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6500 River Place Blvd.  
Building 2, Suite 204  
Austin, TX 78730

(512) 345-5200  
1-866-480-RISK (7475)  
[newsletter@actrisk.com](mailto:newsletter@actrisk.com)



## Redefining Risk

By Corwin Zass

Beginning with this month's **Risk Review**, we will provide you an update from the new Image of the Actuary campaign. Each of the following North American actuarial organizations is represented in the Image Advisory Group (IAG):

- American Academy of Actuaries
- American Society of Pension Professionals and Actuaries
- Canadian Institute of Actuaries
- Casualty Actuarial Society
- Colegio Nacional De Actuarios
- Conference of Consulting Actuaries
- Society of Actuaries

The objective of the IAG is to revitalize the actuaries' brand, which specifically embodies the ways actuaries:

- enable organizations to anticipate and manage strategic responses to the 21st century's changing economic and social needs
- are rigorously trained to manage risk, offering real-world solutions to complex and important problems
- are well positioned to assume broader risk management and leadership roles, given our history of helping the world understand risk.

The profession asks that you look up the word "risk" in a dictionary. We all understand that risk, inherent in many things, has been around since the beginning of time. For most of that time, people have associated risk with negativity. However, the actuarial profession wants the public to know, through the work done by actuaries on a daily basis, that risk is becoming an opportunity.

### Las Vegas BDO Conference – Raffle Winners

We want to thank everyone who stopped by our exhibit table during the Las Vegas conference. We enjoyed the opportunity to meet and speak with you.

At the end of the exhibit, Michael O'Hare stopped by our table to pull the names of the following lucky winners of our raffle:

**Allison DeGuzman** of Taketa, Iwata, Hara & Associates – IPOD Nano  
**Thomas Lillie** of Lewis & Knopf – Caymus Special Selection Cabernet

## Events

### June 2-5

2008 Reserves Week  
Chicago, IL

### June 4-6

SOA Employee Benefits  
Spring Meeting  
Tampa, FL

### June 9-13

Asset Liability  
Management  
Toronto, Canada

### June 16-18

Life Spring Meeting  
Quebec City, Canada

### August 11-14

Health Pricing and  
Valuation Boot Camp  
Lansdowne, VA

### September 9-10

Predictive Modeling  
Symposium  
Hollywood, FL

### September 22-24

Critical Illness  
Insurance  
Conference  
Las Vegas, NV



## ARM: Who We Are

Actuarial Risk Management (ARM) is an independent member of the BDO Seidman Alliance. ARM's staff, along with the expert actuaries from ARM's Actuarial Consulting Network, provides all necessary actuarial expertise and tools to ensure we can cover all actuarial disciplines.

All ARM representatives must comply with strict ethics and standards. We have access to the latest technological tools, ranging from modeling software for our life clients to proprietary claims analysis tools for our health clients.

Our fees are aggressively competitive and our experienced actuaries provide you with objective, independent, and responsive actuarial consulting services.

### Actuarial services include:

- Valuation and Financial Reporting
- Predictive Modeling & Loss Forecasting
- Corporate Modeling
- Reinsurance Expertise
- Expense Allocations and Analysis
- Capital Management
- Mergers and Acquisitions, Due Diligence
- Statutory, Tax and GAAP Audits of Actuarial Assets & Liabilities
- Data Management
- Product Development and Competitor Analysis
- Sarbanes-Oxley Assistance
- Retirement and Pension design and valuations
- Alternative risk management solutions, including captive and self-insurance



**Discover what BDO Seidman knows,  
the next generation in actuarial delivery...**

# Around the Actuarial World in 2 Minutes...

## This month's highlights

By Evelina Kaminski



### 1. AAA's Actuarial Update

The American Academy of Actuaries published their monthly newsletter, the Actuarial Update. This month's issue includes coverage of:

1. Actuarial expertise provided by the Academy's Terrorism Risk Insurance Subcommittee to the Government Accountability Office as the GAO prepares reports for Congress on terrorism risk coverage
2. The NAIC spring meeting, including a unanimous NAIC Life and Annuities Committee vote to tighten travel underwriting guidelines
3. A recent Medicare issue brief that encourages policymakers to start addressing the program's financial problems
4. Enrolled Actuaries Meeting sessions about the first year under the Pension Protection Act

### 2. Capitol Hill Briefing

On May 20, the American Academy of Actuaries sponsored a Capitol Hill briefing on risk pooling and the potential effects of health care reform on the individual and small-group markets. David Shea and Cori Uccello were the featured speakers. This is the first in a proposed series of "Healthcare 101"-type briefings that government staffers encouraged the Academy to provide during the Academy's Capitol Hill visits in March.

