


## Casualty Actuarial Society: Casualty Loss Reserve Seminar

RMAD Disclosures in the Statement of Actuarial Opinion:  
An Insightful Discussion

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Commitment Beyond Numbers



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 Andrew Rouse, CPA  
 September 19, 2016

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### Outline of Presentation

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- Antitrust notice
- Background on:
  - Greg Fears
  - Erich Brandt
  - Kevin Ahlgrim
  - Dan Johnson
  - Andrew Rouse
- Risk of Material Adverse Deviation (RMAD) Background
- Risk of Material Adverse Deviation Research
- Auditors perspective on the RMAD disclosures


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### Antitrust Notice

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- The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. Seminars conducted under the auspices of the CAS are designed solely to provide a forum for the expression of various points of view on topics described in the programs or agendas for such meetings.
- Under no circumstances shall CAS seminars be used as a means for competing companies or firms to reach any understanding – expressed or implied – that restricts competition or in any way impairs the ability of members to exercise independent business judgment regarding matters affecting competition.
- It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.



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### About the Presenters

- Associate of the Casualty Actuarial Society
- B.A., Mathematics – Carthage College 2000
- Associate in Risk Management (ARM)
- 15 years of experience, primarily in commercial lines
- Reserving studies for:
  - Insurance companies (SAO and financial exams)
  - Captive insurance companies; Self-insured entities
- Funding recommendations for emerging coverages
- Experience reviewing industry financial statement data and associated trends
- Risk margin modeling
- Funding & reserving for public entities

**Gregory W. Fears Jr.**  
Consulting Actuary  
Pinnacle Actuarial Resources



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### About the Presenters

- Fellow of the Casualty Actuarial Society
- Graduate of Illinois State University
- 19 years of experience, primarily in commercial lines
- Reserving studies for:
  - Insurance companies (SAO and financial exams)
  - Captive insurance companies
  - Self-insured entities
- Extensive experience reviewing industry financial statement data and associated trends
- Experience in workers' compensation, liability lines, medical professional liability and commercial automobile

**Erich A. Brandt**  
Consulting Actuary  
Pinnacle Actuarial Resources



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### About the Presenters

- Ph.D., Finance - University of Illinois
- M.S., Finance - University of Illinois
- B.S., Actuarial Science - University of Illinois
- Associate of the Society of Actuaries (ASA)
- Member of the American Academy of Actuaries (MAAA)
- Research interests include fixed income modeling, financial risk management of insurers, subrogation, and actuarial science
- Teaches courses in commercial property insurance, risk management, and analysis of statutory financial statements

**Kevin C. Ahlgrim**  
Associate Professor  
Illinois State University



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### About the Presenters

- Fellow of the Casualty Actuarial Society (FCAS)
- Member of the American Academy of Actuaries (MAAA)
- Graduate of Gustavus Adolphus College – MN
- 27+ years in insurance industry, primarily P/C
- Current Responsibilities:
  - Loss and LAE reserves & Appointed Actuary
  - Ceded and assumed P/C reinsurance
  - Develop and monitor budget loss ratios for all P/C lines of business
- Past Work Experiences:
  - Pricing/product development/filing P/C lines
  - Developing business plans for all P/C lines
  - Lead Underwriting and R&D departments
  - Regional VP of Operations (8 states – central US)

**Daniel K. Johnson**  
Vice President and Corporate  
Property Casualty Actuary  
COUNTRY Financial



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### About the Presenters

- Responsible for supervision and management of audit and consulting services to his clients
- Expertise includes statutory, GAAP, and SEC audit and accounting issues and regulatory compliance for insurance entities
- Clients served write, cede, assume and broker property and casualty, health, and life insurance contracts
- Professional Affiliations:
  - Illinois CPA Society
  - American Institute of Certified Public Accountants
  - Association of Lloyd's Brokers
  - Insurance Accounting and Systems Association

**Andrew Rouse**  
Senior Audit Manager  
Plante & Moran, PLLC



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### RMAD: Sources for Guidance

- American Academy of Actuaries SAO Practice Note
- NAIC Property and Casualty SAO Instructions
- American Academy of Actuaries Discussion Paper prepared by the Task Force on Materiality
- Actuarial Literature
  - For example: Materiality and ASOP No. 36: Considerations for the Practicing Actuary – CAS Committee on Valuation, Finance and Investments

