Lizzy Shumaker
FCAS, MAAA
Shumaker@cascoconsulting.com

# Ask the Actuary: Discount Rates - Then & Now

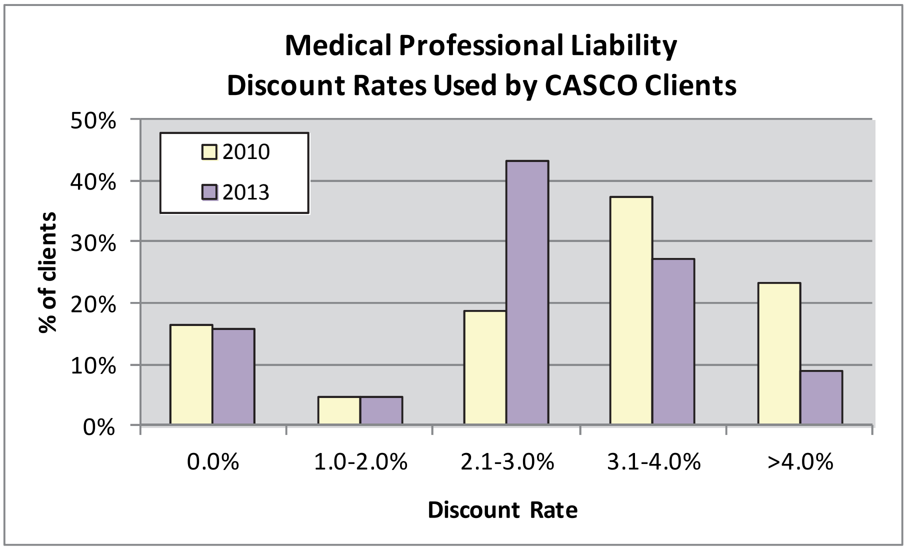
Historically, the selection of a discount rate was based on a wide range of alternatives, from "risk-free" rates to actual portfolio rates of return to cost of capital targets, due to high investment earnings and more relaxed professional standards. As interest rates started dropping several years ago, changes to discount rates lagged behind in hopes of an economic upturn. Now, due to improved financial reporting standards and a continuing low interest rate environment, there is an increased focus on discount rate selection.

Actuarial Standard of Practice No. 41 (effective December 2010) requires actuaries to comment on the reasonability of the discount rate used in their analyses. A reasonable range of discount rates can be determined by reviewing yields on U.S. Treasuries and high-quality fixed-income securities, actual investment rates of return, and discount rates used by other similar entities. Management selects the final discount rate after discussions with their actuary, auditors, and regulators.

**Q: How have discount rates changed over the past few years?**

Among CASCO's clients, there has been a noticeable shift to using lower discount rates for purposes of booking financial statement liabilities, as shown below. For medical professional liability, 64% of our clients are currently using a discount rate of 3.0% or lower compared to 40% in 2010. On average, the discount rate has decreased by 0.5% (from 3.2% to 2.7%).

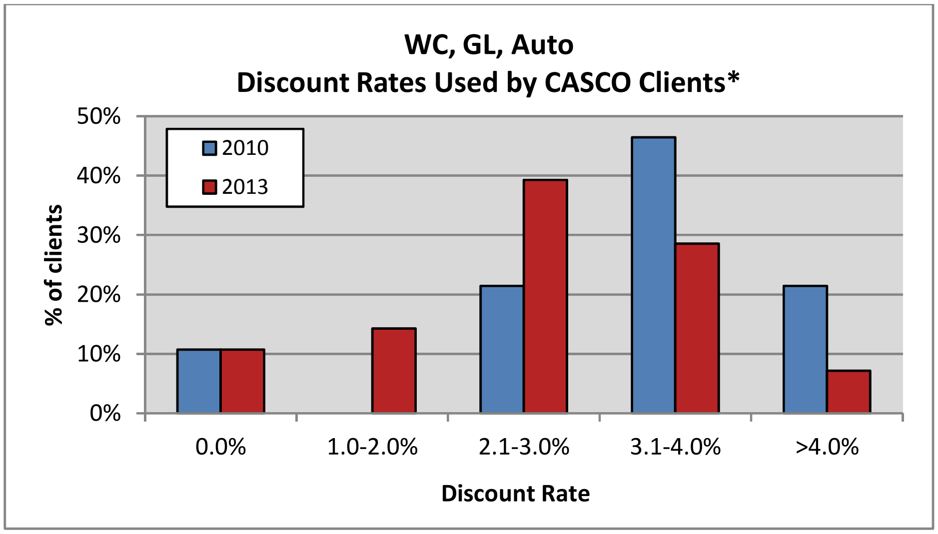
On average, the medical professional liability discount rate used by CASCO clients has decreased by 0.5% (from 3.2% to 2.7%).