### 3. Medicare Advantage Plans Worry About Stiff Fines and State Oversight in CMS Proposal on MA and Part D

According to Atlantic Information Services, Inc. (AIS) Health Plan, Centers for Medicare & Medicaid Services (CMS) issued a proposed rule on May 8 to intensify marketing requirements for Medicare Advantage (MA) plans and stand-alone Prescription Drug Plans (PDPs), and to tighten regulation of MA Special Needs Plans (SNPs). While much of what CMS proposes in the 279-page document would only incorporate existing guidance into rules, industry experts who in general support the rule still worry that MA plans could be forced to work with state regulators to a much greater extent than in the past. They also fear that the proposed regulations could allow federal regulators to impose hefty fines on plans.

### 4. IRS Expresses Concerns with Health of Pension Plans

Representatives from the Internal Revenue Service and the U.S. Government Accountability Office believe the U.S. pension system faces a variety of challenges, including the general overall health of pension plans. This was the picture painted at the annual conference of the National Institute of Pension Administrators on May 7.

A synopsis of the conference illustrates the main challenges facing the pension system are a significant coverage gap of people covered by pension plans, the decline in defined benefit plans, fiscal pressure on the Pension Benefit Guaranty Corporation, and the questionable effectiveness of defined contribution plans.

To learn more about the National Institute of Pension Administrators annual conference, please call us.

## SOA: What Worries Boomers & Current Retirees

Corwin Zass

According to the Society of Actuaries, the authors of the Risks and Process of Retirement Survey Report, pre-retirees and retirees are concerned about protecting the value of their assets from inflation, paying for long-term care and for adequate health care, as well as maintaining a reasonable standard of living after the loss of a spouse.

According to the summary, 57% of the participating retirees and 63% of pre-retirees cited inflation as one of the top retirement risks, while 52% of the retirees and 63% of the pre-retirees named long-term care costs as a major concern. Approximately, 51% of the retirees and 69% of the pre-retirees cited affording adequate health care, ranking it third.

The survey report noted a gender gap, where women were concerned more than men about inflation, with 62% of female participants and only 51% of the male participants identifying inflation as a top concern. The likely rationale for this gender difference is that a 65-year-old woman has an average life expectancy of 20 years, compared with an average life expectancy of 17 years for a 65-year-old man.

Please contact us to learn more about this survey.

## Court Rules Pension Actuary Did Not Breach Duties

Corwin Zass

In early May, the U.S. Court of Appeals for the Fifth Circuit ruled that an actuary from a national actuarial firm, who provided pension plan services, did not breach his duties by not telling the plan's board of trustees that it could not afford to adopt a proposal under which eligible employees could opt to receive their benefits in lump-sum payments.

The court's judgment involved understanding the fiduciary responsibility of the consulting actuary specified in the Actuarial Standards of Practice (ASOP) that govern the profession. The ASOP states that actuaries do not have complete responsibility for a plan's actions; rather, the plan's sponsor, attorney, and statutory authorities have the ultimate decision making authority. As such, the court said the plan's board of trustees was required to make the ultimate decision on whether to adopt a particular benefit proposal.

## Softening market bigger challenge for P&C

Corwin Zass

As several commercial Property & Casualty insurers have been hit by the subprime credit crisis and related investment troubles, some observers expect more bad news on the investment front. But the situation will not have a major impact on the commercial P&C industry and may even help maintain underwriting discipline, they say. Another area of concern, though, is the likelihood of increased directors and officers' liability claims over the next several years. Meanwhile, aside from AIG—the insurer hardest hit by the subprime-related write-downs—most major Property & Casualty insurers reported a good first quarter, though results are expected to continue to deteriorate in a softening market.

## Public Plans Report: Funding Levels Vary Among State and Local Plans

Corwin Zass

According to a report released by Boston College's Center for Retirement Research on May 6, more than 60 percent of state and local plans are funded adequately but nearly 40 percent are not.

The report said low levels of funding could mean that future taxpayers would have to pay the cost of unfunded pension promises, as well as the unfunded costs of retiree health insurance. The old adage, increase revenue or cut expenses will be the means of "solving" this problem. If taxpayers refuse to cover pension commitments, future beneficiaries risk losing benefits, such as cost-of-living increases, the report added.

The report's authors examined variations among 109 state administered plans and 17 locally administered plans in the 2006 Public Fund Survey conducted by the National Association of State Retirement Administrators. The authors found a strong relationship between plan size and funding status. In addition to size, the report examined other factors that contributed to funding levels. These factors fell into four categories: funding discipline, governance, plan characteristics, and the fiscal health of the state.

To receive a copy of this report, please send us an email.

## Non-Life Reserving: Improving on a strategic challenge

Corwin Zass

Swiss Re's latest sigma study focuses on how the global insurance sector can improve its non-life reserving practices. In addition to explaining reserving methodologies, the study suggests that improvements in reserving will be beneficial for the industry as well as its clients and shareholders. Claims reserves (or provisions) are funds that are set aside for claims that have not yet been paid. Because claims reserves are often bigger than an insurer's equity, changes in reserves can heavily affect insurer's profits.

