***Reserving Risk: Actual losses or other contractual payments reflected in reported reserves or other liabilities will be greater than estimated.***

The Reserving Risk Assessment is focused on reserve adequacy. The analysis of reserves relies heavily on the review of the Statement of Actuarial Opinion and other related filings. Aanalysts’ risk-focused assessment of reserving risk should take into consideration the following areas (but be limited to):

* Reasonableness of assumptions and methodologies used by the Appointed Actuary to determine reserves
* Completeness and accuracy of the underlying data used by the Appointed Actuary in reserve calculations
* Accuracy of the Appointed Actuary’s reserve calculations
* Relationship between the Appointed Actuary’s reserve estimates and the company’s carried amounts
* Appropriate reporting of reserves and consistency between amounts recorded in the Statement of Actuarial Opinion, Actuarial Opinion Summary (AOS), Actuarial Report and Annual Financial Statement
* Effect of discounting on the carried reserves
* Lines of business written by the insurer
* Reserve development
* Changes in ceded reinsurance program
* Collectability of ceded reinsurance
* Adequacy of assets to support policyholder benefits

**Actuarial Opinion, actuarial report, & Actuarial Opinion Summary**

**Actuarial Opinion**

The Statement of Actuarial Opinion (Actuarial Opinion) provides a qualified actuary’s opinion on the reasonableness of the insurer’s reserves and gives insight into company-specific risk factors. The Actuarial Opinion can be valuable in determining whether the insurer requires further regulatory attention. The Actuarial Opinion is not independent from the Annual Financial Statement itself. Everything that follows in describing the Opinion should be expected to be consistent with all other elements of the Annual Financial Statement, including but not limited to the General Interrogatories, Notes to Financial Statements, MD&A, and Independent Auditors’ Report. (Note that the Annual Financial Statement is also referred to as the Annual Statement within this reference guide.)

Exhibit A (Scope) and Exhibit B (Disclosures) are crucial elements of the Actuarial Opinion. Exhibit A details the specific areas the actuary examined, such as loss and loss adjustment expense reserves, premium reserves, and other relevant reserve items. Exhibit B includes the Appointed Actuary's identification, qualifications, opinion type, materiality standard, risk assessment, reserve discounting, and other disclosures.

The *Annual Statement Instructions* identifies the insurer’s responsibilities regarding the appointment of a qualified actuary, notification to regulators, regulatory requirements for a change in actuary, requesting an exemption from filing the Actuarial Opinion, and reporting requirements for insurers that participate in an intercompany pooling arrangement.

**Actuarial Report**

The Actuarial Report is a confidential document separate from the Actuarial Opinion. It serves as a formal means of communicating the Appointed Actuary's professional conclusions and recommendations to the state regulatory authority and the Board of Directors. Additionally, it documents the methods and procedures used, ensures that all parties involved understand the significance of the Actuary's opinion, and provides a record of the underlying analysis.

**Actuarial Opinion Summary**

The Actuarial Opinion Summary (AOS) is a confidential document that offers valuable insight into an Appointed Actuary’s assessment of the reasonableness of carried reserves. While nearly all Actuarial Opinions conclude that carried reserves are reasonable, the AOS provides quantitative information that helps analysts understand the basis for this conclusion. By examining the additional information in the AOS, analysts can determine whether further regulatory attention is warranted. As with the Actuarial Opinion, the *Annual Statement Instructions* for the AOS are directed to the insurer.

The Actuarial Opinion and AOS may contain broad general caveats. These include generalizations about the unpredictability of future jury awards, coverage expansions, etc. They are not to be confused with disclosures about company-specific sources of uncertainty, such as new lines of business or territories, new claims/underwriting/marketing/systems initiatives, etc. These specific disclosures should be viewed as areas for formal investigation through an examination or informal investigation via correspondence or conversation.

**Statement of Actuarial Opinion Worksheet (P/C and Title)**

The Statement of Actuarial Opinion Worksheet (SAO Worksheet) is intended to provide procedures for reviewing the Actuarial Opinion, AOS and Actuarial Report for compliance and assessment of risks. In many states, the Actuarial Opinion, AOS and Actuarial Report are reviewed by actuarial staff. Whether the reviews are performed by the analyst or the actuary, the SAO Worksheet provides for the results of the reviews to be documented and communicated to the analyst.

The SAO Worksheet should be supplemented with comments and questions as needed. Both the Actuarial Opinion and the AOS should be reviewed and considered together before any action is taken. At the completion of the SAO Worksheet, analysts should conclude what, if any, further action is needed.

1. Consult with the regulatory P/C actuary, if available

If the insurance department has a regulatory P/C actuary on staff, analysts may consult with him or her for any questions or concerns.

1. Contact the insurer

Analysts may need to contact the insurer for additional information, particularly if the materiality standard is large relative to surplus or if the insurer’s RBC is likely to fall below the Company Action Level. Some of the items that may need clarification are a concern over reinsurance collectability, a change in discounting procedures, or other items noted in the Relevant Comments section of the Actuarial Opinion as having the potential to result in material adverse deviation. Typically, items of a general nature, such as the risk from a change in the legal or regulatory environment, would not require further investigation.

The Relevant Comments section may note a concern with collectability of reinsurance. Contracts with reinsurers that are not financially strong, reinsurance coverage obtained under a program that is no longer offered or reinsurance coverage on unusual risks could increase the uncertainty regarding reinsurance collectability. Also, a change in reinsurance contract language, a change in reinsurers or writing a new program in a new line or class of business may affect the uncertainty concerning reinsurance collectability if the insurer does not have a good understanding of the primary coverage written and the reinsurance coverage obtained.

If an insurer has recently implemented loss reserve discounting or if the discount rate used to determine the reserves has changed, analysts should ascertain the impact on the reserve estimates arising from these changes. Analysts should consider the magnitude of the impact in relation to the materiality standard and the potential effect on RBC levels.

