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## International Survey of Emerging Risks



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Emerging risks surprise us, they sneak up on us, and after they occur everyone wonders why we didn't anticipate them in the first place. Hindsight is, indeed, 20/20. Try to recall how often you thought about the likelihood of the most recent financial bubble or a recent natural disaster prior to its occurrence. Even if you were aware of it and wanted to take action, the markets were unlikely to recognize the risk.

Recently, the International Network of Actuarial Risk Managers (INARM), a loosely organized group of actuaries who work to share best practices across the six continents where they reside, completed a survey of emerging risks for financial services firms.

The survey results are as follows:

- Oil shock/energy supply interruptions: 57 percent
- Climate change (environmental risk): 40 percent
- Blow up in asset prices/excessive indebtedness: 40 percent
- U.S. current account deficit/fall in U.S. dollar: 38 percent
- Fiscal crises caused by demographic shift: 29 percent
- Pandemics (societal risk): 26 percent
- Chinese economic hard landing (economic risk): 23 percent
- Breakdown of critical information infrastructure (technological risk): 22 percent
- Middle East instability (geopolitical risk): 20 percent
- International terrorism (geopolitical risk): 17 percent
- Retrenchment from globalization (geopolitical risk): 15 percent
- Natural catastrophe: tropical storms (environmental risk): 14 percent
- Loss of freshwater services (environmental risk): 10 percent
- Infectious diseases in the developing world (societal risk): 10 percent
- Chronic diseases in the developed world (societal risk): 10 percent
- Liability regimes (societal risk): 10 percent
- Emergence of risks associated with nanotechnology (technological risk): 8 percent
- Interstate and civil wars (geopolitical risk): 8 percent
- Natural catastrophe: inland flooding (environmental risk): 7 percent
- Proliferation of weapons of mass destruction (geopolitical risk): 7 percent
- Trans-national crime and corruption (geopolitical risk): 7 percent
- Natural catastrophe: earthquakes (environmental risk): 5 percent
- Failed and failing states (geopolitical risk): 5 percent

We note that there are limitations in any survey due size and participant expertise, but this group of INARM actuaries provided a first look at what risk managers are worried about internationally as they gaze into their crystal balls. It also shows the bias that any given group will have based on their knowledge, location and experience. This survey can help other risk professionals especially actuaries improve their thought processes regarding emerging risks to provide better insights on the topic. To learn about the survey, please contact ARM.

## Events

**September 15**  
CAS Reinsurance Limited  
Attendance Seminar  
New York, NY

**September 18-19**  
Casualty Loss Reserve  
Seminar  
Washington, DC

**September 22-24**  
NAIC Fall Meeting  
Washington, DC

**September 25-26**  
SOA Valuation Actuary  
Symposium  
Washington, DC

**October 19-22**  
SOA 08 Annual Meeting  
& Exhibit  
Orlando, FL

**October 22-24**  
Future of Life-Cycle  
Saving and Investing  
Boston, MA

**October 27-28**  
Equity-Based Insurance  
Guarantees Conference  
Boston, MA

**November 16-19**  
CAS Annual Meeting  
Seattle, WA

**December 3-4**  
Effective P&C Loss  
Reserve Opinions  
Baltimore, MD



## 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 Consulting Network, provides all necessary actuarial expertise and tools to ensure we can cover all actuarial disciplines, including the banking sector.

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 Reviews 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
- Enterprise Risk Management Assessments



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# Around the Actuarial World in 2 Minutes...

## This month's highlights



### 1. Academy will host Sept. 4 public forum on pension disclosure

The Academy's Public Interest Committee will host a public forum in Washington, DC on September 4. The purpose of the forum is to hear the views of stakeholders in the debate over the disclosure of the market value of assets and liabilities in public pension plans.

In May, the Board of Directors asked PIC to determine whether a board statement advocating such disclosures in public pension plans would be in the public interest. The daylong public forum is part of the information-gathering process toward making that determination.

### 2. Explaining Actuarial Equivalence

The Academy hosted a Capitol Hill briefing on July 11 to educate policymakers on what "actuarial equivalence" means in the context of comparing a health insurance plan to a specified standard benefit design. Presenting to 51 attendees in the Senate Budget Committee hearing room, Academy Senior Health Fellow Cori Uccello and John Bertko, member of the Academy's Medicare Steering Committee and chairperson of the Health Practice International Task Force, explained that actuarial equivalence is a general concept used to apply a relative measurement when comparing two benefit plans to see if their values are "sufficiently close for the specified purpose." One method could be to compare the value of an insurer's spending for different plan designs. Another method that should result in the same conclusions (unless different utilization assumptions are used) would entail calculation of the proportion of an insured's health spending that is covered by insurance.

### 3. AAA President Bill Bluhm responds to "Actuaries Scrutinized on Pensions" article

In the May 2008 issue of the New York Times, an article addressed challenges faced by actuaries when setting assumptions for determining public pension plan funding levels. The author noted that policymakers in several cities and states have increased benefits for public employees without increasing pension plan funding based on overly aggressive investment return projections. The article suggested that a situation could arise when an actuary is pressured "to come up with projections that make the pension fund look good." Academy President Bill Bluhm responded by explaining that the Actuarial Board for Counseling and Discipline is investigating alleged violations of the standards and code of conduct.