While insurers use well-tested actuarial approaches to determine reserves, even the best reserving methods will always be subject to adjustments – as the nature of risks and the resulting claims are subject to unforeseen events and other factors, such as technological and legal developments, medical progress and changing attitudes in society. Many of the reserving errors in the past occurred due to factors that were beyond the control of the insurers. Unexpected legal developments have cost insurers billions of USD. The US asbestos and liability crisis, which led to dramatic reserve adjustments in the 1980s, is a prominent example.

The escalation of health and wage costs, coupled with increasing life expectancy, has also had an adverse impact on claims. Although some of the developments may have come as a surprise, others were expected and reserving practices may not have been adapted sufficiently. Reserve changes are also tied to the insurance price cycle.

Better reserving approaches support the trend towards more transparency, via the various changes in accounting standards and regulatory rules. This movement shows a win-win for policyholders and shareholders. Adequate reserves help insurers avoid the risk of insolvency, while transparent and adequate reserving help promote rational pricing and thus lead to more stable and most probable results.

# Today's Life Insurance Products

## How Good Experience Can Lead to Problems – Part 2

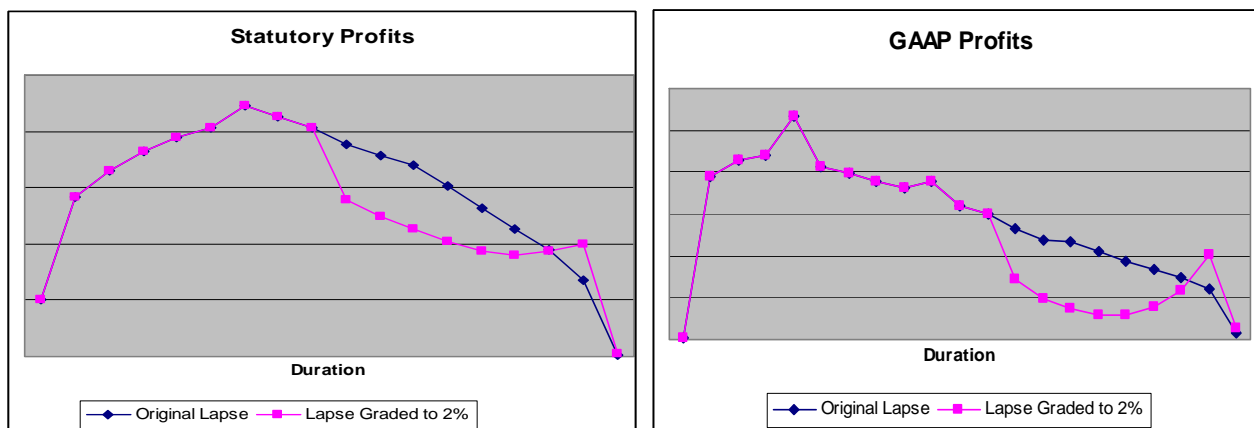
Brian Forman

In last month's article we explored the potential for problems with return of premium benefits (ROP) on term products. There has been a proliferation of this business written over the last 5 years. In addition to the sales sizzle of this benefit, companies assume that the ROP benefit will improve product persistency. But by how much? The reality is that if persistency improves too much the company's profits may be at risk. From the audit perspective, reserves could be understated.

Let's take a look at a simple example. We will assume that Company X wrote \$10 million of term insurance premium with the ROP benefit during 1999. The product they issued was a 20-year level term policy with a return of premium benefit that returns all premiums paid if the insured is still alive at the end of 20 years. To make this easier to understand we will assume that everyone issued was a male nonsmoker at age 40. However, the same results will occur if the business is spread over multiple issue ages with the normal combination of sexes and smoking classes.

We will start by assuming that the product was priced using a standard set of lapse rates that assumes no increase in lapse rates as the product nears the end of the 20-year period (20% year 1 grading to 7% in year 5 and level thereafter). Under this scenario, we will pay almost \$36 million in ROP benefits at the end of year 20. Now let's assume that the ROP benefit had a little more impact on the policyholders and the lapse rates beginning in year 13 were reduced to 5% due to the incentive of the future ROP payment. On this basis, we will now pay out almost \$42 million in ROP benefits and statutory profits over years 13-20 are reduced by 14%. If we take this even further and assume that lapse rates go to 5% in year 13 and grade down to 2% in year 19, we will pay out \$46.5 million in ROP benefits and profits over years 13-20 are reduced by 22% from the original projection. Over the life of the policy, this reduces the original profit margin or the original ROI upon which the product was priced. See these results graphically in figure 1.

