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ANNUAL MEETING



The Actuarial Meaning of Insurance

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Audience Background

Which area is your primary area of work - where do you spend most of your time and where is your most extensive work?

- Personal Lines
- Commercial Lines (Reinsurance, Surplus Lines, etc.)
- Self-insurance and Captives
- Corporate Actuarial
- Non-Actuarial Role Insurance or Risk Management
- Other





Why discuss the meaning of insurance from an actuarial point of view?

- **Regulation of insurance** *complicated and confusing*
- Taxation of insurance complicated and confusing
- Financial Reporting of insurance (insurance accounting)
 complicated and confusing
- Actuarial insurance work important for actuaries to understand, and be able to clearly explain, the actuarial meaning of insurance in their work



Which of these areas is most relevant to your interest in this topic?

- Regulation of insurance
- Taxation of insurance
- Financial Reporting (insurance accounting)
- The meaning of insurance relevant to actuarial work





History - The Origins of Insurance, Insurance Regulation, Actuarial Work

- Purpose of Insurance provide protection from the financial impact of adverse outcomes from uncertain events - Lloyd's coffee house – driven by economic needs to protect financial interests (consumers and businesses)
- Insurance Regulation protecting the public and the solvency of insurers (ability to pay claims)
- Actuarial Beginnings focused on keeping / maintaining / summarizing records (e.g., deaths, fires, ships lost at sea) and the analysis of collected data



Which of these origins is most relevant TODAY to the actuarial meaning of insurance?

- Purpose of Insurance (providing protection)
- Insurance Regulation (protecting the public)
- Traditional Actuarial Roles (ratemaking & reserving





Why is the insurance business / industry so complicated and confusing?

- Wide range of benefits desired for purchasing insurance and reinsurance
- Variations in the details of insurance contracts and reinsurance contracts coverage triggers, subject risks, etc.
- **Differences between how different transactions are reported** in financial statements per accounting guidance (NAIC Statutory, US GAAP, IFRS) investments, debt/loans, leasing, service contracts, insurance/reinsurance
- **Differences in US Federal Income Tax Treatment** insurer vs. insured; reinsurance; self-insurance; captive insurance; RRGs; micro-captives (831b)
- Differences in insurance regulation state regulations, admitted market, E&S market, foreign markets, international insurance, multinational insurer groups

Would a consensus on the actuarial meaning of insurance help actuaries whose work is impacted by these confusing differences and variations?

YES - Specific practice guidance (practice note or ASOP) if there's consensus

YES - Education Only - specific guidance should not be binding

MAYBE - General Guidance Only - to help actuaries understand the implications of Laws, Regulations, Accounting and Tax Rules

NO - Actuaries should only depend on others for the scope of their work and for specific guidance on complex industry issues





Why is Insurance Protection Terminology so complicated and confusing?

Risk vs. Uncertainty				
Insurance Protection from Financial / Economic Uncertainty from Specific Risks, i.e., Certain Types of Contingent Events				
Uncertainty - about the Occurrence of Events	Risks - Sources and Causes of Uncertainties			
Uncertainty - about the Outcomes of Events	Risks - Definitional challenges, e.g., fortuitous, possible, probable, expected, foreseeable			
Uncertainty - related to the inability to measure or judge relative unknown values (e.g., scenario probabilities, probability distributions, losses or benefit costs)	Risk - A general reference to the drivers of events or outcomes of events which may be covered, or excluded, from insurance (or self-insurance)			
	Risk - The subject matter of insurance (or self- insurance), e.g., the insured, the perils (causes of loss) covered (or excluded) by insurance			

Which of the insurance terminology issues is most relevant to difficulties in actuarial communications with various audiences?

- How insurance protection is defined (or interpreted)
- Why insurance protection is important and can be provided, even when "uncertainties" cannot be estimated with insurance data
- How actuaries communicate "risks" and "uncertainties" in their work





Which of the following is an accurate view of actuarial practice?

- Actuaries are required by Insurance Regulations to use the Law of Large Numbers
- Actuaries are required by Actuarial Standards to use the Law of Large Numbers
- Actuaries usually rely on the Law of Large Numbers when it applies to their work
- Actuaries must follow all laws in their work, including the Law of Large Numbers





What does the term ACTUARIALISM mean?

- The merger of Actuarial Practice and Actuarial Science
- Common terms and concepts use by the actuarial profession
- An approach for controlling crime, predicting recidivism, and managing risks and potential threats to social order
- How big data and analytics now provide the primary lens to view insurance consumers





Aside from Risk and Uncertainty, the following terms used by actuaries can be quite confusing to non-actuaries, particularly to those without extensive insurance experience.

Actuarialisms				
Risk Measures	Claim Frequency	Risk Transfer	Risk Appetite	Actuarial Judgment
Expected Value	Loss Severity	Risk Shifting	Risk Tolerance	One in 100 Return Period
Credibility	Rate-on-Line	Risk Pooling	Risk Preference	Unfairly Discriminatory
Variability	Risk Margin	Risk Distribution	Risk Aversion	Actuarial Soundness
Volatility	Risk Load	Risk Diversification	Risk Independence	Expected Deficit (ERD)
Predictability	Risk Adjustment	Spread of Risk	Risk Correlation	Tail Risks (TVaR)
Best Estimate	Catastrophe Risk	Unbiased Estimate	Risk Aggregation	Capital Adequacy
Actuarial Central Estimate	Cost of Risk Transfer	Risk of Adverse Deviation	Risk Adjusted Rate of Return	Range of Reasonable Estimates

Do you think that these Actuarialisms should be avoided, simplified, or clarified through training or articles aimed at helping actuaries communicate to various audiences?

- Yes common glossary of such terms for readers without an insurance background should be possible
- No insurance and actuarial terminology is too complex to simplify or clarify, while still communicating effectively (trust the actuary's expert opinion)
- Unavoidably Confusing actuarial training and continuing ed may help actuaries to effectively communicate, even using actuarialisms





Should there be an Actuarial Meaning of Insurance, which is based on the breadth and depth of actuarial science and practical knowledge in the insurance business?

- Yes something comprehensive could be quite valuable for communicating to non-actuaries
- No current approaches to actuarial education for communications works well, even for complex actuarial work



