect of any future pay increases.

Accumulation phase. The early part of a plan's lifecycle, characterized by increasing liabilities (and assets for a funded plan). See spend-down phase.

After-tax amounts reflect the fact that retirement plan contributions (including amounts needed to fund any deficit) or direct company payments of benefits in unfunded plans are usually deductible for income tax purposes. Although individual companies’ tax situations vary considerably, we have assumed a standard 35% tax rate for all years for consistency purposes and ease of discussion; this rate approximates the aggregate effect of federal, state and local income taxes.

Asset return includes changes in the value of plan assets due to interest, dividends, price changes and currency changes. Asset return does not include the effects of contributions or benefit payments.

Assumptions and plan management. Report section discussing key management decisions and policies that affect accounting results.

Cash flow from operations. The money generated by a company through running its business. This measure is different from earnings or profits, which have accounting adjustments (e.g., for depreciation) added to operational results. Cash is the money on hand that is available to pay bills or fund pension deficits.

DB. Defined benefit pension plan.

DC. Defined contribution plan, including 401(k), profit sharing, etc.

Discount rate. The rate at which future defined benefit and postretirement medical plan obligations are discounted to calculate a current present value. The discount rate is generally based on the yields of Aa rated fixed income securities as of the measurement date. Benefit obligations move in the opposite direction of discount rates – lower discount rates increase the obligation, while higher discount rates reduce the obligation.

Economic sectors. Broad industry groupings, based on two-digit Global Industry Classification Standard (GICS) codes.

Expected excess return. The excess, if any, of the expected return on assets over the sum of service cost and interest cost. It measures the degree to which a plan’s asset return is expected to cover the total growth in plan liabilities. For this measure, “expected return” is projected for the coming year, as compared to the expected return component of expense, which is for the year just ended.

Expected return on assets assumption (EROA). The assumed rate of return on plan assets for the year expressed as a percentage. The EROA is used to determine the expected return on assets component of the annual pension expense, which is expressed as a dollar amount.

Financial Accounting Standards Board (FASB) sets the standards for generally accepted accounting principles (GAAP) governing income statement and balance sheet recognition in the United States.

Funded ratio. The ratio of pension assets divided by pension liabilities (accumulated benefit obligation or projected benefit obligation) expressed as a percentage.

Funded status. The dollar amount of surplus (deficit), determined by subtracting benefit obligations from plan assets.

Generational mortality table incorporates expected continuing improvements in life expectancies for each year in the future.

IAS 19. The statement promulgated by the International Accounting Standards Board that covers employee benefits, including pension and retiree medical plans.

Interest cost (IC). The time value of money for the current year with respect to the pension or postretirement medical liability. It is measured by multiplying the liability, adjusted by expected cash flows, by the discount rate at the beginning of the year.
**Internal Revenue Service (IRS) mortality table** is mandated for pension funding valuations and includes projected improvements for up to 15 years past the valuation date.

**International Accounting Standards Board (IASB)** sets the standards for generally accepted accounting principles governing income statement and balance sheet recognition in the majority of countries (including those in Europe) outside the United States.

**Liability driven investing** has a variety of interpretations, but generally refers to the investment strategy that emphasizes the correlation between assets and liabilities, resulting in asset returns that track liability returns more closely, in order to minimize the effect of market fluctuations on funded status.

**Liability return.** The change in the value of plan liabilities (projected benefit obligation) due to interest growth, changes in the discount rate and other actuarial assumptions, currency changes, and the effects of demographic experience that differs from actuarial assumptions. Liability return does not include the impact of service cost or benefit payments.

**Market capitalization.** A measure of the size of a company, based on the outstanding number of shares and the share price as of a specific point in time. This measure is frequently used to distinguish large companies (market capitalization greater than $3.5 billion – $5 billion) and small companies (market capitalization less than approximately $1 billion).