Analysts may need to contact the insurer when the insurer has provided coverage for certain classes of business where liabilities are especially uncertain. Asbestos, environmental, pollution and other mass tort liabilities are particularly difficult to estimate and are often determined by models that examine the risk profile of the company’s policyholders, particularly when the insurer’s loss history has limited predictive power. The results from these models often have a wide range in estimates for loss and LAE reserves and, therefore, a high degree of uncertainty. Construction defect claims have a 10-year reporting period in some states, making their liabilities particularly difficult to estimate. Analysts should consider submitting a request for additional information from the insurer if an RMAD from these types of claims is identified.

The Appointed Actuary must include comments on the factors that led to any exceptional values for Insurance Regulatory Information System (IRIS) ratios #11, #12 or #13 in the Actuarial Opinion. An explanation that identifies risk elements that are part of the insurer’s ongoing operations rather than a one-time occurrence would merit further investigation by analysts. It is generally not sufficient to explain an exceptional value by simply stating the insurer has strengthened reserves. Detail regarding lines of business, accident years, or changes in operations should be requested if the Appointed Actuary has not provided that explanation for the specific IRIS ratio.

1. Obtain a copy of the Actuarial Report

If there are particular items identified as significant in the Relevant Comments section or there is significant risk of the insurer falling below the RBC Company Action Level, a review of the Actuarial Report supporting the Actuarial Opinion can give analysts insight into the nature and severity of the risks identified. If one or more portions of the carried reserves are excluded from the Actuarial Opinion, the Actuarial Report may give analysts information on the relative amount of any excluded items and the reasons why those items were excluded from the Actuarial Opinion.

If the analyst requests the Actuarial Report, the analyst might start by reviewing the narrative component. The narrative, often referred to as the executive summary, should contain the summary exhibits and the Appointed Actuary’s point estimate and/or range. The technical component should contain the loss development triangles and factors, support for ultimate loss selections, and required data reconciliations. Normally, the technical component would be requested for a full-scope examination or limited-scope examination that includes a risk-focused review of the carried reserves, since such a review would often include a review of the Appointed Actuary’s report.

If the Relevant Comment paragraphs mention the use of retroactive reinsurance or financial reinsurance, analysts need to understand how these agreements may affect the insurer’s financial position. The Actuarial Report may include information about these arrangements.

Any items in the insurer’s carried reserves that were identified in the Actuarial Opinion as not quantifiable require further investigation. The particular reasons or circumstances given can provide guidance on how to proceed. Analysts should consult with the Appointed Actuary to find out why there was not an opinion rendered on a portion of the reserves.

1. Consult with the Appointed Actuary

Analysts may contact the Appointed Actuary regarding any issues noted in the Actuarial Opinion or the AOS, regardless of where the Appointed Actuary is employed. However, analysts should consider informing company management before contacting the Appointed Actuary and copying company management on communications with the Appointed Actuary. In particular, companies with an external Appointed Actuary may request that they be notified before the Department of Insurance contacts its Appointed Actuary.

1. Engage an independent actuary to review the insurer’s reserves

For items that were not quantified in the Actuarial Opinion or any liability items for which there is significant concern, analysts may recommend engaging an independent actuary to provide a review of the carried reserves in question. This independent review can also be valuable if there is a significant difference between management’s view and the Appointed Actuary’s view concerning a material item identified in the Actuarial Report.

1. Meet with the insurer’s management

Analysts may recommend meeting with the insurer’s management when there are items in the Actuarial Report that need clarification or require the insurer to take further action. Further actions could include developing a business plan, setting up interim reporting, developing a corrective action plan, or providing additional information about the underlying factors contributing to the risk in the insurer’s Annual Statement. Any concerns with company financial data or reconciling various data sources should be investigated with the insurer’s management. Concerns about a company’s exposure due to policy coverage terms or lack of available data should be investigated as warranted.

1. Refer the insurer to the examination section for a target examination

Analysts may recommend a target examination if, after obtaining further information, there is still concern about the financial position of the insurer. The target examination should determine if the insurer is taking proper steps to mitigate the potential adverse impact arising from the risks identified in the Actuarial Opinion.

**Insurer Exemption from Filing an Actuarial Opinion**

***Procedure #1.*** Determine whether the insurer is exempt from filing the Actuarial Opinion. Insurers may be exempt from filing an Actuarial Opinion under the following circumstances:

* *Small Companies*: Insurers with total direct and assumed written premiums and loss reserves below $1,000,000 for the preceding calendar year.
* *Insurers Under Supervision or Conservatorship*: Unless directed by the domiciliary commissioner, insurers under supervision or conservatorship are exempt.
* *Nature of Business*: Insurers may apply for an exemption based on the nature of their business.
* *Financial Hardship*: Insurers may apply for an exemption due to financial hardship. This is presumed to exist if the projected cost of the Actuarial Opinion exceeds the lesser of 1% of capital and surplus or 3% of premiums.

The commissioner has discretion to grant or deny exemptions, even if one or more of these conditions are met.

**Actuary Identification, Qualifications, Relationship to the Company, and Date of Appointment**

***Procedure #2.*** Determine whether the Actuarial Opinion was prepared by a Qualified Actuary who was appointed by the insurer’s board of directors prior to Dec. 31 of the calendar year for which the opinion was rendered; To be considered a “Qualified Actuary” as defined in the NAIC Statement of Actuarial Opinion, an actuary must satisfy specified qualification standards, retain an Accepted Actuarial Designation, and maintain membership in a professional actuarial association that requires adherence to the same Code of Professional Conduct promulgated by the American Academy of Actuaries and participation in the Actuarial Board for Counseling and Discipline.

**Intercompany Pooling Arrangement Disclosures**

***Procedure #3.*** Determine whether the Appointed Actuary made the required disclosures if the insurer is a member of an intercompany pooling arrangement (pool). Pool members’ financial results may need to be evaluated differently than those of insurers that operate independently. Exhibits A and B for each company in the pool should reflect the company’s share of the pool and should reconcile to values filed with the Annual Statement.

For companies whose pool participation is 0%, (i.e., no reported Schedule P data), the Appointed Actuary is directed to write an Actuarial Opinion that reads similar to that of the lead company. Exhibits A and B of the lead company should be filed as an addendum to the Actuarial Opinions of the 0% pool companies. This will allow for proper data submission for each company in the pool while providing additional meaningful data to analysts. The Instructions require specific answers for the Exhibit B questions regarding materiality and the risk of material adverse deviation (RMAD).