The GAAP process also considers lapses when setting reserves and DAC, but experiences even more dramatic results. GAAP profits over years 13-20 are reduced 30% if lapse rates drop to 5% and are reduced 48% from the original scale when lapse rates grade down to 2%. See these results graphically in figure 2. Of even more concern, this situation comes very close to requiring a write-down for DAC due to recoverability concerns.



So be on the lookout for the lapse rates that your clients use when pricing and GAAPing ROP benefits. In Part 3 of this article, we will look at some administrative and actuarial situations related to ROP benefits that can cause additional problems.

## Meet One of ARM's Experts

By Evelina Kaminski

### Pat McElroy

ARM welcomes a new banking expert to the ARM Network.

Pat McElroy is president of Risk Management Partners, LLC (RMP), specializing in providing risk management consulting services to financial institutions. The three principals of his firm have more than 85 years of combined experience in the Banking Sector as regulators, bankers, and consultants. Mr. McElroy is a former commissioned examiner with the Federal Reserve Bank of Dallas. After 15 years of regulatory and banking experience, Mr. McElroy founded a regional bank consulting firm in 1989 and managed it for 13 years before he sold it to Sheshunoff. He then worked for Sheshunoff for a few years before starting RMP.

In addition to his consulting work, Mr. McElroy is a frequent speaker and instructor for various banking organizations throughout the United States. He regularly testifies as an expert witness in bank-related trials throughout the country. Mr. McElroy authored numerous articles about regulatory and risk management issues, many published in various banking industry magazines throughout the country. In addition to his consulting work with financial institutions, Mr. McElroy worked as a contractor for the Office of the Comptroller of the Currency, authoring a problem real estate loan training course that has been attended by national bank examiners throughout the United States. Mr. McElroy has a certification from the Bank Administration Institute as an Anti Money Laundering Professional (AMLPL).

Please give us a call if you would like to receive further information on these risk management services for the Banking Sector:

- Independent Loan Review
- Due Diligence
- Loan Loss Reserve Analysis
- Policy Development
- Regulatory Compliance Audits
- Bank Secrecy Act/Anti Money Laundering Consulting
- Fair Lending Reviews
- Enforcement Action Assistance
- Management Studies
- Procedural Reviews
- Regulatory Liaison
- Exam Preparation

ARM enthusiastically welcomes Pat and his team.

### Looking forward to hearing from You – How and where can we work together?

If you have comments or suggestions for this newsletter, or if you have questions about our business, do not hesitate to e-mail us at [newsletter@actrisk.com](mailto:newsletter@actrisk.com)

Also, visit our new website at [www.actrisk.com](http://www.actrisk.com)

# Our Services

2008 Actuarial Risk Management

*Risk Review* is published electronically by Actuarial Risk Management, an independent member of the BDO Seidman Alliance, to provide members the latest news and information about managing risk.

**EDITORS**

Corwin Zass

Evelina Kaminski

If you have questions or comments about Risk Review, please send an email to

[newsletter@actrisk.com](mailto:newsletter@actrisk.com)



Actuarial Risk Management offers a wide range of services. Some of our services include:

**Life & Annuity:**

- Financial Reporting Duties for Statutory, Tax, GAAP, and IFRS
- Audits of Actuarial Liabilities
- Principle Based Capital and Reserves
- Economic Capital
- Value Based Management
- Merger, Acquisitions and Restructuring
- Products, Markets and Distribution
- Risk Assessment
- Reinsurance
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**Who Are Our Clients?**

- Insurance Companies
- Regulators
- Agencies
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- Hospitals
- Managed Care Providers
- Employers
- Hedge Funds
- Private Investors

**Employee Benefit:**

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- Pricing of Group Medical, Dental, Disability, Life, Drug Plans
- Strategic Planning and Management Analysis
- Plan Funding (fully insured or self-insurance)
- Actuarial Plan Projections and Forecasts
- Self-Insurance Feasibility Studies
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**Managed Care:**

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- Predictive Risk Modeling
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- Expert Witness

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- Product Profitability & Company Capital Management
- Excess Insurance Evaluations
- Loss Forecasts and Historical Profitability Analysis
- Models for Dynamic Financial & Cash Flow Analysis
- Cost Driver Analysis
- Reinsurance & Risk Transfer
- Relativity Factors
- Deductible Credits
- Regulatory Assistance
- Self-Ins. and Captive Prgms
- Audit Support
- Expert Witness

**Retirement:**

- Actuarial Funding Valuations
- Accounting Valuations and Disclosures (FASB 87, 88, 106, 112, 132, 158)
- Government Plan Valuations (GASB 25, 27, 43, 45)
- Claims Analysis
- Forecasts and Projections
- Plan Design, Evaluation and Re-Design
- Opinions / Recommendations on Assumptions