Among CASCO's university and healthcare entity clients, the shift is even more dramatic for other property casualty lines such as WC, GL, and Auto, with 64% of our clients currently using a discount rate of 3.0% or lower compared to 32% in 2010. On average, the discount rate has decreased by 0.8% (from 3.5% to 2.7%).

## Ask the Actuary: Discount Rates - Then & Now (continued)

The average WC, GL, Auto discount rate used by CASCO healthcare and university clients has decreased by 0.8% (from 3.5% to 2.7%).




*University and healthcare entities.

**Q: How has the interest rate environment changed over the past few years?**

Generally, yields on low-risk investments, such as U.S. Treasuries, are used to approximate "risk-free" rates of return, which auditors and regulators tend to prefer for property and casualty discounting. Treasury yields over the past several years are shown below. Rates declined during the two-year period from June 30, 2010 to June 30, 2012 but have since returned within 0.5% of the June 30, 2010 levels.

**Treasury Yield Curve Rates**

| | Maturity | | | |
|---|---|---|---|---|
| | 1 year | 3 years | 5 years | 10 years |
| June 30, 2010 | 0.32% | 1.00% | 1.79% | 2.97% |
| June 30, 2011 | 0.19% | 0.81% | 1.76% | 3.18% |
| June 30, 2012 | 0.21% | 0.41% | 0.72% | 1.67% |
| June 30, 2013 | 0.15% | 0.65% | 1.39% | 2.50% |

The choice of a discount rate for self-insured workers' compensation liabilities involves additional consideration and discussion, due to that line's similarities with two employee benefit areas: disability and medical benefits. Discount rate selections for those lines tend to be more consistent with the GAAP rules for pension and post-retirement benefits accounting (adjusting for any duration differences), where the selected rates are generally pegged to "high-quality" fixed-income securities whose yields are normally higher than those of "risk-free" securities such as U.S. Treasuries. Yields from the Citigroup Pension Discount Curve (a commonly used measure of average yields for high-quality fixed-income securities) over the past several years are shown below. While rates have generally rebounded somewhat since last year, they are still around 1% lower than they were in mid-2010.

## Ask the Actuary: Discount Rates - Then & Now (continued)

**Yields for High-Quality Fixed-Income Securities ***

| | Maturity | | | |
|---|---|---|---|---|
| | 1 year | 3 years | 5 years | 10 years |
| June 30, 2010 | 1.49% | 2.14% | 3.07% | 4.87% |
| June 30, 2011 | 0.88% | 1.69% | 3.03% | 4.77% |
| June 30, 2012 | 0.69% | 1.06% | 1.74% | 3.28% |
| June 30, 2013 | 0.60% | 1.22% | 2.20% | 3.83% |

* Based on the Citigroup Pension Discount Curve.

The current trend towards greater regulatory scrutiny, coupled with the continuing low interest rate environment, has resulted in a narrower range of reasonable discount rates than in the past. Therefore, open communication between management, actuaries, and auditors is important in deciding on an acceptable rate.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