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## NAIC Statement of Actuarial Opinion (SAO)

- Risk of Material Adverse Deviation (RMAD)
  - Paragraph in the SAO which identifies:
    - Significant risks or uncertainties that could result in a material adverse deviation (in the actuary's opinion)
    - Threshold for the RMAD – amount in \$US
    - Standard for the threshold
    - Major risk factors or considerations underlying the significant risks and uncertainties

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## RMAD Location and Requirements

- Statement of Actuarial Opinion (SAO)
  - Explanatory paragraph to describe major risk factors
    - 2013: "If such risk exists", include
    - 2014: include regardless of yes/no disclosure
    - Do not include:
      - General, broad statements about risks and uncertainties due to economic changes, judicial decisions, regulatory actions, political or social forces
      - Exhaustive list of all potential sources of risks and uncertainties
    - Explicitly state whether or not the actuary reasonably believes there are significant risks and uncertainties that could result in material adverse deviation

\*Source – 2013 & 2014 Practice Note on P&C SAOs by American Academy of Actuaries CDPFR

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## RMAD Location and 2014 Requirements (cont.)

- Statement of Actuarial Opinion (SAO)
  - Exhibit B: Disclosures
    - Risk of Material Adverse Deviation
      - #5: Materiality standard in \$US
      - #6: Are there significant risks that could result in material adverse deviation? Yes / No / NA

\*Source – 2014 Practice Note on P&C SAOs by American Academy of Actuaries CDPFR

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### Discussion Question 1

- During the process of choosing a materiality threshold, what information do you gather from company management?
- Should this be different for groups with several individual companies?

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### Transition – RMAD Research

- Research question: How are actuaries actually reporting on the Risk of Material Adverse Deviation (RMAD)?

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## Choosing an RMAD Threshold

**Kevin C. Ahlgrim, A.S.A., M.A.A.A., Ph.D.**

*Associate Professor, Finance, Insurance and Law*

*Illinois State University*

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## RMAD Disclosures Research

- Methodology
  - Review 2013 Statements of Actuarial Opinion (SAOs)
  - Target companies with \$20 million of earned premium (approx. 1,000 affiliated/unaffiliated companies)
- Initial focus on (objective) disclosures
  - #5: Materiality standard in \$US (and basis)
  - #6: Are there significant risks that could result in material adverse deviation?: Yes / No / NA

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## Other Captured Data

- Appointed actuary
- Risk factors (whether “material” or not)
- From 2014
  - Actual reserve development
  - Comparison to materiality threshold (“breach”?)
- Supplemental insurer characteristics
  - Organizational type (e.g., stock vs. mutual)
  - Group membership
  - Key financials (PHS, direct/net premiums by LOB)

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## Part 1: Choose the Materiality Basis

- Examples include
  - Percentage of surplus (e.g., 10%)
  - Percentage of reserves
  - RBC to next action level
  - Drop in financial strength ratings
  - (Others are mentioned in COPLFR practice note)

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## But What is “Material”?

- American Academy of Actuaries Task Force on Materiality (2006):

*“An omission, understatement or overstatement in a work product is material if it is likely to affect either the intended principal user’s decision-making or the intended principal user’s reasonable expectations.”*

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## Discussion Question 2

- Who is the “principal user” of SAOs?
- Does it vary for mutual vs. stock insurers?

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## Discussion Question 3

- Assume that regulators are the principal user of SAOs. How might a regulator use/interpret the selected threshold for an individual insurer?

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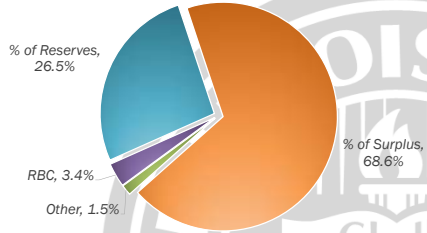
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## SAO Review: Basis for Threshold



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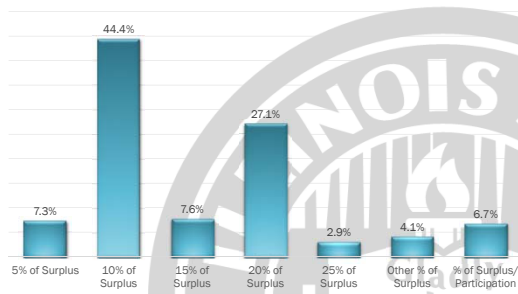
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## Materiality Threshold: % of Surplus