Note the distinction between pooling with a 100% lead company with no retrocession and ceding 100% via a quota share agreement. These affiliate agreements must be approved by the regulator as either an intercompany pooling arrangement or a quota share reinsurance agreement. The proper financial reporting is dependent on the approved filings, regardless of how company management regards its operating platform.

**Scope**

***Procedure #4.*** Determine whether the Appointed Actuary included the appropriate loss reserves, LAE reserves, and (if appropriate) other loss and premium reserves within the scope of the opinion and whether the reserve amounts included in Exhibits A and B of the Actuarial Opinion agree with the amounts reported in the Annual Statement. If the reserve amounts included in the Actuarial Opinion do not agree with the amounts per the Annual Statement, analysts should: 1) comment on the reasons for the differences; 2) consider the impact of the differences on the analyst’s conclusions about the Annual Statement; and 3) consider the need to perform additional analysis on the Annual Statement.

***Procedure #5.*** Determine whether the Appointed Actuary relied on an officer of the company for data preparation. The individual(s) relied upon should have both authority and responsibility for relevant data and data systems. A company Appointed Actuary may choose to accept responsibility for the data without identifying reliance on another company person. If someone from the regulated insurance entity is not named here, analysts should request that the insurer provide a clarifying amendment.

The Appointed Actuary is also directed to state whether the data used in forming the Appointed Actuary’s opinion was reconciled to Schedule P – Part 1 of the insurer’s Annual Statement. (Schedule P – Part 1 is then required to be tested by the independent certified public accountant (CPA) as a part of the audit of the insurer.)

**Opinion**

***Procedures #6 and #7.*** Determine whether the Actuarial Opinion states that the reserves meet the requirements of the insurance laws of the state of domicile, are computed in accordance with accepted loss reserving standards and principles and make a reasonable provision for all unpaid loss and LAE obligations of the insurer under the terms of its policies and agreements. The Appointed Actuary must explicitly state his or her opinion using one of five opinion types. Any opinion that is not ‘Reasonable’ should be flagged for immediate attention by the state insurance regulator to determine the need for follow-up action.

If unearned premium reserves or other reserve items are included within the scope of the Appointed Actuary’s opinion, this section of the Actuarial Opinion will also provide the Appointed Actuary’s conclusion on the reasonableness of these reserves.

If the Actuarial Opinion deviates from the above statements or if a material portion of the insurer’s reserves is excluded from the scope of the Actuarial Opinion, analysts should: 1) comment on the deviations or exclusions; 2) consider the impact on the analyst’s conclusions about the Annual Statement; and 3) consider the need to perform additional analysis on the Annual Statement.

**Relevant Comments and Exhibit B Disclosures**

***Procedure #8.***Determine whether the actuary commented on various topics and issues in Exhibit B of the Actuarial Opinion as required by the *Annual Statement Instructions Property/Casualty*.

The most important relevant comment relates to the Risk of Material Adverse Deviation (RMAD). The Appointed Actuary should provide explanation of the major risk factors affecting the company. The Appointed Actuary must also identify the materiality standard and the basis for establishing it. The Appointed Actuary must then explicitly state whether or not he or she reasonably believes that there are significant risks and uncertainties that could result in material adverse deviation.

Appointed Actuaries often choose a materiality standard as a percentage of surplus or reserves, but other standards may also be appropriate. The standard chosen quantifies the amount of adverse deviation that the Appointed Actuary judges to be material. The standard may vary based on the solvency position of the insurer. The materiality section of the Preamble to the *Accounting Practices and Procedures Manual* (AP&P Manual) contains excellent guidance regarding the selection of a materiality threshold. Based on this guidance, an Appointed Actuary for two companies with comparable business and comparable reserves could select different materiality standards. For example, an insurer with a risk-based capital (RBC) ratio of 205% could possibly need only a small change in reserves to put it in Company Action Level, so the Appointed Actuary’s chosen materiality standard for this insurer may be lower than for a similar insurer with an RBC ratio of 600%.

If the company is subject to RBC reporting requirements, the results of the Bright Line Indicator test should be reviewed in conjunction with the Appointed Actuary’s RMAD statement: If the insurer triggers the Bright Line Indicator test, meaning that 10% of the insurer’s net loss and loss adjustment expense (LAE) reserves is greater than the difference between the Total Adjusted Capital and Company Action Level Capital, and the Appointed Actuary opines that there is not a RMAD, the Appointed Actuary should be asked to explain this opinion. A special report on the Bright Line Indicator is located on StateNet under the Financial Analysis link.

A similar comparison could be made between 10% of the insurer’s net reserves and the size of its underwriting or operating income. It should be noted that the RMAD might increase with more volatile exposures such as asbestos and environmental, excess casualty, or other commercial lines.

Collectively the Relevant Comments should reveal exposures, transactions, historical developments, processes, and uncertainty that contribute to the Appointed Actuary’s opinion. Some of the comments call for judgment on the part of the Appointed Actuary. The disclosures in Exhibit B are required to ensure that the Appointed Actuary acknowledges consideration of certain items in reaching his or her opinion.

The Actuarial Opinion should also indicate if any of the reserving IRIS ratios produce exceptional values and discuss any exceptional values.

**Actuarial Report Prepared, Supports Actuarial Opinion, Signed, and Contains Required Elements**

***Procedure #9.*** Determine whether the Appointed Actuary indicates that an Actuarial Report has been prepared which supports the findings expressed in the Actuarial Opinion. In some cases, analysts may consider obtaining a copy of the Actuarial Report. The Actuarial Report is a confidential document that describes the sources of data, material assumptions, and methods used, and supports the Appointed Actuary’s opinion. The Actuarial Report generally includes relevant loss and LAE data triangles and discusses significant issues that affected the Appointed Actuary’s interpretation of the data. Examples of significant issues that may be discussed by the Appointed Actuary include changes in the following: management of the insurer, claims payment philosophy, the claims reporting process, computer systems, mix of business, contract limits or provisions, and reinsurance. While the Actuarial Report should not be filed with the Actuarial Opinion, the Actuarial Report is required to be retained by the insurer for a period of seven years and available for regulatory examination. The Instructions dictate certain elements that must be included in the Actuarial Report. In addition, the Actuarial Report must be signed and dated by the Appointed Actuary and must be consistent with the documentation and disclosure requirements of Actuarial Standard of Practice (ASOP) No. 41 – *Actuarial Communications*.