### 4. An IAA effort to develop an international glossary of insurance terms

The International Actuarial Association decided to lend a helping hand, joining with several other organizations in an attempt to create a single glossary to be used as a reference guide for international insurance industries. The other organizations involved in the joint effort are the Groupe Consultatif, the multinational body representing actuarial associations in the European Union, and the Comité Européen des Assurances (CEA). Part of that effort includes recognizing that the glossary may have to acknowledge that some terms have different meanings when they are used in different contexts.

### 5. SEC Moves Ever So Close To Global Accounting Standards

In late August, the Securities and Exchange Commission voted to publish for public comment a proposed Roadmap that could lead to the use of International Financial Reporting Standards (IFRS) by U.S. issuers beginning in 2014. Currently, U.S. issuers use U.S. GAAP.

SEC Chairman Christopher Cox noted that since March 2007, the Commission and staff have held three roundtables to examine IFRS, including one earlier this month regarding the performance of IFRS and U.S. GAAP during the subprime crisis. Almost one year ago, the Commission issued a concept release on allowing U.S. issuers to prepare financial statements using IFRS.

The insurance sector has significantly disapproved of the approach in developing the "current exit strategy" component and that there exist no separation of methodology for life versus non-life insurance contracts. Insurance carriers should pay attention to this movement as the global accounting standards evolve to a uniform principles based philosophy.

## Academy Statement on Retirement Age Makes National News

The American Academy of Actuaries ("Academy") recommendation to raise the retirement age for Social Security is getting national attention in the debate over how to solve the program's long-term actuarial imbalance.

The Academy's position was announced at an August 4 news conference with Bruce Schobel, chairperson of the Academy's Retirement Security Principles Task Force, and Tom Terry, the Academy's vice president for pension issues.

"While Social Security's financial soundness could be restored in many different ways, we believe that any solution package should include increases in the retirement age," said the Academy's position statement. "The Social Security Amendments of 1983 raised the normal retirement age from 65 to 67 over three decades. But it's frozen at 67 for all workers born after 1959. We shouldn't stop there. Holding the retirement age constant is a certain prescription for future financial problems. Raising it to reflect increasing longevity would contribute to solving those problems."

Since the news conference, millions of Americans have heard about the Academy's position or read about it via news outlets that range from CNN Headline News and Fox Business News to The Wall Street Journal. In fact, the media coverage began several days before the press conference, with an Associated Press story that appeared in print and electronic publications around the country.

While the attention may be gratifying, it has a larger purpose. "The financial consequences of increasing longevity will have a major impact on Social Security, and no one is more qualified to speak about those consequences than actuaries," Schobel said a few days after the news conference. "The more we can use our expertise to help the public understand this issue, the more they will understand that resolving the problem will be more painful the longer it is put off, and that acting now is in everyone's best interest."

## The Advancement of Loss Reserving Techniques

ARM recognizes the need for reserving techniques that more accurately reflect company, product, and risk profiles regardless of whether it is a P&C carrier, a managed care organization or a self-insured entity.

According to a recent article found in AM Best's "Best Review", Property & Casualty industry loss and loss adjustment expense reserves (LLAE) total \$537.5 billion as of March 31, 2008 and are approximately \$21.9 billion more than the industry's statutory surplus at the time. The A.M. Best study of 1,023 Property & Casualty insurance company failures from 1969 to 2007 attributed 38.1% of those failures to inadequate loss reserves - more than the next three most frequent causes combined. Catastrophes, on the other hand, claimed just 4.2% of the insurers that failed.

The article described what many in the profession see as some of the main reasons why there is difficulty in setting these reserves, including the fact that many reserving actuaries are not using advanced actuarial techniques in the development of loss reserves. There is a push in the ratings community and by the regulators for a fully functional enterprise risk management (ERM) culture in organizations. Traditional loss reserving via simple lag studies is not going to be sufficient to comply with the IFRS model of fair-value or exit-value accounting for financial liabilities, and to meet investor expectations for transparency of financial statements (which includes more stress testing).

To learn about dynamic ERM programs, robust stochastic reserving techniques or loss reserving in general, please contact us.

## GAO Report On LTC Insurance Stirs Concern In Congress

A Government Accountability Office report found wide variance in the prices and performance of long term care insurance policies across different plans and different states, raising a concern for lawmakers who expect more state-LTC partnerships to be implemented this year.

According to the lawmakers, the federal government expects LTC partnerships to be implemented in as many as 30 states by the end of the year. The partnerships are designed to encourage the purchase of LTC coverage and feature state-approved plans that combine private insurance with possible add-on Medicaid coverage in policies that allow consumers to protect some portion of their accumulated financial assets.