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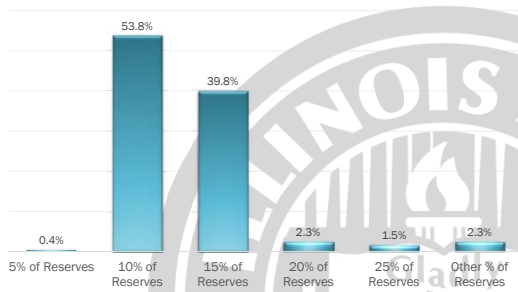
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## Materiality Threshold - % of Reserves



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## Discussion Question 4

- Actuaries must use judgment when determining the threshold
- Question: What factors should actuaries consider when selecting a materiality threshold?

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## What Determines Threshold/RMAD?

- (Volatility) of lines of business
  - Diversification?
- Relative premium risk (NPW/PHS)
- Risk tolerance of organization
- Other factors?

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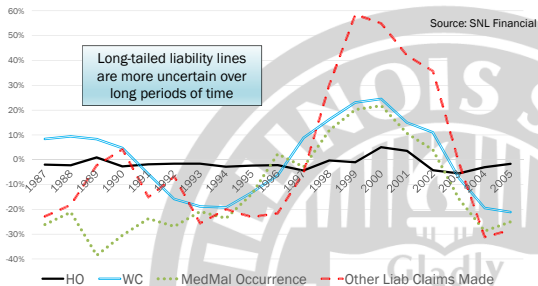
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## 10 Year Industry Loss Development



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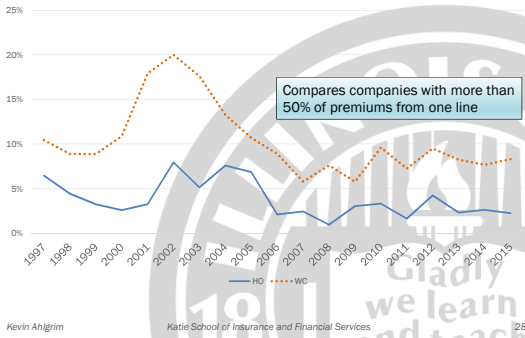
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## Does IRIS Ratio 11 Exceed 10%?




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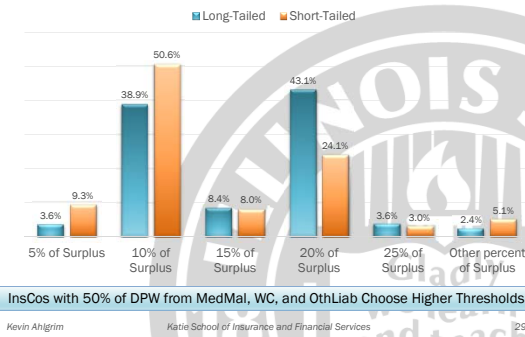
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## Selected Threshold by LOB




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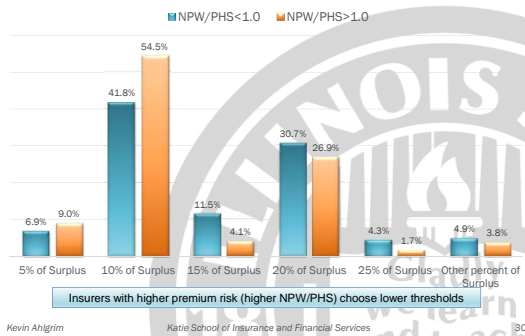
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## NPW / PHS vs. Threshold