**Actuarial Opinion Summary**

***Procedure #10.***Verify the regulatory requirements for filing the AOS and the company’s compliance with the requirement.

***Procedure #11.***Verify that the AOS discloses required pooling information if the insurer is a member of an intercompany pooling arrangement.

***Procedure #12.***Verifythat the AOS contains the required comparisons and that the amounts in the AOS reconcile with those in the Actuarial Opinion, Actuarial Report and Annual Financial Statement. Inconsistencies in reported values may indicate weak controls within the company.

***Procedure #13.*** Verify that the Appointed Actuary’s opinion implied by the comparisons in the AOS is consistent with the type of opinion rendered in the Actuarial Opinion. Analysts should note concerns regarding carried reserves that appear significantly low relative to the Appointed Actuary’s estimate(s).

Parts A, B, C and D of Section 5 of the AOS call for a comparison that can be presented in a simple table. Regardless of how the information is presented, the intention is to translate for the regulator the qualitative/subjective opinion regarding “reasonableness” into a quantitative/objective financial comparison.

Parts A and B require the Appointed Actuary to compare his/her point estimate and/or range of estimates (whatever is calculated), to the carried loss and LAE reserves. The Appointed Actuary must compare these estimates on both a net and gross of reinsurance basis. The carried amounts should agree with the amounts presented in Exhibit A of the Actuarial Opinion and the Annual Statement. Analysts should note that the amounts provided in the AOS are commonly presented as combined loss and LAE amounts (Exhibit A of the Actuarial Opinion, lines 1 and 2 for net and lines 3 and 4 for direct and assumed). If the amounts do not agree, this could be an indication of weak controls within the reserving or financial reporting process of the company. Discrepancies that are not adequately explained by the Appointed Actuary require follow up.

If the Appointed Actuary issues a “reasonable” opinion, the comparisons in the AOS will likely be described by one of the following three situations. The tables in these illustrations show both point and range estimates by the Appointed Actuary. The Appointed Actuary is not required to calculate both, but regulators expect Appointed Actuaries to report whatever is calculated. A small percentage of Appointed Actuaries calculate a range only.

*Situation 1*: Appointed Actuary’s Point Estimate or Range Midpoint = Carried Reserves

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Net  Loss + LAE Reserves | | | Direct & Assumed  Loss + LAE Reserves | | |
|  | Low | Point | High | Low | Point | High |
| B. Appointed Actuary’s Estimates | 17,000 | 20,000 | 23,000 | 21,500 | 25,000 | 28,000 |
| C. Company Carried Reserves |  | 20,000 |  |  | 25,000 |  |
| D. Difference | 3,000 | 0 | (3,000) | 3,500 | 0 | (3,000) |

The example above is simple and can represent a situation in which the company relies completely on the Appointed Actuary by carrying his or her estimate. In this case, there is no difference between the Appointed Actuary’s estimate and the carried amount. Further action is generally not necessary.

There may be small variations from this scenario in which the Appointed Actuary’s estimate is “close to” the company’s carried reserves. Analysts need to determine “How close is close enough?”. Regulatory emphasis is on financial solvency. Therefore, an initial consideration might be the impact on surplus of management’s decision to carry an amount different from the Appointed Actuary’s estimate. Further action is generally not necessary unless the analyst is concerned that carried reserves are far enough below the Appointed Actuary’s estimate as to not obviously be “close enough.”

*Situation 2*: Appointed Actuary’s Point Estimate or Range Midpoint < Carried Reserves

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Net  Loss + LAE Reserves | | | Direct & Assumed  Loss + LAE Reserves | | |
|  | Low | Point | High | Low | Point | High |
| B. Appointed Actuary’s Point Estimates | 17,000 | 20,000 | 23,000 | 21,500 | 25,000 | 28,000 |
| C. Company Carried Reserves |  | 21,000 |  |  | 26,500 |  |
| D. Difference | 4,000 | 1,000 | (2,000) | 5,000 | 1,500 | (1,500) |

In this case, the company is carrying a reserve amount greater than the Appointed Actuary’s point estimate and in the higher end of the Appointed Actuary’s range. From a solvency perspective, surplus is more conservatively stated. Further action is generally not necessary.

*Situation 3*: Appointed Actuary’s Point Estimate or Range Midpoint > Carried Reserves

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Net  Loss + LAE Reserves | | | Direct & Assumed  Loss + LAE Reserves | | |
|  | Low | Point | High | Low | Point | High |
| B. Appointed Actuary’s Point Estimates | 17,000 | 20,000 | 23,000 | 21,500 | 25,000 | 28,000 |
| C. Company Carried Reserves |  | 17,100 |  |  | 22,000 |  |
| D. Difference | 100 | (3,000) | (5,900) | 500 | (3,000) | (6,000) |

When the carried reserves are less than the Appointed Actuary’s point estimate or range midpoint, the question of “How close is close enough?” becomes more relevant. This is a more challenging situation for analysts to evaluate. Analysts should focus on the difference between the carried reserves and the point estimate or range midpoint. If the Appointed Actuary has issued a “reasonable” opinion, analysts should consider the following factors:

* The difference as a percent of surplus
* The difference as a percent of carried loss and LAE reserves
* The company’s RBC position

At this point, consider an alternate question: “If the company had carried the Appointed Actuary’s higher estimate and surplus was comparably reduced, would my evaluation of the company’s financial condition change to a less favorable one?”. If the answer to that question is “yes,” then consider requesting management’s rationale and documentation to support the lower carried reserve amount(s). In addition, analysts might require the company to have its Appointed Actuary provide additional information regarding the range of estimates, if calculated. The Appointed Actuary’s description of the range should also be documented in the Actuarial Report supporting the Actuarial Opinion.