The GAO found wide fluctuations in rate increases for LTC policies between different states and plans. As an example, it cited one company that repeatedly raised premiums to a cumulative increase of 70% since 1991, and another that had only one premium increase in the last 33 years. Roughly half of the states have adopted some form of rate stability measures, but the report noted that this leaves the rest of the country unprotected, and that regulators in states with the standards are often still unsure of how useful they will be in moderating future increases.

## The Academy's Participation In An SEC Roundtable On Fair Value Accounting

The U.S. Securities and Exchange Commission invited the American Academy of Actuaries to participate in a July 9 roundtable on fair value accounting and auditing standards. The event featured two panels, the first focusing on the perspective of larger financial institutions and their investors and the second focusing on the perspective of all public companies, including small companies, and their investors.

Academy volunteer Sam Gutterman asserted that an actuarial perspective can add important insights to the conversation, since many actuaries make a living measuring values of financial liabilities in which there are no liquid markets. One central theme of his remarks was the necessity to better educate users on the values included in financial reports, which are estimates, whether or not fair value measurements are used. Because the process can be complicated, it is all the more important for financial statements to contain meaningful disclosures. He emphasized the use of techniques such as sensitivity analysis of key areas of uncertainty to provide more useful information to users.

## Add LTC Benefits to Medicare

Many health care experts still want to build long term care benefits into Medicare.

Researchers at the Commonwealth Fund, New York, have reported that finding in a summary of results from a survey of about 1,000 individuals involved in health policy, health care delivery and health care finance. About 79% of the survey participants said they support the idea of using an extra Medicare premium to add an LTC benefit to Medicare. Researchers also found that 64% of the participants support using tax incentives to encourage individuals to buy private LTC insurance. About 63% favour transferring responsibility for Medicaid nursing home benefits to the federal government, from the states.

In other survey findings:

- 55% of the participants said LTC cost should be shared by individuals and the government
- 26% said the costs should be shared by individuals, the government and employers
- 74% said using payment incentives to promote quality would be effective in assuring and improving quality of care in home health, nursing homes, and assisted-living arrangements
- 61% said increasing public availability of quality and price information on nursing homes and home health care would be an effective way to improve quality.

## Meet One of ARM's Experts

### Tom Donlon, FSA, MAAA

Tom is the Consulting Actuary at Donlon & Associates, Inc. (D&A), an actuarial consulting firm specializing in providing strategic planning advice for insurers, employers, health care providers and public sector clients regarding the design, pricing, funding and administration of health and welfare plans.

Tom has more than 20 years of experience specializing in the health care area. He works with a wide range of clients including insurers, public sector clients, health care providers and employers. Tom has also worked with a variety of different health and welfare plans. These include large group self-insured plans, small group insured plans, dental plans, disability plans and group life insurance plans.

At Donlon & Associates, Tom manages projects for a number of significant clients. These projects include:

- Developing health and welfare plan rating models
- Setting trend rates
- Certifying claim liabilities, preparing actuarial rate certifications
- Determining FAS 106 and GASB 45 liabilities
- Design and pricing small group health insurance products
- Analyzing claim utilization data
- Recommending plan design changes
- Negotiating with plan vendors
- Pricing defined contribution health plans
- Attesting to actuarial equivalence for Medicare Part D plans
- Preparing captive insurer feasibility studies
- Evaluating the effectiveness of managed care strategies



Prior to founding D&A, Tom was an Executive Vice President with Aon Consulting, a subsidiary of Aon Corporation in Chicago. At Aon, Tom was the National Practice Leader for the Health & Welfare Consulting Practice. He also served as the managing consultant for various accounts. During his eight years with Aon, Tom was a member of the Board of Directors of the Association of Private Pension and Welfare Plans (APPWP).

Prior to joining Aon, Tom was a Principal with William M. Mercer, Inc. (Mercer). There he consulted with both large employers and health care providers. While at Mercer, Tom served as a member of the National Managed Care Strategic Planning Committee and Regional Quality Assurance Committee.

Tom has been a Fellow of the Society of Actuaries since 1983 and a Member of the American Academy of Actuaries since 1980. He received a Bachelor of Science degree from Loyola University of Chicago with a major in Mathematics.

### 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

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[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
- Expert Witness
- Experience Studies
- Sarbanes-Oxley / Model Audit Implementation

#### Who Are Our Clients?

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

#### Employee Benefit:

- Medicare Part D Assistance and Analysis
- 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
- Cost Containment Program (identification & evaluation)
- OPEB Valuations and Program Assessments (under FASB, GASB)

#### Managed Care:

- Valuation & Financial Reporting
- Provider Network Evaluations
- Benefit Plan Pricing & Premium Rate Filings
- Small & Large Group Underwriting
- IBNR Analysis
- Financial Reporting & Projections
- Predictive Risk Modeling
- HSAs & Consumer Driven Health Plans
- Actuarial Training Programs (Managed Care specific)
- Payor Drug Cost Reviews
- Expert Witness

#### Property & Casualty:

- Outstanding Claims Liability, IBNE, IBNR and Loss Reserve Analysis
- 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 Prgrms
- 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