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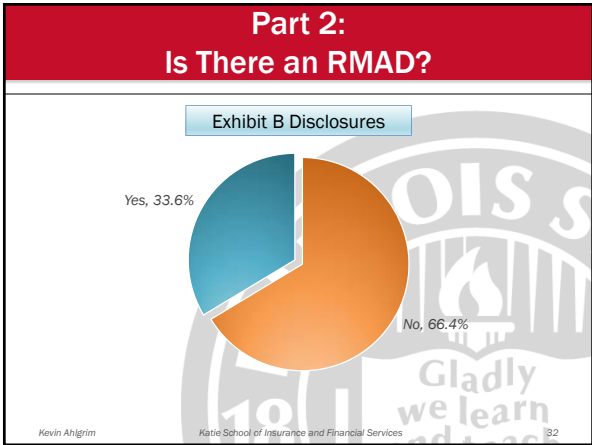
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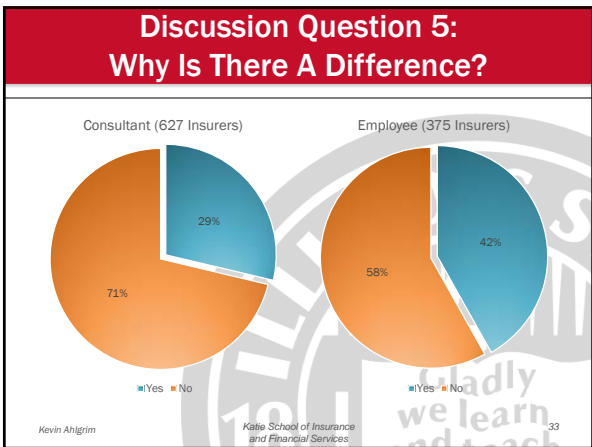
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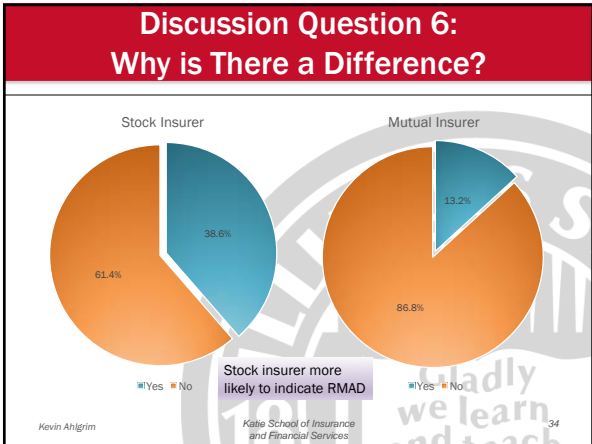
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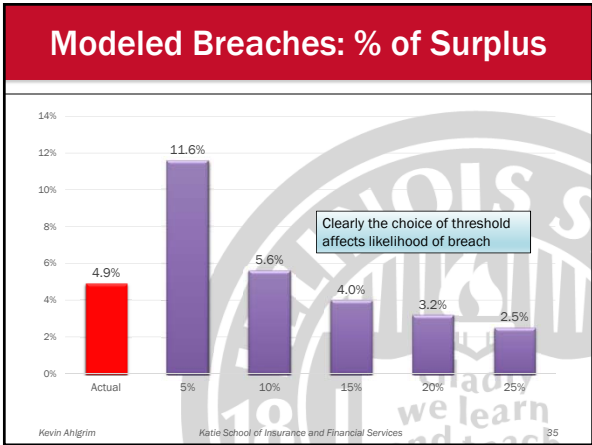
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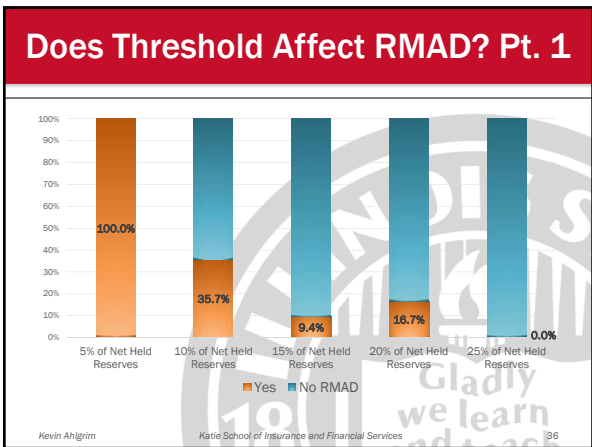
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### Discussion Question 7: Chicken vs. the Egg

- RMAD disclosure clearly affected by threshold
- Which provides more information to regulators?
  - A. Low materiality threshold, Affirmative RMAD
  - B. High materiality threshold, No RMAD