As a rule of thumb, it is concerning if carried reserves are more than 5% (of surplus) below the Appointed Actuary’s point estimate or range midpoint, even if the reserves still lie within the Appointed Actuary’s range. The 5% (of surplus) is a common examiner materiality starting selection for financial examinations.

Next, consider the AOS in the context of RMAD as addressed in the Actuarial Opinion. If a range is provided, is the materiality standard less than the difference between the carried reserves and the high end of the Appointed Actuary’s range? This means that reserves would still lie within the Appointed Actuary’s range of reasonable reserve estimates if carried reserves developed adversely by an amount the Appointed Actuary considers to be material. In this situation, state insurance regulators generally expect the Appointed Actuary to conclude that there is a significant risk of material adverse deviation. If the Appointed Actuary concludes that there is not a significant RMAD in this situation, analysts should document any comments or concerns and consider following up with the Appointed Actuary.

Most opinions issued are “Reasonable,” which means that the carried reserve amounts are within the Appointed Actuary’s range of reasonable reserve estimates. Only a handful of opinions fall into the other categories as defined in the Instructions (Deficient or Inadequate, Redundant or Excessive, Qualified, or No Opinion). These types of opinions likely require further action by analysts. The Considerations section identifies several actions that could be taken, particularly with regard to a Qualified Opinion or No Opinion.

A Deficient or Inadequate Opinion, while rare, presents a challenge for analysts. This type of opinion means that the carried reserves are less than the minimum amount the Appointed Actuary considers to be reasonable. As with Situation #3 above, analysts should evaluate the materiality of the deficiency in light of surplus, the company’s RBC position, net income, and other factors. Analysts should review all options listed in the Considerations section. In this situation, the regulator may wish to initiate a target examination or engage an independent actuary to evaluate the reasonability of the carried reserves so that the implied deficiency can be evaluated.

Regardless of analysts’ concerns, it is important to remember that the carried reserves are the responsibility of management. The Appointed Actuary may or may not be part of management. In nearly all cases, analysts should direct initial questions to company management for rationale and documentation of decisions regarding the carried reserves.

***Procedure #14.***Verify compliance with the AOS reporting requirement regarding persistent adverse development. Analysts should note concerns regarding the nature of historical adverse development.

Part E of Section 5 addresses what the Casualty Actuarial and Statistical (C) Task Force calls “persistent adverse development.” When the company experiences one-year adverse development in excess of 5% of the prior year’s surplus as measured by Schedule P – Part 2 Summary in at least three of the past five calendar years, the Appointed Actuary must provide an explicit description of the reserve elements or management decisions that were the major contributors. The one-year adverse development ratio can be found in the Five-Year Historical Data exhibit of the Annual Statement.

In the discussion of persistent adverse development, the Appointed Actuary is encouraged to address common questions that regulators have, such as:

* Determine if the development is concentrated in one or two exposure segments, or broad across all segments.
* How does the development in the carried reserve compare to the change in the Appointed Actuary’s estimates?
* Determine if the development is related to specific and identifiable situations that are unique to the company.
* Determine if the development is judged to be random fluctuation attributable to loss emergence.
* Determine if either the development or the reasons for the development differ depending on the individual calendar or accident years.

Analysts should also consider the following situations:

* *Situation A*: Prior AOSs indicate that the company relies on the Appointed Actuary’s estimates. If persistent adverse development occurs, analysts might infer that the Appointed Actuary’s methods and assumptions have a bias towards underestimation.
* *Situation B*: Prior AOSs indicate that the company regularly carries amounts lower than the actuarial point estimate or low in the Appointed Actuary’s range. If persistent adverse development occurs, analysts might infer that management takes a more optimistic view of its liabilities, regardless of what the Appointed Actuary calculates.

**Property/Casualty Reserving Risk Assessment Overview**

The single largest liability reported by most P/C insurers is the liability for unpaid losses (commonly known as loss reserves). Loss reserves are estimates rather than definitive amounts, as they are based on projections of future claim payments.

The underlying goal of loss reserve estimation is to accurately reflect the outstanding liability, net of reinsurance, for all losses that have occurred and not been paid as of the financial statement date. While most policies recognize losses when they occur, claims-made policies create a unique dynamic. Under these policies, losses are recognized when they are reported to the insurer, not when they occur. This distinction impacts the timing of loss recognition and reserve estimation.

Unpaid losses are categorized as either “reported” or “incurred but not reported” (IBNR). Because the dollar amount of IBNR losses is not known as of the financial statement date, the estimate is highly subjective. Even with respect to those claims that have been reported to the insurer, the actual amount that the insurer will pay will not be known until the claims are settled in full, which could be years after the insurer initially established the reserve. Generally, an insurer is required to estimate the value of what its claims will be when they are ultimately settled. Excluding certain types of losses that an insurer may be allowed to discount, statutory accounting practices require that for every dollar of unpaid losses, an insurer reserve a dollar for the future payment of those losses.

In addition to unpaid losses, insurers must also establish reserves for loss adjustment expenses (LAE). LAE represents the estimated future costs associated with settling unpaid losses, including claims adjustment expenses, legal fees, court costs, investigation fees, claims processing, and payment expenses. LAE is classified as either “defense and cost containment (DCC) expense” or “adjusting and other expense.” DCC expenses are correlated with the loss amounts and include defense, litigation, and medical cost containment expenses. Adjusting and other expenses are correlated with the number of claim counts and include all LAE other than DCC expenses, such as fees of adjusters and attorney fees incurred in the determination of coverage. The reserve for LAE should be the insurer’s best estimate of the LAE that will be paid to settle both reported and IBNR unpaid claims.

Due to the complexity of reserving for unpaid losses and LAE, most insurers rely on actuaries or individuals with actuarial training to assist in estimating these liabilities. Although some insurers may not employ actuaries for reserve estimation, they are nonetheless required to obtain an annual opinion from a qualified actuary regarding the reasonableness of their carried reserves.