**Materiality.** The report section that measures the size of benefit obligations relative to the company.

**Mortality table.** The probabilities of living to each future age; used to determine the expected period over which benefits will be paid. “Improvements” in mortality result in a higher probability of living and a longer life expectancy.

**Operational expense.** The costs related to one year of employee service: service cost (for pension and retiree medical plans) and cash contributions for defined contribution plans. Operational expense differs from the net periodic cost in that it does not consider interest cost, expected return on assets or amortization components.

**Payout ratio.** A measure of the maturity status of a plan, computed as projected benefit payments divided by the projected benefit obligation. A payout ratio that is less than the discount rate is an indication that a plan may be in its accumulation phase; a payout ratio that is greater than the discount rate may indicate that a plan is in its spend-down phase.

**Pension health.** The report section that discusses the current status of pension assets and liabilities.

**Pension Protection Act (PPA).** The overhaul of pension funding requirements for Internal Revenue Service tax-qualified pension plans passed in 2006 and generally effective in 2008.

**Pension surplus/(deficit).** The difference between the pension assets and pension liabilities (projected benefit obligation) expressed as a dollar amount. Sometimes described as funded status.

**Postretirement medical or life insurance (PRM) plan.** Postretirement benefits other than pensions, including retiree medical and life insurance benefits.

**Projected benefit obligation (PBO); also called pension benefit obligation.** The present value of pension benefits attributable to employee service to date, including the effect of expected future salary increases.

**Projected benefit payments.** The expected distributions in aggregate, including both lump sums and annuity payments, for the next fiscal year.

**Revenue.** Total reported revenue, before expenses, is one measure of the size of a company. Individual company results can be scaled as a percentage of revenue for easy comparison; percentage of revenue also shows the effect certain cost measures have on profit margins.

**Risky assets.** All assets other than fixed income. The distinction derives from the notion that fixed income assets in a pension plan provide a natural (although not completely perfect) hedge to the volatility of the liabilities due to changes in discount rates. Plan sponsors may invest in risky assets in the hopes of capturing greater (although less certain) investment returns.
**S&P 1500.** Standard & Poor’s describes the S&P 1500 as follows: As an investable US equity benchmark, the S&P Composite 1500 combines three leading indices – the S&P 500, the S&P MidCap 400 and the S&P SmallCap 600 – to cover approximately 90% of the US market capitalization.

**Service cost (SC).** The present value of benefits earned by employees during the current year.

**Spend-down phase.** The later part of a plan’s lifecycle, characterized by decreasing liabilities (and assets for a funded plan). See accumulation phase.

**Sustainability.** The report section reviewing benefit delivery, the ongoing cost of maintaining plans and whether plans are in the accumulation or spend-down phase.

**Total benefit obligation (TBO).** The combined present value of pension and retiree medical benefits earned by employees attributable to service to date, including the effect of expected future salary increases.

**VaR5.** The value-at-risk at the 5% level, a measure of the potential risk of a plan’s funded status. It represents the difference between the median and fifth percentile projected funded status results, usually over a one-year time horizon.

**Volatility.** The report section discussing the effects of market factors on pension health measures.

**Years.** Throughout the report, years refer to fiscal years ending February through January of the following year. (For example, “2009” refers to fiscal years ending February 2009 through January 2010). This convention was chosen to capture the most recent information for retail companies, many of which have fiscal years ending in January.
About Mercer
Mercer is a leading global provider of consulting, outsourcing and investment services, with more than 25,000 clients worldwide. Mercer consultants help clients design and manage health, retirement and other benefits and optimize human capital. The firm also provides customized administration, technology and total benefit outsourcing solutions. Mercer’s investment services include global leadership in investment consulting and multimanager investment management.

Mercer’s global network of more than 18,000 employees, based in more than 40 countries, helps ensure integrated, worldwide solutions. Our consultants work with clients to develop solutions that address global and country-specific challenges and opportunities. Mercer is experienced in assisting both major and growing, midsize companies.

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