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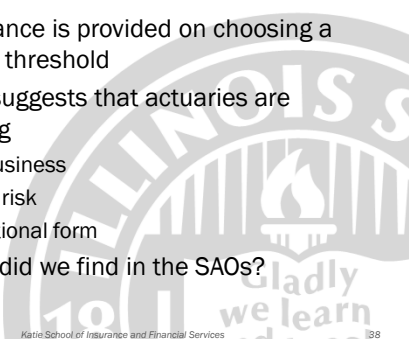
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### Summary

- Little guidance is provided on choosing a materiality threshold
- Evidence suggests that actuaries are considering
  - Line of business
  - Premium risk
  - Organizational form
- What else did we find in the SAOs?



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### Major Risk Factors–Data Concerns

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- Students input up to 5 risk factors per company
- Drop down boxes were used to help out with consistency
- Several companies had more than 5 risk factors
- Some risk factors seemed to be present with other risk factors:
  - Companies seldom have a single risk factor related to A&E Reserves
  - These companies often mention other risk factors such as long tailed exposure, high limits or lack of historical experience
  - While not always expressly said, it could be implied that some of these are “combinations of risk factors” alluded to in the COPLFR note

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2013 SAOs: RMAD Major Risk Factors	% Referenced
Workers Compensation Insurance	7.95%
Asbestos & Environmental (A&E)	6.67%
Long tail Coverage / Line of Business	6.18%
Uncertainty	6.06%
Other Mass Tort exposure	5.57%
Excess Casualty or Liability Exposure	4.34%
Significant detail on judicial decision recent or pending	4.34%
Change in Economy	4.28%
Construction defect exposure	3.79%
Professional Liability (including Medical Professional Liability)	3.73%
Lack of historical experience	3.55%
Rapid growth	3.55%
Claims Department Changes (handling, settlement or reserving)	3.12%
Environmental exposure	2.51%
Reinsurance Collectability	2.51%
Asbestos exposure	2.45%
Change in Regulation	2.14%
Change in company operations	2.08%
Not well diversified (concentrated in a single state)	1.83%
Adverse Development	1.71%
Runoff	1.53%
New markets with new insurance products	1.47%
Third Party Administrator (TPA)	1.28%
Mortgage guaranty	1.22%
New Line of Business (lack of historical experience)	1.22%
Range of reserves vs. materiality	1.22%
Change in retention levels	1.10%
Not well diversified (concentrated in single line)	1.04%
Underwriting Pools & Associations	0.98%
Excess Coverage	0.92%

11.62%

### Risk of Material Adverse Deviation

- We reviewed 1,002 SAO's that companies filed at year-end 2013
- 50 had indications that the RMAD threshold may have been breached in calendar year 2014
  - We made an adjustment for A&O when looking at 1 year development
- Observations from those SAO's that exceeded their threshold

### Case 1: Affirmative RMAD

SAO	2013	2014
RMAD Statement	Yes	Yes

- The majority of the 50 observations were in this scenario
- Commonly list several risk factors
  - Language is often identical between years
- At least one actuary did a retrospective test of the RMAD threshold and found a breach
- Overall, actuaries signing these opinions seem to be prepared with RMAD language that is well documented
- Thresholds used seemed to be 5 – 10% of surplus although a few were higher

### Discussion Question 8

- Is there a need for a retrospective test and commentary on the RMAD results?

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### Case 2: Adding a RMAD

SAO	2013	2014
RMAD Statement	No	Yes

- Three observations
- In each case, the opining actuary had amended their risk factors accordingly:
  - Growth and new programs
  - Uncollectable reinsurance
  - Late claims, low levels of surplus

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### Case 3: Removing a RMAD

SAO	2013	2014
RMAD Statement	Yes	No

- Several observations based on a single group
- Based upon distressed company being acquired and ceding its reserves to its parent
- Actuary mentions risk factor of “inter-company reinsurance arrangements” but mentions the strength of the parent to justify the lack of affirmative RMAD

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#### Case 4: No RMAD

SAO	2013	2014
RMAD Statement	No	No

- Ten observations
- Best to examine these on a case-by-case basis
  - IRIS ratio language, if needed
  - Comparison of the 2013 SAO and 2014 SAO

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#### Conclusions from Review of Companies that May Have Exceeded Threshold

- Several companies appear to have an intrinsic risk of material adverse deviation
  - Large limits underwritten
  - Substantial liability or WC exposure
- The materiality threshold used in this group of companies varies wildly
- Materiality thresholds based on reserves don't have a direct counterpart in the following annual statement, must compare dollar amounts
  - A company can have a relatively "low" 1 Year development IRIS ratio and still breach a reserve-based threshold

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#### Discussion Question 9

- How would you view two similar companies that use two significantly different RMAD thresholds in their SAOs? For example 5% of surplus versus 20% of surplus.