As these liabilities necessitate estimation, they are inherently considered a high-risk area for P/C insurers. The reasonableness of an insurer’s reserves for unpaid losses and LAE must be closely monitored on an ongoing basis. A deficiency in these liabilities directly impacts surplus, which, in turn, affects the insurer’s overall financial solvency. Therefore, the primary focus of analysts reviewing unpaid losses and LAE is to assess whether the insurer’s established liabilities are sufficient to cover the future costs of settling all of the insurer’s covered losses that have occurred as of the financial statement date.

**General Guidance**

To assess reserving risk consider the quantitative and qualitative data, benchmarks, and procedures in this chapter. It’s important to note that this is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state department based on the nature and scope of the risk.

The placement of procedures, metrics, and data within reserving risk is based on “best fit”. Analysts should exercise professional judgement when categorizing risks and documenting financial determinations.

In conducting the analysis, utilize available tools in iSite+, such as financial profile reports, dashboards, loss reserves tool (projection and development triangles), and Annual Filings such as the Statement of Actuarial Opinion. Additionally, consider external resources such as rating agency reports, industry reports, and publicly available insurer information.

Analysts are not expected to document every procedure, data point, or benchmark result. Rather, analysts and supervisors should leverage their expertise, knowledge of the insurer, and professional judgment to tailor the analysis to the specific risks of the insurer and document the applicable details. The results of the reserving risk analysis should be documented in Section III: Risk Assessment of the insurer. This documentation should be sufficiently robust to explain the risks, strengths, and weaknesses of the insurer.

Analysts should complete their reserving risk assessment in conjunction with:

* A review of the Supervisory Plan and Insurer Profile Summary and the prior period analysis.
* Communication with the company.
* Communication and coordination with other internal departments.

**Annual Reserving Risk Assessment**

**Understated Loss and LAE Reserves**

Incorporate any concerns noted in the review of the Actuarial Opinion into the review of the insurer’s reserves. Issues noted in the review of the Actuarial Opinion may be relevant to aspects of reserve risk identified in other procedures.

**Significance of Potential Understatement of Loss and LAE Reserves**

Determine whether an understatement in loss and LAE reserves would be significant to the insurer. The ratio of loss and LAE reserves to surplus is a leverage ratio that indicates the margin of error an insurer has in estimating its reserves. For an insurer with a reserve leverage ratio of 300%, a 33% understatement of its reserves would eliminate its entire surplus. In addition to the reserve leverage ratio, consider the nature of the insurer’s business. An insurer that writes primarily short-tail property lines might not be a concern, even if its leverage ratio is greater than 300%. The risk of significant understatement of its reserves is less than that of an insurer that writes primarily long-tail liability lines, such as medical professional liability.

Procedures/Data

* Ratio of loss and LAE reserves to surplus
* Ratio of net premiums written (long-tail) to total net premiums written
* Increase in ratio of net premiums written (long-tail) to total net premiums written from the prior year
* Review the shift in business mix from short-tail property lines to long-tail liability lines within the past five years.

**Reserve Development**

Determine whether unpaid losses and LAE appear to have been adequately reserved. The ratios of one-year reserve development to prior year-end surplus and two-year reserve development to second prior year-end surplus measure the adequacy of the loss reserves. Positive results for these ratios represent additional or adverse loss reserve development on the reserves originally established (the amount by which the reserves originally established have proved to be understated based on subsequent activity). If the insurer’s ratio results consistently show adverse development, or the two-year reserve development to second prior year-end surplus result is consistently worse than the one-year reserve development to prior year-end surplus, the insurer has been understating its reserves.

The ratio of estimated reserve deficiency to surplus compares the estimated reserves needed by the insurer (calculated by multiplying the current year’s net earned premiums by the average ratio of developed reserves to earned premiums for the last two years and subtracting the actual reserves established by the insurer) to the actual reserves established by the insurer and expresses the resulting difference as a percentage of the insurer’s surplus. A positive ratio reflects an estimated reserve deficiency. The results of this ratio can be affected by changes in product mix and significant changes in premium volume.

In addition, the mix of the insurer’s business should be reviewed for changes from prior years. For example, a property insurer that begins writing significant liability business, for which it is more difficult to establish an accurate reserve and which the insurer does not have historical experience writing, might cause concern regarding the adequacy of the unpaid loss and LAE.

Also consider performing a review, by line of business, of items including: one-year and two-year development in net incurred losses and DCC expenses per the Annual Financial Statement, Schedule P – Part 2 to determine which lines of business are developing adversely, and incurred loss and LAE ratios per the Annual Financial Statement, Schedule P – Part 1 to determine any unusual fluctuations between years.

Also consider a review of cumulative paid net losses and DCC by line of business in the Annual Financial Statement, Schedule P – Part 3 to determine whether there were any unusual fluctuations or aberrations in payment patterns between accident years or within an accident year. The review of the Annual Financial Statement, Schedule P Interrogatories, #7.1 is used to determine if there are any other factors that the insurer indicated should be considered in the analysis of the adequacy of unpaid losses and LAE. If there are still concerns regarding the adequacy of unpaid losses and LAE as a result of other steps performed, analysts should consider performing a loss reserve analysis on the more volatile long-tail liability lines of business using the Loss Reserves Estimation Tool (or other loss reserve analysis software) to project loss reserves based on incurred and paid claims per the Annual Financial Statement, Schedule P. However, be aware that this loss reserve analysis tool merely projects reserves based on historical experience without considering changes in product design, pricing, claims payment practices, etc. If unusual results are obtained as a result of the loss reserve analysis performed, Consider having an actuary review the analysis performed.

Procedures/Data

* One-year reserve development to PYE surplus ratio [IRIS #11]
* Two-year reserve development to second PYE surplus ratio [IRIS #12]
* Adverse or unusual trend in
  + One-year reserve development
  + Two-year reserve development
* Estimated current reserve deficiency to surplus ratio [IRIS #13]

Additional Review Considerations

* Review, by line of business, the one-year and two-year development in incurred net losses and defense and cost containment expenses by accident year reflected in Annual Financial Statement, Schedule P – Part 2, or review the loss reserve development section in the Financial Profile Report.
  + Note any unusual development. Consider the significance of the lines of business producing unusual development in relation to the insurer’s total book of business.
  + Determine if any internal changes have been initiated that may impact the reserve estimates (e.g., accelerating claim payments).
* Review, by line of business, the cumulative net paid losses and defense and cost containment expenses by accident year in Annual Financial Statement, Schedule P – Part 3 and comment on any unusual fluctuations or aberrations in loss and expense payment patterns between accident years or within an accident year.
* Review the Annual Financial Statement, Schedule P Interrogatories, #7.1 for information on significant events or changes in coverage, retention, or accounting changes.
* Perform loss reserve analysis on the more volatile long-tail liability lines of business using the Loss Reserves Estimation tool or other loss reserve analysis software to project loss reserves based on incurred claims data in Annual Financial Statement, Schedule P – Part 2 less Part 4, and paid claims data in Annual Financial Statement, Schedule P – Part 3. Compare the projected reserves to the reserves established by the insurer.
* If significant concerns regarding reserve development are identified, request the assistance of a department or consulting actuary in reviewing and assessing the adequacy of the reserves carried by the insurer.

**Exposure to Asbestos and Environmental Claims**

Assess the insurer’s exposure to asbestos and environmental (A&E) liabilities.

A&E liabilities pose unique challenges for insurers due to their complex nature and potential long-term consequences. These liabilities often involve a significant lag between exposure, the manifestation of adverse effects, and the reporting of a loss, making accurate estimation difficult. Legal decisions, varying court interpretations, and policy coverage disputes can further complicate matters.

To assess the insurer’s exposure to A&E claims, review the Notes to Financial Statements – Note #33. This note provides valuable information into the nature of the liabilities. However, it is important to note that Note #33 does not account for any A&E exposures assumed or ceded under retroactive reinsurance agreements.

Procedures/Data

* Exposure to A&E liabilities
* Ratio of net A&E loss and LAE reserves to surplus
* Increase in net A&E loss and LAE reserves over prior year, where current year change in reserves is material to surplus
* A&E survival ratio

Additional Review Considerations

If significant exposure to A&E reserves is identified, analysts may further assess the exposure by reviewing the following sources of information:

* The Actuarial Opinion:
  + Determine if the Appointed Actuary mentions A&E exposure as a risk factor or potential source of material adverse deviation and if A&E exposure is material.
* Annual Financial Statement, Notes to Financial Statement, Note #33:
  + Determine if there have been material changes in A&E reserves over time. Note #33 provides both qualitative and quantitative information on an insurer’s exposure to asbestos and environmental liabilities, including:
    - Whether the insurer has potential exposure to asbestos or environmental claims.
    - The lines of business for which there is potential exposure and the nature of the exposure.
    - Loss and LAE payments during the year for the most recent five calendar years.
    - Loss and LAE reserves at the end of the year for the most recent five calendar years.
    - The amount of bulk and IBNR reserves within the most recent year-end’s reserves.
    - The amount of LAE reserves within the most recent year-end’s reserves.
* A&E survival ratios in the Financial Profile Report.
  + Determine if material changes have occurred over time.
    - A survival ratio is calculated as the carried reserves divided by the average paid losses. The ratios in the Financial Profile Report combine asbestos and environmental exposures and use the most recent three years in the average of paid losses. The ratio gives the number of years the insurer’s reserves will last if future average payments equal the current average payments. All else equal, a higher survival ratio indicated greater reserve adequacy. When compared to industry averages, the survival ratio for an insurer serves as one metric of the insurer’s reserve adequacy.
    - Survival ratios may be distorted by unusual one-off transactions such as large settlements or loss portfolio transfers. The survival ratio in the Financial Profile Report do not include the effects of any asbestos and environmental exposure assumed or ceded under retroactive reinsurance agreements.
* Actuarial Report, if requested:
  + Determine if the report provides information on the insurer’s exposure to A&E losses and the Appointed Actuary’s reserving methodology.
* After review of the information above a meeting with company management may be warranted, particularly given the uniqueness of A&E exposures and variation in companies’ reporting and reserving practices for A&E losses and LAE.

**Exposure to Discounted Loss and LAE Reserves**

Determine whether unpaid losses and LAE have been discounted and, if so, whether concerns exist regarding the amount of the discount or the interest rate used.

While present value discounting of P/C loss reserves is generally not accepted under statutory accounting principles, there are exceptions. For example, fixed and determinable payments, such as those resulting from workers’ compensation tabular indemnity reserves and long-term disability claims, can be discounted. However, some state insurance departments permit insurers to discount other types of business on a non-tabular basis.

Any discounting, other than tabular discounting as specified in *Statement of Statutory Accounting Principles* (SSAP) *No. 65—Property and Casualty Contracts*, requires approval from the domiciliary state insurance department and must be disclosed in the Schedule P Interrogatories of the Annual Financial Statement. Annual Financial Statement, Schedule P – Part 1 is required to be completed gross of non-tabular discounting, and Schedule P – Part 2 and 4 are required to be completed gross of all discounting.

If loss reserves are discounted, the Annual Financial Statement, Underwriting and Investment Exhibit, Part 2A, is completed net of the discount. Additionally, the Annual Financial Statement, Notes to Financial Statements – Note #32 must disclose the discounting, including the discount rates used and the underlying rationale. In addition, if the rates used to discount prior accident years’ reserves have changed from the previous Annual Financial Statement, the insurer is required to disclose the amount of discounted current reserves (excluding the current accident year) at current interest rate assumptions, the amount of discounted current reserves (excluding the current accident year) at previous interest rate assumptions, and the change in discounted reserves due to the change in interest rate assumptions.

Analysts should carefully review the information in Note #32 and compare the interest rates used to discount reserves to the insurer’s investment yield. Analysts may also consider comparing the maturities of the insurer’s investment portfolio and the estimated timing of future payments on unpaid claims.