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### Discussion Question 10

- How do auditors and managers view RMAD thresholds express as a % of surplus versus a % of reserves?

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### Auditing Loss Reserves with RMAD

- In accordance with AU-C section 300 , Planning an Audit (AICPA, Professional Standards), the auditor should plan the audit so that it is responsive to the assessment of the risks of material misstatement based on the auditor's understanding of the entity and its environment
- The auditor's design of loss reserve auditing procedures needs to take into consideration the effects of relevant activities of the entity and changes in factors including
  - ✓ changes in the entity (mergers, acquisitions, dispositions);
  - ✓ underwriting and **claim trends**;
  - ✓ the reinsurance program of the entity (including any significant transactions);
  - ✓ management turnover;
  - ✓ IT system changes; and
  - ✓ process changes (that is, the entity's claim handling strategies).

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### Auditing Loss Reserves with RMAD

It is the auditor's responsibility to evaluate the reasonableness of the loss reserve established by management. AU-C section 540 , Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures (AICPA, Professional Standards), provides guidance for use by an auditor when considering the reasonableness of the loss reserve.

The auditors should identify the components of loss reserves that could be **material** or are of higher risk to the financial statements that have been considered in developing the overall reserve estimate.

An auditor should consider using the work of either:

- an auditor's external or internal loss reserve specialist; or
- **management's external loss reserve specialist who is not an employee of the entity, (under the requirements of AU-C section 500)**

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**Auditing Loss Reserves with RMAD**

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**Auditor's may use point estimates or ranges to evaluate the reasonableness of the accounting estimate.**

The size of the loss reserve range will vary by line of business.

- For example, automobile physical damage claims may be estimated with greater precision than product liability claims. In extreme cases, the top-to-bottom range could extend to 50 percent and upward of the amount provided. An example of an extreme case might be a newly formed entity that writes primarily volatile types of business. The results of operations in such a situation are sensitive to future fluctuations because the loss reserve estimate is based primarily on assumptions that will undoubtedly change over time.

**More important, however, is the strain that any extremely adverse loss development would place on such an entity's surplus.**

- In an opposite extreme case, the top-to-bottom range might only be 5 percent of the amount provided for an entity that only writes automobile physical damage coverages.



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**Auditing Loss Reserves with RMAD**

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**Auditor Uncertainty About the Reasonableness of Management's Estimate and Reporting Implications**

Ordinarily, the auditor would look to historical data to obtain audit evidence that will provide reasonable assurance that management's estimate of loss reserves is reasonable in the circumstances. Such historical data may not currently exist for certain new entities, for entities writing significant amounts of new lines of business, or for entities with a low volume of claims.

In situations where historical data is not available, the auditor should obtain other audit evidence to assist in making a determination whether management has adequately disclosed the uncertainty about management's estimate of loss reserves in the notes to the financial statements as required by FASB ASC 450 and 275.

- In practice, this typically results in heavy reliance on actuarial report and analysis



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**Auditing Loss Reserves with RMAD**

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- Financial reporting implications when the SAO includes an explicit statement that the actuary believes there are significant risks and uncertainties that could result in material adverse deviation –

Possible outcomes:

- Unmodified opinion
- Additional footnote disclosure
- Explanatory paragraph in auditor's report
- Emphasis of matter in auditor's report
- Scope limitation (qualified audit opinion)
- Scope limitation (disclaimer of audit opinion)

The facts and circumstances that resulted in actuary's decision to disclose the RMAD are crucial in the auditor's determination of a possible outcome (read: what evidence is available or will become available in the future)



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### Discussion Question 11

- Is an affirmative RMAD a “bad” thing?



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### Thank You for Your Time and Attention

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