Procedures/Data

* Determine the ratio of time value of money discount on unpaid losses and LAE to surplus

Additional Review Considerations

* Review the Annual Financial Statement, Notes to Financial Statements, Note #32, consider the following:
  + The lines of business with discounted reserves
  + The interest rates used to discount reserves, including the basis indicated for using those rates
  + The amount of discount in relation to surplus
  + If the interest rates used to discount the prior accident years’ reserves have changed from the previous Annual Financial Statement, document the change in discounted reserves due to the change in interest rate assumptions and the effect on surplus
* Determine whether the interest rates used to discount reserves appear to be reasonable considering the insurer’s investment yield and the insurer’s comments in Note #32 regarding the basis for the interest rates used.
* If the insurer is using discounting procedures that depart from the guidance in *Statement of* *Statutory Accounting Principles* (SSAP) *No. 65—Property and Casualty Contracts*, ensure that the insurer received a permitted practice to do so. (The insurer may describe permitted practices in the Annual Financial Statement, Notes to Financial Statements, Note #1. The NAIC’s iSite+ also has a Permitted Practices for Accounting report for each insurer in the Financial Analysis/Examination report category.)

**Exposure to Salvage and Subrogation**

Determine whether unpaid losses and LAE are reduced for anticipated salvage and subrogation recoveries and, if so, whether concerns exist regarding the consideration of estimated salvage and subrogation in establishing unpaid losses and LAE.

Salvage refers to the proceeds an insurer receives from the sale of property on which the insurer has paid a total loss to the insured. For example, when an insurer pays the insured the full value of a wrecked automobile, it takes ownership and then sells the damaged automobile, using the proceeds to reduce its ultimate loss on the claim.

Subrogation is the legal right of an insurer to recover from a third party responsible for a loss it has paid. For example, in an auto accident where the insurer pays a not-at-fault insured, it may subrogate against the at-fault part to recoup the amount paid or a portion thereof. Subrogation recoverables are treated as a reduction of ultimate losses paid.

Because of the difficulty in determining an estimate of anticipated salvage and subrogation on unpaid losses, they are generally recognized in the Annual Financial Statement only after they have been reduced to cash or its equivalent. However, if loss and LAE reserves reported in the Annual Financial Statement are net of anticipated salvage and subrogation, the estimated amount must be disclosed in Schedule P.

Analysts should review the Annual Financial Statement, Schedule P – Part 1 to determine which lines of business have anticipated salvage and subrogation recoverables.

Procedures/Data

* Determine the anticipated salvage and subrogation to surplus ratio

Additional Review Considerations

* Review the Annual Financial Statement, Schedule P – Part 1 to determine which lines of business have unpaid losses and LAE that have been reduced due to consideration of anticipated salvage and subrogation.
* For the more significant lines of business, review Annual Financial Statement, Schedule P – Part 1 and compare the ratio of anticipated salvage and subrogation to unpaid losses and LAE (gross of anticipated salvage and subrogation) to the ratio of salvage and subrogation received to claims paid (gross of salvage and subrogation received) to determine the reasonableness of anticipated salvage and subrogation.

**Additional Analysis Procedures Applicable to Reserving Risk**

**Examination Findings**

Review the recent examination report, summary review memorandum and communication with the examination staff to identify if any reserving risk issues were discovered during the examination.

**Inquire of the Insurer**

Consider requesting additional information from the insurer if reserving risk concerns exist in a specific area. The list provided are examples of types of information or explanations to be obtained that may assist in the analysis of reserving risk for specific topics where concerns have been identified.

* Request a copy of the qualified actuary’s actuarial report and review the actuary’s comments regarding the analysis performed and conclusions reached.
  + If additional questions or concerns are noted after reviewing the report, contact the appointed actuary to discuss the nature and scope of the reserve valuation procedures performed.
* Request a copy of the insurer’s business plan, and review the insurer’s plans to assess and mitigate reserve risks.
* Request information regarding any significant changes in reserve methodologies and assumptions, underwriting practices, case reserving, or claims handling practices with the potential to affect reserve setting.
* Request information on who ultimately determines the insurer’s carried reserves and the Board of Director’s role in overseeing the reserving process.
* If filed on an insurance entity basis or if your state is the lead state, review the insurer’s Corporate Governance Annual Disclosure (CGAD) filing to understand and assess the board of directors’ role in overseeing the reserving process. If your state is not the lead state, rely on the information provided in the Group Profile Summary (GPS) or provided by the lead state, where the CGAD is filed on a group basis.

**Own Risk and Solvency Assessment (ORSA)**

Obtain and review the latest ORSA Summary Report for the insurer or insurance group (if available) to assist in identifying, assessing and addressing reserving risks faced by the insurer.

* Determine if the ORSA Summary Report analysis conducted by the lead state indicated any reserving risks that require further monitoring or follow-up.
* Determine if the ORSA Summary Report analysis conducted by the Lead State indicated any mitigating strategies for existing or prospective reserving risks.

**Holding Company Analysis**

Obtain and review the holding company analysis work completed by the lead state to assist in identifying, assessing and addressing risks that could impact the insurer.

* Determine if the Holding Company analysis conducted by the lead state indicated any reserving risks impacting the insurer that require further monitoring or follow-up?
* Determine if the Holding Company analysis conducted by the lead state indicated any mitigating strategies for existing or prospective reserving risks impacting the insurer?

**Discussion of Quarterly Risk Assessment**

The quarterly reserve risk procedures are designed to identify the following. For additional guidance on individual procedure steps, please see the corresponding annual procedures discussed above.

**Change in Losses and LAE**

Determine whether the change in unpaid losses and LAE since the prior year-end or incurred losses and LAE since the prior year-to-date was significant.

Procedures / Data

* Change in loss reserves
* Change in LAE reserves
* Change in net losses incurred
* Change in net LAE incurred

**Reserve Development**

Evaluate the materiality of adverse development in unpaid losses and LAE established as of the prior year-end.

Procedures / Data

* Ratio of loss and LAE reserves to surplus
* Change in loss and LAE reserves to surplus ratio from prior year-end
* Review the year-to-date reserve development of prior year-end's loss and LAE reserves.
  + Ratio of year-to-date reserve development of prior year-end total loss and LAE reserves to prior year-end surplus

**Exposure to Discounted Unpaid Losses and LAE**

Evaluate if there have been notable changes in the discounting of loss reserves since the prior year.

Procedure

* Review Note #32 of the Quarterly Financial Statement’s Notes to Financial Statements to identify any changes in the discounting of loss reserves. If such changes exist, provide an explanation of the changes and assess the materiality.